

**z/OS V2R1  
MVS Data Areas  
Volume 3 (IEFALCXT -IRARENF1)**

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z/OS V2R1



# MVS Data Areas

## Volume 3 (IEFALCXT - IRARENF1)



z/OS V2R1



# MVS Data Areas

## Volume 3 (IEFALCXT - IRARENF1)

**Note**

Before using this information and the product it supports, be sure to read the general information under “Notices” on page 695.

**Third Edition, August 2014**

This edition applies to Version 2 Release 1 of z/OS (5650-ZOS) and to all subsequent releases and modifications until otherwise indicated in new editions.

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## About this information

This information is a graphic presentation of many data areas used by the z/OS operating system and by application programs. The data areas are one or more of the following:

- Programming interfaces
- Needed for debugging or diagnosis.

This information supports z/OS (5694-A01).

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## Who should use this information

This information is for system programmers who diagnose and debug operating system and programming problems. It provides information for debugging installation-provided programs or diagnosing IBM-provided programs. The user of this information should have a working knowledge of the functions and logic of the operating system.

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## How to use this information

Data areas are sequenced alphanumerically by data area acronym. Each data area has up to four sections:

- Programming Interface Information
- Header
- Data area map
- Cross-reference, if the data area map is long enough

## The header

The header includes some or all of the following:

<b>Common Name:</b>	The descriptive name of the data area.
<b>Macro ID:</b>	The name of the mapping macro for the data area. Mapping macros can be issued in programs to generate a copy of the data area.
<b>DSECT Name:</b>	Name of the DSECT (dummy control section) created by the mapping macro.
<b>Owning Component:</b>	Component name and component identifier in parentheses.
<b>Eye-Catcher ID:</b>	Character string identifier of the eye-catcher (sometimes called the <b>control block id</b> ) within the mapping macro. The offset and length of the eye-catcher are also included.
<b>Storage Attributes:</b>	The storage attributes of the data area, including the following: <ul style="list-style-type: none"><li><b>Main Storage:</b> Central storage attributes of the data area.</li><li><b>Virtual Storage:</b> Virtual storage attributes of the data area.</li><li><b>Auxiliary Storage:</b> Spool storage attributes of the data area.</li><li><b>Subpool and Key:</b> Subpool is the area of virtual storage that contains the data area. Key is the storage protect key for the storage represented by the data area.</li></ul>
<b>Size:</b>	The size of the data area in decimal bytes.
<b>Created by:</b>	Module, macro, or component whose use creates the data area.
<b>Pointed to by:</b>	Registers or data area fields that contain the address of the data area.
<b>Serialization:</b>	Method used to ensure that one user does not update a data area that is being updated or used by another user. The most common methods used for serialization are: <ul style="list-style-type: none"><li>• Lock or locks</li><li>• ENQ and DEQ macros</li><li>• Compare and Swap (CS) instruction</li></ul>

- Disablement, which is disabling interruptions by setting bits in the program status word (PSW) of the program using the data area

**Function:**

Brief description of the use of the data area.

## Data area map

The data area is described field by field. These field descriptions are taken directly from the system code.

The following is an example of the field descriptions for the ANYAREA data area:

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	384	ANYAREA	
0	(0)	CHARACTER		ANYBEGIN	BEGINNING OF ANYAREA
0	(0)	CHARACTER	4	ANYACRO	ACRONYM IN EBCDIC 'ANY '
4	(4)	ADDRESS	4	ANYADDR	ADDRESS OF NEXT ANYAREA ON QUEUE

For each field in the data area, the data area map provides the following information:

**Offsets** The address of the field, shown in both decimal (DEC) and hexadecimal (HEX in parentheses), relative to the beginning of the data area.

**Type** The kind of program data defined for this field, as follows:

Type	Description
ADDRESS	Address constant
BITSTRING	Bitstring constant
CHARACTER	Character value
DBL WORD	Double word boundary
FIXED	Arithmetic signed or unsigned value
HEX	Hexadecimal value
SIGNED	Arithmetic signed value
STRUCTURE	Level 1 control block name
UNSIGNED	Unsigned value

**Len** Size of the field in decimal bytes.

**Name (Dim)** The name of the field, bit, or mask.

Bit or mask names are preceded by a description of bit position and value, as follows:

1... ....	Refers to bit 0.
.... ..11	Refers to bits 6 and 7.
...1 ....	Refers to bit 3.
11.. 1111	Refers to bits 0, 1, 4, 5, 6, and 7.

**Description** A description of the purpose or meaning of the field, bit, or mask.

## Cross reference

For each data area with more than 10 fields, the cross reference shows the following:

<b>Name</b>	The name of the field, bit, or mask.
<b>Hex Offset</b>	The hexadecimal offset of the field into the data area. For bits, the hexadecimal offset of the field containing the bit.
<b>Hex Value</b>	Values are shown only for bits, equates, and initialized character strings. For bits, the hexadecimal value shown implies the position of the bit in the field containing the bit.

Bit ANYBIT in the following illustration shows how to use the hexadecimal value. In the Example, cross reference for the ANYBIT bit looks like this:

<b>Name</b>	<b>Hex Offset</b>	<b>Hex Value</b>
ANYBIT	F0	80

In the map of the data area, the ANYBIT bit appears like this:

240	(F0)	FIXED	4	ANYWORD	CONTROL WORD
240	(F0)	BITSTRING	1	ANYBYTE	FLAG BYTE
		1... ..		ANYBIT	"X'80'" BIT ON MEANS THIS . . .

X'F0' is the offset of field ANYWORD into the data area. ANYWORD is a 4-byte field, which contains a 1-byte field named ANYBYTE. Both ANYWORD and ANYBYTE have the same offset. The first bit in both fields is named ANYBIT. Ignoring the other bits in the field ANYBYTE, if the ANYBIT bit is on, the value of field ANYBYTE would be 1000 0000, which is equivalent to X'80'. This value (X'80') is shown both in the Description in the data area map and in the column of the cross reference.



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## Programming interface information

This document contains information NOT intended to be used as programming interfaces of z/OS.

This document also contains intended programming interfaces that allow the customer to write programs to obtain the services of z/OS.

This information is identified where it occurs, either by an introductory statement to a chapter or section or by the following marking:

Programming Interface information
End of Programming Interface information

Unless otherwise specified, for data areas classified as programming interfaces, the **MACRO ID** and **DSECT NAME(S)** in the header are part of the programming interface. **ALL** other header information is included for diagnostic purposes **ONLY**.

Since a *data area name* that is designated as part of the programming interface is one of the following:

- MACRO ID
- DSECT NAME
- commonly-used name

before including the *data area name* in a program, refer to the data area header for the applicable **MACRO ID**.

If only certain fields in a data area are intended or not intended for use as a programming interface, the specific field name(s) are differentiated within the data area.

For data areas classified as programming interfaces, "RESERVED FOR USER" fields are part of the interface; all other "**RESERVED ...**" fields are **NOT** part of the interface.

For a field that is part of the programming interface, the only information that is part of the interface for writing programs is:

- field name
- data type
- field length
- description (purpose or allowed values)

**INCLUDE ONLY** data area: **ONLY** the MACRO ID is the programming interface. The DSECT NAME, constants, and data area itself are **NOT** part of the programming interface.

**TOKEN ONLY** data area: **ONLY** the address of the data area is a programming interface. The DSECT NAME, constants, and data area itself are **NOT** part of the programming interface.



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## IEFALCXT Information

### IEFALCXT Programming Interface information

Programming Interface information

IEFALCXT

End of Programming Interface information

## IEFALCXT Heading Information • IEFALCXT Map

### IEFALCXT Heading Information

**Common Name:** IEF\_ALLC\_EVENT exit parameter list  
**Macro ID:** IEFALCXT  
**DSECT Name:** NONE  
**Owning Component:** Allocation (SC1B4)  
**Eye-Catcher ID:** ALCXT  
 Offset: 0  
 Length: 6  
**Storage Attributes:** Subpool: 230  
 Key: 1  
 Residency: Any  
**Size:** 40 for ALCXT + 12 for ALCXT\_dataArea + 8 for DDlist  
**Created by:** IEFAB421  
**Pointed to by:** Reg1 which points to a word holding its pointer on entry to the IEF\_ALLC\_EVENT exit.  
**Serialization:** None  
**Function:** Contains area for parmlist of IEF\_ALLC\_EVENT

### IEFALCXT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ALCXT	
0	(0)	CHARACTER	6	ALCXT_ID	Eye-catcher ALCXT
6	(6)	SIGNED	2	ALCXT_VERSION	version
8	(8)	SIGNED	2	ALCXT_LENGTH	length
10	(A)	CHARACTER	8	ALCXT_JOBNAME	Jobname
18	(12)	CHARACTER	8	ALCXT_STEPNAME	Stepname
26	(1A)	CHARACTER	8	ALCXT_PROCSTEPNAME	Proc Stepname
34	(22)	SIGNED	2	ALCXT_FN	exit function
36	(24)	ADDRESS	4	ALCXT_DATA@	pointer to ALCXT data area
36	(24)	X'28'	0	ALCXT_LEN	**-ALCXT"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ALCXT_DATAAREA	ALCXT data area
0	(0)	SIGNED	4	ALCXT_BATCHBEGINDATA	Data for BatchBegin Function
0	(0)	CHARACTER	12	ALCXT_BATCHENDDATA	Data for BatchEnd Function
0	(0)	CHARACTER	8	ALCXT_BATCHRC	Retcode at end of Batch request
8	(8)	SIGNED	4	ALCXT_BATCHRC	Retcode at end of Batch request
0	(0)	CHARACTER	8	ALCXT_DYNBEGINDATA	Data for Dynalloc-Begin function
0	(0)	CHARACTER	8	ALCXT_DYNBEGIN_DDNAME	DDname for Dynalloc-Begin
0	(0)	CHARACTER	12	ALCXT_DYNENDDATA	Data for Dynalloc-End function
0	(0)	CHARACTER	8	ALCXT_DYNEND_DDNAME	DDname for Dynalloc- End
8	(8)	SIGNED	4	ALCXT_DYNRC	Retcode at the end of Dynalloc
0	(0)	SIGNED	4	ALCXT_ALLOCATIONABENDED	Data for AllocationABENDED function
0	(0)	CHARACTER	8	ALCXT_CONCATDATA	Data for concatenation event
0	(0)	SIGNED	4	ALCXT_CONCATDDNUMBER	Number of DDnames being concatenated
4	(4)	ADDRESS	4	ALCXT_CONCATDATA@	Pointer to ALCXT_DDLlist
0	(0)	CHARACTER	8	ALCXT_DECONCATDATA	Data for deconcatenation event
0	(0)	SIGNED	4	ALCXT_DECONCATDDNUMBER	Number of DDnames being deconcatenated
4	(4)	ADDRESS	4	ALCXT_DECONCATDATA@	Pointer to ALCXT_DDLlist
0	(0)	CHARACTER	12	ALCXT_BATCHUNALLOCDATA	

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	CHARACTER	8		Data for Batch Unallocate
8	(8)	SIGNED	4	ALCXT_BATCHUNALLOC_RC	Batch Unallocation RC
0	(0)	CHARACTER	12	ALCXT_DYNUNALLOCDDATA	Data for Dynamic Unallocate
0	(0)	CHARACTER	8	ALCXT_DYNUNALLOC_DD	Dynamic Unallocate DDN
8	(8)	SIGNED	4	ALCXT_DYNUNALLOC_RC	Dynamic Unallocation RC
8	(8)	X'C'	0	ALCXT_DATAAREA_LEN	**ALCXT_DATAAREA"

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	ALCXT_DDLIST	
0	(0)	CHARACTER	8	ALCXT_DDENTRY	
0	(0)	CHARACTER	8	ALCXT_DDNAME	List of DDnames

Comment

CONSTANTS

End of Comment

0	(0)	X'1'	0	KALCXT_VERSION_1	"1" version number
0	(0)	X'1'	0	KALCXT_BATCHBEGIN	"1" Batch request- Begin function
0	(0)	X'2'	0	KALCXT_BATCHEND	"2" Batch request- End function
0	(0)	X'3'	0	KALCXT_DYNBEGIN	"3" dynalloc request Begin function
0	(0)	X'4'	0	KALCXT_DYNEND	"4" dynalloc request End function
0	(0)	X'5'	0	KALCXT_ALLOCATIONABENDED	"5" Allocation Abended function
0	(0)	X'6'	0	KALCXT_DYNCONCAT	"6" Concatenate DD function
0	(0)	X'7'	0	KALCXT_DYNDECONCAT	"7" Deconcatenate DD function
0	(0)	X'8'	0	KALCXT_BATCHUNALLOC	"8" Unallocation (batch)
0	(0)	X'9'	0	KALCXT_DYNUNALLOC	"9" Unallocation (Dynamic)
0	(0)	X'0'	0	KALCXT_GOODRC	"0" Good Retcode in Allocation
0	(0)	X'4'	0	KALCXT_FAILRC	"4" Failure Retcode in Allocation
0	(0)	X'8'	0	ALCXT_DDLIST_LEN	**ALCXT_DDLIST"

## IEFALCXT Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
ALCXT	0			4	
ALCXT_ALLOCATIONABENDED	0		ALCXT_CONCATDDNUMBER	0	
ALCXT_BATCHBEGINDDATA	0		ALCXT_DATA@	24	
ALCXT_BATCHENDDDATA	0		ALCXT_DATAAREA	0	
ALCXT_BATCHRC	8		ALCXT_DATAAREA_LEN	8	C
ALCXT_BATCHUNALLOC_RC	8		ALCXT_DDENTRY	0	
ALCXT_BATCHUNALLOCDDATA	0		ALCXT_DDLIST	0	
ALCXT_CONCATDDATA	0		ALCXT_DDLIST_LEN	0	8
ALCXT_CONCATDATA@	0		ALCXT_DDNAME	0	
			ALCXT_DECONCATDDATA	0	

## IEFALCXT Cross Reference

Name	Hex Offset	Hex Value
ALCXT_DECONCATDATA@	4	
ALCXT_DECONCATDDNUMBER	0	
ALCXT_DYNBEGIN_DDNAME	0	
ALCXT_DYNBEGINDATA	0	
ALCXT_DYNEND_DDNAME	0	
ALCXT_DYNENDDATA	0	
ALCXT_DYNRC	8	
ALCXT_DYNUNALLOC_DD	0	
ALCXT_DYNUNALLOC_RC	8	
ALCXT_DYNUNALLOCDATA	0	
ALCXT_FN	22	
ALCXT_ID	0	
ALCXT_JOBNAME	A	
ALCXT_LEN	24	28
ALCXT_LENGTH	8	
ALCXT_PROCSTEPNAME	1A	
ALCXT_STEPNAME	12	
ALCXT_VERSION	6	
KALCXT_ALLOCATIONABENDED	0	5
KALCXT_BATCHBEGIN	0	1
KALCXT_BATCHEND	0	2
KALCXT_BATCHUNALLOC	0	8
KALCXT_DYNBEGIN	0	3
KALCXT_DYNCONCAT	0	6
KALCXT_DYNDECONCAT	0	7
KALCXT_DYNEND	0	4
KALCXT_DYNUNALLOC	0	9
KALCXT_FAILRC	0	4
KALCXT_GOODRC	0	0
KALCXT_VERSION_1	0	1

## IEFCITUX Information

### IEFCITUX Heading Information

**Common Name:** Converter/Interpreter User Exit Trace Record Mapping  
**Macro ID:** IEFCITUX  
**DSECT Name:** TUX  
**Owning Component:** Converter/Interpreter - CI (SC1B9)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: 0  
 Key: 1  
 Residency: Any  
**Size:** 160 (decimal)  
 FREQUENCY =  
 2 per IEFUJV invocation while GTF  
 is active for the id. There are 2  
 invocations to IEFUJV from the  
 Converter and 1 invocation to  
 IEFUJV from the Interpreter.  
**Created by:** Converter and Interpreter when GTF is active  
 for ID='X'F63'  
**Pointed to by:** Presented as GTF trace records  
**Serialization:** None  
**Function:** This macro maps the record used in the GTF tracing  
 of the IEFUJV exit

### IEFCITUX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	160	TUX	
0	(0)	CHARACTER	8	TUXORIGN	Name of module
8	(8)	CHARACTER	6	TUXSTATE	State of trace record
14	(E)	CHARACTER	4	TUXRC15	Return code from UJV exit
18	(12)	CHARACTER	24	TUXUJVP	IEFUJV parameter list
42	(2A)	CHARACTER	36	TUXSMFP	SMF common exit parameter list
78	(4E)	CHARACTER	80	TUXJCLIM	80-byte JCL image
158	(9E)	CHARACTER	1	TUXFUNCD	Function code
159	(9F)	CHARACTER	1	TUXJESOP	JES options to converter





## IEFCNPRM Information

### IEFCNPRM Heading Information

**Common Name:** Converter Parameter List  
**Macro ID:** IEFCNPRM  
**DSECT Name:** CNPRM, CNPREXIT  
**Owning Component:** Converter (SC1B9)  
**Eye-Catcher ID:** CNPR  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: Any private area subpool  
 Key: Key of caller  
 Residency: Above or Below  
**Size:** 120 decimal  
 FREQUENCY = 1 per instance of a converter  
**Created by:** Caller of the MVS Converter  
**Pointed to by:** Register 1 contains the address of  
 CNPRM upon entry to the Converter,  
 CNPRXLST points to CNPREXIT when exits  
 are included.  
**Serialization:** None  
**Function:** Maps the input to the MVS Converter.

### IEFCNPRM Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	120	CNPRM	
0	(0)	CHARACTER	8	CNPRHDR	
0	(0)	CHARACTER	4	CNPRACRO	Acronym "CNPR"
4	(4)	UNSIGNED	2	CNPRVERS	Version number
6	(6)	UNSIGNED	2	CNPRLNTH	Length
8	(8)	ADDRESS	4	CNPRENV	Address of existing converter environment
12	(C)	SIGNED	4	CNPRREAS	Converter reason code, further defines register 15 return code
16	(10)	CHARACTER	4	CNPRSSYS	Name of the subsystem that selected this job
20	(14)	UNSIGNED	4	CNPRCONS	Console Identifier

Comment

Converter Option Switches

Dec	Hex	Type/Value	Len	Name (Dim)	Description
24	(18)	BITSTRING	1	CNPROPTS	Converter options switches (Same offset as NELOPSWT in the IEFNEL)
		1... ....		CNPRSMF	If zero, indicates a started task
		.1. ....		CNPRTSOP	Term=TS has been specified and overrides all other parms on the DD statement
		..1. ....		CNPRNOWT	Do not wait for JCLLIB to be recalled
		...1 ....		CNPRWEE	Wait for JCLLIB if data set is exclusively ENQueued
		.... 1...		CNPRNEW	New format parameter list
		.... .1..		CNPRTERM	Terminate Converter Env.
		.... .11		*	
25	(19)	BITSTRING	1	CNPRJBFL	JOB level flags
		1111 ....		*	Reserved
		.... 1...		CNPRJCLI	JCLLIB processed
		.... .111		*	Reserved
26	(1A)	CHARACTER	2	*	Reserved
28	(1C)	CHARACTER	16	CNPRACBS	ACBs passed to the converter
28	(1C)	ADDRESS	4	CNPRTXT	Address of open ACB for the MVS/CI text data set
32	(20)	ADDRESS	4	CNPRMSG	Address of open ACB for message data set
36	(24)	ADDRESS	4	CNPRJCL	Address of open ACB for spooled JCL data set
40	(28)	ADDRESS	4	CNPRSTMT	Address of open ACB for statement image data set
44	(2C)	ADDRESS	4	CNPRJMR	Address of job management record
48	(30)	ADDRESS	4	CNPRPROC	Address of open DCB for procedure library
52	(34)	ADDRESS	4	CNPRXLST	Address of list of special converter exits mapped by CNPREXIT
56	(38)	ADDRESS	4	CNPRSSYM	Address of a string of data in SET statement format defining system symbolics and associated values
60	(3C)	SIGNED	2	CNPRSYML	Length of string of system symbolics

# IEFCNPRM Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
The following 24 bytes are set by the JES according to their whims (such as the CIPARM in the JES3 inish deck.) Do not assume you use any bits or bytes between CNPRPARAM and CNPRMLV2.					
End of Comment					
62	(3E)	BITSTRING	1	CNPRPARAM	Parameter options
		1111 ....		*	Reserved
		.... 1...		*	Reserved
		.... .1..		CNPRSWAA	User SWA Above indicator
		.... ..1.		CNPRACCT	Account number required
		.... ...1		CNPRPGMN	Programmer name required
63	(3F)	CHARACTER	2	CNPRJPTY	Default JOB priority
65	(41)	CHARACTER	8	CNPRTIME	Default for JOB time limit
65	(41)	CHARACTER	6	CNPRMIN	Default minutes
71	(47)	CHARACTER	2	CNPRSEC	Default seconds
73	(49)	CHARACTER	5	CNPRREG	Region size including the unit of K or M (e.g. 2048M or 0512K)
78	(4E)	CHARACTER	1	CNPRCMD5	Command Disposition 0 - Execute command 1 - Display and execute command 2 - Display and request disp 3 - Ignore command
79	(4F)	CHARACTER	1	CNPRLABL	Label Processing 0 - BLP will be treated as NL 1 - BLP will be treated as bypass label
80	(50)	CHARACTER	4	CNPRAUTH	MCS command authority
84	(54)	CHARACTER	2	CNPRMSG1	Message Level Defaults
84	(54)	CHARACTER	1	CNPRMLV1	Default for printing JCL statements
85	(55)	CHARACTER	1	CNPRMLV2	Default for printing messages
86	(56)	CHARACTER	1	CNPRMCLS	Default message class
87	(57)	BITSTRING	1	CNPR_JOBCLASS_ATTR	JOBCLASS attributes flags
		1... ....		CNPR_DSENQSHR_AUTO	DSENQSHR JOBCLASS attribute AUTO
		.1.. ....		CNPR_DSENQSHR_ALLOW	DSENQSHR JOBCLASS attribute ALLOW NOTE: ALLOW is the default for HBB7790 installations. If this is a downlevel installation, it will assume the value of DISALLOW (which is 0). Therefore, the function will always be disabled on HBB7780 & below level installations
		..1. ....		CNPR_SYSSYM_ALLOW	SYSSYM JOBCLASS attribute Use of system symbols in batch job JCL is allowed
		...1 1111		*	Reserved and available
88	(58)	CHARACTER	8	CNPRJDVT	JDVT name if the default JDVT is not to be used. Nulls indicate to use the default
96	(60)	ADDRESS	4	CNPREXTP	Address of parameter area to be communicated to the exits out of the converter supported by JES. Value is passed in the third word of the parameter list to the Post Scan Text Exit
100	(64)	BITSTRING	1	CNPROPT1	Parameter options (not passed to exit) Copied as a byte, not individually
		1... ....		CNPRSWTO	Suppress WTO messages
		.1.. ....		CNPRDJLI	Disable JCLLIB
		..1. ....		CNPRDIF	Disable IF THEN ELSE
		...1 ....		CNPRDINC	Disable INCLUDE
		.... 1...		CNPR1STM	Converter is to process only the first statement
		.... .1..		CNPRMERG	Converter is to merge two input statements
101	(65)	CHARACTER	1	*	Reserved
102	(66)	UNSIGNED	2	CNPRASID	Address Space Identifier to be used to find START symbolic parameters
104	(68)	ADDRESS	4	CNPRSYMT	Address of system symbolic table to be used by the Converter
108	(6C)	ADDRESS	4	CNPRJSYM	Address of JCL symbols, mapped by IEFSJSYD, to be used by the Converter (Note that JCL SET statements within the JCL will override these values.)
112	(70)	SIGNED	4	CNPBCP_LEVEL	Minimum level of MVS BCP required to execute functions in this job or 0 (no specific level req'd). This is output from Converter. Values used here correspond to values defined for ECVTPSEQ.
116	(74)	ADDRESS	4	CNPJOBCORRELATOR_PTR	Job correlator for this job, used to uniquely track individual jobs. Correlators are 64 bytes long.

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	CNPREXIT	
0	(0)	CHARACTER	8	CNPRXHR	Exit list header
0	(0)	SIGNED	2	CNPRXLEN	Length of all exit entries
2	(2)	CHARACTER	6	*	Reserved
8	(8)	CHARACTER	8	CNPRXENT (*)	Array of exit list entries

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
8	(8)	CHARACTER	1	CNPRKID	Linkage Identification
9	(9)	CHARACTER	1	CNPREXID	Exit Identification
10	(A)	CHARACTER	6	CNPREXEP	Entry point name specified
10	(A)	CHARACTER	2	*	
12	(C)	ADDRESS	4	CNPREXAD	Entry point address specified

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	16	JES_OPEN_SYSIN_PARMLST	
0	(0)	SIGNED	4	JES_OPEN_SEQ_NUM	
4	(4)	CHARACTER	12	*	DS Seq number Reserved

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	16	JES_PUT_SYSIN_PARMLST	
0	(0)	ADDRESS	4	JES_PUT_RECORD@	
4	(4)	CHARACTER	12	*	Rec Addr Reserved

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	16	JES_CLOSE_SYSIN_PARMLST	
0	(0)	CHARACTER	16	*	Reserved

## IEFCNPRM Constants

Len	Type	Value	Name	Description
4	DECIMAL		CNPRCVER	Current version number
4	DECIMAL		CNPR\$01	Version number for \$01 cleanup
1	HEX	80	CNPRXNAM	Entry point specified by name
1	HEX	20	CNPRXADD	Entry point specified as an address
1	HEX	00	CNPRXNOP	Ignore this exit entry
1	HEX	80	CNPRTXTX	ID for Post Scan Text Exit
1	HEX	40	CNPROPEN	ID for Open SYSIN DS exit@L4A
1	HEX	20	CNPRPUT	ID for put sysin DS exit
1	HEX	10	CNPRCLOS	ID for Close SYSIN exit.
1	HEX	09	CNPRUJVX	IEFUJV with environment information

## IEFCNPRM Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
CNPBCP_LEVEL	70		CNPREXEP	A	
CNPJOBCORRELATOR_PTR			CNPREXID	9	
	74		CNPREXIT	0	
CNPR_DSENQSHR_ALLOW			CNPREXTP	60	
	57	40	CNPRHDR	0	
CNPR_DSENQSHR_AUTO			CNPRJBFL	19	
	57	80	CNPRJCL	24	
CNPR_JOBCLASS_ATTR			CNPRJCLI	19	08
	57		CNPRJDVT	58	
CNPR_SYSSYM_ALLOW			CNPRJMR	2C	
	57	20	CNPRJPTY	3F	
CNPRACBS	1C		CNPRJSYM	6C	
CNPRACCT	3E	02	CNPRLABL	4F	
CNPRACRO	0		CNPRLKID	8	
CNPRASID	66		CNPRLNTH	6	
CNPRAUTH	50		CNPRM	0	
CNPRCMDSD	4E		CNPRMCLS	56	
CNPRCONS	14		CNPRMERG	64	04
CNPRDIF	64	20	CNPRMIN	41	
CNPRDINC	64	10	CNPRMLV1	54	
CNPRDJLI	64	40	CNPRMLV2	55	
CNPRENV	8		CNPRMSG	20	
CNPREXAD	C		CNPRMSG1	54	

## IEFCNPRM Cross Reference

Name	Hex Offset	Hex Value
CNPRNEW	18	08
CNPRNOWT	18	20
CNPROPTS	18	
CNPROPT1	64	
CNPRPARAM	3E	
CNPRPGMN	3E	01
CNPRPROC	30	
CNPRREAS	C	
CNPRREG	49	
CNPRSEC	47	
CNPRSMF	18	80
CNPRSSYM	38	
CNPRSSYS	10	
CNPRSTMT	28	
CNPRSWAA	3E	04
CNPRSWTO	64	80
CNPRSYML	3C	
CNPRSYMT	68	
CNPRTERM	18	04
CNPRTIME	41	
CNPRTSOP	18	40
CNPRTXT	1C	
CNPRVERS	4	
CNPRWEE	18	10
CNPRXENT	8	
CNPRXHR	0	
CNPRXLEN	0	
CNPRXLST	34	
CNPR1STM	64	08
JES_CLOSE_SYSIN_PARMLST		
	0	
JES_OPEN_SEQ_NUM		
	0	
JES_OPEN_SYSIN_PARMLST		
	0	
JES_PUT_RECORD@		
	0	
JES_PUT_SYSIN_PARMLST		
	0	

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## IEFDEL Information

### IEFDEL Programming Interface information

Programming Interface information

IEFDEL

End of Programming Interface information

## IEFDELT Heading Information • IEFDELT Map

### IEFDELT Heading Information

**Common Name:** Eligible Device Table (EDT) Latch Table  
**Macro ID:** IEFDELT  
**DSECT Name:** ELT  
**Owning Component:** Allocation (SC1B4)  
**Eye-Catcher ID:** ELT  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Main Storage: YES  
 Virtual Storage: N/A  
 Auxiliary Storage: N/A  
 Subpool: 230  
 Key: Caller key  
 Residency: ANY  
**Size:** ELT -- X'0040' bytes  
**Created by:** IEFEIS01  
**Pointed to by:** BASED()  
**Serialization:** None  
**Function:** Maps the output areas for the EDTINFO RTNEDTLT service.

### IEFDELT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ELT	
0	(0)	CHARACTER	32	ELT_HEADER	ELT header
0	(0)	CHARACTER	4	ELT_ID	Eye-catcher 'ELT '
4	(4)	BITSTRING	1	ELT_VERSION	Version number
5	(5)	BITSTRING	1	ELT_SUBPOOL	Subpool where the ELT resides
6	(6)	CHARACTER	1	ELT_FLAGS	Flags

Comment

Bit definitions:

End of Comment

1... .... ELT\_EDTVAL "X'80" EDT for this ELT exists

Comment

The original/intermediate/final ELT flags are only set when transitioning from one EDT to another. If no EDT transition is occurring, none will be set.

End of Comment

		.1.. ....		ELT_ORIGINAL	"X'40" EDT for this ELT is the original EDT
		..1. ....		ELT_INTERMED	"X'20" EDT for this ELT is the intermediate EDT
		...1 ....		ELT_FINAL	"X'10" EDT for this ELT is the final EDT
7	(7)	CHARACTER	1		Reserved
8	(8)	SIGNED	4	ELT_LENGTH	Total length of ELT (ELT header + ELT entries)
12	(C)	SIGNED	4	ELT_COUNT	Count of valid latch entries
16	(10)	SIGNED	4	ELT_BINDS	Total number of address spaces bound on the EDT
20	(14)	CHARACTER	12		Reserved
32	(20)	CHARACTER	32	ELT_ENTRY	ELT entry
32	(20)	SIGNED	2	ELT_ASID	Asid where latch exists
34	(22)	CHARACTER	2		Reserved
36	(24)	CHARACTER	8	ELT_JOBNAME	Jobname holding latch
44	(2C)	SIGNED	4	ELT_BIND_COUNT	Count of binds for this address space
48	(30)	CHARACTER	16		Reserved

Comment

Constants

End of Comment

48	(30)	X'D3E340'	0	ELT_ELT	"C'ELT "' ELT control block ID
48	(30)	X'1'	0	ELT_VER	"1" ELT control block version number
48	(30)	X'1'	0	ELT_CUR_VER	"1" ELT current version number
48	(30)	X'E6'	0	ELT_SPN	"230" ELT subpool number
48	(30)	X'F'	0	ELT_MAX_ENT	"15" Maximum of 15 latch entries
48	(30)	X'40'	0	ELT_LEN	""-ELT"

## IEFDELT Cross Reference

Name	Hex Offset	Hex Value
ELT	0	
ELT_ASID	20	
ELT_BIND_COUNT		
	2C	
ELT_BINDS	10	
ELT_COUNT	C	
ELT_CUR_VER	30	1
ELT_EDTVAL	6	80
ELT_ELT	30	D3E340
ELT_ENTRY	20	
ELT_FINAL	6	10
ELT_FLAGS	6	
ELT_HEADER	0	
ELT_ID	0	
ELT_INTERMED	6	20
ELT_JOBNAME	24	
ELT_LEN	30	40
ELT_LENGTH	8	
ELT_MAX_ENT	30	F
ELT_ORIGINAL	6	40
ELT_SPN	30	E6
ELT_SUBPOOL	5	
ELT_VER	30	1
ELT_VERSION	4	





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## IEFDISMP Information

### IEFDISMP Programming Interface information

Programming Interface information

IEFDISMP

End of Programming Interface information

## IEFDISMP Heading Information • IEFDISMP Map

### IEFDISMP Heading Information

**Common Name:** DD Service Output Mapping  
**Macro ID:** IEFDISMP  
**DSECT Name:** DVAR DVAR\_DEVICE\_LIST  
**Owning Component:** Allocation (SC1B4)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Main Storage: No  
 Virtual Storage: Yes  
 Auxiliary Storage: Yes  
 Subpool: Determined by caller of IEFDDSRV or 0, if not specified  
 Key: Key of caller  
 Data Space: No  
 Residency: ABOVE if permitted by subpool, otherwise BELOW  
**Size:** DVAR\_HDR\_LEN +  
 (number concatenated DDs \* DVAR\_DEVLST\_ADDRENT\_LEN) +  
 (number concatenated DDs \* DVAR\_DEVLST\_HDR\_LEN) +  
 (total number of devices \* DVAR\_DEVENT\_LEN)  
**Created by:** IEFADSRV  
**Pointed to by:** Address is stored into the caller's  
 parameter list  
**Serialization:** Caller should ensure the returned UCBs  
 are not dynamically deleted.  
**Function:** Maps the output of IEFDDSRV RETRIEVE DEVENTRY  
 and RETRIEVE DEVIOENTRY requests

### IEFDISMP Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DVAR	Device area
0	(0)	SIGNED	4	(0)	
0	(0)	X'0'	0	DVAR_HEADER	*** Device area header
0	(0)	BITSTRING	1	DVAR_SUBPOOL	Subpool in which the device area resides
1	(1)	BITSTRING	3	DVAR_LENGTH	Length of the device area
4	(4)	SIGNED	4	DVAR_NUM_DVLIST	Number of device lists returned in the device area
4	(4)	X'8'	0	DVAR_HEADER_END	*** End of device area header

Comment

End of Comment

4	(4)	X'8'	0	DVAR_DEVLST_ADDR_ENTRY	*** Device list address entry
8	(8)	ADDRESS	4	DVAR_DEVLST_ADDR	Device list address
8	(8)	X'C'	0	DVAR_DEVLST_ADDR_ENTRY_END	*** End of device list address entry

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DVAR_DEVICE_LIST	Device list
0	(0)	X'0'	0	DVAR_LIST_HEADER	*** Device list header
0	(0)	SIGNED	4	DVAR_NUM_DVENT	Number of entries in the device list
0	(0)	X'4'	0	DVAR_LIST_HEADER_END	*** End of device area header

Comment

End of Comment

0	(0)	X'4'	0	DVAR_LIST_ENTRY	*** Device list entry
4	(4)	ADDRESS	4	DVAR_DEV_ADDR	UCB address
4	(4)	X'8'	0	DVAR_ENTRY_END	

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
					*** End of device list entry

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	DEVIODEVLIST	DevIO list
0	(0)	X'0'	0	DEVIODEVLISTHEADER	*** DevIO list header
0	(0)	SIGNED	4	DEVIONUMENTRIES	Number of entries in the DevIO list
0	(0)	X'4'	0	DEVIODEVLISTHEADEREND	*** End of device area header

-----  
 Comment

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	X'4'	0	DEVIODEVLISTENTRY	*** DevIO list entry
4	(4)	ADDRESS	4	DEVIUOUCBPTR	UCB address
8	(8)	SIGNED	4	DEVIOLBLOCKSIZE	Block size
12	(C)	SIGNED	4	DEVIOEXCPCOUNT	# of EXCPs issued against this device
16	(10)	SIGNED	4	DEVIOCONNECTTIME	Device connect time
16	(10)	X'14'	0	DEVIODEVLISTENTRYEND	*** End of DevIO list entry

-----  
 Comment

Constants

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
16	(10)	X'8'	0	DVAR_HDR_LEN	"DVAR_HEADER_END-DVAR_HEADER" Length of the device area header
16	(10)	X'4'	0	DVAR_DEVLST_ADDRENT_LEN	"DVAR_DEVLST_ADDR_ENTRY_END-DVAR_DEVLST_ADDR"
0	(0)	X'4'	0	DVAR_DEVLST_HDR_LEN	"DVAR_LIST_HEADER_END-DVAR_LIST_HEADER" Length of device list header
0	(0)	X'4'	0	DVAR_DEVENT_LEN	"DVAR_ENTRY_END-DVAR_LIST_ENTRY" Length of one device list entry
0	(0)	X'4'	0	DEVIODEVLISTHEADERLENGTH	"DevIODevListHeaderEnd-DevIODevListHeader" Length of DevIO list header
0	(0)	X'10'	0	DEVIODEVLISTENTRYLENGTH	"DevIODevListEntryEnd-DevIODevListEntry" Length of DevIO list entry

IEFDISMP Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DEVIOLBLOCKSIZE				0	
	8		DEVIUOUCBPTR	4	
DEVIOCONNECTTIME			DVAR	0	
	10		DVAR_DEV_ADDR	4	
DEVIODEVLIST	0		DVAR_DEVENT_LEN	0	4
DEVIODEVLISTENTRY	0	4	DVAR_DEVICE_LIST	0	
DEVIODEVLISTENTRYEND	10	14	DVAR_DEVLST_ADDR	8	
DEVIODEVLISTENTRYLENGTH	0	10	DVAR_DEVLST_ADDR_ENTRY	4	8
DEVIODEVLISTHEADER	0	0	DVAR_DEVLST_ADDR_ENTRY_END	8	C
DEVIODEVLISTHEADEREND	0	4	DVAR_DEVLST_ADDRENT_LEN	10	4
DEVIODEVLISTHEADERLENGTH	0	4	DVAR_DEVLST_HDR_LEN	0	4
DEVIOEXCPCOUNT	C		DVAR_ENTRY_END		
DEVIONUMENTRIES					

## IEFDISMP Cross Reference

Name	Hex Offset	Hex Value
	4	8
DVAR_HDR_LEN	10	8
DVAR_HEADER	0	0
DVAR_HEADER_END		
	4	8
DVAR_LENGTH	1	
DVAR_LIST_ENTRY		
	0	4
DVAR_LIST_HEADER		
	0	0
DVAR_LIST_HEADER_END		
	0	4
DVAR_NUM_DVENT		
	0	
DVAR_NUM_DVLIST		
	4	
DVAR_SUBPOOL	0	

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## IEFDISRC Information

### IEFDISRC Programming Interface information

Programming Interface information

IEFDISRC

End of Programming Interface information

## IEFDISRC Heading Information • IEFDISRC Map

### IEFDISRC Heading Information

**Common Name:** DD Service Return and Reason Codes  
**Macro ID:** IEFDISRC  
**DSECT Name:** N/A  
**Owning Component:** Allocation (SC1B4)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Main Storage: N/A  
 Virtual Storage: N/A  
 Auxiliary Storage: N/A  
 Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** N/A  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** Defines the return and reason codes used by DD service.

### IEFDISRC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	X'0'	0	DDSRV_SUCCESS	"0" X'000' IEFDDSRV completed successfully
0	(0)	X'0'	0	DDSRV_FUNCTION_COMPLETE	"0" X'000' Function completed
0	(0)	X'8'	0	DDSRV_INVALID_PARAMETERS	"8" X'008' Invalid input parameters to IEFDDSRV
0	(0)	X'C'	0	DDSRV_REQUEST_FAIL	"12" X'00C' IEFDDSRV request failed
0	(0)	X'10'	0	DDSRV_RCVENT	"16" X'010' IEFDDSRV recovery entered
0	(0)	X'0'	0	DDSRV_RSN_OK	"0" X'000' Success reason code
0	(0)	X'0'	0	DDSRV_RCN_OK	"DDSRV_RSN_OK" X'000' Success reason code. Defined to be consistent with the definitions in the section below. DDSRV_RSN_OK is preferred

Comment

IEFDDSRV REASON CODES (decimal)  
 RETURN CODE DDSRV\_INVALID\_PARAMETERS (decimal)

End of Comment

0	(0)	X'4'	0	DDSRV_BLANK_DDNAME	"4" X'004' The specified or obtained DD name is blank
0	(0)	X'8'	0	DDSRV_ZERO_DSAB	"8" X'008' The specified or obtained DSAB pointer is zero
0	(0)	X'C'	0	DDSRV_ZERO_DCB	"12" X'00C' A zero DCB pointer was specified
0	(0)	X'10'	0	DDSRV_INVALID_SUBPOOL	"16" X'010' An invalid subpool was specified
0	(0)	X'14'	0	DDSRV_ZERO_ACB	"20" X'014' A zero ACB pointer was specified
0	(0)	X'18'	0	DDSRV_BAD_PARM	"24" X'018' Bad input parms
0	(0)	X'18'	0	DDSRV_INPUT_DSAB_ABOVE	"24" X'018' The input DSAB resides above the 16MB line but LOC=ANY was not specified
0	(0)	X'18'	0	DDSRV_DSAB_ABOVE	"DDSRV_INPUT_DSAB_ABOVE" X'018' The input DSAB resides above the 16MB line but LOC=ANY was not specified. Defined to be consistent with the definitions in the section below.
0	(0)	X'20'	0	DDSRV_MISMATCHED_VERSLEN	"32" X'020' VERSION and parameter list length were inconsistent
0	(0)	X'24'	0	DDSRV_UNSUPPORTED_VERSFUNC	"36" X'024' The parameter list version does not support the IEFDDSRV function requested
0	(0)	X'28'	0	DDSRV_UNSUPPORTED_VERSION	"40" X'028' The parameter list version is higher than is supported by IEFDDSRV
0	(0)	X'2C'	0	DDSRV_UNSUPPORTED_FUNCTION	"44" X'02C' The function in the parameter list is not supported by IEFDDSRV

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
RETURN CODE DDSRV_REQUEST_FAIL (decimal)					
End of Comment					
0	(0)	X'4'	0	DDSRV_INVALID_DDNAME	"4" X'004' The specified or obtained DD name is invalid
0	(0)	X'8'	0	DDSRV_INVALID_DSAB	"8" X'008' The specified or obtained DSAB pointer is invalid
0	(0)	X'C'	0	DDSRV_TIOTENQ_FAIL	"12" X'00C' Failed to obtain TIOT resource or resource was held with shared control when exclusive control of the resource was required
0	(0)	X'10'	0	DDSRV_LOCK_FAIL	"16" X'010' Failed to obtain lock
0	(0)	X'14'	0	DDSRV_INVALID_TCB	"20" X'014' The specified TCB pointer does not point to a valid TCB, or points to a TCB that is not valid for this request.
0	(0)	X'1C'	0	DDSRV_OBTAINED_DSAB_ABOVE	"28" X'01C' The DSAB obtained from the input DCB/ACB resides above the 16MB line but LOC=ANY was not specified
0	(0)	X'20'	0	DDSRV_TCTTIOT_OFFSET_ZERO	"32" X'020' The TCTTIOT offset obtained from the DSAB is zero
0	(0)	X'100'	0	DDSRV_DD_IS_OPEN	"256" X'100' The DD name cannot be modified while the DD is open
0	(0)	X'104'	0	DDSRV_FEATURE_NOT_ENABLED	"260" X'104' The requested feature has not been enabled by the installation
0	(0)	X'108'	0	DDSRV_INVALID_NEWDDNAME	"264" X'108' The requested new DDNAME does not follow the documented rules for a DDNAME
0	(0)	X'10C'	0	DDSRV_DD_IN_CONCATENATION	"268" X'10C' The DD to be modified is concatenated to a named DD
0	(0)	X'128'	0	DDSRV_DD_VALIDATION_FAILED	"296" X'128' The DD to be modified is in an inconsistent state and cannot be modified.
0	(0)	X'12C'	0	DDSRV_FEATURE_ALREADY_SET	"300" X'12C' The requested feature is already set.
0	(0)	X'130'	0	DDSRV_DD_NAME_ALREADY_IN_USE	"304" X'130' The requested DDNAME is already in use by another DD.
0	(0)	X'134'	0	DDSRV_ASID_1_NOT_ALLOWED	"308" X'134' The requested function is not allowed from ASID 1

## IEFDISRC Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DDSRV_ASID_1_NOT_ALLOWED	0	134	DDSRV_INVALID_NEWDDNAME	0	8
DDSRV_BAD_PARM	0	18	DDSRV_INVALID_PARAMETERS	0	108
DDSRV_BLANK_DDNAME	0	4	DDSRV_INVALID_SUBPOOL	0	8
DDSRV_DD_IN_CONCATENATION	0	10C	DDSRV_INVALID_TCB	0	10
DDSRV_DD_IS_OPEN	0	100	DDSRV_INVALID_TCB	0	14
DDSRV_DD_NAME_ALREADY_IN_USE	0	130	DDSRV_LOCK_FAIL	0	10
DDSRV_DD_VALIDATION_FAILED	0	128	DDSRV_MISMATCHED_VERSLEN	0	20
DDSRV_DSAB_ABOVE	0	18	DDSRV_OBTAINED_DSAB_ABOVE	0	1C
DDSRV_FEATURE_ALREADY_SET	0	12C	DDSRV_RCN_OK	0	0
DDSRV_FEATURE_NOT_ENABLED	0	104	DDSRV_RCVENT	0	10
DDSRV_FUNCTION_COMPLETE	0	0	DDSRV_REQUEST_FAIL	0	C
DDSRV_INPUT_DSAB_ABOVE	0	18	DDSRV_RSN_OK	0	0
DDSRV_INVALID_DDNAME	0	4	DDSRV_SUCCESS	0	0
DDSRV_INVALID_DSAB	0	4	DDSRV_TCTTIOT_OFFSET_ZERO	0	20
			DDSRV_TIOTENQ_FAIL	0	C
			DDSRV_UNSUPPORTED_FUNCTION		

## IEFDISRC Cross Reference

Name	Hex Offset	Hex Value
	0	2C
DDSRV_UNSUPPORTED_VERSFUNC		
	0	24
DDSRV_UNSUPPORTED_VERSION		
	0	28
DDSRV_ZERO_ACB		
	0	14
DDSRV_ZERO_DCB		
	0	C
DDSRV_ZERO_DSAB		
	0	8



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## IEFDISXT Information

### IEFDISXT Programming Interface information

Programming Interface information

IEFDISXT

End of Programming Interface information

## IEFDISXT Heading Information • IEFDISXT Map

### IEFDISXT Heading Information

**Common Name:** IEF\_ALLC\_MOD exit parameter list  
**Macro ID:** IEFDISXT  
**DSECT Name:** DISXT\_PARMLIST  
**Owning Component:** Allocation (SC1B4)  
**Eye-Catcher ID:** DISXT  
 Offset: 0  
 Length: 6  
**Storage Attributes:** Virtual Storage: YES  
 Subpool: 230  
 Key: 1  
**Size:** 56 bytes  
 DISXT\_PARMLIST -- X'0038' bytes  
**Created by:** IEFADSMD  
**Pointed to by:** Register 1 on entry  
**Serialization:** None.  
**Function:** Contains area for parmlist of IEF\_ALLC\_MOD

### IEFDISXT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DISXT_PARMLIST	
0	(0)	CHARACTER	6	DISXT_ID	Eyecatcher - 'DISXT '
6	(6)	SIGNED	2	DISXT_VERSION	
8	(8)	SIGNED	2	DISXT_LEN	Version of this parmlist
10	(A)	SIGNED	2	DISXT_FN	Length of the parmlist
12	(C)	CHARACTER	8	DISXT_JOBNAME	Modify function
20	(14)	CHARACTER	8	DISXT_PROCSTEPNAME	Job name
28	(1C)	CHARACTER	8	DISXT_STEPNAME	the name of the step in the procedure
36	(24)	CHARACTER	20	DISXT_PARMS	job step name
36	(24)	CHARACTER	20	DISXT_MODIFYALLOCATION	modify parameters
36	(24)	ADDRESS	4	DISXT_MOD_DSAB@	For modify allocation
40	(28)	CHARACTER	8	DISXT_OLD_DDNAME	address of the DSAB of the affected DD
48	(30)	CHARACTER	8	DISXT_NEW_DDNAME	DD name before modify
					DD name after modify

Comment

Modify function constants

End of Comment

48	(30)	X'1'	0	KDISXT_VERSION_1	"1"
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Comment

DISXT\_len (modify function) constants

End of Comment

48	(30)	X'1'	0	KDISXT_MODDDNAME	"1"
48	(30)	X'38'	0	DISXT_PARMLIST_LEN	**-DISXT_PARMLIST"

## IEFDISXT Cross Reference

Name	Hex Offset	Hex Value
DISXT_FN	A	
DISXT_ID	0	
DISXT_JOBNAME		
	C	
DISXT_LEN	8	
DISXT_MOD_DSAB@		
	24	
DISXT_MODIFYALLOCATION		
	24	
DISXT_NEW_DDNAME		
	30	
DISXT_OLD_DDNAME		
	28	
DISXT_PARMLIST		
	0	
DISXT_PARMLIST_LEN		
	30	38
DISXT_PARAMS	24	
DISXT_PROCSTEPNAME		
	14	
DISXT_STEPNAME		
	1C	
DISXT_VERSION		
	6	
KDISXT_MODALDDNAME		
	30	1
KDISXT_VERSION_1		
	30	1



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## IEFDOKEY Information

### IEFDOKEY Programming Interface information

Programming Interface information

IEFDOKEY

End of Programming Interface information

## IEFDOKEY Heading Information • IEFDOKEY Map

### IEFDOKEY Heading Information

**Common Name:** Dynamic OUTPUT Key Mapping  
**Macro ID:** IEFDOKEY  
**DSECT Name:** None  
**Owning Component:** Dynamic Output (BB131)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** N/A  
 FREQUENCY = N/A  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** This macro maps the Dynamic OUTPUT keys.  
 The keys are passed to Dynamic OUTPUT in text units when Dynamic OUTPUT is invoked via the OUTADD macro. Text unit keys are two bytes in length. The keys are defined in this mapping as EQUates.

### IEFDOKEY Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
		..1. .111		DOADDRESS	"X'0027" ADDRESS
		.1.1 ...1		DOAFPPRM	"X'0051" AFPPARMS
		.1. 1...		DOAFPST	"X'0048" AFPPARMS
		..1. 1...		DOBUILD	"X'0028" BUILDING
		.... ...1		DOBURST	"X'0001" BURST
		.... ...1		DOCHARS	"X'0002" CHARS
		.... ...11		DOCKPTLI	"X'0003" CKPTLINE
		.... .1..		DOCKPTPA	"X'0004" CKPTPAGE
		.... .1.1		DOCKPTSE	"X'0005" CKPTSEC
		.... .11.		DOCLASS	"X'0006" CLASS
		..11 1.1.		DOCOLORM	"X'003A" COLORMAP
		.... .111		DOCOMPAC	"X'0007" COMPACT
		..11 ...1		DOCOMSET	"X'0032" COMSETUP
		.... 1..		DOCONTRO	"X'0008" CONTROL
		.... 1..1		DOCOPIE9	"X'0009" COPIES
		.... 1.1.		DOCOPIEA	"X'000A" COPIES (group values)
		..1.1 ...1		DOCOPYCN	"X'0052" COPYCNT
0	(0)	BITSTRING	0	DODATAACK	"X'2022" DATAACK
		..1.1 .1..		DODDNAME	"X'0054" DDNAME
		.... 1.11		DODEFAUL	"X'000B" DEFAULT
		..1. 1..1		DODEPT	"X'0029" DEPT
		.... 11..		DODEST	"X'000C" DEST
		..1. ...11		DODPAGEL	"X'0023" DPAGELBL
		..11 11.1		DODUPLEX	"X'003D" DUPLEX
		.... 11.1		DOFCB	"X'000D" FCB
		.... 111.		DOFLASE	"X'000E" FLASH (overlay name)
		.... 1111		DOFLASF	"X'000F" FLASH (count)
		..1.1 11.1		DOFORMD	"X'001D" FORMDEF
		..11 1.11		DOFORMLN	"X'003B" FORMLEN
		..1. ....		DOFORMS	"X'0010" FORMS
		..1. .111		DOFSSDAT	"X'0047" FSSDATA
		..1.1 ...1		DOGROUPI	"X'0011" GROUPID
		..1.1 ...1		DOINDEX	"X'0012" INDEX
		..11 111.		DOINTRAY	"X'003E" INTRAY
		..1.1 .1..		DOLINDEX	"X'0014" LINDEX
		..1.1 .1.1		DOLINECT	"X'0015" LINECT
		..1. 1..1		DOMAILBC	"X'0049" MAILBCC
		..1. 1.1.		DOMAILCC	"X'004A" MAILCC
		..1. 1.11		DOMAILFI	"X'004B" MAILFILE
		..1. 11..		DOMAILFR	"X'004C" MAILFROM
		..1. 11.1		DOMAILTO	"X'004D" MAILTO
0	(0)	BITSTRING	0	DOMERGE	"X'8003" MERGE
		..1. .11.		DOMODIF6	"X'0016" MODIFY (module name)
		..1. .111		DOMODIF7	"X'0017" MODIFY (TRC)
		..1. 11.1		DONAME	"X'002D" NAME
		..1. 1111		DONOTIFY	"X'002F" NOTIFY
		..1. .1.1		DOXOFSTB	"X'0043" OFFSETXB
		..1. ...1		DOXOFSTF	"X'0041" OFFSETXF

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	.1.. .1..	0	DOYOFSTB	"X'0044" OFFSETYB
		.1.. ..1.		DOYOFSTF	"X'0042" OFFSETYF
		BITSTRING		DOOUTBIN	"X'2023" OUTBIN
		..1. 1.11		DOOUTDB	"X'002B" OUTDISP - NORMAL
		..1. 11..		DOOUTDC	"X'002C" OUTDISP - ABNORMAL
		..11 ..11		DOOVFL	"X'0033" OVERFLOW
		..1. ....		DOOVRLYB	"X'0040" OVERLAYB
		..11 1111		DOOVRLYF	"X'003F" OVERLAYF
		...1 1111		DOPAGEDE	"X'001F" PAGEDEF
		..1. ...1		DOPIMSG	"X'0021" PIMSG
		..1. ..1.1		DOPORTNO	"X'0045" PORTNO
		...1 1...		DOPRMODE	"X'0018" PRMODE
		..11 1..1		DOPROPTN	"X'0039" PRTOPTNS
		..1. ....		DOPRTATT	"X'0050" PRTATTRS
		..11 11..		DOPRTERR	"X'003C" PRTERORR
		..11 1...		DOPRTQUE	"X'0038" PRTQUEUE
		...1 1..1		DOPRTY	"X'0019" PRTY
		..1. 111.		DOREPLYT	"X'004E" REPLYTO
		..1. ..11.		DORESFMT	"X'0046" RESFMT
		..11 ..111		DORETANF	"X'0037" RETAINF
		..11 ..11.		DORETANS	"X'0036" RETAINS
		..11 ..1..		DORETRYT	"X'0034" RETRYT
		..11 ..1.1		DORETRYL	"X'0035" RETRYL
		..1. ..11.		DOROOM	"X'0026" ROOM
		..1. ..1..		DOSYSARE	"X'0024" SYSAREA
		..1. ..1.1		DOTHRESH	"X'0022" THRESHLD
		..1. 1.1.		DOTITLE	"X'002A" TITLE
		...1 1.1.		DOTRC	"X'001A" TRC
		...1 1.11		DOUCS	"X'001B" UCS
		..11 ...1		DOUSERDA	"X'0031" USERDATA
..1. 111.	DOUSERLI	"X'002E" USERLIB			
..1. 1111	DOUSERPA	"X'004F" USERPATH			
...1 11..	DOWRITER	"X'001C" WRITER			

## IEFDOKEY Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DOADDRES	0	27	DOLINECT	0	15
DOAFPPRM	0	51	DOMAILBC	0	49
DOAFPST	0	48	DOMAILCC	0	4A
DOBUILD	0	28	DOMAILFI	0	4B
DOBURST	0	1	DOMAILFR	0	4C
DOCHARS	0	2	DOMAILTO	0	4D
DOCKPTLI	0	3	DOMERGE	0	8003
DOCKPTPA	0	4	DOMODIF6	0	16
DOCKPTSE	0	5	DOMODIF7	0	17
DOCLASS	0	6	DONAME	0	2D
DOCOLORM	0	3A	DONOTIFY	0	2F
DOCOMPAC	0	7	DOOUTBIN	0	2023
DOCOMSET	0	32	DOOUTDB	0	2B
DOCONTRO	0	8	DOOUTDC	0	2C
DOCOPIEA	0	A	DOOVFL	0	33
DOCOPIE9	0	9	DOOVRLYB	0	40
DOCOPYCN	0	52	DOOVRLYF	0	3F
DODATAACK	0	2022	DOPAGEDE	0	1F
DODDNAME	0	54	DOPIMSG	0	21
DODEFAUL	0	B	DOPORTNO	0	45
DODEPT	0	29	DOPRMODE	0	18
DODEST	0	C	DOPROPTN	0	39
DODPAGEL	0	23	DOPRTATT	0	50
DODUPLEX	0	3D	DOPRTERR	0	3C
DOFCB	0	D	DOPRTQUE	0	38
DOFLASE	0	E	DOPRTY	0	19
DOFLASF	0	F	DOREPLYT	0	4E
DOFORMD	0	1D	DORESFMT	0	46
DOFORMLN	0	3B	DORETANF	0	37
DOFORMS	0	10	DORETANS	0	36
DOFSSDAT	0	47	DORETRYL	0	35
DOGROUPI	0	11	DORETRYT	0	34
DOINDEX	0	12	DOROOM	0	26
DOINTRAY	0	3E	DOSYSARE	0	24
DOLINDEX	0	14	DOTHRESH	0	22

## IEFDOKEY Cross Reference

Name	Hex Offset	Hex Value
DOTITLE	0	2A
DOTRC	0	1A
DOUCS	0	1B
DOUSERDA	0	31
DOUSERLI	0	2E
DOUSERPA	0	4F
DOWRITER	0	1C
DOXOFSTB	0	43
DOXOFSTF	0	41
DOYOFSTB	0	44
DOYOFSTF	0	42



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## IEFDORC Information

### IEFDORC Programming Interface information

Programming Interface information

#### IEFDORC

The following fields are **NOT** programming interface information:

- DORCABNA
- DORCABNB
- DORCABNC
- DORCABN1
- DORCABN2
- DORCABN3
- DORCABN4
- DORCABN5
- DORCABN6
- DORCABN7
- DORCABN8
- DORCABN9
- DORCAB12
- DORCAB13
- DORCAB14
- DORCAB15

End of Programming Interface information

## IEFDORC Heading Information • IEFDORC Map

### IEFDORC Heading Information

**Common Name:** Dynamic Output SVC Reason Codes  
**Macro ID:** IEFDORC  
**DSECT Name:** n/a  
**Owning Component:** Scheduler JCL Facility (BB131)  
**Eye-Catcher ID:** none  
**Storage Attributes:** Virtual Storage: n/a (EQU's only)  
**Size:** n/a  
**Created by:** n/a  
**Pointed to by:** n/a  
**Serialization:** None  
**Function:** Maps the return codes and reason codes used by Dynamic Output

### IEFDORC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	X'0'	0	DONOERRS	"0" Successful completion
0	(0)	X'4'	0	DOENVERR	"4" Environmental error
0	(0)	X'8'	0	DOREQDNY	"8" Request denied by, or because of, the installation exit
0	(0)	X'C'	0	DOINVPRM	"12" Invalid parameter list
0	(0)	X'10'	0	DOSYSERR	"16" System error

Comment

Dynamic Output Reason Codes

End of Comment

0	(0)	X'0'	0	DORCNOER	"0" X'000' Processing successful
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Comment

Parameter errors, text units

NOTE: These reason codes are always accompanied by a return code of DOINVPRM. These errors are caused by the caller or faulty installation exit text unit modifications

End of Comment

0	(0)	X'300'	0	DORCIVCH	"768" X'300' Invalid choice specified for parameter
0	(0)	X'301'	0	DORCGMAX	"769" X'301' Numeric parameter exceeds maximum
0	(0)	X'302'	0	DORCLMIN	"770" X'302' Numeric parameter less than minimum
0	(0)	X'303'	0	DORCNUMM	"771" X'303' No parameter specified
0	(0)	X'306'	0	DORCNLLN	"774" X'306' Length of level exceeds maximum
0	(0)	X'307'	0	DORCNLNM	"775" X'307' Number of levels exceeds the maximum
0	(0)	X'308'	0	DORCNFCH	"776" X'308' Invalid first character of level
0	(0)	X'309'	0	DORCNOCH	"777" X'309' Invalid character other than the first in level in parameter
0	(0)	X'30A'	0	DORCNLIV	"778" X'30A' Invalid specification of levels
0	(0)	X'30B'	0	DORCIVNP	"779" X'30B' Invalid number of parameters
0	(0)	X'30C'	0	DORCIVLN	"780" X'30C' Invalid parameter length
0	(0)	X'30D'	0	DORCNKEY	"781" X'30D' Invalid key
0	(0)	X'30E'	0	DORCDUPK	"782" X'30E' Duplicate key
0	(0)	X'30F'	0	DORCIVKY	"783" X'30F' Key not allowed
0	(0)	X'310'	0	DORCNSLE	"784" X'310' Sublist element not defined
0	(0)	X'311'	0	DORCMTUP	"785" X'311' The maximum number of text unit pointers allowed has been exceeded
0	(0)	X'312'	0	DORCIVTX	"786" X'312' Invalid TEXT character
0	(0)	X'313'	0	DORCISEQ	"787" X'313' Invalid character sequence
0	(0)	X'314'	0	DORCIBIT	"788" X'314' Invalid bits specified in a bitstring parameter

Comment

Parameter errors, DOCNP

NOTE: If these reason codes are accompanied by a return code of DOREQDNY, then the installation exit has made invalid alterations to the caller's DOCNP. Otherwise, these reason codes will be accompanied by a return code of DOINVPRM, indicating the caller passed an invalid DOCNP.

End of Comment

0	(0)	X'380'	0	DORCLNIV	"896" X'380' Invalid parameter length in DOCNLEN
0	(0)	X'381'	0	DORCNZF1	"897" X'381' Unused DOCNFNC1 bits not zero
0	(0)	X'382'	0	DORCNZF2	"898" X'382' Unused DOCNFNC2 bits not zero

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	X'383'	0	DORCNZR1	"899" X'383' Reserved field DOCNRSV1 not zero
0	(0)	X'384'	0	DORCNZR2	"900" X'384' Reserved field DOCNRSV2 not zero
0	(0)	X'385'	0	DORCIVID	"901" X'385' Invalid parameter list identifier in DOCNID
0	(0)	X'386'	0	DORCIVVR	"902" X'386' Invalid parameter list version in DOCNVERS
0	(0)	X'387'	0	DORCNOFN	"903" X'387' No function (i.e. add or delete) requested
0	(0)	X'388'	0	DORCIVFN	"904" X'388' More than one function (i.e. add and delete) requested
0	(0)	X'389'	0	DORCIVTP	"905" X'389' Text unit pointer (DOCNTXTP) specified for a delete request
0	(0)	X'38A'	0	DORCIVEQ	"906" X'38A' Conditional enqueue (DOCNCENQ) specified for a delete request
0	(0)	X'38B'	0	DORCIVNM	"907" X'38B' Invalid descriptor name (DOCNNAME)
0	(0)	X'38C'	0	DORCIVRZ	"908" X'38C' Register pointing to the parameter list pointer is zero
0	(0)	X'38D'	0	DORCIVDZ	"909" X'38D' Pointer to the SVC parameter list (DOCNP) is zero
0	(0)	X'38E'	0	DORCIVHB	"910" X'38E' High order bit in parameter list pointer is not zero
0	(0)	X'38F'	0	DORCIVTU	"911" X'38F' Text units required for an add request
0	(0)	X'390'	0	DORCP0C4	"912" X'390' 0C4 ABEND, appears to have occurred while referencing user parameters
0	(0)	X'391'	0	DORCNZR0	"913" X'391' Reserved field DOCNRSV0 not zero
0	(0)	X'392'	0	DORCONEU	"914" X'392' Bit X'40' of byte DOCNFNC2 is on for a delete request
0	(0)	X'393'	0	DORCREUS	"915" X'393' Bit X'20' of byte DOCNFNC2 is on for a delete request
0	(0)	X'394'	0	DORCREON	"916" X'394' DOCNONEU and DOCNREUS must both be on or both be off

Comment

Environmental errors

End of Comment

0	(0)	X'400'	0	DORCGET1	"1024" X'400' GETMAIN unsuccessful in SVC
0	(0)	X'401'	0	DORCEXST	"1025" X'401' Output descriptor specified already exists
0	(0)	X'402'	0	DORCNDES	"1026" X'402' Output descriptor specified does not exist
0	(0)	X'403'	0	DORCBTCH	"1027" X'403' Output descriptor specified was not dynamically created, cannot delete
0	(0)	X'404'	0	DORCESTA	"1028" X'404' Unable to establish recovery environment
0	(0)	X'405'	0	DORCNENQ	"1029" X'405' ENQueue resource unavailable at this time
0	(0)	X'406'	0	DORCNONM	"1030" X'406' No more system generated names can be created, the maximum number allowed are in use
0	(0)	X'407'	0	DORCGET2	"1031" X'407' GETMAIN unsuccessful in SJF
0	(0)	X'408'	0	DORCALTT	"1032" X'408' Caller's text units were altered by another task during dynamic output processing
0	(0)	X'409'	0	DORCALTP	"1033" X'409' Caller's text unit pointers were altered by another task during dynamic output processing

Comment

Installation exit caused errors

End of Comment

0	(0)	X'500'	0	DORCINST	"1280" X'500' Reason code from installation exit out of allowable range
0	(0)	X'501'	0	DORCINRC	"1281" X'501' Return code from installation exit is zero, but reason code is non zero
0	(0)	X'502'	0	DORCINRT	"1282" X'502' Invalid return code from the installation exit
0	(0)	X'503'	0	DORCINKE	"1283" X'503' Return code from installation exit is zero, but returned key in error is nonzero
0	(0)	X'504'	0	DORCZKEY	"1284" X'504' Installation exit modified the text unit keys to include a zero key

Comment

System errors

End of Comment

0	(0)	X'700'	0	DORCABND	"1792" X'700' ABEND in the Dynamic OUTPUT control routine
0	(0)	X'701'	0	DORCSJAB	"1793" X'701' ABEND in the Scheduler JCL Facility
0	(0)	X'702'	0	DORCXABD	"1794" X'702' ABEND in the Dynamic OUTPUT Installation Exit

Comment

ABEND reason codes

NOTE: ABENDs are issued when unexpected return or reason codes are received from SJF. The ABEND codes are unique for each situation in which this is detected. Therefore, there may be more than one ABEND reason code for an SJF function.

End of Comment

## IEFDORC Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	X'1'	0	DORCABN1	"0001" X'001' ABEND issued due to unexpected return and/or reason code from SJF FIND
0	(0)	X'2'	0	DORCABN2	"0002" X'002' ABEND issued due to unexpected reason code from SJF UPDATE
0	(0)	X'3'	0	DORCABN3	"0003" X'003' ABEND issued due to unexpected return code from SJF UPDATE
0	(0)	X'4'	0	DORCABN4	"0004" X'004' ABEND issued due to unexpected return and/or reason code from SJF FIND
0	(0)	X'5'	0	DORCABN5	"0005" X'005' ABEND issued due to unexpected return and/or reason code from SJF FIND
0	(0)	X'6'	0	DORCABN6	"0006" X'006' ABEND issued due to unexpected return and/or reason code from SJF DELETE
0	(0)	X'7'	0	DORCABN7	"0007" X'007' ABEND issued due to unexpected return code from SJF TERMINATE
0	(0)	X'8'	0	DORCABN8	"0008" X'008' ABEND issued due to unexpected return code from SJF TERMINATE
0	(0)	X'9'	0	DORCABN9	"0009" X'009' ABEND issued due to unexpected return code from SJF TERMINATE
0	(0)	X'A'	0	DORCABNA	"0010" X'00A' ABEND issued due to unexpected return code from SJF TERMINATE
0	(0)	X'B'	0	DORCABNB	"0011" X'00B' ABEND issued due to unexpected return code from SJF TERMINATE
0	(0)	X'C'	0	DORCABNC	"0012" X'00C' ABEND issued due to unexpected return code from SJF TERMINATE 4 ABEND codes 0014-0017 are used in One Use SWB support below HBB4410
0	(0)	X'12'	0	DORCAB12	"0018" X'012' ABEND issued due to unexpected return code from SJF TERMINATE
0	(0)	X'13'	0	DORCAB13	"0019" X'013' ABEND issued due to unexpected return code from SJF RETURN SWB
0	(0)	X'14'	0	DORCAB14	"0020" X'014' ABEND issued due to an error in an SSI call
0	(0)	X'15'	0	DORCAB15	"0021" X'015' ABEND issued due to an error in call to include segment IEFSSVIS

## IEFDORC Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DOENVERR	0	4	DORCIVFN	0	388
DOINVPRM	0	C	DORCIVHB	0	38E
DONOERRS	0	0	DORCIVID	0	385
DORCABNA	0	A	DORCIVKY	0	30F
DORCABNB	0	B	DORCIVLN	0	30C
DORCABNC	0	C	DORCIVNM	0	38B
DORCABND	0	700	DORCIVNP	0	30B
DORCABN1	0	1	DORCIVRZ	0	38C
DORCABN2	0	2	DORCIVTP	0	389
DORCABN3	0	3	DORCIVTU	0	38F
DORCABN4	0	4	DORCIVTX	0	312
DORCABN5	0	5	DORCIVVR	0	386
DORCABN6	0	6	DORCLMIN	0	302
DORCABN7	0	7	DORCLNIV	0	380
DORCABN8	0	8	DORCMTUP	0	311
DORCABN9	0	9	DORCNDES	0	402
DORCAB12	0	12	DORCNENQ	0	405
DORCAB13	0	13	DORCNFCH	0	308
DORCAB14	0	14	DORCNKEY	0	30D
DORCAB15	0	15	DORCNLIV	0	30A
DORCALTP	0	409	DORCNLLN	0	306
DORCALTT	0	408	DORCNLNM	0	307
DORCBTCH	0	403	DORCNNUM	0	303
DORCDUPK	0	30E	DORCNOCH	0	309
DORCESTA	0	404	DORCNOER	0	0
DORCEXST	0	401	DORCNOFN	0	387
DORCGET1	0	400	DORCNONM	0	406
DORCGET2	0	407	DORCNSLE	0	310
DORCGMAX	0	301	DORCNZF1	0	381
DORCIBIT	0	314	DORCNZF2	0	382
DORCINKE	0	503	DORCNZR0	0	391
DORCINRC	0	501	DORCNZR1	0	383
DORCINRT	0	502	DORCNZR2	0	384
DORCINST	0	500	DORCONEU	0	392
DORCISEQ	0	313	DORCP0C4	0	390
DORCIVCH	0	300	DORCREON	0	394
DORCIVDZ	0	38D	DORCREUS	0	393
DORCIVEQ	0	38A	DORCSJAB	0	701

Name	Hex Offset	Hex Value
DORCXABD	0	702
DORCZKEY	0	504
DOREQDNY	0	8
DOSYSERR	0	10



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## IEFDOTUM Information

### IEFDOTUM Programming Interface Information

Programming Interface Information

IEFDOTUM

End of Programming Interface Information

## IEFDOTUM Heading Information • IEFDOTUM Cross Reference

### IEFDOTUM Heading Information

**Common Name:** Dynamic Output Text Unit Mappings  
**Macro ID:** IEFDOTUM  
**DSECT Name:** DOCNTLST, DOCNUNIT, DOCNTFLD  
**Owning Component:** Dynamic Output (BB131)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: Any  
 Key: Caller's key  
 Residency: Any  
**Size:** 1st section: 4 bytes  
 2nd section: 31 bytes  
 3rd section: 6 bytes plus a variable-length field at offset 6  
 4th section: 2 bytes plus a variable-length field at offset 2  
**Created by:** User of dynamic output services  
**Pointed to by:** The OUTADD macro, DOCNP  
**Serialization:** None  
**Function:** Maps the text units and text unit pointer structures for Dynamic OUTPUT.

### IEFDOTUM Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DOCNTLST	Text unit pointer list mapping
0	(0)	SIGNED 1... ..	4	DOCNTPTR DOCNTLT	Text unit pointer "X'80" On for the last text unit pointer

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DOCNUNIT	Text unit mapping
0	(0)	BITSTRING	2	DOCNTKEY	Key
2	(2)	BITSTRING	2	DOCNTNUM	Number of length/parameter pairs
4	(4)	CHARACTER	1	DOCNTENT (0)	
4	(4)	BITSTRING	2	DOCNTLTH	Length of first or only parameter
6	(6)	CHARACTER	1	DOCNTPAR	First or only parameter

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DOCNTFLD	Mapping for length/parameter pair
0	(0)	BITSTRING	2	DOCNTLEN	Length of parameter
2	(2)	CHARACTER	1	DOCNTPRM	Parameter

### IEFDOTUM Cross Reference

Name	Hex Offset	Hex Value
DOCNTENT	4	
DOCNTFLD	0	
DOCNTKEY	0	
DOCNTLEN	0	
DOCNTLST	0	
DOCNTLT	0	80
DOCNTLTH	4	
DOCNTNUM	2	
DOCNTPAR	6	
DOCNTPRM	2	
DOCNTPTR	0	
DOCNUNIT	0	



## IEFENFSC Information

### IEFENFSC Heading Information

**Common Name:** ENF Schedule SRB Listener Control Block  
**Macro ID:** IEFENFSC  
**DSECT Name:** ENFSC  
**Owning Component:** Event Notification Facility (BB131)  
**Eye-Catcher ID:** ENFSC  
 Offset: 0  
 Length: 6  
**Storage Attributes:** Subpool: 241  
 Key: 0  
 Residency: Any  
**Size:** 40 bytes (decimal)  
**Created by:** IEFENFNM  
**Pointed to by:** None  
**Serialization:** ENFSC\_USE\_COUNT is used to determine how many users of the ENFSC exist.  
**Function:** ENF control block used when a signal request is issued to an event code that has SRBEXIT listeners on the ENF listen element chain. This block holds information that can be accessed by the routine that schedules the SRBs (IEFENFNM), the ENF SRB routine (IEFENFSR), and the SRB resource termination manager (IEFENFPD).

### IEFENFSC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	40	ENFSC	
0	(0)	CHARACTER	6	ENFSC_ID	Eye catcher
6	(6)	UNSIGNED	2	ENFSC_LEN	Control block length
8	(8)	UNSIGNED	1	ENFSC_VERS	Version number
9	(9)	BITSTRING	1	ENFSC_FLAGS	Flag byte
		1... ....		ENFSC_FREEPRM_CODED	When on, the signaler has coded FREEPRM
		.111 1111		ENFSC_RSV1	Reserved
10	(A)	UNSIGNED	1	ENFSC_SUBPOOL	ENFSC subpool
11	(B)	UNSIGNED	1	ENFSC_KEY	ENFSC key
12	(C)	CHARACTER	4	ENFSC_EVENT_CODE	Event code
16	(10)	SIGNED	4	ENFSC_USE_COUNT	The number of users of this control block.
20	(14)	ADDRESS	4	ENFSC_SIGP_ADDR	Address of the signaler's parameter list
24	(18)	SIGNED	4	ENFSC_SIGP_LENGTH	Length of the signaler's parameter list if FREEPRM coded, otherwise zero.
28	(1C)	UNSIGNED	1	ENFSC_SIGP_SUBPOOL	Subpool number of storage holding signaler's parm list if FREEPRM coded, otherwise zero.
29	(1D)	UNSIGNED	1	ENFSC_SIGP_KEY	Key of storage holding signaler's parameter list if FREEPRM coded, otherwise zero.
30	(1E)	SIGNED	2	ENFSCSIGNALLERSHASN	Signaller's HASN
32	(20)	ADDRESS	4	ENFSC_ENSG_ADDR	Address of ENSG parameter list to be provided to listeners
36	(24)	ADDRESS	4	ENFSCSIGNALLERSR14	Signaller's return addr

## IEFENFSC Constants • IEFENFSC Cross Reference

### IEFENFSC Constants

Len	Type	Value	Name	Description
6	CHARACTER	ENFSC	ENFSCID	
1	DECIMAL	2	ENFSCVER	
1	DECIMAL	0	ENFSC_KEY_CONST	
1	DECIMAL	241	ENFSC_SUBPOOL_CONST	

### IEFENFSC Cross Reference

Name	Hex Offset	Hex Value
ENFSC	0	
ENFSC_ENSG_ADDR	20	
ENFSC_EVENT_CODE	C	
ENFSC_FLAGS	9	
ENFSC_FREEPRM_CODED	9	80
ENFSC_ID	0	
ENFSC_KEY	B	
ENFSC_LEN	6	
ENFSC_RSV1	9	7F
ENFSC_SIGP_ADDR	14	
ENFSC_SIGP_KEY	1D	
ENFSC_SIGP_LENGTH	18	
ENFSC_SIGP_SUBPOOL	1C	
ENFSC_SUBPOOL	A	
ENFSC_USE_COUNT	10	
ENFSC_VERS	8	
ENFSCSIGNALLERSHASN	1E	
ENFSCSIGNALLERSR14	24	

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## IEFENFSG Information

### IEFENFSG Programming Interface information

Programming Interface information

IEFENFSG

End of Programming Interface information

## IEFENFSG Heading Information • IEFENFSG Map

### IEFENFSG Heading Information

**Common Name:** ENF Signal Data  
**Macro ID:** IEFENFSG  
**DSECT Name:** ENSG - ENF signal information  
**Owning Component:** Event Notification Facility (BB131)  
**Eye-Catcher ID:** ENSG  
 Offset: 0  
 Length: 4 bytes  
**Storage Attributes:** Main Storage: No  
 Virtual Storage: Yes  
 Auxiliary Storage: Yes  
 Subpool: 0, 229, 241, or 255  
 Key: 0  
 Data Space: No  
 Residency: ANY  
**Size:** 76 bytes (decimal)  
**Created by:** IEFENFM  
**Pointed to by:** Fifth word of the address list pointed to by register 1  
 on entry to an ENF listen exit  
**Serialization:** None  
**Function:** Maps signal information provided to ENF  
 listeners by ENF

### IEFENFSG Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENSG	, ENF-provided input data
0	(0)	SIGNED	4	(0)	
0	(0)	CHARACTER	12	ENSG_HEADER	Header information
				(0)	
0	(0)	CHARACTER	4	ENSGID	Control block identifier (ENSGCID)
4	(4)	SIGNED	2	ENSGVERS	Version number. Current version is ENSGCVVER.
6	(6)	SIGNED	2	ENSGLEN	Length of ENSG control block
8	(8)	CHARACTER	4		Reserved
12	(C)	CHARACTER	64	ENSG_SIGNAL_DATA	
				(0)	
					Information about the signal sent to the listen exit
12	(C)	SIGNED	4	ENSG_EVENT_CODE	
					Event code
16	(10)	CHARACTER	4	ENSG_QUAL	Event qualifier
20	(14)	CHARACTER	32	ENSG_BITMAP_QUAL	
					Bit-mapped event qualifier
52	(34)	CHARACTER	1	ENSG_SIGNAL_FLAGS	
					Flags describing signal
		1... ..		ENSG_FOREIGN_SYSTEM	
					"X'80" Signal originated on another system
53	(35)	CHARACTER	3		Reserved
56	(38)	CHARACTER	8	ENSG_SOURCE_SYSTEM_NAME	
					Name of system where signal originated
64	(40)	CHARACTER	4	ENSG_SOURCE_SYSTEM_TOKEN	
				(0)	
					XCF token identifying the system where the signal originated. This field contains 0 when sysplex-wide ENF is not available for any reason. When 0, the signal originated on the listening system.
64	(40)	CHARACTER	1	ENSG_SOURCE_SYSTEM_SLOT	
					XCF slot number of originating system
65	(41)	CHARACTER	3		Reserved (XCF token)
68	(44)	CHARACTER	8		Reserved
68	(44)	X'4C'	0	ENSG_END	"" End of signal information

Comment

Constant values

End of Comment

68	(44)	X'D5E2C7'	0	ENSGCID	"C'ENSG" Control block ID value
68	(44)	X'1'	0	ENSGVER1	"1" First version of IEFENFSG
68	(44)	X'1'	0	ENSGCVVER	"ENSGVER1" Current version of IEFENFSG

## IEFENFSG Cross Reference

Name	Hex Offset	Hex Value
ENSG	0	
ENSG_BITMAP_QUAL		
	14	
ENSG_END	44	4C
ENSG_EVENT_CODE		
	C	
ENSG_FOREIGN_SYSTEM		
	34	80
ENSG_HEADER	0	
ENSG_QUAL	10	
ENSG_SIGNAL_DATA		
	C	
ENSG_SIGNAL_FLAGS		
	34	
ENSG_SOURCE_SYSTEM_NAME		
	38	
ENSG_SOURCE_SYSTEM_SLOT		
	40	
ENSG_SOURCE_SYSTEM_TOKEN		
	40	
ENSGCID	44	D5E2C7
ENSGCVER	44	1
ENSGID	0	
ENSGLEN	6	
ENSGVERS	4	
ENSGVER1	44	1



## IEFENFSP Information

### IEFENFSP Heading Information

**Common Name:** ENF Schedule SRB Parameter List  
**Macro ID:** IEFENFSP  
**DSECT Name:** ENFSP  
**Owning Component:** Event Notification Facility (BB131)  
**Eye-Catcher ID:** ENFSP  
 Offset: 0  
 Length: 6  
**Storage Attributes:** Subpool: 241  
 Key: 0  
 Residency: Any  
**Size:** 48 bytes (decimal)  
 FREQUENCY = One per SRB scheduled from IEFENFNM  
**Created by:** IEFENFNM  
**Pointed to by:** SRBPARM in IEFENFNM and IEFENFSR  
**Serialization:** None  
**Function:** Parameter list passed from IEFENFNM to the  
 ENF SRB Routine (IEFEFNSR).

### IEFENFSP Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	48	ENFSP	
0	(0)	CHARACTER	6	ENFSP_ID	Parameter list identifier
6	(6)	UNSIGNED	2	ENFSP_LEN	Parameter list length
8	(8)	UNSIGNED	1	ENFSP_VERS	Parameter list version number
9	(9)	CHARACTER	3	ENFSP_RSV1	Reserved
12	(C)	ADDRESS	4	ENFSP_ENFSC_ADDR	
					Address of the ENFSC created for this signal request
16	(10)	ADDRESS	4	ENFSP_ENFL_ADDR	
					Address of the listen element defining the SRB EXIT
20	(14)	CHARACTER	28	ENFSP_RSV2	Reserved - maps to the end of the 12 full words obtained by GETSRB

### IEFENFSP Constants

Len	Type	Value	Name	Description
6	CHARACTER	ENFSP	ENFSPCID	Parameter list ID
1	DECIMAL		ENFSPVER	Parameter list version





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## IEFENF40 Information

### IEFENF40 Programming Interface information

Programming Interface information

**IEFENF40**

End of Programming Interface information

## IEFENF40 Heading Information • IEFENF40 Cross Reference

### IEFENF40 Heading Information

**Common Name:** Mapping macro for ENF Event Code #40 Listeners  
**Macro ID:** IEFENF40  
**DSECT Name:** ENF40  
**Owning Component:** Subsystem Interface - SSI (SC1B6)  
**Eye-Catcher ID:** 'ENF40 '  
     Offset: 0  
     Length: 6  
**Storage Attributes:** Subpool: Common subpool  
     Key: 1  
     Residency: Any  
**Size:** 36 bytes ('24'X)  
     FREQUENCY = 1 per ENF 40 signal  
**Created by:** Job Entry Subsystem (e.g. JES2)  
**Pointed to by:** Upon entry to ENF event code 40 listen  
     exit, register 1 points to a word that  
     contains the address of the ENF40 parameter  
     list.  
**Serialization:** None  
**Function:** Job Entry Subsystem (JES) initialization / ending  
     event code 40 listen exit parameter list mapping

### IEFENF40 Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENF40	ENF40 mapping
0	(0)	SIGNED	4	(0)	Full word alignment
0	(0)	CHARACTER	6	ENF40_ID	Id 'ENF40 '
6	(6)	BITSTRING	1	ENF40_VERSION	
					Version of mapping
7	(7)	BITSTRING	1		Reserved
8	(8)	SIGNED	2	ENF40_LENGTH	Length of parameter list
10	(A)	BITSTRING	2		Reserved
12	(C)	BITSTRING	4	ENF40_QUALIFIER	
					Qualifier code
16	(10)	CHARACTER	4	ENF40_SSNM	Actual name of subsystem
20	(14)	CHARACTER	8	ENF40_CNAM	Common name of subsystem
28	(1C)	CHARACTER	8		Reserved
28	(1C)	X'24'	0	ENF40_SIZE	"*-ENF40" Length of ENF40 parameter area
28	(1C)	X'1'	0	ENF40_CVER	"1" Current version
		.... ..		ENF40_INIT	"X'80000000" Job entry subsystem has initialized qualifier
		.... ..		ENF40_TERM	"X'40000000" Job entry subsystem is ending qualifier

### IEFENF40 Cross Reference

Name	Hex Offset	Hex Value
ENF40	0	
ENF40_CNAM	14	
ENF40_CVER	1C	1
ENF40_ID	0	
ENF40_INIT	1C	0
ENF40_LENGTH	8	
ENF40_QUALIFIER	C	
ENF40_SIZE	1C	24
ENF40_SSNM	10	
ENF40_TERM	1C	0
ENF40_VERSION	6	

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## IEFEVARY Information

### IEFEVARY Programming Interface information

Programming Interface information

#### IEFEVARY

The following field is **NOT** programming interface information:

- EVACSCB

End of Programming Interface information

## IEFEVARY Heading Information • IEFEVARY Cross Reference

### IEFEVARY Heading Information

**Common Name:** VARY PARAMETER LIST  
**Macro ID:** IEFEVARY  
**DSECT Name:** EVARY  
**Owning Component:** ALLOCATION (SC1B4)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: USER'S SUBPOOL  
 Key: CALLER'S KEY  
 Residency: ANY  
**Size:** 56 BYTES  
**Created by:** ISSUERS OF VARY ENF EVENTS 1, 2, 23 AND 24  
**Pointed to by:** FIRST WORD OF PARAMETER LIST POINTED TO BY  
 R1 ON ENTRY TO ENF LISTEN EXIT  
**Serialization:** NONE  
**Function:** CONTAINS DEVICE INFORMATION PASSED BY THE  
 SIGNALLERS OF THE VARY ONLINE AND VARY OFFLINE  
 EVENTS TO THE LISTENERS.

### IEFEVARY Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	EVARY	VARY PARAMETER LIST
0	(0)	SIGNED	4	EVAUCBA	UCB ADDRESS FOR DEVICE
4	(4)	SIGNED	2	EVARSV4	RESERVED
6	(6)	BITSTRING	1	EVARSV5	RESERVED
7	(7)	CHARACTER	1	EVARSV1	RESERVED
8	(8)	BITSTRING	1	EVAFUNC	FUNCTION BYTE
		.... .1		EVARSV8	"X'01'" RESERVED
		.... .1.		EVAVARY	"X'02'" VARY REQUESTS
		.... .11		EVARSV9	"X'03'" RESERVED
		.... .1..		EVARSV10	"X'04'" RESERVED
9	(9)	BITSTRING	1	EVAFLGS	REQUEST TYPE FLAG
		1... ....		EVAONLI	"X'80'" ONLINE REQUEST
		.1. ....		EVAOFLI	"X'40'" OFFLINE REQUEST
		..1. ....		EVADEVC	"X'20'" DEVICE REQUEST
		...1 ....		EVAVALID	"X'10'" VALID FLAG
		.... 1...		EVASCHG	"X'08'" SMS VOLUME STATUS CHANGE
		.... .1..		EVAPND	"X'04'" PENDING OFFLINE REQUEST
		.... .1.		EVAFORCE	"X'02'" OFFLINE FORCE REQUEST - VALID ONLY FOR PENDING OFFLINE ENF SIGNAL
		.... ...1		EVAFRSV3	"X'01'" RESERVED
10	(A)	SIGNED	2	EVALEN	LENGTH OF VARY PARAMETER LIST
12	(C)	ADDRESS	4	EVACSCB	POINTER TO CSCB (OPTIONAL)
16	(10)	CHARACTER	6	EVAVOLID	VOLUME SERIAL
22	(16)	CHARACTER	2	EVARSV11	RESERVED
24	(18)	CHARACTER	4	EVACONSO	CONSOLE ID, MAY BE ZERO IF NOT AVAILABLE
28	(1C)	CHARACTER	8	EVACART	CART, MAY BE ZERO IF NOT AVAILABLE
36	(24)	CHARACTER	1	EVARSV12	RESERVED
36	(24)	X'38'	0	EVALLEN	"*-EVARY" LENGTH OF VARY PARAMETER LIST

### IEFEVARY Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
EVACART	1C		EVARSV5	6	
EVACONSO	18		EVARSV8	8	1
EVACSCB	C		EVARSV9	8	3
EVADEVC	9	20	EVARY	0	
EVAFLGS	9		EVASCHG	9	8
EVAFORCE	9	2	EVAUCBA	0	
EVAFRSV3	9	1	EVAVALID	9	10
EVAFUNC	8		EVAVARY	8	2
EVALEN	A		EVAVOLID	10	
EVALLEN	24	38			
EVAOFLI	9	40			
EVAONLI	9	80			
EVAPND	9	4			
EVARSV1	7				
EVARSV10	8	4			
EVARSV11	16				
EVARSV12	24				
EVARSV4	4				

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## IEFJFRQP Information

### IEFJFRQP Programming Interface information

Programming Interface information

IEFJFRQP

End of Programming Interface information

## IEFJFRQP Heading Information • IEFJFRQP Map

### IEFJFRQP Heading Information

**Common Name:** IEFJFRQ Exit Routine Parameter List  
**Macro ID:** IEFJFRQP  
**DSECT Name:** FRQP - IEFJFRQP parameter list FRQP\_PLIST\_AREA - Pointer list on entry to IEFJFRQ  
**Owning Component:** Subsystem Interface (SC1B6)  
**Eye-Catcher ID:** FRQP  
 Offset: 0  
 Length: 4 bytes  
**Storage Attributes:** Main Storage: No  
 Virtual Storage: Yes  
 Auxiliary Storage: Yes  
 Subpool: 230 when IEFJFRQ is called in supervisor state, 132 when IEFJFRQ is called in problem state  
 Key: Key of the caller of the SSI, or key 1  
 Data Space: No  
 Residency: Below  
**Size:** 40 bytes (decimal)  
**Created by:** Subsystem Interface  
**Pointed to by:** First word of a 2-word parameter list pointed to by register 1 on entry to an IEFJFRQ exit routine  
**Serialization:** None  
**Function:** Maps the parameter list passed to exit routines associated with the IEFJFRQ exit point.

### IEFJFRQP Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FRQP	IEFJFRQ parameter list
0	(0)	SIGNED	4	FRQP_HEADER (0)	Parameter list header
0	(0)	CHARACTER	4	FRQPID	Control block identifier (FRQPCID)
4	(4)	SIGNED	2	FRQPVERS	Version number. Current version number is FRQPCVER.
6	(6)	SIGNED	2	FRQPLEN	Length of parameter list
8	(8)	CHARACTER	4		Reserved
12	(C)	SIGNED	4	FRQP_INPUT (0)	Input passed to exit routine
12	(C)	ADDRESS	4	FRQP_SSOB@	Address of SSOB representing the current SSI function request
16	(10)	CHARACTER	2	FRQP_INPUT_FLAGS (0)	Flags describing the current SSI request
16	(10)	CHARACTER	1	FRQP_INPUT_FLAG1	First flag byte
		1... ....		FRQP_BCST_RQST	"X'80" On when the current function request is broadcast, off when directed
		.1.. ....		FRQP_PRE_RQST	"X'40" On when the exit routine is being called before the function request is processed by the target subsystem, off when the request has been processed by all subsystems
		..1. ....		FRQP_LOJ_SSIB	"X'20" On when the SSI provided a copy of the life-of-job SSIB (original SSOBSSIB=0)
17	(11)	CHARACTER	1	FRQP_INPUT_FLAG2	Second flag byte
18	(12)	SIGNED	2		Reserved
20	(14)	SIGNED	4	FRQP_CURRENT_SSI_RETCODE	Current cumulative return code that would be returned to the SSI's caller if the exit does not intervene
24	(18)	CHARACTER	12	FRQP_CORRELATION_TOKEN (0)	Token identifying current function request, for use in correlating the multiple exit calls resulting from the same directed or broadcast function request
24	(18)	CHARACTER	8	FRQP_SYSTEM_TOKEN	This piece of the token is unique across an IPL on a single system
32	(20)	SIGNED	4	FRQP_SYSPLEX_ID	This piece of the token appended to FRQP_SYSTEM_TOKEN makes the correlation token unique across the sysplex
36	(24)	CHARACTER	4		Reserved
36	(24)	X'28'	0	FRQP_END	"" End of FRQP parameter list

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FRQP_PLIST_AREA	, Parameter list pointed to by register 1 on entry to an IEFJFRQ exit routine

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	SIGNED	4	FRQP_PLIST@	Address of IEFJFRQP parameter list
4	(4)	SIGNED	4	FRQP_DYNAREA@	Address of working storage provided to exit routine
		1... ....		FRQP_DYNAREA_LAST	"X'80" High-order bit indicates that this is the last pointer in the parameter list

Comment

Constant values

End of Comment

4	(4)	X'D9D8D7'	0	FRQPCID	"C'FRQP" Control block ID value
4	(4)	X'1'	0	FRQPVER1	"1" First version of FRQP
4	(4)	X'1'	0	FRQPCVER	"FRQPVER1" Current version of FRQP
4	(4)	X'200'	0	FRQP_DYNSIZE	"512" Size of working storage provided to exit routines
4	(4)	X'28'	0	FRQP_LEN	"FRQP_END-FRQP" Length of FRQP parameter list

Comment

Return code values set by IEFJFRQ exit routines  
The SSI checks return codes only on return from the pre-request instance of the IEFJFRQ exit. The return code is ignored on return from the post-request instance of the exit.

End of Comment

4	(4)	X'0'	0	FRQP_PROCEED	"0" Route the request to the target subsystem
4	(4)	X'4'	0	FRQP_SUPPRESS	"4" Do not route the request to the target subsystem
4	(4)	X'8'	0	FRQP_INTERRUPT	"8" Do not route the request to the target subsystem or to any subsystems not yet processed (broadcast requests only)
4	(4)	X'18'	0	FRQP_STOP_EXIT_ROUTINE_CALLS	"24" Do not route the request to the target subsystem or to any subsystems not yet processed (broadcast requests only) and do not call any other exit routines associated with this exit

## IEFJFRQP Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
FRQP	0		FRQP_STOP_EXIT_ROUTINE_CALLS	4	18
FRQP_BCST_RQST	10	80	FRQP_SUPPRESS	4	4
FRQP_CORRELATION_TOKEN	18		FRQP_SYSPLEX_ID	20	
FRQP_CURRENT_SSI_RETCODE	14		FRQP_SYSTEM_TOKEN	18	
FRQP_DYNAREA_LAST	4	80	FRQPCID	4	D9D8D7
FRQP_DYNAREA@	4		FRQPCVER	4	1
FRQP_DYNSIZE	4	200	FRQPID	0	
FRQP_END	24	28	FRQPLEN	6	
FRQP_HEADER	0		FRQPVERS	4	
FRQP_INPUT	C		FRQPVER1	4	1
FRQP_INPUT_FLAGS	10				
FRQP_INPUT_FLAG1	10				
FRQP_INPUT_FLAG2	11				
FRQP_INTERRUPT	4	8			
FRQP_LEN	4	28			
FRQP_LOJ_SSIB	10	20			
FRQP_PLIST_AREA	0				
FRQP_PLIST@	0				
FRQP_PRE_RQST	10	40			
FRQP_PROCEED	4	0			
FRQP_SSOB@	C				





## IEFJSBVT Information

### IEFJSBVT Heading Information

**Common Name:** Function Routine Input Table Mapping  
**Macro ID:** IEFJSBVT  
**DSECT Name:** JSBVT (fixed header), JSBTBL (function routine area), JSBFCODG (function code area)  
**Owning Component:** Subsystem Interface (SC1B6)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: determined by caller of IEFJSVEEC  
 Key: determined by caller of IEFJSVEEC  
 Residency: Any  
**Size:** Variable (JSBVT header = 16 bytes)  
**Created by:** Caller of IEFJSVEEC  
**Pointed to by:** VTSSVTD field of the VTSPD data area  
**Serialization:** None  
**Function:** Maps the function routine data used in building a subsystem vector table through IEFJSVEEC. IEFJSVEEC has been superseded for external use by IEFSSVT and the function of this macro is performed by IEFSSVTI.

### IEFJSBVT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JSBVT	FIXED HEADER OF SSVT TABLE DATA
0	(0)	SIGNED	4	JSBHDR (0)	HEADER SECTION
0	(0)	CHARACTER	4	JSBID	IDENTIFIER 'JSBV'
4	(4)	SIGNED	2	JSBLEN	LENGTH OF HEADER SECTION
6	(6)	BITSTRING	1	JSBVERS	VERSION OF MAPPING
7	(7)	BITSTRING	1	JSBRSV2	RESERVED
8	(8)	SIGNED	2	JSBFUN	NUMBER OF FUNCTION ROUTINES SPECIFIED IN THIS TABLE OF DATA
10	(A)	BITSTRING	1	JSBSPL	SUBPOOL FOR SSVT
11	(B)	BITSTRING	1	JSBRSV1	RESERVED
12	(C)	SIGNED	2	JSBMAXFR	MAXIMUM NUMBER OF FUNCTION ROUTINE ENTRIES REQUIRED (FOR SSVT CREATE)
14	(E)	SIGNED	2	JSBRSV3	RESERVED
14	(E)	X'10'	0	JSBVTLT	"*-JSBVT" SIZE OF FIXED HEADER
16	(10)	SIGNED	4	JSBDATA (0)	FUNCTION ROUTINE DATA

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JSBTBL	ONE FOR EACH FUNCTION RTN
0	(0)	SIGNED	2	JSBLGTH	LENGTH OF THIS RTN'S DATA AREA
2	(2)	CHARACTER	8	JSBNME	NAME OF FUNCTION ROUTINE
10	(A)	SIGNED	2	JSBNUM	NUMBER OF FUNCTION CODES SUPPORTED
10	(A)	X'C'	0	JSBTBLGT	"*-JSBTBL" SIZE OF FUNCTION ROUTINE DATA

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JSBFCODG	ONE FOR EACH FUNCTION CODE
0	(0)	SIGNED	2	JSBFCOD	THE FUNCTION CODE
0	(0)	X'2'	0	JSBCDLGT	"*-JSBFCODG" SIZE OF FUNCTION CODE
0	(0)	X'1'	0	JSBCVERS	"1" CURRENT VERSION OF MAPPING

## IEFJSBVT Cross Reference

### IEFJSBVT Cross Reference

Name	Hex Offset	Hex Value
JSBCDLGT	0	2
JSBCVERS	0	1
JSBDATA	10	
JSBFCOD	0	
JSBFCODG	0	
JSBFUN	8	
JSBHDR	0	
JSBID	0	
JSBLEN	4	
JSBLGTH	0	
JSBMAXFR	C	
JSBNME	2	
JSBNUM	A	
JSBRSV1	B	
JSBRSV2	7	
JSBRSV3	E	
JSBSPL	A	
JSBTBL	0	
JSBTBLGT	A	C
JSBVERS	6	
JSBVT	0	
JSBVTLT	E	10

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## IEFJSQRY Information

### IEFJSQRY Programming Interface information

Programming Interface information

IEFJSQRY

End of Programming Interface information

## IEFJSQRY Heading Information • IEFJSQRY Map

### IEFJSQRY Heading Information

**Common Name:** IEFSSI QUERY Output Mapping  
**Macro ID:** IEFJSQRY  
**DSECT Name:** JQRY\_HEADER - Output header data JQRY\_SUBSYS\_ENTRY - Data for one subsystem JQRY\_VT\_ENTRY - Data for one vector table  
**Owning Component:** Subsystem Interface (SC1B6)  
**Eye-Catcher ID:** JQRY  
 Offset: 0  
 Length: 4 bytes  
**Storage Attributes:** Main Storage: No  
 Virtual Storage: Yes  
 Auxiliary Storage: Yes  
 Subpool: Determined by caller of IEFSSI REQUEST=QUERY  
 Key: Key of IEFSSI caller (if subpool is variable key)  
 Data Space: No  
 Residency: ABOVE if permitted by subpool, otherwise BELOW  
**Size:** JQRY\_HEADER\_LEN + (number subsystems \* JQRY\_SUBSYS\_LEN)  
**Created by:** Subsystem Interface  
**Pointed to by:** User pointer identified by the WORKAREA keyword in the IEFSSI invocation  
**Serialization:** None  
**Function:** Maps the output of an IEFSSI QUERY request

### IEFJSQRY Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JQRY_HEADER	, IEFSSI QUERY output area
0	(0)	SIGNED	4	(0)	
0	(0)	CHARACTER	4	JQRYID	Control block identifier (JQRYCID)
4	(4)	SIGNED	2	JQRYVERS	Version number. Current version is JQRYCVER.
6	(6)	SIGNED	2		Reserved
8	(8)	SIGNED	4	JQRYLEN	Length of data returned by the QUERY request
12	(C)	SIGNED	4	JQRY_NUM_SUBSYS	Number of subsystems for which data is returned
12	(C)	X'10'	0	JQRY_SUBSYS_DATA	*** Subsystem data

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JQRY_SUBSYS_ENTRY	, Data for one subsystem
0	(0)	CHARACTER	4	JQRY_SUBSYS_NAME	Name of the subsystem
4	(4)	BITSTRING	1	JQRY_SSID	Subsystem ID
		.... ....		JQRY_SSID_UNKNOWN	"X'00" SSID value when unknown
		.... ..1.		JQRY_SSID_JES2	"X'02" SSID value when JES2
		.... ..11		JQRY_SSID_JES3	"X'03" SSID value when JES3
5	(5)	CHARACTER	7		Reserved

Comment

Any future subsystem status flags will be defined only in the 1-byte fields JQRY\_STATUS1 and JQRY\_STATUS2. The existing 2-byte flag fields are left for compatibility, but new flags will be defined as 1-byte values.

End of Comment

12	(C)	CHARACTER	2	JQRY_STATUS (0)	Subsystem flags
12	(C)	BITSTRING	0	JQRY_PRIMARY	"X'8000" Subsystem is the primary subsystem
12	(C)	BITSTRING	0	JQRY_DYNAMIC	"X'4000" Subsystem is dynamic
12	(C)	BITSTRING	0	JQRY_DYNSSI_COMMANDS	"X'2000" Subsystem responds to the SETSSI command. Valid only if JQRY_DYNAMIC set.
12	(C)	BITSTRING	0	JQRY_ACTIVE .... ..1	"X'1000" Subsystem is active
12	(C)	CHARACTER	1	JQRY_INCOMPLETE	"X'0001" Data for this subsystem may be incomplete
12	(C)	CHARACTER	1	JQRY_STATUS1	Subsystem flags - byte 1

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		1... ..		JQRY_PRIMARY1	"X'80" Subsystem is the primary subsystem
		.1.. ..		JQRY_DYNAMIC1	"X'40" Subsystem is dynamic
		..1. ....		JQRY_DYNSSI_COMMANDS1	"X'20" Subsystem responds to the SETSSI command. Valid only if JQRY_DYNAMIC1 set.
13	(D)	...1 .... CHARACTER	1	JQRY_ACTIVE1 JQRY_STATUS2 JQRY_INCOMPLETE2	"X'10" Subsystem is active Subsystem flags - byte 2
14	(E)	SIGNED	2	JQRY_NUM_VT	Number of vector tables associated with this subsystem
14	(E)	X'10'	0	JQRY_VT_LIST	*** List of associated vector tables (space for description of two vector tables)

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	JQRY_VT_ENTRY	, Data for one vector table
0	(0)	SIGNED	4	JQRY_VT_LOC	Vector table locator. This is a token if JQRY_VT_SSI_MANAGED is set, and the vector table address if the flag is not set.
4	(4)	BITSTRING	1	JQRY_VT_FLAGS	Vector table flags
		1... ..		JQRY_VT_ACTIVE	"X'80" This vector table is being used to route function requests
		.1.. ..		JQRY_VT_SSI_MANAGED	"X'40" Vector table is SSI-managed (created via IEFSSVT)
5	(5)	CHARACTER	3		Reserved
8	(8)	CHARACTER	4		Reserved
12	(C)	BITSTRING	32	JQRY_VT_FUNC_LIST (0)	Function code list
12	(C)	BITSTRING	31	JQRY_VT_FUNC_CODES	Bit mask indicating support function codes ('1' = supported). Valid if JQRY_VT_SSI_MANAGED or JQRY_VT_ACTIVE set.
44	(2C)	CHARACTER	8		Reserved
44	(2C)	X'34'	0	JQRY_VT_END	*** End of vector table entry

Comment

Constant values

End of Comment

44	(2C)	X'D8D9E8'	0	JQRYCID	"C:JQRY" Control block ID value
44	(2C)	X'1'	0	JQRYVER1	"1" First version of IEFJSQRY
44	(2C)	X'1'	0	JQRYCVER	"JQRYVER1" Current version of IEFJSQRY
44	(2C)	X'34'	0	JQRY_VT_LEN	"JQRY_VT_END-JQRY_VT_ENTRY" Length of data for one vector table
44	(2C)	X'78'	0	JQRY_SUBSYS_LEN	"JQRY_VT_LIST-JQRY_SUBSYS_ENTRY+(2*JQRY_VT_LEN)" Length of data for one subsystem
44	(2C)	X'10'	0	JQRY_HEADER_LEN	"JQRY_SUBSYS_DATA-JQRY_HEADER" Length of JQRY_HEADER section

## IEFJSQRY Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
JQRY_ACTIVE	C	1000		D	1
JQRY_ACTIVE1	C	10	JQRY_NUM_SUBSYS	C	
JQRY_DYNAMIC	C	4000	JQRY_NUM_VT	E	
JQRY_DYNAMIC1	C	40	JQRY_PRIMARY	C	8000
JQRY_DYNSSI_COMMANDS	C	2000	JQRY_PRIMARY1	C	80
JQRY_DYNSSI_COMMANDS1	C	20	JQRY_SSID	4	
JQRY_HEADER	0		JQRY_SSID_JES2	4	2
JQRY_HEADER_LEN	2C	10	JQRY_SSID_JES3	4	3
JQRY_INCOMPLETE	C	1	JQRY_SSID_UNKNOWN	4	0
JQRY_INCOMPLETE2	C		JQRY_STATUS	C	

## IEFJSQRY Cross Reference

Name	Hex Offset	Hex Value
JQRY_STATUS1	C	
JQRY_STATUS2	D	
JQRY_SUBSYS_DATA	C	10
JQRY_SUBSYS_ENTRY	0	
JQRY_SUBSYS_LEN	2C	78
JQRY_SUBSYS_NAME	0	
JQRY_VT_ACTIVE	4	80
JQRY_VT_END	2C	34
JQRY_VT_ENTRY	0	
JQRY_VT_FLAGS	4	
JQRY_VT_FUNC_CODES	C	
JQRY_VT_FUNC_LIST	C	
JQRY_VT_LEN	2C	34
JQRY_VT_LIST	E	10
JQRY_VT_LOC	0	
JQRY_VT_SSI_MANAGED	4	40
JQRYCID	2C	D8D9E8
JQRYCVER	2C	1
JQRYID	0	
JQRYLEN	8	
JQRYVERS	4	
JQRYVER1	2C	1

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## IEFJSRC Information

### IEFJSRC Programming Interface information

Programming Interface information

IEFJSRC

End of Programming Interface information

## IEFJSRC Heading Information • IEFJSRC Map

### IEFJSRC Heading Information

**Common Name:** Dynamic SSI Return and Reason Codes  
**Macro ID:** IEFJSRC  
**DSECT Name:** N/A  
**Owning Component:** Initiator (SC1B6)  
**Eye-Catcher ID:** N/A  
 Offset: N/A  
 Length: N/A  
**Storage Attributes:** Main Storage: N/A  
 Virtual Storage: N/A  
 Auxiliary Storage: N/A  
 Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** N/A  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** Defines the return and reason codes used by Dynamic SSI services.

### IEFJSRC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	X'0'	0	IEFSSI_SUCCESS	"0" X'000' Processing successful
0	(0)	X'4'	0	IEFSSI_WARNING	"4" X'004' Processing partially successful
0	(0)	X'8'	0	IEFSSI_INVALID_PARAMETERS	"8" X'008' Invalid parameters
0	(0)	X'C'	0	IEFSSI_REQUEST_FAIL	"12" X'00C' Request failed
0	(0)	X'14'	0	IEFSSI_SYSTEM_ERROR	"20" X'014' System error
0	(0)	X'18'	0	IEFSSI_UNAVAILABLE	"24" X'018' SSI service routines not available (too early or down-level system)
Comment					
IEFSSI REASON CODES (decimal)					
RETURN CODE IEFSSI_SUCCESS					
End of Comment					
0	(0)	X'0'	0	IEFSSI_FUNCTIONS_COMPLETE	"0" X'000' Subsystem service request complete
Comment					
RETURN CODE IEFSSI_WARNING					
ADD REQUEST WARNINGS (100 - 199)					
ACTIVATE REQUEST WARNINGS (200 - 299)					
DEACTIVATE REQUEST WARNINGS (300 - 399)					
End of Comment					
0	(0)	X'12C'	0	IEFSSI_DEACT_INACTIVE	"300" X'12C' Subsystem already inactive
0	(0)	X'12D'	0	IEFSSI_DEACT_OUT_VT_NOT_SSI	"301" X'12D' Subsystem deactivated but previously-active vector table not SSI-managed. OUTTOKEN value is 0.
Comment					
SWAP REQUEST WARNINGS (500 - 599)					
End of Comment					
0	(0)	X'1F4'	0	IEFSSI_SWAP_INACTIVE	"500" X'1F4' Subsystem was initially inactive. OUTTOKEN value is 0.
0	(0)	X'1F5'	0	IEFSSI_SWAP_OUT_VT_NOT_SSI	"501" X'1F5' Swap complete but previously-active vector table not SSI-managed. OUTTOKEN value is 0.



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
OPTIONS REQUEST WARNINGS (600 - 699) PUT REQUEST WARNINGS (700 - 799) GET REQUEST WARNINGS (800 - 899) QUERY REQUEST WARNINGS (900 - 999)					
End of Comment					
0	(0)	X'384'	0	IEFSSI_QUERY_INCOMPLETE	"900" X'384' Data returned by query may be incomplete. Check the JQRY_INCOMPLETE flag for each subsystem queried.
Comment					
RETURN CODE IEFSSI_INVALID_PARAMETERS					
End of Comment					
0	(0)	X'0'	0	IEFSSI_SUBSYSTEM_UNKNOWN	"0" X'000' Subsystem not defined to SSI
0	(0)	X'4'	0	IEFSSI_NON_DYNAMIC	"4" X'004' Subsystem not dynamic
0	(0)	X'8'	0	IEFSSI_BAD_VT_TOKEN	"8" X'008' Vector table token does not correspond to a valid vector table
0	(0)	X'C'	0	IEFSSI_INVALID_NAME	"12" X'00C' Subsystem or routine name contains invalid characters
0	(0)	X'10'	0	IEFSSI_INIT_PARMS	"16" X'010' Initialization routine parameter string too long
Comment					
RETURN CODE IEFSSI_REQUEST_FAIL					
ADD REQUEST ERRORS (100 - 199)					
End of Comment					
0	(0)	X'64'	0	IEFSSI_DUPLICATE_SUBSYSTEM	"100" X'064' Subsystem already exists
0	(0)	X'65'	0	IEFSSI_INITRTN_NOT_FOUND	"101" X'065' Initialization routine could not be found
0	(0)	X'66'	0	IEFSSI_INITRTN_ABEND	"102" X'066' Initialization routine ABENDED
0	(0)	X'67'	0	IEFSSI_ADD_STORAGE	"103" X'067' Unable to obtain storage for subsystem definition
Comment					
ACTIVATE REQUEST ERRORS (200 - 299)					
End of Comment					
0	(0)	X'C8'	0	IEFSSI_SUBSYSTEM_ACTIVE	"200" X'0C8' Subsystem already active
0	(0)	X'C9'	0	IEFSSI_ACT_NO_ELIGIBLE_VT	"201" X'0C9' Subsystem vector table not specified and no valid defaults available
Comment					
DEACTIVATE REQUEST ERRORS (300 - 399)					
SWAP REQUEST ERRORS (500 - 599)					
End of Comment					
0	(0)	X'1F4'	0	IEFSSI_SWAP_NO_ELIGIBLE_VT	"500" X'1F4' Subsystem vector table not specified and no valid defaults available
0	(0)	X'1F6'	0	IEFSSI_SWAP_ALREADY_ACTIVE	"502" X'1F6' Vector table to be made active (specified by INTOKEN) is already active

## IEFJSRC Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
OPTIONS REQUEST ERRORS (600 - 699) PUT REQUEST ERRORS (700 - 799) GET REQUEST ERRORS (800 - 899) QUERY REQUEST ERRORS (900 - 999)					
End of Comment					
0	(0)	X'384'	0	IEFSSI_QUERY_STORAGE	"900" X'384' Unable to obtain storage for output of query request
Comment					
IEFSSVT RETURN CODES (decimal)					
End of Comment					
0	(0)	X'0'	0	IEFSSVT_SUCCESS	"0" X'000' Processing successful
0	(0)	X'4'	0	IEFSSVT_WARNING	"4" X'004' Processing partially successful
0	(0)	X'8'	0	IEFSSVT_INVALID_PARAMETERS	"8" X'008' Invalid parameters
0	(0)	X'C'	0	IEFSSVT_REQUEST_FAIL	"12" X'00C' Request failed
0	(0)	X'10'	0	IEFSSVT_LOAD_ERROR	"16" X'010' Error LOADing subsystem function routine
0	(0)	X'14'	0	IEFSSVT_SYSTEM_ERROR	"20" X'014' System error
0	(0)	X'18'	0	IEFSSVT_UNAVAILABLE	"24" X'018' SSI service routines not available (too early or down-level system)
Comment					
IEFSSVT REASON CODES (decimal)					
RETURN CODE IEFSSVT_SUCCESS					
End of Comment					
0	(0)	X'0'	0	IEFSSVT_FUNCTIONS_COMPLETE	"0" X'000' Vector table service request complete
Comment					
RETURN CODE IEFSSVT_WARNING					
RETURN CODE IEFSSVT_INVALID_PARAMETERS					
End of Comment					
0	(0)	X'0'	0	IEFSSVT_SUBSYSTEM_UNKNOWN	"0" X'000' Subsystem not defined to SSI
0	(0)	X'4'	0	IEFSSVT_NON_DYNAMIC	"4" X'004' Subsystem not dynamic
0	(0)	X'8'	0	IEFSSVT_BAD_VT_TOKEN	"8" X'008' Vector table token does not correspond to a valid vector table
0	(0)	X'C'	0	IEFSSVT_INVALID_NAME	"12" X'00C' Subsystem or routine name contains invalid characters
0	(0)	X'10'	0	IEFSSVT_INVALID_FUNCTION_CODE	"16" X'010' Function code outside valid range
0	(0)	X'14'	0	IEFSSVT_DUPLICATE_FUNCTION_CODE	"20" X'014' Function code appears more than once in input table
0	(0)	X'18'	0	IEFSSVT_INVALID_FROUTINE	"24" X'018' Function routine name / address is null
0	(0)	X'1C'	0	IEFSSVT_NO_FCODES	"28" X'01C' Function routine entry in input table specifies no function codes
Comment					
RETURN CODE IEFSSVT_REQUEST_FAIL					
CREATE REQUEST ERRORS (100 - 199)					
End of Comment					
0	(0)	X'64'	0	IEFSSVT_MAX_VECTOR_TABLES	"100" X'064' Maximum number of vector already exists for subsystem
0	(0)	X'65'	0	IEFSSVT_STORAGE	

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	X'66'	0	IEFSSVT_MAXENTRIES_TOO_SMALL	"101" X'065' Unable to obtain storage for vector table
0	(0)	X'67'	0	IEFSSVT_MAXENTRIES_TOO_BIG	"102" X'066' MAXENTRIES value less than number of function routines in input table "103" X'067' MAXENTRIES greater than maximum (255)
Comment					
ENABLE REQUEST ERRORS (200 - 299)					
End of Comment					
0	(0)	X'C8'	0	IEFSSVT_ENABLE_NO_ELIGIBLE_VT	"200" X'0C8' Subsystem vector table not specified and no valid defaults available
0	(0)	X'C9'	0	IEFSSVT_ENABLE_MAX_ROUTINES	"201" X'0C9' No room for new function routines in vector table
0	(0)	X'CA'	0	IEFSSVT_FUNCTION_ALREADY_ENABLED	"202" X'0CA' The subsystem already responds to one of the codes for which the enable request was submitted
Comment					
DISABLE REQUEST ERRORS (300 - 399)					
End of Comment					
0	(0)	X'12C'	0	IEFSSVT_DISABLE_NO_ELIGIBLE_VT	"300" X'12C' Subsystem vector table not specified and no valid defaults available
Comment					
EXCHANGE REQUEST ERRORS (500 - 599)					
End of Comment					
0	(0)	X'1F4'	0	IEFSSVT_EXCHANGE_NO_ELIGIBLE_VT	"500" X'1F4' Subsystem vector table not specified and no valid defaults available
0	(0)	X'1F5'	0	IEFSSVT_EXCHANGE_MAX_ROUTINES	"501" X'1F5' No room for new function routines in vector table

## IEFJSRC Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
IEFSSI_ACT_NO_ELIGIBLE_VT	0	C9	IEFSSI_SUBSYSTEM_ACTIVE	0	C
IEFSSI_ADD_STORAGE	0	67	IEFSSI_SUBSYSTEM_UNKNOWNS	0	C8
IEFSSI_BAD_VT_TOKEN	0	8	IEFSSI_SUCCESS	0	0
IEFSSI_DEACT_INACTIVE	0	12C	IEFSSI_SWAP_ALREADY_ACTIVE	0	0
IEFSSI_DEACT_OUT_VT_NOT_SSI	0	12D	IEFSSI_SWAP_INACTIVE	0	1F6
IEFSSI_DUPLICATE_SUBSYSTEM	0	64	IEFSSI_SWAP_NO_ELIGIBLE_VT	0	1F4
IEFSSI_FUNCTIONS_COMPLETE	0	0	IEFSSI_SWAP_OUT_VT_NOT_SSI	0	1F4
IEFSSI_INIT_PARMS	0	10	IEFSSI_SWAP_OUT_VT_NOT_SSI	0	1F5
IEFSSI_INITRTN_ABEND	0	66	IEFSSI_SYSTEM_ERROR	0	14
IEFSSI_INITRTN_NOT_FOUND	0	65	IEFSSI_UNAVAILABLE	0	18
IEFSSI_INVALID_NAME	0	C	IEFSSI_WARNING	0	4
IEFSSI_INVALID_PARAMETERS	0	8	IEFSSVT_BAD_VT_TOKEN	0	8
IEFSSI_NON_DYNAMIC	0	4	IEFSSVT_DISABLE_NO_ELIGIBLE_VT	0	12C
IEFSSI_QUERY_INCOMPLETE	0	384	IEFSSVT_DUPLICATE_FUNCTION_CODE	0	14
IEFSSI_QUERY_STORAGE	0	384	IEFSSVT_ENABLE_MAX_ROUTINES	0	C9
IEFSSI_REQUEST_FAIL			IEFSSVT_ENABLE_NO_ELIGIBLE_VT	0	C8

## IEFJSRC Cross Reference

Name	Hex Offset	Hex Value
IEFSSVT_EXCHANGE_MAX_ROUTINES	0	1F5
IEFSSVT_EXCHANGE_NO_ELIGIBLE_VT	0	1F4
IEFSSVT_FUNCTION_ALREADY_ENABLED	0	CA
IEFSSVT_FUNCTIONS_COMPLETE	0	0
IEFSSVT_INVALID_FROUTINE	0	18
IEFSSVT_INVALID_FUNCTION_CODE	0	10
IEFSSVT_INVALID_NAME	0	C
IEFSSVT_INVALID_PARAMETERS	0	8
IEFSSVT_LOAD_ERROR	0	10
IEFSSVT_MAX_VECTOR_TABLES	0	64
IEFSSVT_MAXENTRIES_TOO_BIG	0	67
IEFSSVT_MAXENTRIES_TOO_SMALL	0	66
IEFSSVT_NO_FCODES	0	1C
IEFSSVT_NON_DYNAMIC	0	4
IEFSSVT_REQUEST_FAIL	0	C
IEFSSVT_STORAGE	0	65
IEFSSVT_SUBSYSTEM_UNKNOWN	0	0
IEFSSVT_SUCCESS	0	0
IEFSSVT_SYSTEM_ERROR	0	14
IEFSSVT_UNAVAILABLE	0	18
IEFSSVT_WARNING	0	4

## IEFSIOTX Information

### IEFSIOTX Heading Information

**Common Name:** STEP INPUT/OUTPUT TABLE EXTENSION  
**Macro ID:** IEFISIOTX  
**DSECT Name:** NONE  
**Owning Component:** Interpreter (SC1B9)  
**Eye-Catcher ID:** 'SIOX'  
 Offset: -4 (SWA prefix)  
 Length: 4 bytes  
**Storage Attributes:** Subpool: 236 OR 237 (SWA), 241 for masters address space  
 Key: 1  
 Residency: Any  
**Size:** 352 BYTES  
 SIOTX -- X'0160' bytes  
 FREQUENCY = One per DD statement  
**Created by:** Interpreter and Dynamic Allocation  
**Pointed to by:** - DSABXSVA field (SVA token) of the DSAB data area  
 - SIOTXSVA field of the SIOT data area  
**Serialization:** None  
**Function:** Contains information concerning a data definition (DD)  
 JCL statement and its related data set.

### IEFSIOTX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	352	SIOTX	
0	(0)	CHARACTER	352	INXMSIOX	Beginning indicator
0	(0)	CHARACTER	176	SIOTX_SIOT	SIOT related information
0	(0)	ADDRESS	4	*	Reserved for pointer to a new Extension (if ever needed)
4	(4)	ADDRESS	4	*	Reserved for SVA of a new Extension (if ever needed)

Comment

Note that an SVA has an attribute of PTR(24). The first word in a DD token must be declared as PTR(31) so that the high order byte will be padded with zeros when saving the SVA in the first word. The second word of the DD Token is always zero.

End of Comment

8	(8)	CHARACTER	8	SIOTX_UNAFF_TOKEN	DD Token for affed-to DD (UNIT=AFF=DDx) Used by: IEFAB457, IEFJACC
8	(8)	ADDRESS	4	SIOTX_UNAFF_SVA_WORD	SVA plus the slack byte used for alignment
8	(8)	ADDRESS	1	*	
9	(9)	ADDRESS	3	SIOTX_UNAFF_SVA	SVA of affed-to DD Set by: IEFVDA
12	(C)	ADDRESS	4	*	Always zero
16	(10)	ADDRESS	4	SIOTX_UNAFF_PTR	Address of affed-to DD Used by: IEFAB457
20	(14)	UNSIGNED	2	SIOTX_DEVN	Device name as a binary number
22	(16)	CHARACTER	2	*	Reserved so the JFCB portion can be properly aligned on a fullword boundary without causing any bytes in the SIOTX to be skipped
24	(18)	ADDRESS	4	SIOTX_VOLSINCON_PTR	Pointer to the volumes in conflict table for this step. If a conflict exists, all SIOTX entries will contain this information regardless of whether or not it is part of the conflict
28	(1C)	SIGNED	4	SIOTX_#VOLSINCON	Number of volumes in conflict for this step. If a conflict exists, all SIOTX entries will contain this information regardless of whether or not it is part of the conflict

# IEFSIOTX Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
<p>The following "Diagnostics" structure contains pieces of information gathered during Allocation for use in diagnosing errors such as IEF702I - Unable to Allocate, aka error code RCUNITNA (0214x) from Dynamic Allocation, IKJ56241I - No Unit Available and Siot Rsnocode SIRSC006. NOTE If space in the SIOTX should get tight, this structure could be moved to the DDWA. The size of that area is more dynamic, but it does not persist after the return to the Allocation caller, as the SIOTX does.</p>					
End of Comment					
32	(20)	CHARACTER	40	SIOTX_DIAGNOSTICS	Unit name for this DD, saved during the Allocation process
32	(20)	CHARACTER	8	SIOTX_UNITNAMEONINPUT	EBCDIC unit name on input to Batch or DynAlloc. Set by IEFBB401, IEFDB414 Used by IEFAB4DG
40	(28)	CHARACTER	8	SIOTX_UNITNAMEAFTERDB401	EBCDIC unit name for Dynamic Allocation after installation exit IEFDB401 has had the opportunity to add, alter or delete it. Will be zero for batch allocations. See SCTUTYPE in IEFASIoT for submapping. Set by IEFDB414 Used by IEFAB4DG
48	(30)	CHARACTER	8	SIOTX_UNITNAMEAFTERLOCATE	Unit name after a locate or SMS call has been done. Can be zero if no locate or SMS call done. See SCTUTYPE in IEFASIoT for submapping. Set by IEFAB464, Used by IEFAB4DG
48	(30)	CHARACTER	4	SIOTX_DEVTYPEAFTERLOCATE	Device type portion of data returned by locate. Can be zero if no locate or SMS call done. Set by IEFAB464, Used by IEFAB4DG
52	(34)	CHARACTER	4	*	Reserved. Do not use.
56	(38)	CHARACTER	8	SIOTX_UNITNAMEAFTERCONV	Unit Name after conversion. See SCTUTYPE in IEFASIoT for submapping. Set by IEFDB414,IEFAB464 Used by IEFAB4DG
56	(38)	CHARACTER	4	SIOTX_DEVTYPEAFTERCONV	Device type portion of unitname after conversion.
60	(3C)	CHARACTER	4	*	Reserved. Do not use.
64	(40)	CHARACTER	1	SIOTX_DIAGNOSTICFLAGS	Flags for diagnostic info
		1... ....		SIOTX_SIOTCVTDAFTERCONV	Records value of SIOUCVTD after conversion when conversion may or may not have been done.
		.1.. ....		SIOTX_INPUTSWCOPIED	When 1, indicates that this allocation came from SVC99 and that the S99FLAG1 and S99FLAG2 have been copied here for display in IEF705I
		..11 1111		*	reserved for future use
65	(41)	CHARACTER	1	*	Reserved for future use
66	(42)	CHARACTER	6	SIOTX_COPY_INPUTSW	Copy of InputSW from DynAlloc caller. This is the S99FLAG1 and S99FLAG2. Set by IEFDB413, Used by IEFAB4DG
66	(42)	CHARACTER	2	SIOTX_COPY_S99FLAG1	Copy of S99FLAG1 from DynAlloc request
68	(44)	CHARACTER	4	SIOTX_COPY_S99FLAG2	Copy of S99FLAG2 from DynAlloc request
72	(48)	CHARACTER	8	SIOTX_ALLOCATIONTIME	Timestamp when sioialcd was set
80	(50)	SIGNED	4	SIOTX_EAVEXCLUDECOUNT	Count of Extended Address Volume devices which were excluded from consideration during Allocation due to SMS parmlib USEEAV(NO) specification.
84	(54)	BITSTRING	4	SIOTX_SIOT_FLAGS	SIOT-related flags
		1... ....		SIOTX_DASD_MIGRATED_TO_TAPE	Data set was migrated to tape and not recalled because it was going to be deleted anyway. Set by IEFAB469, used by IEFBB414 and IEFAB4A2
		.1.. ....		SIOTX_EDL_FOR_DASD_CATLGD_DS	Dataset is catalog'd on DASD volumes, lookup devices for those volumes and build a small & efficient EDL with only these devices instead of the generic. Set by IEFAB424.
		..1. ....		SIOTX_TMPDSN_JFCBDSN_UPDATED	The JFCBDSNM of this temporary dataset name is updated to match that of the first such dd in the job, so that all temp data sets with the same input dsn will have the same JFCBDSNM. Bit is set and used by IEFIB600.
		...1 ....		SIOTX_DEVTYPE_SET	

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
		.... 1...		SIOTX_NO_DSTAB	Indicates that we have set the SIOTX_DevType field	
84	(54)	BITSTRING	3	*	Skip DSTAB processing available for future use	
88	(58)	CHARACTER	88	*	Reserved for future use	
176	(B0)	CHARACTER	176	SIOTX_JFCB	JFCB related information	
176	(B0)	CHARACTER	8	SIOTX_BLOCKSIZE	Blocksize	
184	(B8)	CHARACTER	8	SIOTX_BLKSZLIM	Blocksize Limit	
192	(C0)	CHARACTER	4	SIOTX_MASK_WORD1	Mask Word #1	
192	(C0)	BITSTRING	1	SIOTX_MASK_BYTE1	Mask Byte #1	
		1... ....		SIOTX_MSKBSLM	Mask bit for BLKSZLIM	
		.111 1111		*	Reserved	
193	(C1)	BITSTRING	1	SIOTX_MASK_BYTE2	Mask Byte #2	
194	(C2)	BITSTRING	1	SIOTX_MASK_BYTE3	Mask Byte #3	
195	(C3)	BITSTRING	1	SIOTX_MASK_BYTE4	Mask Byte #4	
196	(C4)	UNSIGNED	4	SIOTX_TDSI	DEVICE TYPE	
196	(C4)	UNSIGNED	1	SIOTX_TDSREC	Recording Technology	
197	(C5)	UNSIGNED	1	SIOTX_TDSMEDIA	Media Type	
198	(C6)	UNSIGNED	1	SIOTX_TDSCOMP	Compaction	
199	(C7)	UNSIGNED	1	SIOTX_TDSSPEC	Special Attribute	
200	(C8)	CHARACTER	4	SIOTX_DEVTYPE	Device type from Catalog. Only valid when SIOTX_DevType_Set is also on.	
204	(CC)	CHARACTER	148	*	Reserved for future use	

## IEFSIOTX Constants

Len	Type	Value	Name	Description
Comment				
CONSTANTS TO DEFINE RECORDING TECHNOLOGY (SIOTX_TDSREC)				
End of Comment				
1	DECIMAL	0	SIOTX_TDSNOREC	Recording Technology unknown or unspecified
1	DECIMAL	1	SIOTX_TDS18TRK	Read/Write on 18-track device
1	DECIMAL	2	SIOTX_TDS36TRK	Read/Write on 36-track device
1	DECIMAL	3	SIOTX_TDS128TRK	Read/Write on 128-track device
1	DECIMAL	4	SIOTX_TDS256TRK	Read/Write on 256-track device
1	DECIMAL	5	SIOTX_TDS384TRK	Read/Write on 384-track device
1	DECIMAL	6	SIOTX_TDSEFMT1	Read/Write on Enterprise Format 1 device
1	DECIMAL	7	SIOTX_TDSEFMT2	Read/Write on Enterprise Format 2 device
1	DECIMAL	8	SIOTX_TDSEEFMT2	Read/Write on Enterprise Encryption Format 2 device
1	DECIMAL	9	SIOTX_TDSEFMT3	Read/Write on Enterprise Format 3 device
1	DECIMAL	10	SIOTX_TDSEEFMT3	Read/Write on Enterprise Encryption Format 3 device
1	DECIMAL	11	SIOTX_TDSEFMT4	Read/Write on Enterprise Format 4 device
1	DECIMAL	12	SIOTX_TDSEEFMT4	Read/Write on Enterprise Encryption Format 4 device

## IEFSIOTX Constants

Len	Type	Value	Name	Description
Comment				
CONSTANTS TO DEFINE MEDIA TYPE (SIOTX_TDSMEDIA)				
End of Comment				
1	DECIMAL	0	SIOTX_TDSNOMED	Media Type unknown or unspecified
1	DECIMAL	1	SIOTX_TDSMED1	Media1 - Cartridge System Tape
1	DECIMAL	2	SIOTX_TDSMED2	Media2 - Enhanced Capacity Cartridge System Tape
1	DECIMAL	3	SIOTX_TDSMED3	Media3 - High Performance Cartridge Tape
1	DECIMAL	4	SIOTX_TDSMED4	Media4 - Extended High Performance Cartridge Tape
1	DECIMAL	5	SIOTX_TDSMED5	Media5 - Enterprise Cartridge Tape
1	DECIMAL	6	SIOTX_TDSMED6	Media6 - Enterprise WORM Cartridge Tape
1	DECIMAL	7	SIOTX_TDSMED7	Media7 - Enterprise Economy Cartridge Tape
1	DECIMAL	8	SIOTX_TDSMED8	Media8 - Enterprise Economy WORM Cartridge Tape
1	DECIMAL	9	SIOTX_TDSMED9	Media9 - Enterprise Extended Cartridge Tape
1	DECIMAL	10	SIOTX_TDSMED10	Media10 - Enterprise Extended WORM Cartridge Tape
1	DECIMAL	11	SIOTX_TDSMED11	Media11 - Enterprise Advanced Cartridge Tape
1	DECIMAL	12	SIOTX_TDSMED12	Media12 - Enterprise Advanced WORM Cartridge Tape
1	DECIMAL	13	SIOTX_TDSMED13	Media13 - Enterprise Advanced Economy Cartridge Tape

Comment				
CONSTANTS TO DEFINE COMPACTION (SIOTX_TDSCOMP)				
(The meaning of the compaction field has changed from type of compaction to compaction yes/no. TDSIDRC and TDSCOMPT can be used interchangeably.)				
End of Comment				
1	DECIMAL	0	SIOTX_TDSCMPNS	Compaction unknown or not set
1	DECIMAL	1	SIOTX_TDSNOCMP	No Compaction
1	DECIMAL	2	SIOTX_TDSCOMPT	Compaction

Comment				
CONSTANTS TO DEFINE SPECIAL ATTRIBUTE (SIOTX_TDSSPEC)				
End of Comment				
1	DECIMAL	0	SIOTX_TDSNOSPC	Volume has no special attributes
1	DECIMAL	1	SIOTX_TDSRDCOM	Volume will be mounted for read only - All read-compatible devices may be selected



## IEFSIOTX Cross Reference

Name	Hex Offset	Hex Value
INXMSIOX	0	
SIOTX	0	
SIOTX_#VOLSINCON		
	1C	
SIOTX_ALLOCATIONTIME		
	48	
SIOTX_BLKSZLIM		
	B8	
SIOTX_BLOCKSIZE		
	B0	
SIOTX_COPY_INPUTSW		
	42	
SIOTX_COPY_S99FLAG1		
	42	
SIOTX_COPY_S99FLAG2		
	44	
SIOTX_DASD_MIGRATED_TO_TAPE		
	54	80
SIOTX_DEVN		
	14	
SIOTX_DEVTYPE		
	C8	
SIOTX_DEVTYPE_SET		
	54	10
SIOTX_DEVTYPEAFTERCONV		
	38	
SIOTX_DEVTYPEAFTERLOCATE		
	30	
SIOTX_DIAGNOSTICFLAGS		
	40	
SIOTX_DIAGNOSTICS		
	20	
SIOTX_EAVEXCLUDECOUNT		
	50	
SIOTX_EDL_FOR_DASD_CATLGD_DS		
	54	40
SIOTX_INPUTSWCOPIED		
	40	40
SIOTX_JFCB		
	B0	
SIOTX_MASK_BYTE1		
	C0	
SIOTX_MASK_BYTE2		
	C1	
SIOTX_MASK_BYTE3		
	C2	
SIOTX_MASK_BYTE4		
	C3	
SIOTX_MASK_WORD1		
	C0	
SIOTX_MSKBSLM		
	C0	80
SIOTX_NO_DSTAB		
	54	08
SIOTX_SIOT		
	0	
SIOTX_SIOT_FLAGS		
	54	
SIOTX_SIOTCVTDAFTERCONV		
	40	80
SIOTX_TDSCOMP		
	C6	
SIOTX_TDSI		
	C4	
SIOTX_TDSMEDIA		
	C5	
SIOTX_TDSREC		
	C4	
SIOTX_TDSSPEC		
	C7	
SIOTX_TMPDSN_JFCBDSN_UPDATED		
	54	20
SIOTX_UNAFF_PTR		
	10	
SIOTX_UNAFF_SVA		
	9	
SIOTX_UNAFF_SVA_WORD		

Name	Hex Offset	Hex Value
	8	
SIOTX_UNAFF_TOKEN		
	8	
SIOTX_UNITNAMEAFTERCONV		
	38	
SIOTX_UNITNAMEAFTERDB401		
	28	
SIOTX_UNITNAMEAFTERLOCATE		
	30	
SIOTX_UNITNAMEONINPUT		
	20	
SIOTX_VOLSINCON_PTR		
	18	



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## IEFSJDKY Information

### IEFSJDKY Programming Interface information

Programming Interface information

IEFSJDKY

INCLUDE ONLY

End of Programming Interface information

## IEFSJDKY Heading Information • IEFSDJKY Map

### IEFSJDKY Heading Information

**Common Name:** Scheduler JCL Facility (SJF) / Dynamic Allocation keys  
**Macro ID:** IEFSDJKY  
**DSECT Name:** None  
**Owning Component:** Scheduler JCL Facility (BB131)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** N/A  
 FREQUENCY = N/A  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** This macro provides the constants for JDT defined keywords needed by the caller of Dynamic Allocation.

### IEFSJDKY Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	BITSTRING	0	SJKYCNTL	"X'8003" CNTL
0	(0)	BITSTRING	0	SJKYSTCL	"X'8004" STORCLAS
0	(0)	BITSTRING	0	SJKYMGCL	"X'8005" MGMTCLAS
0	(0)	BITSTRING	0	SJKYDACL	"X'8006" DATACLAS
0	(0)	BITSTRING	0	SJKYRECO	"X'800B" RECORG
Comment					
Values for RECORG keyword					
End of Comment					
		1... ..		SJVLROKS	"X'80" KS - Key sequence
		.1... ..		SJVLROES	"X'40" ES - Entry sequence
		..1... ..		SJVLRORR	"X'20" RR - Relative record
		...1... ..		SJVLROLS	"X'10" LS - Linear space
0	(0)	BITSTRING	0	SJKYKEYO	"X'800C" KEYOFF
0	(0)	BITSTRING	0	SJKYREFD	"X'800D" REFDD
0	(0)	BITSTRING	0	SJKYSECM	"X'800E" SECMODEL
Comment					
Value for GENERIC option of SECMODEL (parameter #2)					
End of Comment					
0	(0)	BITSTRING	0	SJVLGENR	"X'80" Generic option
0	(0)	BITSTRING	0	SJKYLIKE	"X'800F" LIKE
0	(0)	BITSTRING	0	SJKYAVGR	"X'8010" AVGREC
Comment					
Values for AVGREC keyword					
End of Comment					
		1... ..		SJVLARUN	"X'80" U - units (ie times 1)
		.1... ..		SJVLARKI	"X'40" K - kilo (ie times 1000)
		..1... ..		SJVLARME	"X'20" M - Mega (ie times 1 million)
0	(0)	BITSTRING	0	SJKYDSNT	"X'8012" DSNTYPE
Comment					
Values for DSNTYPE keyword					
End of Comment					
		1... ..		SJVLDTLI	"X'80" LIBRARY
		.1... ..		SJVLDTPD	"X'40" PDS
		..1... ..		SJVLPIPE	"X'20" PIPE
		...1... ..		SJVLHFSI	"X'10" HFS
		.... 1..		SJVLEXR	"X'08" EXTREQ
		.... .1.		SJVLEXP	"X'04" EXTPREF
		.... ..1.		SJVLBASC	"X'02" BASIC

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	.... ..1 BITSTRING	0	SJVLARG SJKYSPIN	"X'01" LARGE "X'8013" SPIN
Comment					
Values for SPIN keyword					
End of Comment					
0	(0)	1... .. ..1. .... BITSTRING	0	SJVLSPUN SJVLSPNO SJKYSEGM	"X'80" UNALLOC "X'40" NO "X'8014" SEGMENT
0	(0)	BITSTRING	0	SJKYPATH	"X'8017" PATH
0	(0)	BITSTRING	0	SJKYPOPT	"X'8018" PATHOPTS
Comment					
Values for PATHOPTS keyword					
End of Comment					
0	(0)	BITSTRING	0	SJVLSYNC	"X'00000100" OSYNC
		11.. ....		SJVLCEXL	"X'000000C0" OCREXCL
		1... ..		SJVLCREA	"X'00000080" OCREAT
		.1. ....		SJVLEXCL	"X'00000040" OEXCL
		..1. ....		SJVLNOCT	"X'00000020" ONOCTTY
		..1. ....		SJVLTRUN	"X'00000010" OTRUNC
		.... 1..		SJVLAPPE	"X'00000008" OAPPEND
		.... ..1.		SJVLNBLK	"X'00000004" ONONBLOCK
		.... ..11		SJVLRDWR	"X'00000003" ORDWR
		.... ..1.		SJVLRDON	"X'00000002" ORDONLY
0	(0)	.... ..1 BITSTRING	0	SJVLWDON SJKYPMDE	"X'00000001" OWRONLY "X'8019" PATHMODE
Comment					
Values for PATHMODE keyword					
End of Comment					
0	(0)	BITSTRING	0	SJVLSUID	"X'00000800" SISUID
0	(0)	BITSTRING	0	SJVLSGID	"X'00000400" SISGID
0	(0)	BITSTRING	0	SJVLRSUR	"X'00000100" SIRUSR
		1... ..		SJVLWUSR	"X'00000080" SIWUSR
		.1. ....		SJVLXUSR	"X'00000040" SIXUSR
0	(0)	BITSTRING	0	SJVLRWXU	"X'000001C0" SIRWXU
		..1. ....		SJVLGRP	"X'00000020" SIRGRP
		..1. ....		SJVLWGRP	"X'00000010" SIWGRP
		.... 1..		SJVLXGRP	"X'00000008" SIXGRP
		..11 1..		SJVLWXG	"X'00000038" SIRWXG
		.... ..1.		SJVLROTH	"X'00000004" SIROTH
		.... ..1.		SJVLWOTH	"X'00000002" SIWOTH
		.... ..1		SJVLXOTH	"X'00000001" SIXOTH
		.... ..111		SJVLWXO	"X'00000007" SIRWXO
0	(0)	BITSTRING	0	SJKYPNDS	"X'801A" PATHDISP - Normal Disposition
0	(0)	BITSTRING	0	SJKYPCDS	"X'801B" PATHDISP - Conditional Disposition
Comment					
Values for PATHDISP keyword					
End of Comment					
0	(0)	.... 1.. .... ..1. BITSTRING	0	SJVLKEEP SJVLDELE SJKYRLS	"X'08" KEEP "X'04" DELETE "X'801C" RLS - Record Level Sharing
Comment					
Values for RLS keyword					
End of Comment					
0	(0)	1... .. ..1. .... ..1. .... BITSTRING	0	SJVLNRI SJVLCR SJVLCRE SJKYFDAT	"X'80" NRI "X'40" CR "X'20" CRE "X'801D" FILEDATA - file organization

# IEFSJDKY Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
Values for FILEDATA keyword					
End of Comment					
		1... ..		SJVLBIN	"X'80" BINARY
		.1.. ..		SJVLTEXT	"X'40" TEXT
		..1. ....		SJVLREC	"X'20" RECORD
0	(0)	BITSTRING	0	SJKYLGST	"X'801F" LGSTREAM
0	(0)	BITSTRING	0	SJKYDCCS	"X'8020" CCSID
0	(0)	BITSTRING	0	SJKYBSLM	"X'8022" BLKSZLIM
0	(0)	BITSTRING	0	SJKYKYL1	"X'8023" KEYLABEL1
0	(0)	BITSTRING	0	SJKYKYL2	"X'8024" KEYLABEL2
0	(0)	BITSTRING	0	SJKYKYC1	"X'8025" KEYENCD1
Comment					
Values for KEYENCD1 keyword					
End of Comment					
		11.1 ..11		SJVLKE1L	"X'D3" L - Label encoding
		11.. 1...		SJVLKE1H	"X'C8" H - Hash encoding
0	(0)	BITSTRING	0	SJKYKYC2	"X'8026" KEYENCD2
Comment					
Values for KEYENCD2 keyword					
End of Comment					
		11.1 ..11		SJVLKE2L	"X'D3" L - Label encoding
		11.. 1...		SJVLKE2H	"X'C8" H - Hash encoding
0	(0)	BITSTRING	0	SJKYEATT	"X'8028" EATTR
Comment					
Values for EATTR keyword					
End of Comment					
		.... ...1		SJVLLEATN	"X'01" 0000 0001b - NO
		.... ...1.		SJVLLEATO	"X'02" 0000 0010b - OPT
0	(0)	BITSTRING	0	SJKYFRVL	"X'8029" FREEVOL
Comment					
Values for FREEVOL keyword					
End of Comment					
		.... ...1		SJVLFRVE	"X'01" 0000 0001b - END
		.... ...1.		SJVLFRVV	"X'02" 0000 0010b - EOVS
0	(0)	BITSTRING	0	SJKYSPI2	"X'802A" SPIN second parm, SPIN INTERVAL
0	(0)	BITSTRING	0	SJKYSYML	"X'802B" SYMLIST ON DD
0	(0)	BITSTRING	0	SJKYDSNV	"X'802C" DSNTYPE version
0	(0)	BITSTRING	0	SJKYMAXG	"X'802D" MAXGENS - Requires APAR OA42358
0	(0)	BITSTRING	0	SJKYGDGO	"X'802E" GDGORDER - GDG-all concatenation order
Comment					
Values for GDGORDER keyword					
End of Comment					
		1... ..		SJVLGDGC	"X'80" USECATLG
		.1.. ..		SJVLGDGL	"X'40" LIFO
		..1. ....		SJVLGDGF	"X'20" FIFO

## IEFSJDKY Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SJKYAVGR	0	8010	SJVLRGRP	0	20
SJKYBSLM	0	8022	SJVLROES	0	40
SJKYCNTL	0	8003	SJVLROKS	0	80
SJKYDACL	0	8006	SJVLROLS	0	10
SJKYDCCS	0	8020	SJVLRROR	0	20
SJKYDSNT	0	8012	SJVLROTH	0	4
SJKYDSNV	0	802C	SJVLRUSR	0	100
SJKYEATT	0	8028	SJVLRWXG	0	38
SJKYFDAT	0	801D	SJVLRWXO	0	7
SJKYFRVL	0	8029	SJVLRWXU	0	1C0
SJKYGDGO	0	802E	SJVLSGID	0	400
SJKYKEYO	0	800C	SJVLSPNO	0	40
SJKYKYC1	0	8025	SJVLSPUN	0	80
SJKYKYC2	0	8026	SJVLSUID	0	800
SJKYKYL1	0	8023	SJVLSYNC	0	100
SJKYKYL2	0	8024	SJVLTEXT	0	40
SJKYLGST	0	801F	SJVLTRUN	0	10
SJKYLIKE	0	800F	SJVLWDON	0	1
SJKYMAXG	0	802D	SJVLWGRP	0	10
SJKYMGCL	0	8005	SJVLWOTH	0	2
SJKYPATH	0	8017	SJVLWUSR	0	80
SJKYPCDS	0	801B	SJVLXGRP	0	8
SJKYPMDE	0	8019	SJVLXOTH	0	1
SJKYPNDS	0	801A	SJVLXUSR	0	40
SJKYPOPT	0	8018			
SJKYRECO	0	800B			
SJKYREFD	0	800D			
SJKYRLS	0	801C			
SJKYSECM	0	800E			
SJKYSEGM	0	8014			
SJKYSPIN	0	8013			
SJKYSPI2	0	802A			
SJKYSTCL	0	8004			
SJKYSYML	0	802B			
SJVLAPPE	0	8			
SJVLARKI	0	40			
SJVLARME	0	20			
SJVLARUN	0	80			
SJVLBASC	0	2			
SJVLBIN	0	80			
SJVLCEXL	0	C0			
SJVLCCR	0	40			
SJVLCRE	0	20			
SJVLCREA	0	80			
SJVLDELE	0	4			
SJVLDTLI	0	80			
SJVLDTPD	0	40			
SJVLEATN	0	1			
SJVLEATO	0	2			
SJVLEXCL	0	40			
SJVLEXP	0	4			
SJVLEXR	0	8			
SJVLFRVE	0	1			
SJVLFRVV	0	2			
SJVLGDGC	0	80			
SJVLGDGF	0	20			
SJVLGDGL	0	40			
SJVLGENR	0	80			
SJVLHFSI	0	10			
SJVLKEEP	0	8			
SJVLKE1H	0	C8			
SJVLKE1L	0	D3			
SJVLKE2H	0	C8			
SJVLKE2L	0	D3			
SJVLLARG	0	1			
SJVLNBLK	0	4			
SJVLNOCT	0	20			
SJVLNRI	0	80			
SJVLPIPE	0	20			
SJVLRDON	0	2			
SJVLRDWR	0	3			
SJVLREC	0	20			





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## IEFSJOKY Information

### IEFSJOKY Programming Interface information

Programming Interface information

IEFSJOKY

End of Programming Interface information

## IEFSJOKY Heading Information • IEFSDOKEY Map

### IEFSJOKY Heading Information

**Common Name:** Scheduler JCL Facility (SJF) Output Descriptor Keys  
**Macro ID:** IEFSDOKEY  
**DSECT Name:** None  
**Owning Component:** SJF (BB131)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** N/A  
 FREQUENCY = N/A  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** This macro provides the constants for JDT defined keywords needed by users of Output Descriptor SWB chains. Macro IEFDOKEY is invoked so the keys defined in dynamic output are not repeated here.

### IEFSJOKY Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	BITSTRING	0	SJOKSTNR	"X'8001'" JES3STNR
0	(0)	X'8003'	0	SJOKMERG	"DOMERGE" MERGE (also defined in IEFDOKEY)
0	(0)	BITSTRING	0	SJOKIPAD	"X'8005'" IPADDR

Comment

```

Include keys needed by callers of SVC 109
%DOKEY1: ;
  START OF SPECIFICATIONS
  MACRO NAME = IEFDOKEY
  ACRONYM = IEFDOKEY
  DESCRIPTIVE NAME = Dynamic OUTPUT Key Mapping
01 PROPRIETARY STATEMENT=
  PROPRIETARY_STATEMENT
  LICENSED MATERIALS - PROPERTY OF IBM
  5650-ZOS COPYRIGHT IBM CORP. 1988, 2013
  STATUS= HBB7790
  END_OF_PROPRIETARY_STATEMENT
  FUNCTION = This macro maps the Dynamic OUTPUT keys.
    The keys are passed to Dynamic OUTPUT in text
    units when Dynamic OUTPUT is invoked via the
    OUTADD macro. Text unit keys are two bytes
    in length. The keys are defined in this mapping
    as EQUates.
01 EXTERNAL CLASSIFICATION: GUPI
01 END OF EXTERNAL CLASSIFICATION:
  NOTES =
    Bilingual Mapping Macro (PL/S and BAL)
    Key names consist of the prefix 'DO' followed by
    the name of the OUTPUT JCL statement keyword which
    they correspond to, for a maximum length of eight
    characters. If this scheme does not provide a
    unique key name, the least significant digit of
    the key number will be used as a suffix for the
    key name, i.e.
    DOMODIF6 EQU X'0016' MODIFY (module name)
    DOMODIF7 EQU X'0017' MODIFY (TRC)
    |_suffix____|
    of key name obtained from
    the key number to create
    unique key names for the
    MODIFY keys
    Key names are in alphabetical order. New key
  
```

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
					labels should be added in the correct position by label name and not key number.
					INVOCATION
					METHOD OF ACCESS =
					BAL = IEFDOKEY
					PLS = %INCLUDE SYSLIB(IEFDOKEY)
					DSECT NAME = None
					COMPONENT = Dynamic Output (BB131)
					EYE CATCHER = None
					OFFSET = N/A
					LENGTH = N/A
					CREATED BY = N/A
					POINTED TO BY = N/A
					DELETED BY = N/A
					SERIALIZATION = N/A
					STORAGE ATTRIBUTES = None
					ALLOCATION METHOD = N/A
					SUBPOOL = N/A
					KEY = N/A
					RESIDENCY = N/A
					SIZE = N/A
					FREQUENCY = N/A
					DISTRIBUTION LIBRARY = AMACLIB
					CHANGE ACTIVITY =
					\$P0= PC20283 JBB2223 870629 PDJY: Dynamic OUTPUT Support
					\$D1= DCR0063 JBB2223 880101 PDJY: Dynamic OUTPUT Support
					\$L1= SP313 JBB3313 880113 PDK1: MVS/SP3.1.3
					\$D2= DCR0318 HBB3310 880118 PDJY: Dynamic OUTPUT Support
					\$L2= EMVS2 HBB4410 880905 PDKK: Enterprise II - ESI
					\$P1= PEO1272 HBB4410 881212 PDZ1: Fix EMVS2 declares
					\$P2= PEO1579 HBB4410 890403 PDZ1: Alphabetize labels
					\$L3= BPRT HBB4410 891023 PDC9: Boulder Printer Support
					\$T1= OY30620 JBB3313 901001 PDC9: Added USERLIB Key
					\$O1= OY48603 HBB4420 911209 PDDZ: OUTPUT USERDATA Support
					\$P3= PKB3464 HBB4430 920901 PDDZ: SHOWHDR format complete
					\$O2= OW04349 HBB4420 940401 PDCL: OUTBIN Support
					\$P4= PN72253 HBB5520 941221 PDH1: Computer Output Microfiche
					\$O4 = OW13320 HBB5510 950615 PDH1: OVFL Support
					\$O5 = OW21839 HBB4430 960807 PDAS: IP PrintWay
					\$O6 = OW24596 HBB4430 970115 PDAS: Set Media Size Support
					\$O7 = OW27295 HBB5520 970602 PDAS: Open Print/Planform 1133/ Planform 1596 Support
					\$L4 = FSSDATA HBB6605 970819 PDAS: FSSDATA Keyword Support
					\$L5 = CZ4 HBB7707 011219 PDOH: AFPSTATS Keyword Support
					\$L6 = DCO HBB7708 021009 PDOH: Email Keyword Support
					\$L7 = DFV HBB7709 030515 PDKQ: USERPATH Keyword Support
					\$L8 = DFT HBB7730 050301 PDOO: PRTATTRS and AFPPARMS keyword support
					\$L9 = ME20682 HBB7780 110201 PDHV: COPYCNT Keyword support
					\$LA = JCLJECL HBB7790 121001 PDOO: In support of Common JCL JES2 line item (LI3091) Feature: ME24771
					ME25796 HBB7790 130221 PDOO: Fixed Copyright
					END OF SPECIFICATIONS
					A 000000-999999
					D Removed dynamic output from JBB2223
					A ADDED KEYS DODPAGEL AND DOSYSARE

# IEFSJOKY Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
					A Added dynamic output to HBB3310
					A Added new keywords for ESI support - ADDRESS BUILDING DEPT NAME TITLE OUTDISP ROOM
					C Fixed declarations for EMVS2 keywords.
					C Fixed order so the labels are in alphabetical order
					A Added NOTIFY Keyword
					A Added USERLIB key
					A Added USERDATA key (DOUSERDA)
					A Added SHOWHDR details in prologue
					A Added OUTBIN key in support of PSF/MVS 220
					A Added DOCOMSET key in support of the Computer Output Microfiche SPE
					A Added OVFL key in support of JES3 OW11080
					A Added new keywords in support of IP PrintWay RETRYT RETRYL RETAINS RETAINF PRTQUEUE PRTOPTNS Modified DEST
					A Added FORMLEN & PRERROR keys in support of Set Media Size
					A Added new keywords in support of Open Print & planforms RESFMT COLORMAP DUPLEX INTRAY OFFSETxx OVERLAYx PORTNO
					A Added FSSDATA key in support of Open Print
					A Added AFPSTATS key
					A Added MAILBCC, MAILCC, MAILFILE, MAILFROM, MAILTO, and REPLYTO keys
					A Added USERPATH key
					A Added PRTATTRS and AFPPARMS keys
					A Added COPYCNT to support more copies than COPIES keyword
					A Added DOMERGE and DODDNAME keys. %GOTO DOKEY2;
					KEYS FOR Dynamic OUTPUT
					End of Comment
		.1. .111		DOADDRESS	"X'0027" ADDRESS
		.1.1 ...1		DOAFPPRM	"X'0051" AFPPARMS
		1.. 1..		DOAFPST	"X'0048" AFPPARMS
		.1. 1..		DOBUILD	"X'0028" BUILDING
		.... ...1		DOBURST	"X'0001" BURST
		.... .1.		DOCHARS	"X'0002" CHARS
		.... ...11		DOCKPTLI	"X'0003" CKPTLINE
		.... .1..		DOCKPTPA	"X'0004" CKPTPAGE
		.... .1.1		DOCKPTSE	"X'0005" CKPTSEC
		.... ..11.		DOCLASS	"X'0006" CLASS
		.11 1.1.		DOCOLORM	"X'003A" COLORMAP
		.... .111		DOCOMPAC	"X'0007" COMPACT
		.11 ...1.		DOCOMSET	"X'0032" COMSETUP
		.... 1..		DOCONTRO	"X'0008" CONTROL
		.... 1..1		DOCOPIE9	"X'0009" COPIES
		.... 1.1.		DOCOPIEA	"X'000A" COPIES (group values)
		.1.1 ...1.		DOCOPYCN	"X'0052" COPYCNT
0	(0)	BITSTRING	0	DODATAACK	"X'2022" DATAACK
		.1.1 .1..		DODDNAME	"X'0054" DDNAME
		.... 1.11		DODEFAUL	"X'000B" DEFAULT
		.1. 1..1		DODEPT	"X'0029" DEPT
		.... 11..		DODEST	"X'000C" DEST
		.1. ...11		DODPAGEL	"X'0023" DPAGELBL
		.11 11.1		DODUPLEX	"X'003D" DUPLEX
		.... 11.1		DOFCB	"X'000D" FCB
		.... 111.		DOFLASE	"X'000E" FLASH (overlay name)
		.... 1111		DOFLASF	"X'000F" FLASH (count)
		.1.1 11.1		DOFORMD	"X'001D" FORMDEF
		.11 1.11		DOFORMLN	"X'003B" FORMLEN
		.1.1 ....		DOFORMS	"X'0010" FORMS
		1.. .111		DOFSSDAT	"X'0047" FSSDATA
		.1.1 ...1		DOGROUPI	"X'0011" GROUPID
		.1.1 .1.		DOINDEX	"X'0012" INDEX
		.11 111.		DOINTRAY	"X'003E" INTRAY
		.1.1 .1..		DOLINDEX	"X'0014" LINDEX
		.1.1 .1.1		DOLINECT	"X'0015" LINECT
		.1.. 1..1		DOMAILBC	"X'0049" MAILBCC
		.1.. 1.1.		DOMAILCC	"X'004A" MAILCC
		.1.. 1.11		DOMAILFI	"X'004B" MAILFILE
		.1.. 11..		DOMAILFR	"X'004C" MAILFROM
		.1.. 11.1		DOMAILTO	"X'004D" MAILTO
0	(0)	BITSTRING	0	DOMERGE	"X'8003" MERGE
		...1 .11.		DOMODIF6	"X'0016" MODIFY (module name)

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		...1 .111		DOMODIF7	"X'0017" MODIFY (TRC)
		..1. 11.1		DONAME	"X'002D" NAME
		..1. 1111		DONOTIFY	"X'002F" NOTIFY
		..1. .111		DOXOFSTB	"X'0043" OFFSETXB
		..1. .11		DOXOFSTF	"X'0041" OFFSETXF
		..1. .1..		DOYOFSTB	"X'0044" OFFSETYB
		..1. .1.1		DOYOFSTF	"X'0042" OFFSETYF
0	(0)	BITSTRING	0	DOOUTBIN	"X'2023" OUTBIN
		..1. 1.11		DOOUTDB	"X'002B" OUTDISP - NORMAL
		..1. 11..		DOOUTDC	"X'002C" OUTDISP - ABNORMAL
		..11 .111		DOOVFL	"X'0033" OVERFLOW
		..1. ....		DOOVRLYB	"X'0040" OVERLAYB
		..11 1111		DOOVRLYF	"X'003F" OVERLAYF
		..1. 1111		DOPAGEDE	"X'001F" PAGEDEF
		..1. .1.1		DOPIMSG	"X'0021" PIMSG
		..1. .1.1		DOPORTNO	"X'0045" PORTNO
		..1. 1...		DOPRMODE	"X'0018" PRMODE
		..11 1.1		DOPROPTN	"X'0039" PRTOPTNS
		..1. ....		DOPRTATT	"X'0050" PRTATTRS
		..11 11..		DOPRTERR	"X'003C" PRTEROR
		..11 1...		DOPRTQUE	"X'0038" PRTQUEUE
		..1. 1.1		DOPRTY	"X'0019" PRTY
		..1. 111.		DOPREPLYT	"X'004E" REPLYTO
		..1. .11.		DOPRESFMT	"X'0046" RESFMT
		..11 .111		DOPRETANF	"X'0037" RETAINF
		..11 .11.		DOPRETANS	"X'0036" RETAINS
		..11 .1..		DOPRETRYT	"X'0034" RETRYT
		..11 .1.1		DOPRETRYL	"X'0035" RETRYL
		..1. .11.		DOPROOM	"X'0026" ROOM
		..1. .1..		DOPSYSARE	"X'0024" SYSAREA
		..1. .1.1		DOPTHRESH	"X'0022" THRESHLD
		..1. 1.1.		DOPTITLE	"X'002A" TITLE
		..1. 1.1.		DOPTRC	"X'001A" TRC
		..1. 1.11		DOPUCS	"X'001B" UCS
		..11 ...1		DOPUSERDA	"X'0031" USERDATA
		..1. 111.		DOPUSERLI	"X'002E" USERLIB
		..1. 1111		DOPUSERPA	"X'004F" USERPATH
		..1. 11..		DOPWRITER	"X'001C" WRITER

## IEFSJOKY Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DOADDRESS	0	27	DOFSSDAT	0	47
DOAFPFRM	0	51	DOGROUPI	0	11
DOAFPST	0	48	DOINDEX	0	12
DOBUILD	0	28	DOINTRAY	0	3E
DOBURST	0	1	DOLINDEX	0	14
DOCHARS	0	2	DOLINECT	0	15
DOCKPTLI	0	3	DOMAILBC	0	49
DOCKPTPA	0	4	DOMAILCC	0	4A
DOCKPTSE	0	5	DOMAILFI	0	4B
DOCLASS	0	6	DOMAILFR	0	4C
DOCOLORM	0	3A	DOMAILTO	0	4D
DOCOMPAC	0	7	DOMERGE	0	8003
DOCOMSET	0	32	DOMODIF6	0	16
DOCONTRO	0	8	DOMODIF7	0	17
DOCOPIEA	0	A	DONAME	0	2D
DOCOPIE9	0	9	DONOTIFY	0	2F
DOCOPYCN	0	52	DOOUTBIN	0	2023
DODATAACK	0	2022	DOOUTDB	0	2B
DODDNAME	0	54	DOOUTDC	0	2C
DODEFAUL	0	B	DOOVFL	0	33
DODEPT	0	29	DOOVRLYB	0	40
DODEST	0	C	DOOVRLYF	0	3F
DODPAGEL	0	23	DOPAGEDE	0	1F
DODUPLEX	0	3D	DOPIMSG	0	21
DOFCB	0	D	DOPORTNO	0	45
DOFLASE	0	E	DOPRMODE	0	18
DOFLASF	0	F	DOPROPTN	0	39
DOFORMD	0	1D	DOPRTATT	0	50
DOFORMLN	0	3B	DOPRTERR	0	3C
DOFORMS	0	10	DOPRTQUE	0	38

## IEFSJOKY Cross Reference

Name	Hex Offset	Hex Value
DOPRTY	0	19
DOREPLYT	0	4E
DORESFMT	0	46
DORETANF	0	37
DORETANS	0	36
DORETRYL	0	35
DORETRYT	0	34
DOROOM	0	26
DOSYSARE	0	24
DOTHRESH	0	22
DOTITLE	0	2A
DOTRC	0	1A
DOUCS	0	1B
DOUSERDA	0	31
DOUSERLI	0	2E
DOUSERPA	0	4F
DOWRITER	0	1C
DOXOFSTB	0	43
DOXOFSTF	0	41
DOYOFSTB	0	44
DOYOFSTF	0	42
SJOKIPAD	0	8005
SJOKMERG	0	8003
SJOKSTNR	0	8001

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## IEFZB4D2 Information

### IEFZB4D2 Programming Interface information

Programming Interface information

IEFZB4D2

End of Programming Interface information

## IEFZB4D2 Heading Information • IEFZB4D2 Map

### IEFZB4D2 Heading Information

**Common Name:** Dynamic Allocation Key Definition Table  
**Macro ID:** IEFZB4D2  
**DSECT Name:** SVC99KYS  
**Owning Component:** Allocation (SC1B4)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** N/A  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** This macro defines the Dynamic Allocation keys for each of the Dynamic Allocation functions. The keys are used in the text unit input to Dynamic Allocation. A key identifies the information being passed in a particular text unit. A key is two bytes in length. The names for the keys consist of:  
 - The character 'D' representing Dynamic Allocation.  
 - Characters representing the Dynamic Allocation function. The functions are represented by these characters:  
 - 'AL' for allocation,  
 - 'UN' for unallocation,  
 - 'CC' for concatenation,  
 - 'DC' for deconcatenation,  
 - 'RI' for remove in-use,  
 - 'DN' for ddname allocation,  
 - 'IN' for information retrieval input, and  
 - 'INR' for information retrieval output.  
 - Descriptive characters (up to five).

### IEFZB4D2 Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SVC99KYS	

Comment

#### KEYS FOR ALLOCATION FUNCTION

Note: see the Dependencies section of the prolog when adding new keys to this section.

End of Comment

....	...1	DALDDNAM	"X'0001"	DDNAME
....	..1.	DALDSNAM	"X'0002"	DSNAME
....	..11	DALMEMBR	"X'0003"	MEMBER NAME
....	.1..	DALSTATS	"X'0004"	DATA SET STATUS
....	.1.1	DALNDISP	"X'0005"	DATA SET NORMAL DISPOSITION
....	.11.	DALCDISP	"X'0006"	DATA SET CONDITIONAL DISP
....	.111	DALTRK	"X'0007"	TRACK SPACE TYPE
....	1...	DALCYL	"X'0008"	CYLINDER SPACE TYPE
....	1..1	DALBLKLN	"X'0009"	AVERAGE DATA BLOCK LENGTH
....	1.1.	DALPRIME	"X'000A"	PRIMARY SPACE QUANTITY
....	1.11	DALSECND	"X'000B"	SECONDARY SPACE QUANTITY
....	11..	DALDIR	"X'000C"	DIRECTORY SPACE QUANTITY
....	11.1	DALRLSE	"X'000D"	UNUSED SPACE RELEASE
....	111.	DALSPFRM	"X'000E"	CONTIG,MXIG,ALX SPACE FORMAT
....	1111	DALROUND	"X'000F"	WHOLE CYLINDER (ROUND) SPACE
....	1...1	DALVLSER	"X'0010"	VOLUME SERIAL
....	1..1.1	DALPRIVT	"X'0011"	PRIVATE VOLUME
....	1..1.	DALVSEQ	"X'0012"	VOL SEQUENCE NUMBER
....	1..1.11	DALVLCNT	"X'0013"	VOLUME COUNT
....	1..1.	DALVLRDS	"X'0014"	VOLUME REFERENCE TO DSNAME
....	1..1.1.1	DALUNIT	"X'0015"	UNIT DESCRIPTION
....	1..1.	DALUNCNT	"X'0016"	UNIT COUNT
....	1..1.111	DALPARAL	"X'0017"	PARALLEL MOUNT
....	1..1.1..	DALYSOU	"X'0018"	SYSOUT
....	1..1.1.1	DALSPGNM	"X'0019"	SYSOUT PROGRAM NAME
....	1..1.1.1.	DALSFMNO	"X'001A"	SYSOUT FORM NUMBER
....	1..1.1.11	DALOUTLM	"X'001B"	OUTPUT LIMIT
....	1..1.11..	DALCLOSE	"X'001C"	UNALLOCATE AT CLOSE



Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
...	11.1	DALCOPYS	"X'001D"	SYSOUT COPIES	
...	111.	DALLABEL	"X'001E"	LABEL TYPE	
...	1111	DALDSSEQ	"X'001F"	DATA SET SEQUENCE NUMBER	
..1.	....	DALPASPR	"X'0020"	PASSWORD PROTECTION	
..1.	...1	DALINOUT	"X'0021"	INPUT ONLY OR OUTPUT ONLY	
..1.	..1.	DALEXPDT	"X'0022"	2 DIGIT YEAR EXPIRATION DATE	
..1.	..11	DALRETPD	"X'0023"	RETENTION PERIOD	
..1.	..1.	DALDUMMY	"X'0024"	DUMMY ALLOCATION	
..1.	..1.1	DALFCBIM	"X'0025"	FCB IMAGE-ID	
..1.	..11.	DALFCBAV	"X'0026"	FCB FORM ALIGNMENT,IMAGE VERIFY	
..1.	..111	DALQNAME	"X'0027"	QNAME ALLOCATION	
..1.	1...	DALTERM	"X'0028"	TERMINAL ALLOCATION	
..1.	1.1	DALUCS	"X'0029"	UNIVERSAL CHARACTER SET	
..1.	1.1.	DALUFOLD	"X'002A"	UCS FOLD MODE	
..1.	1.11	DALUVRFY	"X'002B"	UCS VERIFY CHARACTER SET	
..1.	11..	DALDCBDS	"X'002C"	DCB DSNNAME REFERENCE	
..1.	11.1	DALDCBDD	"X'002D"	DCB DDNAME REFERENCE	
..1.	111.	DALBFALN	"X'002E"	BUFFER ALIGNMENT	
..1.	1111	DALBFTEK	"X'002F"	BUFFERING TECHNIQUE	
..11	....	DALBLKSZ	"X'0030"	BLOCKSIZE	
..11	...1	DALBUFIN	"X'0031"	NUMBER OF INPUT BUFFERS	
..11	..1.	DALBUFL	"X'0032"	BUFFER LENGTH	
..11	..11	DALBUFMX	"X'0033"	MAXIMUM NUMBER OF BUFFERS	
..11	..1.	DALBUFNO	"X'0034"	NUMBER OF DCB BUFFERS	
..11	..1.1	DALBUFOF	"X'0035"	BUFFER OFFSET	
..11	..11.	DALBUFOU	"X'0036"	NUMBER OF OUTPUT BUFFERS	
..11	..111	DALBUFRQ	"X'0037"	NUMBER OF GET MACRO BUFFERS	
..11	1...	DALBUFSZ	"X'0038"	LINE BUFFER SIZE	
..11	1.1	DALCODE	"X'0039"	PAPER TAPE CODE	
..11	1.1.	DALCPRI	"X'003A"	SEND/RECEIVE PRIORITY	
..11	1.11	DALDEN	"X'003B"	TAPE DENSITY	
..11	11..	DALDSORG	"X'003C"	DATA SET ORGANIZATION	
..11	11.1	DALEROPT	"X'003D"	ERROR OPTIONS	
..11	111.	DALGNCP	"X'003E"	NO. OF GAM I/O BEFORE WAIT	
..11	1111	DALINTVL	"X'003F"	POLLING INTERVAL	
..1.	....	DALKYLEN	"X'0040"	DATA SET KEYS LENGTH	
..1.	...1	DALLIMCT	"X'0041"	SEARCH LIMIT	
..1.	..1.	DALLRECL	"X'0042"	LOGICAL RECORD LENGTH	
..1.	..11	DALMODE	"X'0043"	CARD READER/PUNCH MODE	
..1.	..1.	DALNCP	"X'0044"	NO. READ/WRITE BEFORE CHECK	
..1.	..1.1	DALOPTCD	"X'0045"	OPTIONAL SERVICES	
..1.	..11.	DALPCIR	"X'0046"	RECEIVING PCI	
..1.	..111	DALPCIS	"X'0047"	SENDING PCI	
..1.	1...	DALPRTSP	"X'0048"	PRINTER LINE SPACING	
..1.	1.1	DALRECFM	"X'0049"	RECORD FORMAT	
..1.	1.1.	DALRSRVF	"X'004A"	FIRST BUFFER RESERVE	
..1.	1.11	DALRSRVS	"X'004B"	SECONDARY BUFFER RESERVE	
..1.	11..	DALSOWA	"X'004C"	TCAM USER WORK AREA SIZE	
..1.	11.1	DALSTACK	"X'004D"	STACKER BIN	
..1.	111.	DALTHRSH	"X'004E"	MESSAGE QUEUE PERCENTAGE	
..1.	1111	DALTRTCH	"X'004F"	TAPE RECORDING TECHNOLOGY	
..1.	....	DALPASSW	"X'0050"	PASSWORD	
..1.	...1	DALIPLTX	"X'0051"	IPL TEXT ID	
..1.	..1.	DALPERMA	"X'0052"	PERMANENTLY ALLOCATED ATTRIB	
..1.	..11	DALCNVRT	"X'0053"	CONVERTIBLE ATTRIBUTE	
..1.	..1.	DALDIAGN	"X'0054"	OPEN/CLOSE/EOV DIAGNOSTIC TRACE	
..1.	..1.1	DALRTDDN	"X'0055"	RETURN DDNAME	
..1.	..11.	DALRTDSN	"X'0056"	RETURN DSNNAME	
..1.	..111	DALRTORG	"X'0057"	RETURN D.S. ORGANIZATION	
..1.	1...	DALSUSER	"X'0058"	SYSOUT REMOTE USER	
..1.	1.1	DALSHOLD	"X'0059"	SYSOUT HOLD QUEUE	
..1.	1.1.	DALFUNC	"X'005A"	D.S. TYPE FOR 3525 CARD DEVICE	
..1.	1.11	DALFRID	"X'005B"	IMAGELIB MEMBER FOR SHARK	
..1.	11..	DALSSREQ	"X'005C"	SUBSYSTEM REQUEST	
..1.	11.1	DALRTVOL	"X'005D"	RETURN VOLUME SERIAL	
..1.	111.	DALMSVGP	"X'005E"	MSVGP FOR 3330V	
..1.	1111	DALSSNM	"X'005F"	SUBSYSTEM NAME REQUEST	
..11.	....	DALSSPRM	"X'0060"	SUBSYSTEM PARAMETERS	
..11.	...1	DALPROT	"X'0061"	RACF PROTECT FEATURE	
..11.	..1.	DALSSATT	"X'0062"	SUBSYSTEM ATTRIBUTE	
..11.	..11	DALUSRID	"X'0063"	SYSOUT USER ID	
..11.	..1.	DALBURST	"X'0064"	BURSTER-TRIMMER-STACKER	
..11.	..1.1	DALCHARS	"X'0065"	CHAR ARRANGEMENT TABLE	
..11.	..11.	DALCOPYG	"X'0066"	COPY GROUP VALUES	

# IEFZB4D2 Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.11. .111		DALFFORM	"X'0067" FLASH FORMS OVERLAY
		.11. 1..		DALFCNT	"X'0068" FLASH FORMS OVERLAY COUNT
		.11. 1..1		DALMMOD	"X'0069" COPY MODIFICATION MODULE
		.11. 1.1.		DALMTRC	"X'006A" TABLE REFERENCE CHARACTER
		.11. 1.11		DALLRECK	"X'006B" LRECL IN MULT OF 1K FORMAT
		.11. 11..		DALDEFER	"X'006C" DEFER MOUNT UNTIL OPEN
		.11. 11.1		DALEXPDL	"X'006D" 4 DIGIT YEAR EXP. DATE
		.11. 111.		DALBRTKN	"X'006E" Browse token supplied
		.11. 1111		DALINCHG	"X'006F" Volume Interchange Attributes
		.111 ....		DALOVAFV	"X'0070" Tell JES to override system affinity for INTRDR
		.111 ...1		DALRTCTK	"X'0071" Return Allocation Sysout Client Token
		.111 ..1.		DALKILO	"X'0072" BLKSIZE OF KILOBYTE
		.111 ..11		DALMEG	"X'0073" BLKSIZE OF MEGABYTE
		.111 .1..		DALGIG	"X'0074" BLKSIZE OF GIGABYTE
		.111 .1.1		DALUASSR	"X'0075" Unauthorized subsystem request
		.111 .11.		DALSMshr	"X'0076" unitname to be honored on an SMS tape library request
		.111 .111		DALUNQDS	"X'0077" Uniquely allocated temporary data set
0	(0)	BITSTRING	0	DALACODE	"X'8001" ACCESSIBILITY CODE
0	(0)	BITSTRING	0	DALOUTPT	"X'8002" OUTPUT REFERENCE

Comment

JDT defined Allocation keys  
SJF DD ALLOCATION KEYS

End of Comment

0	(0)	BITSTRING	0	DALCNTL	"X'8003" CNTL
0	(0)	BITSTRING	0	DALSTCL	"X'8004" STORCLAS
0	(0)	BITSTRING	0	DALMGCL	"X'8005" MGMTCLAS
0	(0)	BITSTRING	0	DALDAcl	"X'8006" DATACLAS
0	(0)	BITSTRING	0	DALRECO	"X'800B" RECORg
0	(0)	BITSTRING	0	DALKEYO	"X'800C" KEYOFF
0	(0)	BITSTRING	0	DALREFD	"X'800D" REFDD
0	(0)	BITSTRING	0	DALSECM	"X'800E" SECMODEL
0	(0)	BITSTRING	0	DALLIKE	"X'800F" LIKE
0	(0)	BITSTRING	0	DALAVGR	"X'8010" AVGREC
0	(0)	BITSTRING	0	DALDSNT	"X'8012" DSNTYPE
0	(0)	BITSTRING	0	DALSPIN	"X'8013" SPIN
0	(0)	BITSTRING	0	DALSEGM	"X'8014" SEGMENT
0	(0)	BITSTRING	0	DALPATH	"X'8017" PATH
0	(0)	BITSTRING	0	DALPOPT	"X'8018" PATHOPTS
0	(0)	BITSTRING	0	DALPMDE	"X'8019" PATHMODE
0	(0)	BITSTRING	0	DALPNDS	"X'801A" PATHDISP - Normal Disposition
0	(0)	BITSTRING	0	DALPCDS	"X'801B" PATHDISP - Conditional Disposition
0	(0)	BITSTRING	0	DALRLS	"X'801C" RLS - Record Level Sharing
0	(0)	BITSTRING	0	DALFDAT	"X'801D" FILEDATA - file organization
0	(0)	BITSTRING	0	DALLGST	"X'801F" LGSTREAM
0	(0)	BITSTRING	0	DALDCCS	"X'8020" CCSID
0	(0)	BITSTRING	0	DALBSLM	"X'8022" BLKSZLIM
0	(0)	BITSTRING	0	DALKYL1	"X'8023" KEYLABL1
0	(0)	BITSTRING	0	DALKYL2	"X'8024" KEYLABL2
0	(0)	BITSTRING	0	DALKYC1	"X'8025" KEYENCD1
0	(0)	BITSTRING	0	DALKYC2	"X'8026" KEYENCD2
0	(0)	BITSTRING	0	DALEATT	"X'8028" EATTR
0	(0)	BITSTRING	0	DALFRVL	"X'8029" FREEVOL
0	(0)	BITSTRING	0	DALSPI2	"X'802A" SPIN second parm, SPIN INTERVAL
0	(0)	BITSTRING	0	DALSYML	"X'802B" SYMLIST ON DD
0	(0)	BITSTRING	0	DALDSNV	"X'802C" DSNTYPE version
0	(0)	BITSTRING	0	DALMAXG	"X'802D" MAXGENS - Requires APAR OA42358
0	(0)	BITSTRING	0	DALGDGO	"X'802E" GDGORDER - GDG-all concatenation order

Comment

KEYS FOR CONCATENATION FUNCTION

End of Comment

		.... ...1		DCCDDNAM	"X'0001" DDNAMES
		.... .1..		DCCPERMC	"X'0004" PERMANENTLY CONCATENATED

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
KEYS FOR DECONCATENATION FUNCTION					
End of Comment					
		.... ...1		DDCDDNAM	"X'0001" DDNAME
Comment					
KEYS FOR INFORMATION RETRIEVAL FUNCTION					
Note: see the Dependencies section of the prolog when adding new keys to this section.					
End of Comment					
		.... ...1		DINDDNAM	"X'0001" DDNAME
		.... ...1.		DINDSNAM	"X'0002" DSNAME
		.... .1..		DINRTDDN	"X'0004" RETURN DDNAME
		.... .1.1		DINRTDSN	"X'0005" RETURN DSNAME
		.... .11.		DINRTMEM	"X'0006" RETURN MEMBER NAME
		.... .111		DINRTSTA	"X'0007" RETURN DATA SET STATUS
		.... 1...		DINRTNDP	"X'0008" RETURN NORMAL DISPOSITION
		.... 1..1		DINRTCDP	"X'0009" RETURN CONDITIONAL DISP
		.... 1.1.		DINRTORG	"X'000A" RETURN D.S. ORGANIZATION
		.... 1.11		DINRTLIM	"X'000B" RETURN # TO NOT-IN-USE LIMIT
		.... 11..		DINRTATT	"X'000C" RETURN DYN. ALLOC ATTRIBUTES
		.... 11.1		DINRTLST	"X'000D" RETURN LAST ENTRY INDICATION
		.... 111.		DINRTTYP	"X'000E" RETURN S.D. TYPE INDICATION
		.... 1111		DINRELNO	"X'000F" RELATIVE REQUEST NUMBER
		...1 ....		DINRTVOL	"X'0010" Return First Volser
		...1 ...1		DINRTDDX	"X'0011" Return DDname extended
		...1 ...1.		DINRLPOS	"X'0012" Return Relative Position
Comment					
JDT defined Information Retrieval output keys					
SJF DD INFORMATION RETRIEVAL KEYS					
End of Comment					
0	(0)	BITSTRING	0	DINRCNTL	"X'C003" CNTL
0	(0)	BITSTRING	0	DINRSTCL	"X'C004" STORCLAS
0	(0)	BITSTRING	0	DINRMGCL	"X'C005" MGMTCLAS
0	(0)	BITSTRING	0	DINRDACL	"X'C006" DATACLAS
0	(0)	BITSTRING	0	DINRRECO	"X'C00B" RECOORG
0	(0)	BITSTRING	0	DINRKEYO	"X'C00C" KEYOFF
0	(0)	BITSTRING	0	DINRREFD	"X'C00D" REFDD
0	(0)	BITSTRING	0	DINRSECM	"X'C00E" SECMODEL
0	(0)	BITSTRING	0	DINRLIKE	"X'C00F" LIKE
0	(0)	BITSTRING	0	DINRAVGR	"X'C010" AVGREC
0	(0)	BITSTRING	0	DINRDSNT	"X'C012" DSNTYPE
0	(0)	BITSTRING	0	DINRSPIN	"X'C013" SPIN
0	(0)	BITSTRING	0	DINRSEGM	"X'C014" SEGMENT
0	(0)	BITSTRING	0	DINRPATH	"X'C017" PATH
0	(0)	BITSTRING	0	DINRPOPT	"X'C018" PATHOPTS
0	(0)	BITSTRING	0	DINRPMDE	"X'C019" PATHMODE
0	(0)	BITSTRING	0	DINRPND5	"X'C01A" NORMAL PATHDISP
0	(0)	BITSTRING	0	DINRCNDS	"X'C01B" CONDITIONAL PATHDISP
0	(0)	BITSTRING	0	DINRPCDS	"X'C01B" CONDITIONAL PATHDISP
0	(0)	BITSTRING	0	DINRFDAT	"X'C01D" FILEDATA
0	(0)	BITSTRING	0	DINRSPI2	"X'C02A" SPIN interval
0	(0)	BITSTRING	0	DINRSYML	"X'C02B" SYMLIST
0	(0)	BITSTRING	0	DINRDSNV	"X'C02C" DSNTYPE version
0	(0)	BITSTRING	0	DINRMAXG	"X'C02D" MAXGENS - Requires APAR OA42358
0	(0)	BITSTRING	0	DINRGDGO	"X'C02E" GDGORDER
Comment					
JDT defined Information Retrieval input keys					
SJF DD INFORMATION RETRIEVAL INPUT KEYS					
End of Comment					
0	(0)	BITSTRING	0	DINPATH	"X'8017" PATH

## IEFZB4D2 Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
KEYS FOR REMOVE IN-USE FUNCTION					
End of Comment					
	....	...1		DRITCBAD	"X'0001" TCB ADDRESS
	....	..1.		DRICURNT	"X'0002" CURRENT TASK OPTION
Comment					
KEYS FOR DDNAME ALLOCATION FUNCTION					
End of Comment					
	....	...1		DDNDDNAM	"X'0001" DDNAME
	....	..1.		DDNRTDUM	"X'0002" RETURN DUMMY D.S. INDICATION
Comment					
KEYS FOR UNALLOCATION FUNCTION					
Note: see the Dependencies section of the prolog when adding new keys to this section.					
End of Comment					
	....	...1		DUNDDNAM	"X'0001" DDNAME
	....	..1.		DUNDSNAM	"X'0002" DSNAME
	....	..11		DUNMEMBR	"X'0003" MEMBER NAME
	....	.1.1		DUNOVDSP	"X'0005" OVERRIDING DISPOSITION
	....	.111		DUNUNALC	"X'0007" UNALLOC OPTION
	....	1..		DUNREMOV	"X'0008" REMOVE OPTION
	....	1.1.		DUNOVSNH	"X'000A" OVERRIDING SYSOUT NOHOLD
	...1	1..		DUNOVCLS	"X'0018" OVERRIDING SYSOUT CLASS
	.1.1	1..		DUNOVSSUS	"X'0058" OVERRIDING SYSOUT NODE
	.1.1	1..1		DUNOVSHQ	"X'0059" OVERRIDING SYSOUT HOLD QUEUE
	.11.	..11		DUNOVUID	"X'0063" Overriding SYSOUT User ID
Comment					
JDT defined Unallocation keys					
SJF DD UNALLOCATION KEYS					
End of Comment					
0	(0)	BITSTRING	0	DUNSPIN	"X'8013" SPIN
0	(0)	BITSTRING	0	DUNPATH	"X'8017" PATH
0	(0)	BITSTRING	0	DUNOVPSD	"X'801A" PATHDISP - Override Disposition
0	(0)	BITSTRING	0	DUNSPI2	"X'802A" SPIN

## IEFZB4D2 Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DALACODE	0	8001	DALCODE	0	39
DALAVGR	0	8010	DALCOPYG	0	66
DALBFALN	0	2E	DALCOPYYS	0	1D
DALBFTEK	0	2F	DALCPRI	0	3A
DALBLKLN	0	9	DALCYL	0	8
DALBLKSZ	0	30	DALDACL	0	8006
DALBRTKN	0	6E	DALDCBDD	0	2D
DALBSLM	0	8022	DALDCBDS	0	2C
DALBUFIN	0	31	DALDCCS	0	8020
DALBUFL	0	32	DALDDNAM	0	1
DALBUFMX	0	33	DALDEFER	0	6C
DALBUFNO	0	34	DALDEN	0	3B
DALBUFOF	0	35	DALDIAGN	0	54
DALBUFOU	0	36	DALDIR	0	C
DALBUFRQ	0	37	DALDSNAM	0	2
DALBFSZ	0	38	DALDSNT	0	8012
DALBURST	0	64	DALDSNV	0	802C
DALCDISP	0	6	DALDSORG	0	3C
DALCHARS	0	65	DALDSSEQ	0	1F
DALCLOSE	0	1C	DALDUMMY	0	24
DALCNTL	0	8003	DALEATT	0	8028
DALCNVRT	0	53	DALEROPT	0	3D

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DALEXPDL	0	6D	DALSECM	0	800E
DALEXPDT	0	22	DALSECND	0	B
DALFCBAV	0	26	DALSEGM	0	8014
DALFCBIM	0	25	DALSFMNO	0	1A
DALFCNT	0	68	DALSHOLD	0	59
DALFDAT	0	801D	DALSMSHR	0	76
DALFFORM	0	67	DALSOWA	0	4C
DALFRID	0	5B	DALSPFRM	0	E
DALFRVL	0	8029	DALSPGNM	0	19
DALFUNC	0	5A	DALSPIN	0	8013
DALGDGO	0	802E	DALSPI2	0	802A
DALGIG	0	74	DALSSATT	0	62
DALGNCP	0	3E	DALSSNM	0	5F
DALINCHG	0	6F	DALSSPRM	0	60
DALINOUT	0	21	DALSSREQ	0	5C
DALINTVL	0	3F	DALSTACK	0	4D
DALIPLTX	0	51	DALSTATS	0	4
DALKEYO	0	800C	DALSTCL	0	8004
DALKILO	0	72	DALSUSER	0	58
DALKYC1	0	8025	DALSYML	0	802B
DALKYC2	0	8026	DALYSOU	0	18
DALKYLEN	0	40	DALTERM	0	28
DALKYL1	0	8023	DALTHRSH	0	4E
DALKYL2	0	8024	DALTRK	0	7
DALLABEL	0	1E	DALTRTCH	0	4F
DALLGST	0	801F	DALUASSR	0	75
DALLIKE	0	800F	DALUCS	0	29
DALLIMCT	0	41	DALUFOLD	0	2A
DALLRECK	0	6B	DALUNCNT	0	16
DALLRECL	0	42	DALUNIT	0	15
DALMAXG	0	802D	DALUNQDS	0	77
DALMEG	0	73	DALUSRID	0	63
DALMEMBR	0	3	DALUVRFY	0	2B
DALMGCL	0	8005	DALVLCNT	0	13
DALMMOD	0	69	DALVLRDS	0	14
DALMODE	0	43	DALVSEQ	0	12
DALMSVGP	0	5E	DALVLSER	0	10
DALMTRC	0	6A	DCCDDNAM	0	1
DALNCP	0	44	DCCPERMC	0	4
DALNDISP	0	5	DDCDDNAM	0	1
DALOPTCD	0	45	DDNDDNAM	0	1
DALOUTLM	0	1B	DDNRTDUM	0	2
DALOUTPT	0	8002	DINDDNAM	0	1
DALOVAFF	0	70	DINDSNAM	0	2
DALPARAL	0	17	DINPATH	0	8017
DALPASPR	0	20	DINRAVGR	0	C010
DALPASSW	0	50	DINRCNDS	0	C01B
DALPATH	0	8017	DINRCNTL	0	C003
DALPCDS	0	801B	DINRDACL	0	C006
DALPCIR	0	46	DINRDSNT	0	C012
DALPCIS	0	47	DINRDSNV	0	C02C
DALPERMA	0	52	DINRELNO	0	F
DALPMDE	0	8019	DINRFDAT	0	C01D
DALPNDS	0	801A	DINRGDGO	0	C02E
DALPOPT	0	8018	DINRKEYO	0	C00C
DALPRIME	0	A	DINRLIKE	0	C00F
DALPRIVT	0	11	DINRLPOS	0	12
DALPROT	0	61	DINRMAXG	0	C02D
DALPRTSP	0	48	DINRMGCL	0	C005
DALQNAME	0	27	DINRPATH	0	C017
DALRECFM	0	49	DINRPCDS	0	C01B
DALRECO	0	800B	DINRPMDE	0	C019
DALREFD	0	800D	DINRPNDS	0	C01A
DALRETPD	0	23	DINRPOPT	0	C018
DALRLS	0	801C	DINRRECO	0	C00B
DALRLSE	0	D	DINRREFD	0	C00D
DALROUND	0	F	DINRSECM	0	C00E
DALRSRVF	0	4A	DINRSEGM	0	C014
DALRSRVS	0	4B	DINRSPIN	0	C013
DALRTCTK	0	71	DINRSPI2	0	C02A
DALRTDDN	0	55	DINRSTCL	0	C004
DALRTDSN	0	56	DINRSYML	0	C02B
DALRTORG	0	57	DINRTATT	0	C
DALRTVOL	0	5D	DINRTCDP	0	9

## IEFZB4D2 Cross Reference

Name	Hex Offset	Hex Value
DINRTDDN	0	4
DINRTDDX	0	11
DINRTDSN	0	5
DINRTLIM	0	B
DINRTLST	0	D
DINRTMEM	0	6
DINRTNDP	0	8
DINRTORG	0	A
DINRTSTA	0	7
DINRTTYP	0	E
DINRTVOL	0	10
DRICURNT	0	2
DRITCBAD	0	1
DUNDDNAM	0	1
DUNDSNAM	0	2
DUNMEMBR	0	3
DUNOVCLS	0	18
DUNOVDSP	0	5
DUNOVPSD	0	801A
DUNOVSHQ	0	59
DUNOVSNH	0	A
DUNOVSUS	0	58
DUNOVUID	0	63
DUNPATH	0	8017
DUNREMOV	0	8
DUNSPIN	0	8013
DUNSPI2	0	802A
DUNUNALC	0	7
SVC99KYS	0	

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## IEFZB4FJ Information

### IEFZB4FJ Programming Interface information

Programming Interface information

IEFZB4FJ

End of Programming Interface information

## IEFZB4FJ Heading Information • IEFZB4FJ Cross Reference

### IEFZB4FJ Heading Information

**Common Name:** JES3 Initialization and Setup Exit Flags  
**Macro ID:** IEFZB4FJ  
**DSECT Name:** JESFLAGS  
**Owning Component:** Allocation (SC1B4)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Main Storage: No  
 Virtual Storage: Yes  
 Auxiliary Storage: Yes  
 Subpool: 230  
 Key: 1  
 Data Space: No  
 Residency: Any  
**Size:** 2 bytes  
**Created by:** IEFAB4C3, IEFBB404, IEFDB413  
**Pointed to by:** SSDYPFLG field of the SSDY  
**Serialization:** None  
**Function:** This maps a parameter list which will be pointed to from the SSDY, and will thus be passed to the JES. For PL/AS callers it also maps the function map used by IEFAB4FJ.

### IEFZB4FJ Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	JESFLAGS	FLAGS FOR 'DYNAMIC ALLOCATION' CALL TO JES3
0	(0)	CHARACTER	1	DYNCALL1	FIRST BYTE OF FLAGS
0	(0)	X'80'	0	JSVOLMNT	"128" ALLOW VOLUME MOUNT
0	(0)	X'40'	0	JSOFFLIN	"64" CONSIDER OFFLINES
0	(0)	X'20'	0	JSWTADDEV	"32" WAIT FOR DEVICES
0	(0)	X'10'	0	JSWTDSN	"16" WAIT FOR DATASET NAMES
0	(0)	X'8'	0	JSWTVOL	"8" WAIT FOR VOLUMES
0	(0)	X'4'	0	JSPCATIN	"4" PRIVATE CATALOG FOR INITIATOR
0	(0)	X'2'	0	JSDYNDI	"2" NO JES3 DATASET NAME INTEGRITY PROCESSING
0	(0)	X'1'	0	JSNOTRSB	"1" SWA BLOCKS BEING PASSED ARE DUMMIES AND DO NOT REPRESENT A REAL DD
1	(1)	CHARACTER	1	DYNCALL2	SECOND BYTE OF FLAGS
1	(1)	X'80'	0	JSBATCH	"128" THIS JES3 CALL IS DONE FROM BATCH ALLOCATION

### IEFZB4FJ Cross Reference

Name	Hex Offset	Hex Value
DYNCALL1	0	
DYNCALL2	1	
JESFLAGS	0	
JSBATCH	1	80
JSDYNDI	0	2
JSNOTRSB	0	1
JSOFFLIN	0	40
JSPCATIN	0	4
JSVOLMNT	0	80
JSWTADDEV	0	20
JSWTDSN	0	10
JSWTVOL	0	8



## IEFZB468 Information

### IEFZB468 Heading Information

**Common Name:** Mapping macro for STARTIO/EXCP ESTAE Parm  
**Macro ID:** IEFZB468  
**DSECT Name:** EXPARM  
**Owning Component:** Allocation (SC1B4)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Main Storage: No  
 Virtual Storage: Yes  
 Auxiliary Storage: Yes  
 Subpool: 230  
 Key: 1  
 Data Space: No  
 Residency: Any  
**Size:** 120 bytes  
**Created by:** IEFAB4E0 IEFAB494  
**Pointed to by:** ASWAPRMS  
**Serialization:** None  
**Function:** This parameter list is created by IEFAB4E0 and IEFAB494 for use by the ESTAE exit routine, IEFAB4EI.

### IEFZB468 Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	120	EXPARM	ESTAE PARAMETERS
0	(0)	CHARACTER	96	EXAUTO	AUTOMATIC STORAGE
96	(60)	CHARACTER	1	EXFLAG	FLAG BYTE
		1... ....		EXSTIO	I/O HAS BEEN STARTED
		.1... ....		EXGETNM	STORAGE WAS GOTTEN
		..1. ....		EXISSUE	ESTAE WAS SUCCESSFUL
		...1 ....		EXDSID	DSID supplied for PURGE (otherwise use PSATOLD)
		.... 1...		EXDVRID	Driver ID supplied for PURGE (otherwise use IOSMISID)
		.... .1..		EXTIMER	STIMERM active and needs to be cancelled
		.... ..1.		EXSWAP	SYSEVENT OKSWAP needs to be issued
		.... ...1		*	Reserved and available as of HBB77A0
97	(61)	CHARACTER	1	*	RESERVED
98	(62)	SIGNED	2	EXSUBPL	SUBPL OF COMMON STORAGE
100	(64)	ADDRESS	4	EXADDR	ADDR OF COMMON STORAGE
104	(68)	SIGNED	4	EXLEN	LEN OF COMMON STORAGE
108	(6C)	SIGNED	4	EXTIMEID	STIMERM ID to CANCEL (valid only if EXTIMER is set)
112	(70)	CHARACTER	1	EXDRIVER	Value of PPLDVRID to purge (valid only if EXDVRID is set)
113	(71)	ADDRESS	3	EXDSIDA	Value of PPLDSIDA to purge I/O by (valid only if EXDSID is set)
116	(74)	ADDRESS	4	*	Reserved and available as of HBB77A0

### IEFZB468 Cross Reference

Name	Hex Offset	Hex Value
EXADDR	64	
EXAUTO	0	
EXDRIVER	70	
EXDSID	60	10
EXDSIDA	71	
EXDVRID	60	08
EXFLAG	60	
EXGETNM	60	40
EXISSUE	60	20
EXLEN	68	
EXPARM	0	
EXSTIO	60	80
EXSUBPL	62	
EXSWAP	60	02
EXTIMEID	6C	
EXTIMER	60	04



## IEFZDDWA Information

### IEFZDDWA Heading Information

**Common Name:** DD Work Area  
**Macro ID:** IEFZDDWA  
**DSECT Name:** DDWA  
**Owning Component:** Allocation (SC1B4)  
**Eye-Catcher ID:** DDWA  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: 230  
 Key: Key 1  
 Residency: Above  
**Size:** X'60' bytes  
**Created by:** IEFBB401, IEFDB413, IEFAB466  
**Pointed to by:** SIOTDDWA (contained within IEFASIOT)  
**Serialization:** None  
**Function:** This macro maps the DD Work Area.  
 The DD Work Area is used to hold information pertaining to a DD statement (or SIOT) and is created for one instance of Allocation.  
 It is important to note that the information pointed to by this block is not checkpointed. This block is acquired early in the allocation process, so it will be available throughout most of Allocation's processing.  
 This macro also contains the DDWAFailedDevList, which contains the list of devices that have been requested to be brought online by Recovery Allocation but were unsuccessful.

### IEFZDDWA Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	96	DDWA	DD work area
0	(0)	CHARACTER	4	DDWAID	Identifier C'DDWA'
4	(4)	UNSIGNED	1	DDWAVER	Version number
5	(5)	CHARACTER	1	DDWAFLG1	Flags
		1... ..		DDWAMDMD	A demand library MOUNT cmd
		.1. ....		DDWAMUMG	SIOT is a MU/MG request
		..1. ....		DDWAMUML	SIOT is a MU/ML request
		...1 ....		DDWASIUA	System has detected a Strong Implicit Unit Affinity to the unit allocated to another DD, due to volser in conflict or other reason. While a specific unit is not required, the same unit as another DD is using IS required, making this a duplicate unit request. MUG groups will be restricted to generic of the device to which there is strong affinity by segment GMENDMND in IEFAB472. This affinity must be honored or the request must be failed (similar to a DEMANDED unit)
		.... 1..		DDWAGAFF	SCTUNAFF is on due to implicit unit affinity for GDGALL and not due to UNIT=AFF= on the JCL
		.... .1.		DDWAODPL	The device pool list passed back from SMS Device Pool Select SSI is ordered. Set by IEFAB42B (was IEFAB423 prior to ATLIB in HBB4430). Used by IEFAB482.
		.... ..1.		DDWAUNAF	Allocation invoked the SMS UNITAFF SSI Exit for this DD. Set by IEFAB457. Checked by IEFAB422.
		.... ...1		DDWACNST	SMS Constructs have been obtained via a call to the SMS TVRU SSI. Set by IEFAB435. Checked by IEFAB490.
6	(6)	CHARACTER	2	DDWAMDEV	Library MOUNT device number
8	(8)	ADDRESS	4	DDWAVRB	Ptr. to VOLUNIT Request Block
12	(C)	CHARACTER	4	DDWARGEN	Generic device type for a request requiring allocated/ offline devices. Set by IEFAB486 and used by IEFAB48A
16	(10)	CHARACTER	4	DDWAMGEN	Generic device type for a MU/ML library request
20	(14)	CHARACTER	5	DDWAMLIB	Library identifier for a MU/MG library request
25	(19)	UNSIGNED	1	DDWAP SCT	the number of public/storage units needed by allocation
26	(1A)	UNSIGNED	1	DDWARCNT	Number of times Recovery Allocation was entered
27	(1B)	UNSIGNED	1	DDWAFLG2	Flags
		1... ..		DDWAMSS	All unit eligible to this request are MSS devices
		.1. ....		DDWAMXD	Units eligible to this request are a mix of MSS and non-MSS devices
		..1. ....		DDWAFUDA	Mixed device spec. AFF or DEFER
		...1 ....		DDWAPVTM	PVT assumed message reqd
		.... 1..		DDWAGIGN	Ignore process DDWA for this generic
		.... .1.		DDWARTRY	This request requires retry in allocation

# IEFZDDWA Map

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
		.... ..1.		DDWANODQ	Set in Common Allocation Control (IEFAB421) when a volume ENQ for one of the volume(s) associated with this request failed. - It is later checked in Common Unallocation Control (IEFAB4A0) before creating the Volume Release List (VRL) of volumes to be DEQ'd. - This eliminates the chance of a volume being DEQ'd from under the 'mother' task by a failing 'daughter' task. - When set, DDWAFNQV will contain the Volume Serial (VOLSER) number associated with the failed ENQ.	
		.... ..1		DDWAREPCALL	Indicates that the IEF_ALLC_OFFLN exit has already been called for this request. This is passed to the exit in the REPEATCL bit by IEFAB48A	
28	(1C)	CHARACTER	4	DDWAUNIT	UNIT value from JCL	
32	(20)	ADDRESS	4	DDWAVUAD	VOLUNIT table address	
36	(24)	ADDRESS	2	DDWAVUNO	Number of VOLUNIT Table entries.	
38	(26)	ADDRESS	2	DDWAGIID	Group intersection id for generic allocation	
40	(28)	SIGNED	2	DDWASSIC	information reason code	
42	(2A)	CHARACTER	5	DDWATLIB	The library ID of the last Device Pool in the list of eligible device pools which is above the scratch volume threshold. See IEFAB42B (was IEFAB423 prior to ATLIB in HBB4430) for further information. Used by Library Allocation.	
47	(2F)	CHARACTER	5	DDWARLIB	Library ID of the device group selected by the algorithm. Set by IEFAB486 and used by IEFAB48A.	
52	(34)	CHARACTER	6	DDWAFNQV	Represents a Volume Serial (VOLSER) number that failed an ENQ request by a 'daughter' task when it was already held by the 'mother' task. - DDWANODQ will be on when this field is used.	
58	(3A)	UNSIGNED	1	DDWAFLG3	Flags	
		1... ....		DDWABADU	Coded unit parameter was not valid, but ignored (i.e. SMS managed dataset) and NOT replaced by a unit retrieved from the catalog or prior DD. Set by IEFAB464. Used by IEFAB453.	
		.1.. ....		DDWAEDLA	EDL was altered. Set by IEFAB422 when it detects a change in the EDL upon return from the JES SSI. Acted upon in IEFAB421 whenever a non-zero Return Code is detected.	
		..1. ....		DDWA_SKIPPED_UNAVAIL	When building the EDL, IEFAB424 detected that one or more tape devices eligible for a (library / non-library) was marked unavailable for allocation. And did not add the device(s) to the Eligible Device Table.	
		...1 ....		DDWA_SIOTDMND	set by IEFAB464 if the UNIT NAME conversion indicates that a specific unit is coded on the Tape Library request.	
		.... 1...		DDWA_DPS_BYPASS_ASSIST	Set by IEFAB422 to indicate that Device Pool Select in IEFAB42B should set SSSAIBAA to bypass Allocation Assist.	
		.... .1..		DDWA_PRECALL_NEEDED	Set by IEFAB469 when a parallel recall is to be done for this request.	
		.... ..1.		DDWA_PRECALL_COMPLETE	Set by IEFABHS1 when a recall has been completed in parallel for this request.	
		.... ..1		DDWA_GENERATION_NAME_RESOLVED	Indicates that the data set name has been resolved from a relative generation number to a G0000V00 name. Currently only set for GDG single requests by IEFAB461.	
59	(3B)	CHARACTER	1	*	Reserved	
60	(3C)	ADDRESS	4	DDWASIOT	Address of the referenced SIOT if VOL=REF=*.DD or VOL=REF= *.STEP.DD is coded. (Set by IEFAB464. Used by IEFAB42A.)	
64	(40)	CHARACTER	8	DDWADTYP	Device Type from EDL. Set by IEFAB422 and used by IEFAB421 if IEF005I is issued for this DD.	
72	(48)	ADDRESS	4	DDWAFALLEDDEVS	Pointer to list of devices that Recovery Allocation has requested to bring online and have failed. Mapped by DDWAFailedDevList	
76	(4C)	CHARACTER	8	DDWA_SCTUTYPE	SCTUTYPE from the UNIT NAME	
76	(4C)	CHARACTER	4	DDWA_SIOTDEVT	SIOTDEVTYPE for UNIT	
80	(50)	ADDRESS	4	DDWA_SIOUCBA4	SIOUCBAAddr for specific unit@L9A	

Comment

saved here if SIOTSHNR is on@L9A

End of Comment

84	(54)	ADDRESS	4	DDWA_RECALLECBPTR	Pointer to ECB returned from HSM Recall request in IEFABHSM
88	(58)	CHARACTER	8	*	Reserved and available

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	96	DDWAFAILEDDEVLIST	
					DFDL - DDWA Failed Device List
0	(0)	CHARACTER	4	DFDLID	Identifier C'DFDL'
4	(4)	UNSIGNED	1	DFDLVER	Version number
5	(5)	CHARACTER	3	*	Reserved
8	(8)	ADDRESS	4	DFDLNEXT@	Pointer to next DDWAFailedDevList for this DDWA
12	(C)	SIGNED	4	DFDLNUM	Number of entries used in this DDWAFailedDevList
16	(10)	CHARACTER	4	DFDLDEVNUM	Array of device numbers already requested to be brought online for this DDWA (4294967316:562129304)

**IEFZDDWA Constants**

Len	Type	Value	Name	Description
1	DECIMAL		DDWACVER	Current Version Number
4	CHARACTER	DDWA	DDWACID	Identifier
4	DECIMAL		DDWAPCTD	Primary Cell Pool count for Dynamic Allocations
4	DECIMAL		DDWASCTD	Secondary Cell Pool count for Dynamic Allocations
4	DECIMAL		DDWAPCTB	Primary Cell Pool count for Batch Allocations
4	DECIMAL		DDWASCTB	Secondary Cell Pool count for Batch Allocations
18	CHARACTER	IEFZDDWA CELL POOL	DDWACPHD	Header for Cell Pool
4	CHARACTER	DFDL	DFDLCID	Identifier
4	DECIMAL		DFDLMAXDEVICES	Size of the DFDLDevnum array
4	DECIMAL		ASSERT_GE_1	Ensure that the DDWA is at least as big as the DFDL, since these both reside in the same cell pool. The DDWA size is used to calculate the cell size

**IEFZDDWA Cross Reference**

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DDWA	0		DDWAMLIB	14	
DDWA_DPS_BYPASS_ASSIST	3A	08	DDWAMSS	1B	80
DDWA_GENERATION_NAME_RESOLVED	3A	01	DDWAMJMG	5	40
DDWA_PRECALL_COMPLETE	3A	02	DDWAMUML	5	20
DDWA_PRECALL_NEEDED	3A	04	DDWAMXD	1B	40
DDWA_RECALLECBPTR	54		DDWANODQ	1B	02
DDWA_SCTUTYPE	4C		DDWAODPL	5	04
DDWA_SIOTDEVT	4C		DDWAPSCT	19	
DDWA_SIOTDMND	3A	10	DDWAPVTM	1B	10
DDWA_SIOUCBA4	50		DDWARCNT	1A	
DDWA_SKIPPED_UNAVAIL	3A	20	DDWAREPCALL	1B	01
DDWABADU	3A	80	DDWARGEN	C	
DDWACNST	5	01	DDWARLIB	2F	
DDWADTYP	40		DDWARTRY	1B	04
DDWAEDLA	3A	40	DDWASIOT	3C	
DDWAFAILEDDEVLIST	0		DDWASIIA	5	10
DDWAFAILEDDEVS	48		DDWASSIC	28	
DDWAFLG1	5		DDWATLIB	2A	
DDWAFLG2	1B		DDWAUNAF	5	02
DDWAFLG3	3A		DDWAUNIT	1C	
DDWAFNQV	34		DDWAVER	4	
DDWAFUDA	1B	20	DDWAVRB	8	
DDWAGAFF	5	08	DDWAVUAD	20	
DDWAGIGN	1B	08	DDWAVUNO	24	
DDWAGIID	26		DFDLDEVNUM	10	
DDWAID	0		DFDLID	0	
DDWAMDEV	6		DFDLNEXT@	8	
DDWAMDMD	5	80	DFDLNUM	C	
DDWAMGEN	10		DFDLVER	4	



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## IEFZPMAP Information

### IEFZPMAP Programming Interface information

Programming Interface information

IEFZPMAP

End of Programming Interface information

## IEFZPMAP Heading Information • IEFZPMAP Map

### IEFZPMAP Heading Information

**Common Name:** Mapping Macros for use with the "Logical Parmlib" Service (IEFPRMLB)  
**Macro ID:** IEFZPMAP  
**DSECT Name:** PRM\_List\_Buffer - Provides a mapping for the REQUEST=LIST output PRM\_Read\_Buffer - Provides a mapping for the REQUEST=ALLOCATE with READ function and the REQUEST=READMEMBER function output PRM\_Message\_Buffer - Provides a mapping for the message buffer for the REQUEST=ALLOCATE and REQUEST=READMEMBER functions

**Owning Component:** Allocation (SC1B4)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Main Storage: NO  
 Virtual Storage: YES  
 Auxiliary Storage: YES  
 Subpool: Determined by users of IEFPRMLB  
 Key: Determined by users of IEFPRMLB  
 Data Space: NO  
 Residency: Any

**Size:** PRM\_LIST\_BUFFER -- X'0048' bytes  
 if room for one 56-byte entries is provided. Otherwise, X'38' larger for each entry for which room is provided. Room should be provided for at least 11 entries.  
 PRM\_READ\_BUFFER -- X'0068' bytes  
 if room for one 80-byte record is provided. Otherwise, X'50' larger for each record for which room is provided.  
 PRM\_MESSAGE\_BUFFER -- X'0110' bytes  
 if room for one message is provided. Otherwise, X'100' larger for each message for which room is provided.

**Created by:** Callers of IEFPRMLB  
**Pointed to by:** Addresses are stored into the caller's parameter list

**Serialization:** None.  
**Function:** PRM\_List\_Buffer - Provides a mapping for the REQUEST=LIST output  
 PRM\_Read\_Buffer - Provides a mapping for the REQUEST= ALLOCATE with READ function and the REQUEST= READMEMBER FUNCTION output  
 PRM\_Message\_Buffer - Provides a mapping for the message buffer for the REQUEST=ALLOCATE and REQUEST= READMEMBER functions

### IEFZPMAP Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	PRM_LIST_BUFFER	Information returned by the LIST function of the IEFPRMLB macro
0	(0)	CHARACTER	16	PRM_LIST_HEADER	Header
0	(0)	SIGNED	1	PRM_LIST_VERSION	Version number. Must be set to PRM_List_Ver1 or PRM_List_Current_Version
1	(1)	CHARACTER	3		Reserved
4	(4)	SIGNED	4	PRM_NUM_PARMLIB_DS	Number of PARMLIB datasets in use by the system
8	(8)	SIGNED	4	PRM_LIST_BUFF_SIZE	Input - Size of buffer including the header
12	(C)	CHARACTER	4		Reserved
16	(10)	CHARACTER	1	PRM_LIST_ENTRIES (0)	Array of entries each mapped by PRM_Parmlib_Ds_Info
16	(10)	CHARACTER	56	PRM_PARMLIB_DS_INFO	PARMLIB data set record
16	(10)	CHARACTER	44	PRM_PLIB_DSN	PARMLIB dataset name
60	(3C)	CHARACTER	6	PRM_PLIB_VOLSER	PARMLIB VOLSER
66	(42)	CHARACTER	6		Reserved

Comment

Version information used with the LIST buffer (PRMLBUFF)

End of Comment



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.... ...1		PRM_LIST_VER1	"X'01" Version 1 indicator
		.... ...1		PRM_LIST_CURRENT_VERSION	"X'01" Current Version
66	(42)	X'48'	0	PRM_LIST_BUFFER_LEN	**-.PRM_LIST_BUFFER"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRM_READ_BUFFER	Buffer where contents of PARMLIB member are to be placed - used with ALLOCATE READ or READMEMBER functions of IEFPRMLB
0	(0)	CHARACTER	24	PRM_READ_HEADER	Read Buffer Header
0	(0)	SIGNED	4	PRM_READ_BUFF_SIZE	Input - Size of buffer including the header
4	(4)	SIGNED	4	PRM_RECORDS_READ_COUNT	Output - number of PARMLIB member records read into this buffer
8	(8)	SIGNED	4	PRM_BUFF_SIZE_NEEDED	Output - size of buffer needed to contain entire member contents - valid for buffer full condition
12	(C)	SIGNED	4	PRM_TOTAL_RECORDS	Output - Total number of records in the specified member
16	(10)	CHARACTER	8		Reserved
24	(18)	CHARACTER	1	PRM_RECORDS	Output: PARMLIB records area
24	(18)	CHARACTER	80	PRM_RECORD	Output: array of PARMLIB records, each mapped by PRM_Record_Element
24	(18)	CHARACTER	80	PRM_RECORD_ELEMENT	One record
24	(18)	CHARACTER	72	PRM_RECORD_TEXT	First 72 characters of record (If Blank72=YES is specified, character 72 will be EBCDIC blank.)
96	(60)	CHARACTER	8	PRM_EXTRANEIOUS	Sequence number
96	(60)	X'68'	0	PRM_READ_BUFFER_LEN	**-.PRM_READ_BUFFER"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRM_MESSAGE_BUFFER	Buffer where messages will be returned
0	(0)	CHARACTER	16	PRM_MESSAGE_HEADER	Message Buffer Header
0	(0)	SIGNED	4	PRM_MSG_BUFFER_SIZE	Input - Size of buffer including the header
4	(4)	SIGNED	4	PRM_MESSAGE_COUNT	Output - number of messages in the buffer
8	(8)	BITSTRING	1	PRM_MSG_BUFFER_FLAGS	"X'80" Output - Message buffer full
9	(9)	CHARACTER	7		Reserved
16	(10)	CHARACTER	1	PRM_MESSAGES	Messages
16	(10)	CHARACTER	256	PRM_MESSAGE_ARRAY	Output - an array of messages descriptors, each mapped by PRM_MESSAGE_ELEMENT
16	(10)	CHARACTER	256	PRM_MESSAGE_ELEMENT	Output - information for one message
16	(10)	BITSTRING	1	PRM_MSG_FLAGS	Output - indicator flags
17	(11)	CHARACTER	1		Reserved
18	(12)	SIGNED	2	PRM_MSG_TEXT_LENGTH	Output - length of this message text
20	(14)	CHARACTER	251	PRM_MSG_TEXT	Output - This message line's text
271	(10F)	CHARACTER	1		Reserved
271	(10F)	X'110'	0	PRM_MESSAGE_BUFFER_LEN	**-.PRM_MESSAGE_BUFFER"

## IEFZPMAP Cross Reference

### IEFZPMAP Cross Reference

Name	Hex Offset	Hex Value
PRM_BUFF_SIZE_NEEDED	8	
PRM_EXTRANEIOUS	60	
PRM_LIST_BUFF_SIZE	8	
PRM_LIST_BUFFER	0	
PRM_LIST_BUFFER_LEN	42	48
PRM_LIST_CURRENT_VERSION	42	1
PRM_LIST_ENTRIES	10	
PRM_LIST_HEADER	0	
PRM_LIST_VERSION	0	
PRM_LIST_VER1	42	1
PRM_MESSAGE_ARRAY	10	
PRM_MESSAGE_BUFFER	0	
PRM_MESSAGE_BUFFER_LEN	10F	110
PRM_MESSAGE_COUNT	4	
PRM_MESSAGE_ELEMENT	10	
PRM_MESSAGE_HEADER	0	
PRM_MESSAGES	10	
PRM_MSG_BUFFER_FLAGS	8	
PRM_MSG_BUFFER_FULL	8	80
PRM_MSG_BUFFER_SIZE	0	
PRM_MSG_FLAGS	10	
PRM_MSG_TEXT	14	
PRM_MSG_TEXT_LENGTH	12	
PRM_NUM_PARMLIB_DS	4	
PRM_PARMLIB_DS_INFO	10	
PRM_PLIB_DSN	10	
PRM_PLIB_VOLSER	3C	
PRM_READ_BUFF_SIZE	0	
PRM_READ_BUFFER	0	
PRM_READ_BUFFER_LEN	60	68
PRM_READ_HEADER	0	
PRM_RECORD	18	
PRM_RECORD_ELEMENT	18	
PRM_RECORD_TEXT	18	
PRM_RECORDS	18	
PRM_RECORDS_READ_COUNT	4	
PRM_TOTAL_RECORDS	C	

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## IEFZPRC Information

### IEFZPRC Programming Interface information

Programming Interface information

IEFZPRC

End of Programming Interface information

## IEFZPRC Heading Information • IEFZPRC Map

### IEFZPRC Heading Information

**Common Name:** Logical Parmlib Service Return and Reason Codes  
**Macro ID:** IEFZPRC  
**DSECT Name:** N/A  
**Owning Component:** Allocation (SC1B4)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Main Storage: N/A  
 Virtual Storage: N/A  
 Auxiliary Storage: N/A  
 Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** N/A  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** Defines the return and reason codes used by the Logical Parmlib Service

### IEFZPRC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	X'0'	0	PRMLB_SUCCESS	"0" X'000' IEFPRMLB completed successfully
0	(0)	X'0'	0	PRMLB_FUNCTION_COMPLETE	"0" X'000' Function completed
0	(0)	X'4'	0	PRMLB_WARNING	"4" X'004' IEFPRMLB completed successfully with a warning
0	(0)	X'8'	0	PRMLB_LOCKS_HELD	"8" X'008' Caller holds locks
0	(0)	X'C'	0	PRMLB_REQUEST_FAILED	"12" X'00C' IEFPRMLB request failed
0	(0)	X'10'	0	PRMLB_INTERNAL_ERROR	"16" X'010' IEFPRMLB internal error
0	(0)	X'14'	0	PRMLB_NOT_TASK_MODE	"20" X'014' Caller is not in TASK mode
0	(0)	X'1C'	0	PRMLB_INVALID_PARAMETER_LIST	"28" X'01C' Input parameter list is invalid
0	(0)	X'20'	0	PRMLB_CROSS_MEMORY	"32" X'020' Caller is in Cross Memory Mode
0	(0)	X'24'	0	PRMLB_ESTAE_SETUP_FAILED	"36" X'024' ESTAE Setup failed
0	(0)	X'28'	0	PRMLB_NOTAUTH_TO_SUBPOOL	"40" X'028' An unauthorized caller requested messages in an authorized subpool
Comment					
IEFPRMLB REASON CODES (decimal)					
REASON CODE PRMLB_SUCCESS (decimal 0)					
End of Comment					
0	(0)	X'0'	0	PRMLB_RSN_OK	"0" X'000' Success reason code
Comment					
REASON CODE PRMLB_WARNING (decimal 4)					
End of Comment					
0	(0)	X'1'	0	PRMLB_DD_ALREADY_ALLOC	"1" X'001' Specified DDname is already allocated
Comment					
RETURN CODE PRMLB_REQUEST_FAILED (decimal 12)					
End of Comment					
0	(0)	X'1'	0	PRMLB_MEMBER_NOT_FOUND	"1" X'001' Specified member not found
0	(0)	X'2'	0	PRMLB_READ_IO_ERROR	"2" X'002' I/O error on member read
0	(0)	X'3'	0	PRMLB_OPEN_ERROR	"3" X'003' Error opening parmlib dataset

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	X'4'	0	PRMLB_ALLOC_FAILED	"4" X'004' Allocation of one of the logical parmlib datasets failed
0	(0)	X'5'	0	PRMLB_CONCAT_FAILED	"5" X'005' Concatenation of the logical parmlib datasets failed
0	(0)	X'6'	0	PRMLB_READER_LOAD_FAILED	"6" X'006' Load of the parmlib read routine failed
0	(0)	X'7'	0	PRMLB_UNABLE_TO_ACCESS_DS	"7" X'007' Unable to access data set
0	(0)	X'8'	0	PRMLB_PARMLIB_STILL_OPEN	"8" X'008' The logical parmlib is still open. It must be closed before it can be unallocated.
0	(0)	X'9'	0	PRMLB_UNALLOC_FAILED	"9" X'009' Unallocation of one of the logical parmlib datasets failed
0	(0)	X'A'	0	PRMLB_READ_BUFFER_FULL	"10" X'00A' The input READ buffer is full and READ processing could not continue
0	(0)	X'B'	0	PRMLB_PUTLINE_ERROR	"11" X'00B' Putline processing abended. This could be due to an error in the user-provided CPPL.

Comment

RETURN CODE PRMLB\_Internal\_Error (decimal 16)

End of Comment

0	(0)	X'1'	0	PRMLB_BAD_PARAMETER	"1" X'001' Bad parameter list passed to parmlib read routine
0	(0)	X'2'	0	PRMLB_UNKNOWN_REASON	"2" X'002' Reason for failure is unknown

Comment

RETURN CODE PRMLB\_Invalid\_Parameter\_List (decimal 28)

End of Comment

0	(0)	X'1'	0	PRMLB_PLIST_UNACCESSIBLE	"1" X'001' Unable to access the input parameter list
0	(0)	X'2'	0	PRMLB_LISTBUFF_UNACCESSIBLE	"2" X'002' Unable to access the input list buffer
0	(0)	X'3'	0	PRMLB_MSGBUFF_UNACCESSIBLE	"3" X'003' Unable to access the input message buffer
0	(0)	X'4'	0	PRMLB_READBUFF_UNACCESSIBLE	"4" X'004' Unable to access the input read buffer
0	(0)	X'5'	0	PRMLB_PLIST_S99TXTPP_NOT0	"5" X'005' S99TXTPP must be zero
0	(0)	X'6'	0	PRMLB_MSGBUFF_FORMAT_ERROR	"6" X'006' Error in message buffer format
0	(0)	X'7'	0	PRMLB_READBUFF_FORMAT_ERROR	"7" X'007' Error in read buffer format
0	(0)	X'8'	0	PRMLB_LISTBUFF_FORMAT_ERROR	"8" X'008' Error in list buffer format
0	(0)	X'9'	0	PRMLB_S99RB_UNACCESSIBLE	"9" X'009' Unable to access the input S99RB

## IEFZPRC Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
PRMLB_ALLOC_FAILED	0	4	PRMLB_INVALID_PARAMETER_LIST	0	10
PRMLB_BAD_PARAMETER	0	1	PRMLB_LISTBUFF_FORMAT_ERROR	0	1C
PRMLB_CONCAT_FAILED	0	5	PRMLB_LISTBUFF_UNACCESSIBLE	0	8
PRMLB_CROSS_MEMORY	0	20	PRMLB_LISTBUFF_UNACCESSIBLE	0	2
PRMLB_DD_ALREADY_ALLOC	0	1	PRMLB_LOCKS_HELD	0	8
PRMLB_ESTAE_SETUP_FAILED	0	24	PRMLB_MEMBER_NOT_FOUND	0	1
PRMLB_FUNCTION_COMPLETE	0	0	PRMLB_MSGBUFF_FORMAT_ERROR	0	6
PRMLB_INTERNAL_ERROR	0	0	PRMLB_MSGBUFF_UNACCESSIBLE	0	3

## IEFZPRC Cross Reference

Name	Hex Offset	Hex Value
PRMLB_NOT_TASK_MODE	0	14
PRMLB_NOTAUTH_TO_SUBPOOL	0	28
PRMLB_OPEN_ERROR	0	3
PRMLB_PARMLIB_STILL_OPEN	0	8
PRMLB_PLIST_S99TXTTPP_NOT0	0	5
PRMLB_PLIST_UNACCESSIBLE	0	1
PRMLB_PUTLINE_ERROR	0	B
PRMLB_READ_BUFFER_FULL	0	A
PRMLB_READ_IO_ERROR	0	2
PRMLB_READBUFF_FORMAT_ERROR	0	7
PRMLB_READBUFF_UNACCESSIBLE	0	4
PRMLB_READER_LOAD_FAILED	0	6
PRMLB_REQUEST_FAILED	0	C
PRMLB_RSN_OK	0	0
PRMLB_SUCCESS	0	0
PRMLB_S99RB_UNACCESSIBLE	0	9
PRMLB_UNABLE_TO_ACCESS_DS	0	7
PRMLB_UNALLOC_FAILED	0	9
PRMLB_UNKNOWN_REASON	0	2
PRMLB_WARNING	0	4

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## IEWLCNV Information

### IEWLCNV Programming Interface information

Programming Interface information

IEWLCNV

End of Programming Interface information

## IEWLCNV Heading Information • IEWLDR Map

### IEWLCNV Heading Information

**Common Name:** PMLoader DE convert services parameter area  
**Macro ID:** IEWLDR  
**DSECT Name:** LCNV  
**Owning Component:** Loader (SCLDR)  
**Eye-Catcher ID:** IEWLDR  
 Offset: 0  
 Length: 7  
**Storage Attributes:** Subpool: caller-provided  
 Key: caller-provided  
**Size:** 48 bytes  
**Created by:** Caller  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** IEWLDR maps the parameter area used by PMLoader's directory entry convert service. Macro IEWLDRVT passes the IEWLDR parameter area to module IEWLDRVX.

### IEWLDR Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	LCNV	PML DE convert parameters
0	(0)	CHARACTER	16	LCNV_HEADER (0)	Standard header
0	(0)	CHARACTER	8	LCNV_ID	Eyecatcher
8	(8)	SIGNED	4	LCNV_LEN	
12	(C)	BITSTRING	1	LCNV_LEV	Control block level
		.... .1		LCNV_LEV_IV	"X'01"
13	(D)	CHARACTER	3		Reserved Start of function parms
16	(10)	SIGNED	4	(0)	
16	(10)	ADDRESS	4	LCNV_OUTLEN	Output length
20	(14)	ADDRESS	4	LCNV_PMAR_PTR	PMAR address
24	(18)	ADDRESS	4	LCNV_FLAGS_PTR	FLAGS address
28	(1C)	ADDRESS	4	LCNV_PDS2INDC_PTR	PDS Directory Entry indicator byte address
32	(20)	ADDRESS	4	LCNV_PMARA_PTR	PMARA address
36	(24)	ADDRESS	4	LCNV_PNAME_PTR	Primary name address
40	(28)	SIGNED	4	LCNV_FUNC	FUNCTION CODE
44	(2C)	ADDRESS	4		Reserved
44	(2C)	X'30'	0	LCNV_LEN_IV	"*-LCNV" Parm List Length
44	(2C)	X'20'	0	LCNV_LEN_LIST	"*-LCNV_OUTLEN" parm list length w/o header

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	LCNV_FLAGS_DSECT	
0	(0)	BITSTRING	1	LCNV_FLAGS	Processing flags
		1... ..		LCNV_FLAGS_ALIAS	"X'80" Alias indicator

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	LCNV_PNAME_DSECT	
0	(0)	CHARACTER	8	LCNV_PNAME	Primary name

Comment

THE FOLLOWING ARE IEWLDRVT FUNCTION CODES. THEY ARE ALSO DEFINED IN IEWLDR FOR PLS.

End of Comment

.... .1.1	LDR_FUNC_PMAR_TO_PDSDE	"X'05" PMAR to PDSDE conversion
.... .11.	LDR_FUNC_PDSDE_TO_PMAR	"X'06" PDSDE to PMAR conversion



## IEWLCNV Cross Reference

Name	Hex Offset	Hex Value
LCNV	0	
LCNV_FLAGS	0	
LCNV_FLAGS_ALIAS	0	80
LCNV_FLAGS_DSECT	0	
LCNV_FLAGS_PTR	18	
LCNV_FUNC	28	
LCNV_HEADER	0	
LCNV_ID	0	
LCNV_LEN	8	
LCNV_LEN_IV	2C	30
LCNV_LEN_LIST	2C	20
LCNV_LEV	C	
LCNV_LEV_IV	C	1
LCNV_OUTLEN	10	
LCNV_PDS2INDC_PTR	1C	
LCNV_PMAR_PTR	14	
LCNV_PMARA_PTR	20	
LCNV_PNAME	0	
LCNV_PNAME_DSECT	0	
LCNV_PNAME_PTR	24	
LDR_FUNC_PDSDE_TO_PMAR	0	6
LDR_FUNC_PMAR_TO_PDSDE	0	5



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## IEWPMAR Information

### IEWPMAR Programming Interface information

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Programming Interface information

#### IEWPMAR

The following fields are **NOT** programming interface information:

- PMAR\_XATTR1
- PMARL\_BDRL
- PMARL\_BDRO
- PMARL\_CMS
- PMARL\_DTEMPL
- PMARL\_IEWBLITO
- PMARL\_LMDL
- PMARL\_LMDO
- PMARL\_MDAT
- PMARL\_MPGS
- PMARL\_NDEFER
- PMARL\_NGAS
- PMARL\_NSEG
- PMARL\_NVSPGS
- PMARL\_PM3
- PMARL\_PM4
- PMARL\_RATL
- PMARL\_RATIO
- PMARL\_RDTL
- PMARL\_RDTO
- PMARL\_TXTL
- PMARL\_TXTO
- PMARL\_1DTXTO
- PMARL\_1STOR
- PMARL\_2STOR
- PMARL\_2TXTO

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End of Programming Interface information

## IEWPMAR Heading Information • IEWPMAR Map

### IEWPMAR Heading Information

**Common Name:** Program Management Attribute Record  
**Macro ID:** IEWPMAR  
**DSECT Name:** PMAR\_RS  
**Owning Component:** Loader (SCLDR)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: variable  
 Key: variable  
**Size:** variable  
**Created by:** user  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** IEWPMAR maps a program's user data in an SMDE and declares constants and mappings for use by routines which manipulate program user data.  
 The PMAR mapping is for program attributes which are common to all types of program. The PMARL and PMARR mappings are for attributes which are unique to specific types of program. For program objects (SMDE\_LFMT is on), the program's user data is mapped by PMAR followed by PMARL. For load modules (SMDE\_LFMT is off), the program's user data is mapped by PMAR followed by PMARR.  
 The PMARA mapping does not map any data in the SMDE. It is used internally by Program Management routines when manipulating program directory entries.

### IEWPMAR Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PMAR	Basic section of program user data
0	(0)	CHARACTER	30	PMAR_ENTRY (0)	Alternative name for the PMAR section
0	(0)	SIGNED	2	PMAR_SLEN	Section length.
2	(2)	BITSTRING	1	PMAR_LVL	PMAR format level
		.... ..1		PMAR_PM1_VAL	"X'01" level constant for PO1
		.... ..1.		PMAR_PM2_VAL	"X'02" level constant for PO2
		.... ..11		PMAR_PM3_VAL	"X'03" level constant for PO3
		.... ..1..		PMAR_PM4_VAL	"X'04" level constant for PO4
		.... ..1.1		PMAR_PM5_VAL	"X'05" level constant for PO5
		.... ..1.1		PMAR_LVL_VAL	"X'05" level constant
3	(3)	ADDRESS	1	PMAR_PLVL	Bind processor creating object
		.... ..1		PMAR_PLVL_E_VAL	"X'01" E-level constant
		.... ..1.		PMAR_PLVL_F_VAL	"X'02" F-level constant
		.... ..11		PMAR_PLVL_AOS_VAL	"X'03" AOS-level constant
		.... ..1..		PMAR_PLVL_XA_VAL	"X'04" XA-level constant
		.... ..1.1		PMAR_PLVL_B1_VAL	"X'05" Binder version 1
		.... ..11.		PMAR_PLVL_B2_VAL	"X'06" Binder version 2
		.... ..111		PMAR_PLVL_B3_VAL	"X'07" Binder version 3
		.... 1...		PMAR_PLVL_B4_VAL	"X'08" Binder version 4
		.... 1..1		PMAR_PLVL_B5_VAL	"X'09" Binder version 5 1 - E-level linkage editor 2 - F-level linkage editor 3 - AOS (VS1/VS2) linkage editor 4 - XA linkage editor 5 - binder version 1 6 - binder version 2 7 - binder version 3 8 - binder version 4 9 - binder version 5
4	(4)	CHARACTER	4	PMAR_ATR (0)	Attribute bytes.
4	(4)	BITSTRING	1	PMAR_ATR1	First attribute byte. These flags must be at the same offsets as the corresponding flags in PDS2ATR1 declared by macro IHAPDS.
		1... ....		PMAR_RENT	"X'80" Reenterable
		..1. ....		PMAR_REUS	"X'40" Reusable
		..1. ....		PMAR_OVLY	"X'20" Overlay structure
		...1 ....		PMAR_TEST	"X'10" Module to be tested - TESTRAN
		.... 1...		PMAR_LOAD	"X'08" Only loadable
		.... ..1..		PMAR_SCTR	"X'04" Scatter format
		.... ..1.		PMAR_EXEC	"X'02" Executable
		.... ..1		PMAR_1BLK	"X'01" Load module contains only one block of text data and has no rld data.
5	(5)	BITSTRING	1	PMAR_ATR2	Second attribute byte. These flags must be at the same offsets as the corresponding flags in PDS2ATR2 declared by macro IHAPDS.

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		1... ..		PMAR_FLVL	"X'80" If on, the program cannot be processed by the e level linkage editor. If off, the program can be processed by any level of the linkage editor or the Binder.
		.1.. ..		PMAR_ORG0	"X'40" Linkage editor assigned origin of first block of text is zero. EQU X'20' RESERVED
		...1 ..		PMAR_NRLD	"X'10" Program contains no RLD items
		... 1..		PMAR_NREP	"X'08" Module cannot be reprocessed by the linkage editor
		... .1..		PMAR_TSTN	"X'04" Module contains TESTRAN symbol cards EQU X'02' RESERVED
		... ..1		PMAR_REFR	"X'01" Refreshable program
6	(6)	BITSTRING	1	PMAR_ATR3 (0)	Third attribute byte.
6	(6)	BITSTRING	1	PMAR_FTB1	Alternative name for flags byte These flags must be at the same offsets as the corresponding flags in PDS2FTB1 declared by macro IHAPDS. EQU X'80' RESERVED
		.1.. ..		PMAR_BIG	"X'40" This program requires 16M bytes or more of virtual storage
		.1. ....		PMAR_PAGA	"X'20" Page alignment is required
		...1 ....		PMAR_XSSI	"X'10" SSI information present
		... 1..		PMAR_XAPF	"X'08" APF information present
		... .1..		PMAR_LFMT	"X'04" PMARL follows PMAR.
		... ..1.		PMAR_SIGNED	"X'02" Program is signed. Verified on LOAD if directed by security product EQU X'01' RESERVED
7	(7)	BITSTRING	1	PMAR_ATR4 (0)	Fourth attribute byte
7	(7)	BITSTRING	1	PMAR_FTB2	Alternative name for flags byte These flags must be at the same offsets as the corresponding flags in PDS2FTB2 declared by macro IHAPDS.
		1... ..		PMAR_ALTP	"X'80" Alternate primary flag. If on for a primary name, indicates primary name was generated by the Binder. If on for an alias name, indicates the long alias name was specified as the primary name on the bind.
		...1 ..		PMAR_RMOD	"X'10" RMODE is 31.
		... 11..		PMAR_AAMD	"X'0C" Alias entry point addressing mode. If B'00', AMODE is 24. If B'10', AMODE is 31. If B'11', AMODE is ANY. If B'01', AMODE is 64.
		1111 ..11		PMAR_AAMD_MASKOFF	"X'F3" Mask for AMODE flags in xxxFTB2 flag bytes.
		... ..11		PMAR_MAMD	"X'03" Main entry point addressing mode. If B'00', AMODE is 24. If B'10', AMODE is 31. If B'11', AMODE is ANY. If B'01', AMODE is 64.
8	(8)	BITSTRING	1	PMAR_ATR5	Fifth attribute byte
		1... ..		PMAR_RMOD64	"X'80" RMODE 64
		... ..1		PMAR_LONGPARG	"X'01" Parm >100 chars allowed
9	(9)	BITSTRING	1	PMAR_AC	APF authorization code
10	(A)	BITSTRING	4	PMAR_STOR	Virtual storage required
14	(E)	BITSTRING	4	PMAR_EPM	Main entry point offset
18	(12)	BITSTRING	4	PMAR_EPA	This entry point offset
22	(16)	BITSTRING	4	PMAR_SSI (0)	SSI information
22	(16)	BITSTRING	1	PMAR_CHLV	Change level of member
23	(17)	BITSTRING	1	PMAR_SSF	SSI flag byte
24	(18)	CHARACTER	2	PMAR_MSER	Member serial number
26	(1A)	BITSTRING	2	PMAR_XATTR1	Extended Attributes
		1... ..		PMAR_SYSTEM_LE	"X'80"
		.1.. ..		PMAR_LIGHTWEIGHT_LE	"X'40"
28	(1C)	BITSTRING	2		Reserved
30	(1E)	CHARACTER	1	PMAR_END (0)	END OF BASIC SECTION

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	PMARL	LSLoader section for program objects
0	(0)	SIGNED	2	PMARL_SLEN	Section length
2	(2)	CHARACTER	48	PMARL_DATA (0)	Section Data
2	(2)	CHARACTER	4	PMARL_ATR (0)	Attribute bytes
2	(2)	BITSTRING	1	PMARL_ATR1	6th attribute byte
		1... ..		PMARL_NMIG	"X'80" This program object cannot be converted directly to PDS load module format.
		.1.. ..		PMARL_PRIM	"X'40" FETCHOPT PRIME option
		.1. ....		PMARL_PACK	"X'20" FETCHOPT PACK option
		...1 ....		PMARL_XPL	"X'10" Module requires XPLINK
		...1 ....		PMARL_HPL	"X'10" Module requires XPLINK
3	(3)	BITSTRING	1	PMARL_ATR2	7th attribute byte
		1... ..		PMARL_CMPR	"X'80" Compressed format module
		.1.. ..		PMARL_1RMOD	"X'40" 1st segment is RMODE 31, set for PM2-level PO only
		...1 ..		PMARL_2RMOD	"X'20" 2nd segment is RMODE 31, set for PM2-level PO if there are at least two segments.
		... 1..		PMARL_1ALIN	"X'08" 1st segment is page-aligned, set for PM2-level PO only

# IEWPMAR Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.... .1..		PMARL_2ALIN	"X'04" 2nd segment is page-aligned, set for PM2-level PO if there are at least 2 segments.
4	(4)	CHARACTER	1	PMARL_FILL PMARL_FILLVAL	"X'02" FILL option specified set for PM2-level PO only FILL character value set for PM2-level PO only
5	(5)	BITSTRING	1	PMARL_PO_SUBLVL	Program object sublevel
5	(5)	X'1'	0	PMARL_PO_SUBLVL_ZOSV1R3	"1" Value for z/OS V1 R3 / PO4
5	(5)	X'2'	0	PMARL_PO_SUBLVL_ZOSV1R5	"2" Value for z/OS V1 R5 / PO4
5	(5)	X'3'	0	PMARL_PO_SUBLVL_ZOSV1R7	"3" Value for z/OS V1 R7 / PO4
5	(5)	X'1'	0	PMARL_PO_SUBLVL_ZOSV1R8	"1" Value for z/OS V1 R8 / PO5
5	(5)	X'2'	0	PMARL_PO_SUBLVL_ZOSV1R10	"2" Value for z/OS V1 R10 / PO5
5	(5)	X'3'	0	PMARL_PO_SUBLVL_ZOSV1R13	"3" Value for z/OS V1 R13 / PO5
5	(5)	X'4'	0	PMARL_PO_SUBLVL_ZOSV2R1	"4" Value for z/OS V2 R1 / PO5
6	(6)	BITSTRING	4	PMARL_MPGRS	Total length of program on DASD in pages (excluding gas) in its current (compressed or uncompressed) form
10	(A)	CHARACTER	40	PMARL_MDAT (0)	DASD program descriptors
10	(A)	BITSTRING	4	PMARL_TXTL	Length of initial load text on DASD including gas.
14	(E)	ADDRESS	4	PMARL_TXTO	Offset to text
18	(12)	BITSTRING	4	PMARL_BDRL	Length of Binder index
22	(16)	ADDRESS	4	PMARL_BDRO	Offset to Binder index
26	(1A)	BITSTRING	4	PMARL_RDTL	Length of PRDT
30	(1E)	ADDRESS	4	PMARL_RDTO	Offset to PRDT
34	(22)	BITSTRING	4	PMARL_RATL	Length of PRAT
38	(26)	ADDRESS	4	PMARL_RATO	Offset to PRAT
42	(2A)	BITSTRING	4	PMARL_NVSPGS (0)	Number of virtual storage pages to contain program object, for PM2-level PO
42	(2A)	BITSTRING	4	PMARL_LMDL	Length of LSLoader data, for PM1-level PO
46	(2E)	ADDRESS	4	PMARL_LMDO	Offset to LSLoader data
50	(32)	CHARACTER	24	PMARL_PM2 (0)	New fields for PM2-Level object
50	(32)	BITSTRING	2	PMARL_NSEG	Number of loadable segments
52	(34)	BITSTRING	2	PMARL_NGAS	Count of entries in Gas Table
54	(36)	BITSTRING	4	PMARL_1STOR	Virtual storage required for first loadable segment, valid when PMARL_NSEG > 1.
58	(3A)	BITSTRING	4	PMARL_2STOR	Virtual storage required for second loadable segment, valid when PMARL_NSEG > 1.
62	(3E)	BITSTRING	4	PMARL_2TXTO	Offset to second txt segment including gas, valid when PMARL_NSEG > 1.
66	(42)	CHARACTER	16	PMARL_TRACE (0)	Audit trace data
66	(42)	BITSTRING	4	PMARL_DATE	Date saved
70	(46)	BITSTRING	4	PMARL_TIME	Time saved
74	(4A)	CHARACTER	8	PMARL_USER	User or job identification
82	(52)	CHARACTER	16	PMARL_PM3 (0)	New fields for PM3-Level object
82	(52)	BITSTRING	1	PMARL_PM3FL1	Flag byte
		1... ....		PMARL_HIDE	"X'80" Name is an alias that can be hidden
		.1.. ....		PMARL_DLENA	"X'40" PO is DLL-enabled
		..1. ....		PMARL_MUSTDELET	"X'20" If on and directed LOAD invoked for this module, Module_Delete function must be issued before freeing or reusing module storage
		...1 ....		PMARL_I EWBLITP	"X'10" If on, PMARL_I EWBLITO is valid.
		.... 1...		PMARL_MANGLED	"X'08" If on, name is mangled.
83	(53)	BITSTRING	1	PMARL_CMS	CMS flags
		1... ....		PMARL_CMS_SYSTEM	"X'80" SYSTEM module bit
		.1.. ....		PMARL_CMS_NOCLEAN	"X'40" Do not cleanup at end of service
		..1. ....		PMARL_CMS_STRINIT	"X'20" STRINIT bit
		...1 ....		PMARL_CMS_MODALDOS	"X'10" Gen'd with DOS
		.... 1...		PMARL_CMS_MODALALL	"X'08" Gen'd with ALL
		.... .1..		PMARL_CMS_INVALIDXA	"X'04" XA-mode invalid
		.... ..1.		PMARL_CMS_INVALIDXC	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
84	(54)	BITSTRING	2	PMARL_NDEFER	"X'02" XC-mode invalid
86	(56)	BITSTRING	4	PMARL_DTEMPL	Number of deferred classes
90	(5A)	BITSTRING	4	PMARL_1DTXTO	Total length of deferred text classes on DASD (excludes gas).
94	(5E)	BITSTRING	4	PMARL_IJEWBLITO	Offset of 1st deferred class on DASD (includes gas).
98	(62)	CHARACTER	8	PMARL_PM4 (0)	Byte offset of IEWBLIT structure from module load point
98	(62)	BITSTRING	1	PMARL_ATR3	New fields for PM4-Level
		1... ....		PMARL_1RMODE64	8th attribute byte
		.1.. ....		PMARL_2RMODE64	"X'80" 1st segment is RMODE 64
99	(63)	CHARACTER	7		"X'40" 2nd segment is RMODE 64
106	(6A)	CHARACTER	1	PMARL_PM5 (0)	Reserved
106	(6A)	CHARACTER	1	PMARL_END (0)	New fields for PM5-Level
					END OF LSLOADER SECTION

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PMARR	Load module (PDS) attributes section
0	(0)	SIGNED	2	PMARR_SLEN	Section length
2	(2)	CHARACTER	21	PMARR_DATA (0)	Section data
2	(2)	CHARACTER	8	PMARR_TTRS (0)	TTR fields
2	(2)	CHARACTER	3	PMARR_TTRT	TTR of first block of text
5	(5)	CHARACTER	1	PMARR_ZERO	Zero
6	(6)	CHARACTER	3	PMARR_TTRN	TTR of note list or scatter translation table. Used for modules in scatter load format or overlay structure only.
9	(9)	ADDRESS	1	PMARR_NL	Number of entries in note list for scatter format modules and modules in overlay structure. Otherwise zero.
10	(A)	BITSTRING	2	PMARR_FTBL	Length of first block of text.
12	(C)	BITSTRING	3	PMARR_ORG (0)	Load module origin if -0
12	(C)	CHARACTER	2		Reserved
14	(E)	BITSTRING	1	PMARR_RLDS	Number of RLD/CTL records which follow the first text record
15	(F)	CHARACTER	8	PMARR_SCAT (0)	Scatter load information
15	(F)	BITSTRING	2	PMARR_SLSZ	Scatter list length
17	(11)	BITSTRING	2	PMARR_TTSZ	Translation table length
19	(13)	CHARACTER	2	PMARR_ESDT	ESDID of first text block
21	(15)	CHARACTER	2	PMARR_ESDC	ESDID of EP control section
23	(17)	CHARACTER	1	PMARR_END (0)	END OF LOAD MODULE ATTRIBUTES

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PMARA	PMAR alias entry section
0	(0)	SIGNED	2	PMARA_LEN	Section length
2	(2)	BITSTRING	1	PMARA_DATA (0)	Section data
2	(2)	BITSTRING	4	PMARA_EPA	Entry point offset
6	(6)	CHARACTER	1	PMARA_ATR (0)	Attribute bytes
6	(6)	BITSTRING	1	PMARA_ATR1 (0)	First attribute byte
6	(6)	BITSTRING	1	PMARA_FTB2	Alternative name for flags byte These flags must be at the same offsets as the corresponding flags in PDS2FTB2 declared by macro IHAPDS.
		1... ....		PMARA_ALTP	"X'80" Alternate Primary flag. If on, this long alias name was specified as the primary on the bind and a Binder generated 8 byte primary name exists.
		.1.. ....		PMARA_HIDE	"X'40" Alias name can be hidden
		..1. ....		PMARA_NEXEC	"X'20" Entry point is non-executable
		...1 ....		PMARA_MANGLED	"X'10" Alias is a mangled name
		.... 11..		PMARA_AMD	"X'0C" Alias entry addressing mode If B'00', AMODE is 24. If B'10', AMODE is 31. If B'11', AMODE is ANY. If B'01', AMODE is 64.
7	(7)	CHARACTER	1	PMARA_END (0)	END OF ALIAS ENTRY SECTION

Comment

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Constants used by programs which manipulate program user data.  
 Maximum length PMAR  
 Basic section length  
 LSLoader section length

End of Comment

7	(7)	X'88'	0	PMAR_MAXLEN	"PMAR_END-PMAR+PMARL_END-PMARL"
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# IEWPMAR Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
					Comment
Largest PMAR length for program objects Basic section length Program object section length					
					End of Comment
7	(7)	X'88'	0	PMAR_MAXLEN_PROGOBJ	"PMAR_END-PMAR+PMARL_END-PMARL"
					Comment
Largest PMAR length for PO1 format program object Basic section length PO1 format Program object section length					
					End of Comment
7	(7)	X'50'	0	PMAR_MAXLEN_PO1	"PMAR_END-PMAR+PMARL_PM2-PMARL"
					Comment
Largest PMAR length for program objects Basic section length Program object section length for PO2					
					End of Comment
7	(7)	X'70'	0	PMAR_MAXLEN_PO2	"PMAR_END-PMAR+PMARL_PM3-PMARL"
					Comment
Largest PMAR length for program objects Basic section length Program object section length for PO3					
					End of Comment
7	(7)	X'80'	0	PMAR_MAXLEN_PO3	"PMAR_END-PMAR+PMARL_PM4-PMARL"
					Comment
Largest PMAR length for program objects Basic section length Program object section length for PO4					
					End of Comment
7	(7)	X'88'	0	PMAR_MAXLEN_PO4	"PMAR_END-PMAR+PMARL_PM5-PMARL"
					Comment
Largest PMAR length for program objects Basic section length Program object section length for PO5					
					End of Comment
7	(7)	X'88'	0	PMAR_MAXLEN_PO5	"PMAR_END-PMAR+PMARL_END-PMARL"
					Comment
Largest PMAR length for PDS load modules Load module section length					
					End of Comment
7	(7)	X'35'	0	PMAR_MAXLEN_LOADMOD	"PMAR_END-PMAR+PMARR_END-PMARR"



Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
Largest PMARL length for PO1 format program objects PO1 format Program object section length					
End of Comment					
7	(7)	X'32'	0	PMARL_LVL1LEN	"PMARL_PM2-PMARL"
Comment					
Largest PMARL length for PO2 format program objects PO2 format Program object section length					
End of Comment					
7	(7)	X'52'	0	PMARL_LVL2LEN	"PMARL_PM3-PMARL"
7	(7)	X'62'	0	PMARL_LVL3LEN	"PMARL_PM4-PMARL"
7	(7)	X'6A'	0	PMARL_LVL4LEN	"PMARL_PM5-PMARL"
7	(7)	X'6A'	0	PMARL_LVL5LEN	"PMARL_END-PMARL"

**IEWPMAR Cross Reference**

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
PMAR	0		PMAR_MAXLEN_PROGOBJ	7	88
PMAR_AAMD	7	C	PMAR_MSER	18	8
PMAR_AAMD_MASKOFF	7	F3	PMAR_NREP	5	10
PMAR_AC	9		PMAR_NRLD	5	40
PMAR_ALTP	7	80	PMAR_OVLY	4	20
PMAR_ATR	4		PMAR_PAGA	6	20
PMAR_ATR1	4		PMAR_PLVL	3	
PMAR_ATR2	5		PMAR_PLVL_AOS_VAL	3	3
PMAR_ATR3	6		PMAR_PLVL_B1_VAL	3	5
PMAR_ATR4	7		PMAR_PLVL_B2_VAL	3	6
PMAR_ATR5	8		PMAR_PLVL_B3_VAL	3	7
PMAR_BIG	6	40	PMAR_PLVL_B4_VAL	3	8
PMAR_CHLV	16		PMAR_PLVL_B5_VAL	3	9
PMAR_END	1E		PMAR_PLVL_E_VAL	3	1
PMAR_ENTRY	0		PMAR_PLVL_F_VAL	3	2
PMAR_EPA	12		PMAR_PLVL_XA_VAL	3	4
PMAR_EPM	E		PMAR_PM1_VAL	2	1
PMAR_EXEC	4	2	PMAR_PM2_VAL	2	2
PMAR_FLVL	5	80	PMAR_PM3_VAL	2	3
PMAR_FTB1	6		PMAR_PM4_VAL	2	4
PMAR_FTB2	7		PMAR_PM5_VAL	2	5
PMAR_LFMT	6	4	PMAR_REFR	5	1
PMAR_LIGHTWEIGHT_LE	1A	40	PMAR_RENT	4	80
PMAR_LOAD	4	8	PMAR_REUS	4	40
PMAR_LONGPARM	8	1	PMAR_RMOD	7	10
PMAR_LVL	2		PMAR_RMOD64	8	80
PMAR_LVL_VAL	2	5	PMAR_SCTR	4	4
PMAR_MAMD	7	3	PMAR_SIGNED	6	2
PMAR_MAXLEN	7	88	PMAR_SLEN	0	
PMAR_MAXLEN_LOADMOD	7	35	PMAR_SSF	17	
PMAR_MAXLEN_PO1	7	50	PMAR_SSI	16	
PMAR_MAXLEN_PO2	7	70	PMAR_STOR	A	
PMAR_MAXLEN_PO3	7	80	PMAR_SYSTEM_LE		
PMAR_MAXLEN_PO4	7	88			
PMAR_MAXLEN_PO5	7	88			

## IEWPMAR Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
PMAR_TEST	1A	80	PMARL_MUSTDELET		
PMAR_TSTN	4	10	PMARL_NDEFER	52	20
PMAR_XAPF	5	4	PMARL_NGAS	54	
PMAR_XATTR1	6	8	PMARL_NMIG	34	
PMAR_XSSI	1A		PMARL_NSEG	2	80
PMAR_1BLK	6	10	PMARL_NVSPGS	32	
PMARA	4	1	PMARL_PACK	2A	
PMARA_ALTP	0		PMARL_PACK	2	20
PMARA_AMD	6	80	PMARL_PM2	32	
PMARA_ATR	6	C	PMARL_PM3	52	
PMARA_ATR1	6		PMARL_PM3FL1	52	
PMARA_ATR1	6		PMARL_PM4	62	
PMARA_DATA	2		PMARL_PM5	6A	
PMARA_END	7		PMARL_PO_SUBLVL		
PMARA_EPA	2			5	
PMARA_FTB2	6		PMARL_PO_SUBLVL_ZOSV1R10		
PMARA_HIDE	6	40		5	2
PMARA_LEN	0		PMARL_PO_SUBLVL_ZOSV1R13		
PMARA_MANGLED				5	3
	6	10	PMARL_PO_SUBLVL_ZOSV1R3		
PMARA_NEXEC	6	20		5	1
PMARL	0		PMARL_PO_SUBLVL_ZOSV1R5		
PMARL_ATR	2			5	2
PMARL_ATR1	2		PMARL_PO_SUBLVL_ZOSV1R7		
PMARL_ATR2	3			5	3
PMARL_ATR3	3		PMARL_PO_SUBLVL_ZOSV1R8		
PMARL_BDRL	62			5	1
PMARL_BDRO	12		PMARL_PO_SUBLVL_ZOSV2R1		
PMARL_CMPCR	16			5	4
PMARL_CMPCR	3	80	PMARL_PRIM	2	40
PMARL_CMS	3		PMARL_RATL	22	
PMARL_CMS_INVALXA	53		PMARL_RATIO	26	
	53	4	PMARL_RDTL	1A	
PMARL_CMS_INVALXC			PMARL_RDTO	1E	
	53	2	PMARL_SLEN	0	
PMARL_CMS_MODALL			PMARL_TIME	46	
	53	8	PMARL_TRACE	42	
PMARL_CMS_MODALDOS			PMARL_TXTL	A	
	53	10	PMARL_TXTO	E	
PMARL_CMS_NOCLEAN			PMARL_USER	4A	
	53	40	PMARL_XPL	2	10
PMARL_CMS_STRINIT			PMARL_1ALIN	3	8
	53	20	PMARL_1DTXTO	5A	
PMARL_CMS_SYSTEM			PMARL_1RMOD	3	40
	53	80	PMARL_1RMOD64		
PMARL_DATA	2			62	80
PMARL_DATE	42		PMARL_1STOR	36	
PMARL_DLLENA	52	40	PMARL_2ALIN	3	4
PMARL_DTEMPL	56		PMARL_2RMOD	3	20
PMARL_END	6A		PMARL_2RMOD64		
PMARL_FILL	3	2		62	40
PMARL_FILLVAL			PMARL_2STOR	3A	
	4		PMARL_2TXTO	3E	
PMARL_HIDE	52	80	PMARR	0	
PMARL_HPL	2	10	PMARR_DATA	2	
PMARL_IEWBLITO			PMARR_END	17	
	5E		PMARR_ESDC	15	
PMARL_IEWBLITP			PMARR_ESDT	13	
	52	10	PMARR_FTBL	A	
PMARL_LMDL	2A		PMARR_NL	9	
PMARL_LMDO	2E		PMARR_ORG	C	
PMARL_LVL1LEN			PMARR_RLDS	E	
	7	32	PMARR_SCAT	F	
PMARL_LVL2LEN			PMARR_SLEN	0	
	7	52	PMARR_SLSZ	F	
PMARL_LVL3LEN			PMARR_TTRN	6	
	7	62	PMARR_TTRS	2	
PMARL_LVL4LEN			PMARR_TTRT	2	
	7	6A	PMARR_TTSZ	11	
PMARL_LVL5LEN			PMARR_ZERO	5	
	7	6A			
PMARL_MANGLED					
	52	8			
PMARL_MDAT	A				
PMARL_MPGS	6				

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## IEZEUNLD Information

### IEZEUNLD Programming Interface information

Programming Interface information

#### IEZEUNLD

The following fields are **NOT** programming interface information:

- EUNLSPAC
- EUNLSPCP

End of Programming Interface information

## IEZEUNLD Heading Information • IEZEUNLD Cross Reference

### IEZEUNLD Heading Information

**Common Name:** UNLOAD Parameter List  
**Macro ID:** IEZEUNLD  
**DSECT Name:** EUNLD  
**Owning Component:** ALLOCATION (SC1B4)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: User's Subpool  
 Key: Caller's Key  
 Residency: Any  
**Size:** 20 Bytes  
**Created by:** Issuers of UNLOAD ENF Events 3 and 25  
**Pointed to by:** First word of parameter list pointed to by R1 on entry to ENF Listen Exit  
**Serialization:** None  
**Function:** Contains information passed by the signallers of the UNLOAD events to the listeners.

### IEZEUNLD Map

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
0	(0)	STRUCTURE	0	EUNLD	UNLOAD PARAMETER LIST	
0	(0)	SIGNED	2	EUNLEN	LENGTH OF PARAMETER LIST	
2	(2)	BITSTRING	1	EUNFLGS	UNLOAD EVENT FLAGS (BYTE 1)	
		1... ....		EUNPRIV	"X'80" VOLUME IS PRIVATE IF ON	
		.1.. ....		EUNPUB	"X'40" VOLUME IS PUBLIC IF ON	
		..1. ....		EUNSTOR	"X'20" VOLUME IS STORAGE IF ON	
		...1 ....		EUNLSPAC	"X'10" LSPACE BUFFER IS PRESENT IF ON	
3	(3)	BITSTRING	1		UNLOAD EVENT FLAGS (BYTE 2)	
4	(4)	SIGNED	4	EUNUCBP	ADDRESS OF UCB	
8	(8)	SIGNED	4	EUNLSPCP	ADDRESS OF BUFFER RETURNED BY LSPACE	
12	(C)	CHARACTER	6	EUNVOLS	VOLSER OF VOLUME TO BE UNLOADED	
18	(12)	BITSTRING	2	EUNRSVD	-- RESERVED --	
18	(12)	X'14'	0	EUNLLEN	**EUNLD* LENGTH OF UNLOAD PARAMETER LIST	

### IEZEUNLD Cross Reference

Name	Hex Offset	Hex Value
EUNFLGS	2	
EUNLD	0	
EUNLEN	0	
EUNLLEN	12	14
EUNLSPAC	2	10
EUNLSPCP	8	
EUNPRIV	2	80
EUNPUB	2	40
EUNRSVD	12	
EUNSTOR	2	20
EUNUCBP	4	
EUNVOLS	C	

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## IEZVG100 Information

### IEZVG100 Programming Interface information

Programming Interface information

IEZVG100

End of Programming Interface information

## IEZVG100 Heading Information • IEZVG100 Map

### IEZVG100 Heading Information

**Common Name:** Subsystem Console Service Routine Parameter List  
**Macro ID:** IEZVG100  
**DSECT Name:** SCSRPLST, SCSRTCD  
**Owning Component:** CONSOLE (SC1CK)  
**Eye-Catcher ID:** SCSR  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: ANY  
 Key: ANY  
 Residency: ANY  
**Size:** 96 bytes (SCSRPLST) + 16 bytes (SCSRTCD)  
 SCSRPLST -- X'0060' bytes  
 SCSRTCD -- X'0010' bytes  
**Created by:** CALLER OF IEAVG700  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** Maps the Subsystem Console Service Routine (IEAVG700) Parameter List

### IEZVG100 Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SCSRPLST	PARAMETER LIST FOR SUBSYSTEM CONSOLE SERVICE ROUTINE
0	(0)	CHARACTER	4	SCSACRO	ACRONYM 'SCSR'
4	(4)	BITSTRING	1	SCSVBR	VERSION LEVEL
5	(5)	BITSTRING	4	SCSFUNC	Function Bytes
5	(5)	BITSTRING	1	SCSFUNC1	FIRST FUNCTION BYTE

Comment

Bit definitions:

End of Comment

		1... ....		SCSOBTAN	"X'80" OBTAIN A CONSOLE FOR USE BY A SYSTEM COMPONENT
		.1. ....		SCSDEMSEL	"X'40" DEMAND SELECT REQUEST. SELECT THE CONSOLE WHOSE ID IS IN SCSCOnId (Note that the console must be a subsystem console)
		..1. ....		SCSRELSE	"X'20" RELEASE A CONSOLE WHICH WAS DEDICATED TO A SYSTEM COMPONENT
		...1 ....		SCSBRDON	"X'10" CAUSE ALL MESSAGES ISSUED TO BE BROADCASTED TO ALL SUBSYSTEMS
		.... 1..		SCSBRDOF	"X'08" CAUSE ALL MESSAGES ISSUED NOT TO BE BROADCASTED TO ALL SUBSYSTEMS
		.... .1.		SCSRTCDF	"X'04" CHANGE THE ROUTING CODES OF A CONSOLE DEDICATED TO A SYSTEM COMPONENT **** Warning - this service is obsolete in HBB7730 and above
		.... ..1.		SCSDSTAT	"X'02" DETERMINE STATUS OF SPECIFIED CONSOLE
		.... ...1		SCSPROTO	"X'01" DETERMINE THE TYPE OF PROTOCOL TO BE USED TO ISSUE COMMANDS AND MONITOR MESSAGES. ALSO DETERMINE THE PRIMARY SUBSYSTEM
6	(6)	BITSTRING	1	SCSFUNC2	SECOND FUNCTION BYTE

Comment

Bit definitions:

End of Comment

		1... ....		SCSRLGRP	"X'80" RELEASE ONE OR MORE CONSOLES BY ASID
		.1. ....		SCSPMSTR	"X'40" MAKE THE CONSOLE HAVE MASTER COMMAND AUTHORITY
		..1. ....		SCSNMSTR	"X'20" MAKE THE CONSOLE TO NO LONGER HAVE MASTER COMMAND AUTHORITY
		...1 ....		SCSAUTH	"X'10" INDICATE AUTHORITY OF CONSOLE
		.... 1..		SCSRLCSY	"X'08" RELEASE ONE OR MORE CONSOLES BY SYSTEM NAME. RESERVED FOR IBM USE.
7	(7)	BITSTRING	1	SCSFUNC3	THIRD FUNCTION BYTE -RESERVED
8	(8)	BITSTRING	1	SCSFUNC4	FOURTH FUNCTION BYTE-RESERVED
9	(9)	CHARACTER	4	SCSCOMP	FUNCTION COMPLETION BYTES
9	(9)	BITSTRING	1	SCSCOMP1	FIRST FUNCTION COMPLETION BYTE

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
						Comment
Bit definitions:						
						End of Comment
		1... ....		SCSOBTNC	"X'80" OBTAIN A CONSOLE REQUEST COMPLETED	
		.1. ....		SCSDEMSC	"X'40" DEMAND SELECT REQUEST COMPLETED	
		..1. ....		SCSRELSC	"X'20" RELEASE A CONSOLE REQUEST COMPLETED	
		...1 ....		SCSBRDNC	"X'10" REQUEST TO BROADCAST WTOS COMPLETED	
		.... 1..		SCSBRDFC	"X'08" REQUEST TO TURN OFF BROADCAST OF WTOS COMPLETED	
		.... .1.		SCSRTCDC	"X'04" CHANGE THE ROUTING CODES REQUEST COMPLETED **** Warning - this service is obsolete in HBB7730 and above	
		.... ..1.		SCSSTATC	"X'02" STATUS REQUEST COMPLETE	
		.... ...1		SCSPROT	"X'01" DETERMINE THE TYPE OF PROTOCOL REQUEST COMPLETED	
10	(A)	BITSTRING	1	SCSCOMP2	SECOND FUNCTION COMPLETION BYTE	
						Comment
Bit definitions:						
						End of Comment
		1... ....		SCSRGRPC	"X'80" REQUEST TO RELEASE ONE OR MORE CONSOLES BY ASID COMPLETED	
		.1. ....		SCSPMSTC	"X'40" MASTER COMMAND AUTHORITY REQUEST COMPLETED	
		..1. ....		SCSNMSTC	"X'20" WITHDRAW MASTER COMMAND AUTHORITY REQUEST COMPLETED	
		...1 ....		SCSAUTHC	"X'10" OBTAIN AUTHORITY OF CONSOLE REQUEST COMPLETED	
		.... 1..		SCSRLSYC	"X'08" REQUEST TO RELEASE ONE OR MORE CONSOLES BY SYSTEM NAME COMPLETED	
		.... .1.		SCSRNAMC	"X'04" A CONSOLE NAME HAS BEEN RETURNED IN SCSONAME (OBTAIN OR DEMAND SELECT)	
11	(B)	BITSTRING	1	SCSCOMP3	THIRD FUNCTION COMPLETION BYTE - RESERVED	
12	(C)	BITSTRING	1	SCSCOMP4	FOURTH FUNCTION COMPLETION BYTE - RESERVED	
13	(D)	CHARACTER	1	SCSRSV1	RESERVED	
14	(E)	SIGNED	2	SCSCASID	Reserved for IBM Use	
16	(10)	CHARACTER	8	SCSNAME	NAME OF SYSTEM COMPONENT. FOR USE BY THE DISPLAY CONSOLES COMMAND	
24	(18)	CHARACTER	8	SCSRSYNM	SYSTEM NAME FOR REQUEST TO RELEASE A GROUP OF CONSOLES	
32	(20)	SIGNED	2	SCSCNID	CONSOLE ID ASSIGNED TO OR REQUESTED BY A SYSTEM COMPONENT Note that SCSCnId must be used in HBB7730 and above	
34	(22)	BITSTRING	1	SCSATI	SUBSYSTEM CONSOLE ATTENTION INDEX	
35	(23)	BITSTRING	1	SCSCNSTF	CONSOLE STATUS FLAGS	
						Comment
Bit definitions:						
						End of Comment
		1... ....		SCSNTDEF	"X'80" CONSOLE NOT DEFINED TO MCS	
		.1. ....		SCSCNDEF	"X'40" CONSOLE IS DEFINED TO MCS BUT NOT CURRENTLY IN USE BY MCS	
		..1. ....		SCSINUSE	"X'20" CONSOLE IS IN USE BY MCS OR ALLOCATED TO ANOTHER JOB	
36	(24)	CHARACTER	2	SCSFLGS	FLAGS BYTES	
36	(24)	BITSTRING	1	SCSFLGS1	FLAGS	
						Comment
Bit definitions:						
						End of Comment
		1... ....		SCSNTKWN	"X'80" PROTOCOL TYPE IS NOT KNOWN AT THIS TIME	
						Comment
NOTE: TYPE 1 PROTOCOL MAY BE USED REGARDLESS OF WHETHER JES2 OR JES3 PRIMARY SUBSYSTEM IS ACTIVE.						
						End of Comment
		.1. ....		SCSTYPE1	"X'40" TYPE 1 PROTOCOL: USE SVC 34 TO ISSUE COMMANDS - LISTEN TO THE SUBSYSTEM INTERFACE CALLS OF 10(SVC 34) FOR COMMANDS AND 9(SVC 35) FOR MESSAGES	
		...1 ....		SCSPNTKN	"X'10" PRIMARY SUBSYSTEM NOT KNOWN AT THIS TIME	

# IEZVG100 Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.... 1...		SCSMVSC	"X'08" The primary subsystem is not JES3
		.... .1..		SCSJES3C	"X'04" The primary subsystem is JES3
37	(25)	BITSTRING	1	SCSFLGS2	RESERVED
38	(26)	SIGNED	2	SCSASID	ASID FOR REQUEST TO RELEASE A GROUP OF CONSOLES
40	(28)	BITSTRING	1	SCSAUTHF	AUTHORITY FLAGS OBTAINED VIA SCSAUTH

Comment

Bit definitions:

End of Comment

		1... ....		SCSAUTHM	"X'80" MASTER AUTHORITY. IT IS SUGGESTED THAT SCSAUTHP BE USED INSTEAD.
		.1.. ....		SCSAUTHP	"X'40" MASTER AUTHORITY
		..1. ....		SCSAUTH1	"X'20" COMMAND GROUP 1 (SYS) AUTHORITY
		...1 ....		SCSAUTH2	"X'10" COMMAND GROUP 2 (I/O) AUTHORITY
		.... 1...		SCSAUTH3	"X'08" COMMAND GROUP 3 (CONS) AUTHORITY
41	(29)	CHARACTER	3	SCSRV5	RESERVED
44	(2C)	CHARACTER	4	SCSPJESN	NAME OF THE PRIMARY JOB ENTRY SUBSYSTEM
48	(30)	ADDRESS	4	SCSRTPCDP	ADDRESS OF FIELD CONTAINING THE ROUTING CODES TO BE ASSIGNED TO THE CONSOLE **** Warning - this service is obsolete in HBB7730 and above
52	(34)	CHARACTER	4	SCSUNIT4	4-DIGIT UNIT NAME
52	(34)	CHARACTER	1		IGNORED FOR 3-DIGIT
53	(35)	CHARACTER	3	SCSUNIT	EBCDIC UNIT NAME OF REQUESTED CONSOLE (3-DIGIT) **** Warning - this service is obsolete in HBB7730 and above
56	(38)	ADDRESS	4	SCSXMCSP	POINTER TO STORAGE FOR XSUL
60	(3C)	SIGNED	4	SCSCONID	4-byte console id assigned to or requested by a system component. Use instead of SCSCNID
64	(40)	CHARACTER	8	SCSCNAME	Input console name specified by caller
72	(48)	SIGNED	4	SCSRRTN	Return code from IEAVG700
76	(4C)	CHARACTER	8	SCSONAME	Console Name returned as output (Obtain or Demand Select)
84	(54)	SIGNED	4	SCSRARSN	Abend reason code
88	(58)	CHARACTER	8	SCSRV6	RESERVED

Comment

THE ACRONYM AND VERSION LEVEL TO BE PLACED IN THE SUBSYSTEM  
CONSOLE SERVICE ROUTINE PARAMETER LIST

End of Comment

88	(58)	X'C3E2D9'	0	SCSR	"C'SCSR" ACRONYM
88	(58)	X'1'	0	SCSSP211	"1" LEVEL OS/VS2 JBB2110
88	(58)	X'2'	0	SCSSP220	"2" LEVEL OS/VS2 JBB2220
88	(58)	X'3'	0	SCSSP440	"3" LEVEL MVS/SP510
88	(58)	X'4'	0	SCS_HBB7709	"4" Level z/OS 1.6 HBB7709
88	(58)	X'8'	0	SCS_HBB7730	"8" Level z/OS 1.8 HBB7730
88	(58)	X'8'	0	SCSVERSN	"8" CURRENT VERSION LEVEL
88	(58)	X'50'	0	SCSR_LENGTH_PRE730	"80" Length of SCSR before version 8
88	(58)	X'60'	0	SCSR_LENGTH_VER730	"96" Length of Version 8 SCSR
88	(58)	X'60'	0	SCSPLEN	"96" Length of parameter list
88	(58)	X'10'	0	SCSRLEN	"16" Length of routing codes DSECT
88	(58)	X'70'	0	SCSLEN	"112" Length of both DSECTs

Comment

SUBSYSTEM CONSOLE SERVICE ROUTINE RETURN CODES  
RETURNED IN REGISTER 15

End of Comment

88	(58)	X'0'	0	SCSR0K	"0" THE REQUESTED FUNCTIONS HAVE BEEN PERFORMED
88	(58)	X'4'	0	SCSRNTFD	"4" A CONSOLE COULD NOT BE ASSIGNED TO THE SYSTEM COMPONENT BECAUSE AN AVAILABLE CONSOLE COULD NOT BE FOUND
88	(58)	X'8'	0	SCSRNAVL	"8" THE REQUESTED CONSOLE WAS NOT AVAILABLE TO BE DEDICATED TO A SYSTEM COMPONENT.
88	(58)	X'C'	0	SCSRNCMP	"12" ONE OR MORE REQUESTED FUNCTIONS COULD NOT BE COMPLETED. CHECK SCSCOMP1, SCSCOMP2, AND SCSCOMP3 TO DETERMINE WHAT FUNCTIONS HAVE BEEN COMPLETED BY IEAVG700.
88	(58)	X'10'	0	SCSROBS	"16" ONE OR MORE REQUESTED FUNCTIONS COULD NOT BE COMPLETED. THEY ARE OBSOLETE IN THIS AND LATER RELEASES.
88	(58)	X'60'	0	SCSRPLST_LEN	**SCSRPLST"



Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	SCSR TCD	THE ROUTING CODES
0	(0)	CHARACTER	1	SCSR TD01	FIRST BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSR D001	"X'80" MASTER CONSOLE ACTION
		.1. ....		SCSR D002	"X'40" MASTER CONSOLE INFORMATION
		..1. ....		SCSR D003	"X'20" TAPE POOL
		...1 ....		SCSR D004	"X'10" DIRECT ACCESS POOL
		.... 1..		SCSR D005	"X'08" TAPE LIBRARY
		.... .1.		SCSR D006	"X'04" DISK LIBRARY
		.... ..1.		SCSR D007	"X'02" UNIT RECORD POOL
		.... ...1		SCSR D008	"X'01" TELEPROCESSING CONTROL
1	(1)	BITSTRING	1	SCSR TD02	SECOND BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSR D009	"X'80" SYSTEM SECURITY
		.1. ....		SCSR D010	"X'40" SYSTEM/ERROR MAINTENANCE
		..1. ....		SCSR D011	"X'20" PROGRAMMER INFORMATION
		...1 ....		SCSR D012	"X'10" EMULATOR INFORMATION
		.... 1..		SCSR D013	"X'08" USER ROUTING CODE
		.... .1.		SCSR D014	"X'04" USER ROUTING CODE
		.... ..1.		SCSR D015	"X'02" USER ROUTING CODE
		.... ...1		SCSR D016	"X'01" USER ROUTING CODE
2	(2)	BITSTRING	1	SCSR TD03	THIRD BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSR D017	"X'80" USER ROUTING CODE
		.1. ....		SCSR D018	"X'40" USER ROUTING CODE
		..1. ....		SCSR D019	"X'20" USER ROUTING CODE
		...1 ....		SCSR D020	"X'10" USER ROUTING CODE
		.... 1..		SCSR D021	"X'08" USER ROUTING CODE
		.... .1.		SCSR D022	"X'04" USER ROUTING CODE
		.... ..1.		SCSR D023	"X'02" USER ROUTING CODE
		.... ...1		SCSR D024	"X'01" USER ROUTING CODE
3	(3)	BITSTRING	1	SCSR TD04	FOURTH BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSR D025	"X'80" USER ROUTING CODE
		.1. ....		SCSR D026	"X'40" USER ROUTING CODE
		..1. ....		SCSR D027	"X'20" USER ROUTING CODE
		...1 ....		SCSR D028	"X'10" USER ROUTING CODE
		.... 1..		SCSR D029	"X'08" RESERVED
		.... .1.		SCSR D030	"X'04" RESERVED
		.... ..1.		SCSR D031	"X'02" RESERVED
		.... ...1		SCSR D032	"X'01" RESERVED
4	(4)	BITSTRING	1	SCSR TD05	FIFTH BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSR D033	"X'80" RESERVED
		.1. ....		SCSR D034	"X'40" RESERVED
		..1. ....		SCSR D035	"X'20" RESERVED
		...1 ....		SCSR D036	"X'10" RESERVED
		.... 1..		SCSR D037	"X'08" RESERVED

# IEZVG100 Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.... .1..		SCSRD038	"X'04" RESERVED
		.... ..1.		SCSRD039	"X'02" RESERVED
		.... ...1		SCSRD040	"X'01" RESERVED
5	(5)	BITSTRING	1	SCSRD06	SIXTH BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSRD041	"X'80" JOB STATUS MESSAGE
		.1.. ....		SCSRD042	"X'40" GENERAL INFO. ABOUT JES2 OR JES3
		..1. ....		SCSRD043	"X'20" RESERVED FOR JES USAGE
		...1 ....		SCSRD044	"X'10" RESERVED FOR JES USAGE
		.... 1...		SCSRD045	"X'08" RESERVED FOR JES USAGE
		.... ..1.		SCSRD046	"X'04" RESERVED FOR JES USAGE
		.... ...1		SCSRD047	"X'02" RESERVED FOR JES USAGE
		.... ...1		SCSRD048	"X'01" RESERVED FOR JES USAGE
6	(6)	BITSTRING	1	SCSRD07	SEVENTH BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSRD049	"X'80" RESERVED FOR JES USAGE
		.1.. ....		SCSRD050	"X'40" RESERVED FOR JES USAGE
		..1. ....		SCSRD051	"X'20" RESERVED FOR JES USAGE
		...1 ....		SCSRD052	"X'10" RESERVED FOR JES USAGE
		.... 1...		SCSRD053	"X'08" RESERVED FOR JES USAGE
		.... ..1.		SCSRD054	"X'04" RESERVED FOR JES USAGE
		.... ...1		SCSRD055	"X'02" RESERVED FOR JES USAGE
		.... ...1		SCSRD056	"X'01" RESERVED FOR JES USAGE
7	(7)	BITSTRING	1	SCSRD08	EIGHTH BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSRD057	"X'80" RESERVED FOR JES USAGE
		.1.. ....		SCSRD058	"X'40" RESERVED FOR JES USAGE
		..1. ....		SCSRD059	"X'20" RESERVED FOR JES USAGE
		...1 ....		SCSRD060	"X'10" RESERVED FOR JES USAGE
		.... 1...		SCSRD061	"X'08" RESERVED FOR JES USAGE
		.... ..1.		SCSRD062	"X'04" RESERVED FOR JES USAGE
		.... ...1		SCSRD063	"X'02" RESERVED FOR JES USAGE
		.... ...1		SCSRD064	"X'01" RESERVED FOR JES USAGE
8	(8)	BITSTRING	1	SCSRD09	NINTH BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSRD065	"X'80" PROCESSOR RELATED MESSAGE
		.1.. ....		SCSRD066	"X'40" PROCESSOR RELATED MESSAGE
		..1. ....		SCSRD067	"X'20" PROCESSOR RELATED MESSAGE
		...1 ....		SCSRD068	"X'10" PROCESSOR RELATED MESSAGE
		.... 1...		SCSRD069	"X'08" PROCESSOR RELATED MESSAGE
		.... ..1.		SCSRD070	"X'04" PROCESSOR RELATED MESSAGE
		.... ...1		SCSRD071	"X'02" PROCESSOR RELATED MESSAGE
		.... ...1		SCSRD072	"X'01" PROCESSOR RELATED MESSAGE
9	(9)	BITSTRING	1	SCSRD10	TENTH BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSRD073	"X'80" PROCESSOR RELATED MESSAGE
		.1.. ....		SCSRD074	"X'40" PROCESSOR RELATED MESSAGE
		..1. ....		SCSRD075	"X'20" PROCESSOR RELATED MESSAGE

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		...1 ....		SCSRD076	"X'10" PROCESSOR RELATED MESSAGE
		.... 1...		SCSRD077	"X'08" PROCESSOR RELATED MESSAGE
		.... .1..		SCSRD078	"X'04" PROCESSOR RELATED MESSAGE
		.... ..1.		SCSRD079	"X'02" PROCESSOR RELATED MESSAGE
		.... ...1		SCSRD080	"X'01" PROCESSOR RELATED MESSAGE
10	(A)	BITSTRING	1	SCSRTD11	ELEVENTH BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSRD081	"X'80" PROCESSOR RELATED MESSAGE
		.1. ....		SCSRD082	"X'40" PROCESSOR RELATED MESSAGE
		..1. ....		SCSRD083	"X'20" PROCESSOR RELATED MESSAGE
		...1 ....		SCSRD084	"X'10" PROCESSOR RELATED MESSAGE
		.... 1...		SCSRD085	"X'08" PROCESSOR RELATED MESSAGE
		.... .1..		SCSRD086	"X'04" PROCESSOR RELATED MESSAGE
		.... ..1.		SCSRD087	"X'02" PROCESSOR RELATED MESSAGE
		.... ...1		SCSRD088	"X'01" PROCESSOR RELATED MESSAGE
11	(B)	BITSTRING	1	SCSRTD12	TWELFTH BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSRD089	"X'80" PROCESSOR RELATED MESSAGE
		.1. ....		SCSRD090	"X'40" PROCESSOR RELATED MESSAGE
		..1. ....		SCSRD091	"X'20" PROCESSOR RELATED MESSAGE
		...1 ....		SCSRD092	"X'10" PROCESSOR RELATED MESSAGE
		.... 1...		SCSRD093	"X'08" PROCESSOR RELATED MESSAGE
		.... .1..		SCSRD094	"X'04" PROCESSOR RELATED MESSAGE
		.... ..1.		SCSRD095	"X'02" PROCESSOR RELATED MESSAGE
		.... ...1		SCSRD096	"X'01" PROCESSOR RELATED MESSAGE
12	(C)	BITSTRING	1	SCSRTD13	THIRTEENTH BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSRD097	"X'80" DEVICE RELATED MESSAGE
		.1. ....		SCSRD098	"X'40" DEVICE RELATED MESSAGE
		..1. ....		SCSRD099	"X'20" DEVICE RELATED MESSAGE
		...1 ....		SCSRD100	"X'10" DEVICE RELATED MESSAGE
		.... 1...		SCSRD101	"X'08" DEVICE RELATED MESSAGE
		.... .1..		SCSRD102	"X'04" DEVICE RELATED MESSAGE
		.... ..1.		SCSRD103	"X'02" DEVICE RELATED MESSAGE
		.... ...1		SCSRD104	"X'01" DEVICE RELATED MESSAGE
13	(D)	BITSTRING	1	SCSRTD14	FOURTEENTH BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSRD105	"X'80" DEVICE RELATED MESSAGE
		.1. ....		SCSRD106	"X'40" DEVICE RELATED MESSAGE
		..1. ....		SCSRD107	"X'20" DEVICE RELATED MESSAGE
		...1 ....		SCSRD108	"X'10" DEVICE RELATED MESSAGE
		.... 1...		SCSRD109	"X'08" DEVICE RELATED MESSAGE
		.... .1..		SCSRD110	"X'04" DEVICE RELATED MESSAGE
		.... ..1.		SCSRD111	"X'02" DEVICE RELATED MESSAGE
		.... ...1		SCSRD112	"X'01" DEVICE RELATED MESSAGE
14	(E)	BITSTRING	1	SCSRTD15	FIFTEENTH BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1... ....		SCSRD113	"X'80" DEVICE RELATED MESSAGE

## IEZVG100 Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		.1.. ....		SCSRD114	"X'40" DEVICE RELATED MESSAGE
		..1. ....		SCSRD115	"X'20" DEVICE RELATED MESSAGE
		...1 ....		SCSRD116	"X'10" DEVICE RELATED MESSAGE
		.... 1..		SCSRD117	"X'08" DEVICE RELATED MESSAGE
		.... .1..		SCSRD118	"X'04" DEVICE RELATED MESSAGE
		.... ..1.		SCSRD119	"X'02" DEVICE RELATED MESSAGE
		.... ...1		SCSRD120	"X'01" DEVICE RELATED MESSAGE
15	(F)	BITSTRING	1	SCSRTD16	SIXTEENTH BYTE OF ROUTING CODES
Comment					
Bit definitions:					
End of Comment					
		1.. ..		SCSRD121	"X'80" DEVICE RELATED MESSAGE
		.1. ....		SCSRD122	"X'40" DEVICE RELATED MESSAGE
		..1. ....		SCSRD123	"X'20" DEVICE RELATED MESSAGE
		...1 ....		SCSRD124	"X'10" DEVICE RELATED MESSAGE
		.... 1..		SCSRD125	"X'08" DEVICE RELATED MESSAGE
		.... .1..		SCSRD126	"X'04" DEVICE RELATED MESSAGE
		.... ..1.		SCSRD127	"X'02" DEVICE RELATED MESSAGE
		.... ...1		SCSRD128	"X'01" DEVICE RELATED MESSAGE
16	(10)	X'10'	0	SCSRTCD_LEN	"*-SCSRTCD"

## IEZVG100 Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SCS_HBB7709	58	4	SCSNMSTR	6	20
SCS_HBB7730	58	8	SCSNTDEF	23	80
SCSACRO	0		SCSNTKWN	24	80
SCSASID	26		SCSOBTAN	5	80
SCSATI	22		SCSOBTNC	9	80
SCSAUTH	6	10	SCSONAME	4C	
SCSAUTHC	A	10	SCSPJESN	2C	
SCSAUTHF	28		SCSPLEN	58	60
SCSAUTHM	28	80	SCSPMSTC	A	40
SCSAUTHP	28	40	SCSPMSTR	6	40
SCSAUTH1	28	20	SCSPNTKN	24	10
SCSAUTH2	28	10	SCSPROTC	9	1
SCSAUTH3	28	8	SCSPROTO	5	1
SCSBRDFC	9	8	SCSR	58	C3E2D9
SCSBRDNC	9	10	SCSR_LENGTH_PRE730		
SCSBRDOF	5	8		58	50
SCSBRDON	5	10	SCSR_LENGTH_VER730		
SCSCASID	E			58	60
SCSCNAME	40		SCSRARSN	54	
SCSCNDEF	23	40	SCSRD001	0	80
SCSCNID	20		SCSRD002	0	40
SCSCNSTF	23		SCSRD003	0	20
SCSCOMP	9		SCSRD004	0	10
SCSCOMP1	9		SCSRD005	0	8
SCSCOMP2	A		SCSRD006	0	4
SCSCOMP3	B		SCSRD007	0	2
SCSCOMP4	C		SCSRD008	0	1
SCSCONID	3C		SCSRD009	1	80
SCSDEMSC	9	40	SCSRD010	1	40
SCSDEMSEL	5	40	SCSRD011	1	20
SCSDSTAT	5	2	SCSRD012	1	10
SCSFLGS	24		SCSRD013	1	8
SCSFLGS1	24		SCSRD014	1	4
SCSFLGS2	25		SCSRD015	1	2
SCSFUNC	5		SCSRD016	1	1
SCSFUNC1	5		SCSRD017	2	80
SCSFUNC2	6		SCSRD018	2	40
SCSFUNC3	7		SCSRD019	2	20
SCSFUNC4	8		SCSRD020	2	10
SCSINUSE	23	20	SCSRD021	2	8
SCSJES3C	24	4	SCSRD022	2	4
SCSLEN	58	70	SCSRD023	2	2
SCSMVSC	24	8	SCSRD024	2	1
SCSNAME	10		SCSRD025	3	80
SCSNMSTC	A	20	SCSRD026	3	40

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SCSRD027	3	20	SCSRD101	C	8
SCSRD028	3	10	SCSRD102	C	4
SCSRD029	3	8	SCSRD103	C	2
SCSRD030	3	4	SCSRD104	C	1
SCSRD031	3	2	SCSRD105	D	80
SCSRD032	3	1	SCSRD106	D	40
SCSRD033	4	80	SCSRD107	D	20
SCSRD034	4	40	SCSRD108	D	10
SCSRD035	4	20	SCSRD109	D	8
SCSRD036	4	10	SCSRD110	D	4
SCSRD037	4	8	SCSRD111	D	2
SCSRD038	4	4	SCSRD112	D	1
SCSRD039	4	2	SCSRD113	E	80
SCSRD040	4	1	SCSRD114	E	40
SCSRD041	5	80	SCSRD115	E	20
SCSRD042	5	40	SCSRD116	E	10
SCSRD043	5	20	SCSRD117	E	8
SCSRD044	5	10	SCSRD118	E	4
SCSRD045	5	8	SCSRD119	E	2
SCSRD046	5	4	SCSRD120	E	1
SCSRD047	5	2	SCSRD121	F	80
SCSRD048	5	1	SCSRD122	F	40
SCSRD049	6	80	SCSRD123	F	20
SCSRD050	6	40	SCSRD124	F	10
SCSRD051	6	20	SCSRD125	F	8
SCSRD052	6	10	SCSRD126	F	4
SCSRD053	6	8	SCSRD127	F	2
SCSRD054	6	4	SCSRD128	F	1
SCSRD055	6	2	SCSRELSC	9	20
SCSRD056	6	1	SCSRELSE	5	20
SCSRD057	7	80	SCSRGRPC	A	80
SCSRD058	7	40	SCSRLCSY	6	8
SCSRD059	7	20	SCSRLEN	58	10
SCSRD060	7	10	SCSRLGRP	6	80
SCSRD061	7	8	SCSRLSYC	A	8
SCSRD062	7	4	SCSRNAMC	A	4
SCSRD063	7	2	SCSRNAVL	58	8
SCSRD064	7	1	SCSRNCMP	58	C
SCSRD065	8	80	SCSRNTFD	58	4
SCSRD066	8	40	SCSROBS	58	10
SCSRD067	8	20	SCSROK	58	0
SCSRD068	8	10	SCSRPLST	0	
SCSRD069	8	8	SCSRPLST_LEN	58	60
SCSRD070	8	4	SCSRRTN	48	
SCSRD071	8	2	SCSRSV1	D	
SCSRD072	8	1	SCSRSV5	29	
SCSRD073	9	80	SCSRSV6	58	
SCSRD074	9	40	SCSRSYNM	18	
SCSRD075	9	20	SCSRTCD	0	
SCSRD076	9	10	SCSRTCD_LEN	10	10
SCSRD077	9	8	SCSRTCDC	9	4
SCSRD078	9	4	SCSRTCDF	5	4
SCSRD079	9	2	SCSRTCDP	30	
SCSRD080	9	1	SCSRTD01	0	
SCSRD081	A	80	SCSRTD02	1	
SCSRD082	A	40	SCSRTD03	2	
SCSRD083	A	20	SCSRTD04	3	
SCSRD084	A	10	SCSRTD05	4	
SCSRD085	A	8	SCSRTD06	5	
SCSRD086	A	4	SCSRTD07	6	
SCSRD087	A	2	SCSRTD08	7	
SCSRD088	A	1	SCSRTD09	8	
SCSRD089	B	80	SCSRTD10	9	
SCSRD090	B	40	SCSRTD11	A	
SCSRD091	B	20	SCSRTD12	B	
SCSRD092	B	10	SCSRTD13	C	
SCSRD093	B	8	SCSRTD14	D	
SCSRD094	B	4	SCSRTD15	E	
SCSRD095	B	2	SCSRTD16	F	
SCSRD096	B	1	SCSSP211	58	1
SCSRD097	C	80	SCSSP220	58	2
SCSRD098	C	40	SCSSP440	58	3
SCSRD099	C	20	SCSSTATC	9	2
SCSRD100	C	10	SCSTYPE1	24	40

## IEZVG100 Cross Reference

Name	Hex Offset	Hex Value
SCSUNIT	35	
SCSUNIT4	34	
SCSVR	4	
SCSVRSN	58	8
SCSXMOSP	38	

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## IFAEDIDF Information

### IFAEDIDF Programming Interface information

Programming Interface information

IFAEDIDF

End of Programming Interface information

## IFAEDIDF Heading Information • IFAEDIDF Map

### IFAEDIDF Heading Information

**Common Name:** IFAEDxxx IDF (return codes and output areas)  
**Macro ID:** IFAEDIDF  
**DSECT Name:** EDOI EDAAHDR EDAAE  
**Owning Component:** SMF (SC100)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: Caller-supplied  
 Key: Caller-supplied  
 Residency: Caller-supplied  
**Size:** Variable  
 EDOI -- X'0010' bytes  
 EDAAE -- X'0048' bytes  
 EDAAHDR -- X'0020' bytes  
**Created by:** Caller and passed as parameter on ANSAREA parameter on call to IFAEDLIS  
 Caller and passed as parameter on OUTPUTINFO parameter on call to IFAEDSTA  
**Pointed to by:** IFAEDLIS parameter list  
 IFAEDSTA parameter list  
**Serialization:** None required  
**Function:** Provides return code equates for the IFAEDxxx services.

Maps the ansarea data returned by the IFAEDLIS service.

Maps the outputinfo data returned by the IFAEDSTA service.

For IFAEDSTA, the EDOI DSECT maps the outputinfo area.

For IFAEDLIS, the returned information consists of a header (EDAAHDR) which indicates how many Registered entries (EdaahNumR, first address in EdaahFirstRAddr) and State entries (EdaahNumS, first address in EdaahFirstSAddr) follow. There is also 0 or 1 Status entry (address in EdaahStatusAddr, or 0) to indicate the policy entry that would be used to determine the state of the given product.

Registered, state, and status entries are all mapped by Edaae. Certain fields apply only to one or the other, and are commented appropriately.

### IFAEDIDF Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	EDOI	
0	(0)	BITSTRING	1	EDOIFLAGS	
		1... ....		EDOIREGISTERED	"X'80" The product is registered
		.1.. ....		EDOISTATUSNOTDEFINED	"X'40" The product is not known to be enabled or disabled.
		..1. ....		EDOISTATUSENABLED	"X'20" The product is enabled.
		...1 ....		EDOINOTALLFEATURESRETURNED	"X'10" The featureslen area was too small to hold the features provided at registration time. Field EdoiNeededFeaturesLen contains the size provided at registration time.
1	(1)	CHARACTER	3		
4	(4)	SIGNED	4	EDOINEEDEDFEATURESLEN	The featureslen size provided at registration time.
8	(8)	CHARACTER	6	EDOIPRODVERSRELMOD	
8	(8)	CHARACTER	2	EDOIPRODVERS	The version information provided at registration time.
10	(A)	CHARACTER	2	EDOIPRODREL	The release information provided at registration time.
12	(C)	CHARACTER	2	EDOIPRODMOD	The mod level information provided at registration time.
14	(E)	CHARACTER	2		

Comment

Constants for Parameters and Return Codes  
Product Enable/Disable Register Constants

End of Comment

14	(E)	X'0'	0	IFAEDREG_TYPE_STANDARD	"0"
14	(E)	X'2'	0	IFAEDREG_TYPE_REQUIRED	"2" The register request should complete even if the policy indicates that the product is disabled. This would be used when registering solely so your status can be queried.
14	(E)	X'4'	0	IFAEDREG_TYPE_NOREPORT	



Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
14	(E)	X'8'	0	IFAEDREG_TYPE_LICENSEDUNDERPROD	"4" The register request should not be reported upon by display command and SMF report. This might be used when registering solely so the status can be queried.
14	(E)	X'10'	0	IFAEDREG_TYPE_DISABLEDMESSAGE	"8" The registering feature is not separately licensed. Rather, the license is associated with the product specified by the prodname parameter.
14	(E)	X'20'	0	IFAEDREG_TYPE_NOTFOUNDDISABLED	"16" If the product is found to be disabled, have the system issue the appropriate message, rather than the caller having to do it. "32" If no enable/disable policy entry matches this product, treat the product as disabled, rather than treating it as enabled.

Comment

Product Enable/Disable Register Return Codes

Note: 0C4 abend if bad address provided in parmlist or user data

End of Comment

14	(E)	X'0'	0	IFAEDREG_SUCCESS	"0" Register service completed successfully
14	(E)	X'4'	0	IFAEDREG_DISABLED	"4" Register service found that the product is disabled and therefore the register service was not accepted.
14	(E)	X'8'	0	IFAEDREG_NOTAVAILABLE	"8" Register service is not available on this system.
14	(E)	X'C'	0	IFAEDREG_LIMITEXCEEDED	"12" too many unauthorized registrations for this address space
14	(E)	X'10'	0	IFAEDREG_NOTTASKMODE	"16" Register service was not called in task mode.
14	(E)	X'14'	0	IFAEDREG_XM	"20" Register service was not called with P=H=S
14	(E)	X'18'	0	IFAEDREG_BADFEATURESLEN	"24" Features length exceeds 1024.
14	(E)	X'1C'	0	IFAEDREG_NOSTORAGE	"28" The system could not obtain needed storage.
14	(E)	X'20'	0	IFAEDREG_BADTYPE	"32" The type parameter did not specify a word with a value formed from adding any combination of Ifaedreg_Type_Standard, Ifaedreg_Type_Required, Ifaedreg_Type_NoReport, Ifaedreg_Type_LicensedUnderProd, Ifaedreg_Type_DisabledMessage, and Ifaedreg_Type_NotFoundDisabled
14	(E)	X'24'	0	IFAEDREG_LOCKED	"36" Register service was called holding a system lock
14	(E)	X'28'	0	IFAEDREG_FRR	"40" Register service was called having an FRR

Comment

Product Enable/Disable Deregister Return Codes

Note: 0C4 abend if bad address provided in parmlist or user data

End of Comment

14	(E)	X'0'	0	IFAEDDRG_SUCCESS	"0" Deregister service completed successfully
14	(E)	X'8'	0	IFAEDDRG_NOTAVAILABLE	"8" Deregister service is not available on this system.
14	(E)	X'C'	0	IFAEDDRG_NOTREGISTERED	"12" The product that was to be deregistered had not been registered
14	(E)	X'10'	0	IFAEDDRG_NOTTASKMODE	"16" deregister service was not called in task mode.
14	(E)	X'14'	0	IFAEDDRG_XM	"20" Deregister service was not called with P=H=S
14	(E)	X'18'	0	IFAEDDRG_NOTAUTH	"24" If not supervisor state, system key, or system PKM, the entry to be deregistered must be registered from the same address space and must have been registered by an equally non-authorized caller.
14	(E)	X'24'	0	IFAEDDRG_LOCKED	"36" Deregister service was called holding a system lock
14	(E)	X'28'	0	IFAEDDRG_FRR	"40" Deregister service was called having an FRR

Comment

Product Enable/Disable Status Return Codes

Note: 0C4 abend if bad address provided in parmlist or user data

End of Comment

## IFAEDIDF Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
14	(E)	X'0'	0	IFAEDSTA_SUCCESS	"0" Status service completed successfully
14	(E)	X'4'	0	IFAEDSTA_NOTDEFINED	"4" The status service found no entry corresponding to the input product.
14	(E)	X'8'	0	IFAEDSTA_NOTAVAILABLE	"8" Status service is not available on this system.
14	(E)	X'10'	0	IFAEDSTA_NOTTASKMODE	"16" Status service was not called in task mode.
14	(E)	X'14'	0	IFAEDSTA_XM	"20" Status service was not called with P=H=S
14	(E)	X'24'	0	IFAEDSTA_LOCKED	"36" Status service was called holding a system lock
14	(E)	X'28'	0	IFAEDSTA_FRR	"40" Status service was called having an FRR

Comment

### Product Enable/Disable List Constants

End of Comment					
14	(E)	X'1'	0	IFAEDLIS_TYPE_REGISTERED	"1" Return the registration entry/entries corresponding to the input product.
14	(E)	X'2'	0	IFAEDLIS_TYPE_STATE	"2" Return the state entry/entries corresponding to the input product.
14	(E)	X'4'	0	IFAEDLIS_TYPE_STATUS	"4" Return the status entry corresponding to the input product.
14	(E)	X'8'	0	IFAEDLIS_TYPE_NOREPORT	"8" When returning registration entries, include those for which the IFAEDREG call specified Ifaedreg_Type_NoReport. If not requested, those entries are not returned.

Comment

### Product Enable/Disable List Return Codes

Note: 0C4 abend if bad address provided in parm list or user data

End of Comment					
14	(E)	X'0'	0	IFAEDLIS_SUCCESS	"0" List service completed successfully
14	(E)	X'4'	0	IFAEDLIS_NOTALLDATARETURNED	"4" List service had more data to return that would fit in the provided answer area. All the complete entries that would fit were returned.
14	(E)	X'8'	0	IFAEDLIS_NOTAVAILABLE	"8" List service is not available on this system.
14	(E)	X'C'	0	IFAEDLIS_ANSAREATOOSMALL	"12" The answer area, indicated by the answer len parameter is not large enough to hold the answer area header (DSECT EdaahDR).
14	(E)	X'10'	0	IFAEDLIS_NOTTASKMODE	"16" List service was not called in task mode.
14	(E)	X'14'	0	IFAEDLIS_XM	"20" List service was not called with P=H=S
14	(E)	X'20'	0	IFAEDLIS_BADTYPE	"32" The type parameter did not specify a word with a value formed from adding any combination of IFAEDLIS_TYPE_REGISTERED, IFAEDLIS_TYPE_STATE, IFAEDLIS_TYPE_STATUS, and IFAEDLIS_TYPE_NOREPORT.
14	(E)	X'24'	0	IFAEDLIS_LOCKED	"36" List service was called holding a system lock
14	(E)	X'28'	0	IFAEDLIS_FRR	"40" List service was called having an FRR
14	(E)	X'10'	0	EDO1_LEN	**-EDO1"

### Offsets

Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	EDAAHDR	Header section
0	(0)	SIGNED	4	EDAAHNUMR	Number of Edaae entries which follow indicating registered entries. The first one is pointed to by EdaahFirstRAddr.
4	(4)	SIGNED	4	EDAAHNUMS	Number of Edaae entries which follow indicating state entries. The first one is pointed to by EdaahFirstSAddr.
8	(8)	SIGNED	4	EDAAHTLEN	Total length of answer area needed to contain all the requested information. This includes the area for the records that were returned on this call.
12	(C)	ADDRESS	4	EDAAHFIRSTRADDR	Address of first registered entry Edaae
16	(10)	ADDRESS	4	EDAAHFIRSTSADDR	Address of first state entry Edaae
20	(14)	ADDRESS	4	EDAAHSTATUSADDR	

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
24	(18)	CHARACTER	8		Address of the entry that represents the policy entry that would be used to determine if the input product was enabled. 0 if no such policy entry exists.
24	(18)	X'20'	0	EDAAHDR_LEN	Unused "-EDAAHDR"

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	EDAAE	Edaae Record data format
0	(0)	ADDRESS	4	EDAAENEXTADDR	Address of next Edaae. EdaahNumR (for the registered queue) or EdaahNumS (for the state queue) must be used to determine how far along this chain to go. Not relevant for EdaahStatusAddr.
4	(4)	CHARACTER	62	EDAAEINFO	
4	(4)	CHARACTER	16	EDAAEPRODOWNER	Product owner
20	(14)	CHARACTER	16	EDAAEPRODNAME	Product name
36	(24)	CHARACTER	16	EDAAEFEATURENAME	Feature name
52	(34)	CHARACTER	2	EDAAEPRODVERS	Product version
54	(36)	CHARACTER	2	EDAAEPRODREL	Product release
56	(38)	CHARACTER	2	EDAAEPRODMOD	Product mod level
58	(3A)	CHARACTER	8	EDAAEPRODID	Product ID
66	(42)	BITSTRING	1	EDAAEFLAGS	Flags
		1... ....		EDAAESTATUSNOTDEFINED	"X'80" This will never be on for entries on the state queue. If on, indicates that the state information does not have an entry that matches this product.
		.1.. ....		EDAAESTATUSENABLED	"X'40" If on, indicates that the product is considered to be enabled
		..1. ....		EDAAENOREPORT	"X'20" If on, indicates that the product registered with Ifaedreg_Type_Noreport. This will never on for entries on the state queue.
		...1 ....		EDAAELICENSEDUNDERPROD	"X'10" If on, indicates that the product registered with Ifaedreg_Type_LicensedUnderProd. This will never on for entries on the state queue.
67	(43)	CHARACTER	1		Unused
68	(44)	SIGNED	4	EDAAENUMINSTANCES	Number of concurrent instances of this registration
68	(44)	X'48'	0	EDAAE_LEN	"*-EDAAE"

IFAEDIDF Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
EDAAE	0			42	80
EDAAE_LEN	44	48	EDAAHDR	0	
EDAAEFEATURENAME			EDAAHDR_LEN	18	20
	24		EDAAHFIRSTRADDR		C
EDAAEFLAGS	42		EDAAHFIRSTSADDR		
EDAAEINFO	4			10	
EDAAELICENSEDUNDERPROD			EDAAHNUMR	0	
	42	10	EDAAHNUMS	4	
EDAAENEXTADDR			EDAAHSTATUSADDR		
	0			14	
EDAAENOREPORT			EDAAHTLEN	8	
	42	20	EDOI	0	
EDAAENUMINSTANCES			EDOI_LEN	E	10
	44		EDOIFLAGS	0	
EDAAEPRODID	3A		EDOINEEDEDFEATURESLEN		
EDAAEPRODMOD	38			4	
EDAAEPRODNAME			EDOINOTALLFEATURESRETURNED		
	14			0	10
EDAAEPRODOWNER			EDOIPRODMOD	C	
	4		EDOIPRODREL	A	
EDAAEPRODREL	36		EDOIPRODVERS	8	
EDAAEPRODVERS			EDOIPRODVERSRELMOD		
	34			8	
EDAAESTATUSENABLED			EDOIREGISTERED		
	42	40		0	80
EDAAESTATUSNOTDEFINED					

## IFAEDIDF Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
EDOISTATUSENABLED			IFAEDSTA_FRR	E	28
	0	20	IFAEDSTA_LOCKED		
EDOISTATUSNOTDEFINED				E	24
	0	40	IFAEDSTA_NOTAVAILABLE		
IFAEDDRG_FRR	E	28		E	8
IFAEDDRG_LOCKED			IFAEDSTA_NOTDEFINED		
	E	24		E	4
IFAEDDRG_NOTAUTH			IFAEDSTA_NOTTASKMODE		
	E	18		E	10
IFAEDDRG_NOTAVAILABLE			IFAEDSTA_SUCCESS		
	E	8		E	0
IFAEDDRG_NOTREGISTERED			IFAEDSTA_XM	E	14
	E	C			
IFAEDDRG_NOTTASKMODE					
	E	10			
IFAEDDRG_SUCCESS					
	E	0			
IFAEDDRG_XM	E	14			
IFAEDLIS_ANSAREATOOSMALL					
	E	C			
IFAEDLIS_BADTYPE					
	E	20			
IFAEDLIS_FRR	E	28			
IFAEDLIS_LOCKED					
	E	24			
IFAEDLIS_NOTALLDATARETURNED					
	E	4			
IFAEDLIS_NOTAVAILABLE					
	E	8			
IFAEDLIS_NOTTASKMODE					
	E	10			
IFAEDLIS_SUCCESS					
	E	0			
IFAEDLIS_TYPE_NOREPORT					
	E	8			
IFAEDLIS_TYPE_REGISTERED					
	E	1			
IFAEDLIS_TYPE_STATE					
	E	2			
IFAEDLIS_TYPE_STATUS					
	E	4			
IFAEDLIS_XM	E	14			
IFAEDREG_BADFEATURESLEN					
	E	18			
IFAEDREG_BADTYPE					
	E	20			
IFAEDREG_DISABLED					
	E	4			
IFAEDREG_FRR	E	28			
IFAEDREG_LIMITEXCEEDED					
	E	C			
IFAEDREG_LOCKED					
	E	24			
IFAEDREG_NOSTORAGE					
	E	1C			
IFAEDREG_NOTAVAILABLE					
	E	8			
IFAEDREG_NOTTASKMODE					
	E	10			
IFAEDREG_SUCCESS					
	E	0			
IFAEDREG_TYPE_DISABLEDMESSAGE					
	E	10			
IFAEDREG_TYPE_LICENSEDUNDERPROD					
	E	8			
IFAEDREG_TYPE_NOREPORT					
	E	4			
IFAEDREG_TYPE_NOTFOUNDDISABLED					
	E	20			
IFAEDREG_TYPE_REQUIRED					
	E	2			
IFAEDREG_TYPE_STANDARD					
	E	0			
IFAEDREG_XM	E	14			

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## IFAENF37 Information

### IFAENF37 Programming Interface information

Programming Interface information

IFAENF37

End of Programming Interface information

## IFAENF37 Heading Information • IFAENF37 Cross Reference

### IFAENF37 Heading Information

**Common Name:** SMF MAPPING MACRO FOR EVENT CODE 37  
**Macro ID:** IFAENF37  
**DSECT Name:** ENF37 (For SMF Interval Sync Support)  
**Owning Component:** System Management Facilities (SC100)  
**Eye-Catcher ID:** ENF37  
 Offset: 0  
 Length: 6  
**Storage Attributes:** Subpool: 245  
 Key: 0  
 Residency: Above  
**Size:** 26 bytes ('1A' in hex)  
 FREQUENCY = 1 per ENF (Event Code #37) Signal  
**Created by:** SMF  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** SMF Mapping Macro for ENF (Event Code #37) users

### IFAENF37 Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENF37	SMF ENF Parameter List for Interval SYNC Support
0	(0)	CHARACTER	6	ENF37ID	- Control Block Id - "ENF37 "
6	(6)	CHARACTER	2	ENF37VER	- Parameter List Version
8	(8)	SIGNED	2	ENF37LEN	- Parameter List Length
10	(A)	CHARACTER	2	ENF37RSV	- Reserved
12	(C)	CHARACTER	4	ENF37QLF	- Qualifier Code
16	(10)	CHARACTER	8	ENF37TOD	- SYNC Event Value (in TOD format) Used only for INTVAL parm change, SYNCVAL parm change, or SYNC interval expired events.
24	(18)	CHARACTER	2	ENF37CHR	- SYNC Event Value (in character format) Used only for INTVAL or SYNCVAL parm change events.
24	(18)	X'1A'	0	ENF37END	"" End of ENF37 Mapping
0	(0)	SIGNED	4	(0)	Word Boundary Alignment
0	(0)	BITSTRING	4	ENF37Q00	SMF Active
4	(4)	BITSTRING	4	ENF37Q01	SMF Terminated
8	(8)	BITSTRING	4	ENF37Q02	SMF INTVAL Parm Changed
12	(C)	BITSTRING	4	ENF37Q03	SMF SYNCVAL Parm Changed
16	(10)	BITSTRING	4	ENF37Q04	SMF SYNC Interval Expired
20	(14)	BITSTRING	4	ENF37Q05	SMF Interval SYNC Error
24	(18)	BITSTRING	4	ENF37Q06	SMF Processor Capacity Change intrvl
28	(1C)	CHARACTER	6	ENF37CID	'ENF37 ' EBCDIC
34	(22)	CHARACTER	2	ENF37V1	Version 1 Indicator

### IFAENF37 Cross Reference

Name	Hex Offset	Hex Value
ENF37	0	
ENF37CHR	18	
ENF37CID	1C	C5D5C6F3
ENF37END	18	1A
ENF37ID	0	
ENF37LEN	8	
ENF37QLF	C	
ENF37Q00	0	80000000
ENF37Q01	4	40000000
ENF37Q02	8	20000000
ENF37Q03	C	10000000
ENF37Q04	10	8000000
ENF37Q05	14	4000000
ENF37Q06	18	2000000
ENF37RSV	A	
ENF37TOD	10	
ENF37VER	6	
ENF37V1	22	F0F1

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## IFAQUAA Information

### IFAQUAA Programming Interface information

Programming Interface information

#### IFAQUAA

End of Programming Interface information

## IFAQUAA Heading Information • IFAQUAA Map

### IFAQUAA Heading Information

**Common Name:** SMF Query Answer Area  
**Macro ID:** IFAQUAA  
**DSECT Name:** QUAHDR QUALS QUAPS QUAFS  
**Owning Component:** System Management Facility (SC100)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: Caller-supplied  
 Key: Caller-supplied  
 Residency: Caller-supplied  
**Size:** Variable  
 QUAFSTYPE -- X'0021' bytes  
 QUAPSTYPE -- X'0030' bytes  
 QUAHDRTYPE -- X'0010' bytes  
 QUALSTYPE -- X'0074' bytes  
**Created by:** Caller and passed as parameter on ANSAREA keyword  
 on IFAQQUERY invocation  
**Pointed to by:** IFAQQUERY parameter list  
**Serialization:** None required  
**Function:** Maps the data returned by the IFAQQUERY macro request.

### IFAQUAA Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QUAHDRTYPE	Header section
0	(0)	SIGNED	4	QUAH#REC	Number of QUALS or QUADS records which follow. Note: this field is zero with zero return code, when the service could not find any records and SMF is recording
4	(4)	SIGNED	4	QUAH#REM	Number of QUALS or QUADS records which were not returned because of insufficient space
8	(8)	SIGNED	4	QUAHTLEN	Total length of answer area needed to contain all the requested information. This includes the area for the records that were returned on this call.
12	(C)	SIGNED	4	QUAHDOFF	Offset from QUAHDR to the first data record.
12	(C)	X'10'	0	QUAHDRTYPE_LEN	**_QUAHDRTYPE"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QUALSTYPE	Logstream Record data format
0	(0)	BITSTRING	1	QUALSTYP	X'02' Logstream record, X'82' last Logstream record
1	(1)	BITSTRING	1		Reserved X'00'
2	(2)	SIGNED	2	QUALSLEN	Length of Logstream record
4	(4)	CHARACTER	26	QUALSNAME	Logstream name
30	(1E)	SIGNED	2		Reserved
32	(20)	CHARACTER	32	QUALSREC	256 bit bitstring describing record types being recorded to this logstream (record 0 is in first bit of first byte, record 255 is last bit of byte 32.)
64	(40)	SIGNED	4	QUALSBSZ	Logstream buffer block size (number of bytes)
68	(44)	BITSTRING	8	QUALSTOD	Last successful write TOD
76	(4C)	BITSTRING	4	QUALSTAT	Logstream Status
76	(4C)	BITSTRING	1	QUALSTB1	Status byte 1

Comment

Bit definitions:

End of Comment

		1... ....		QUALSDEF	"X'80" Default logstream, accepting records which are not being recorded in any other logstream.
		.1. ....		QUALSACT	"X'40" Active
		..1. ....		QUALSCLN	"X'20" being cleaned up
		...1 ....		QUALSCNT	"X'10" Connected
		.... 1...		QUALSDWG	"X'08" On when the DSPSIZMAX option came from the global option
77	(4D)	BITSTRING	1	QUALSTB2	Status byte 2

Comment

Bit definitions:

End of Comment

		1... ....		QUALSCRQ	"X'80" On-Compression requested for records written to this log stream by SMF configuration Off-Compression not requested
--	--	-----------	--	----------	---



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.1.. ....		QUALSCPR	"X'40" On-Compression is Prepared. This log stream is ready to compress records (hardware is capable of using zEnterprise Data Compression (zEDC)), and all setup for compression succeeded Off- Hardware is not capable of using zEDC or compression setup failed (see IFA730I)
		..1. ....		QUALSCMP	"X'20" On- Compression is Available. The last use of zEDC was successful and it indicated a zEDC Express was available to satisfy compression requests Off- At last request- zEDC Expresses were not available to satisfy compression requests
		...1 ....		QUALSPFG	"X'10" The current PERMFIX value for this log stream is the global PERMFIX value. In the SMF configuration, a log stream PERMFIX value was not specified.
78	(4E)	BITSTRING	1	QUALSTB3	Status byte 3
79	(4F)	BITSTRING	1	QUALSTB4	Status byte 4
80	(50)	SIGNED	4	QUALSBFL	Number of records lost during buffer shortage. If zero then there is currently no buffer shortage.
84	(54)	CHARACTER	8	QUALSDTM	Time that logstream buffer became unavailable. If zero then there is currently no buffer shortage.
92	(5C)	SIGNED	4	QUALSDSZ	The DSPSIZMAX for this logstream (number of bytes)
96	(60)	SIGNED	4	QUALSHWM	The high water mark for the buffer area (number of bytes)
100	(64)	SIGNED	4	QUALSLFT	Amount of storage used currently in the buffer area (number of bytes)

Comment

SMF configuration parameter PERMFIX defines the maximum storage SMF can keep registered to zEDC. The following four fields represent amounts of storage registered to zEDC for this log stream.

End of Comment

104	(68)	SIGNED	4	QUALSPFT	Total storage SMF is currently using for zEDC for this log stream. Value does not account for 1MB needed by each log stream using zEDC. Value may be up to 2MB greater than the defined PERMFIX value depending on usage.
108	(6C)	SIGNED	4	QUALSPFM	Max storage SMF can use for zEDC for this log stream. Configuration defined PERMFIX value.
112	(70)	SIGNED	4	QUALSPFH	High water mark of storage SMF has used for zEDC for this log stream connection
112	(70)	X'74'	0	QUALSTYPE_LEN	"*-QUALSTYPE"

Offsets

Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QUAFSTYPE	Policy Record data format
0	(0)	BITSTRING	1	QUAFSTYP	X'03' MSG Type, X'04' DROP Type Policy record. The high order bit will be on in the last record
1	(1)	BITSTRING	1		Reserved X'00'
2	(2)	SIGNED	2	QUAFSLEN	Length of Policy record
4	(4)	SIGNED	4		Reserved X'00'
8	(8)	SIGNED	8	QUAFINTVLTIME	Interval time for this policy for flood detection
16	(10)	SIGNED	8	QUAFENDINTVL	Interval time for this policy for end of flood detection
24	(18)	SIGNED	4	QUAFRECTHRESH	Number of records that make up an interval for this policy
28	(1C)	SIGNED	4	QUAFMAXHIGHINTS	Max number of intervals allow below the IntvlTime before action is taken for this policy
32	(20)	BITSTRING	1	QUAFTYPE	Record type this filter is for
32	(20)	X'21'	0	QUAFSTYPE_LEN	"*-QUAFSTYPE"

Offsets

Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QUAPSTYPE	Drop History data format
0	(0)	BITSTRING	1	QUAPSTYP	X'05' For Drop History record, x'85' for the last record
1	(1)	BITSTRING	1	QUAPRECTYPE	The record type of the flood
2	(2)	SIGNED	2	QUAPSLEN	Length of drop history record
4	(4)	SIGNED	4		Reserved X'00'
8	(8)	SIGNED	8	QUAPDROPPEDRECORDS	# of records dropped
16	(10)	CHARACTER	16	QUAPFLOODSTART	STCKE from start of the flood
32	(20)	CHARACTER	16	QUAPFLOODEND	StckE from the end of the flood

## IFAQUAA Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
QUAA Constants					
End of Comment					
32	(20)	X'2'	0	QUAALOGSTREAMTYPE	"2"
32	(20)	X'3'	0	QUAAFLOODPOLICYMSGTYPE	"3"
32	(20)	X'4'	0	QUAAFLOODPOLICYDROPTYPE	"4"
32	(20)	X'5'	0	QUAADROPHISTORYTYPE	"5"
32	(20)	X'80'	0	QUAALASTENTRY	"128"
32	(20)	X'30'	0	QUAPSTYPE_LEN	"*-QUAPSTYPE"

## IFAQUAA Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
QUAADROPHISTORYTYPE	20	5	QUALSREC	20	
QUAAFLOODPOLICYDROPTYPE	20	4	QUALSTAT	4C	
QUAAFLOODPOLICYMSGTYPE	20	3	QUALSTB1	4C	
QUAALASTENTRY	20	80	QUALSTB2	4D	
QUAALOGSTREAMTYPE	20	2	QUALSTB3	4E	
QUAFENDINTVL	10		QUALSTB4	4F	
QUAFINTVLTIME	8		QUALSTOD	44	
QUAFMAXHIGHINTS	1C		QUALSTYP	0	
QUAFRECTHRESH	18		QUALSTYPE	0	
QUAFSLEN	2		QUALSTYPE_LEN	70	74
QUAFSTYP	0		QUAPDROPPEDRECORDS	8	
QUAFSTYPE	0		QUAPFLOODEND	20	
QUAFSTYPE_LEN	20	21	QUAPFLOODSTART	10	
QUAFTYPE	20		QUAPRECTYPE	1	
QUAH#REC	0		QUAPSLN	2	
QUAH#REM	4		QUAPSTYP	0	
QUAHDOFF	C		QUAPSTYPE	0	
QUAHDRTYPE	0		QUAPSTYPE_LEN	20	30
QUAHDRTYPE_LEN	C	10			
QUAHTLEN	8				
QUALSACT	4C	40			
QUALSBFL	50				
QUALSBSZ	40				
QUALSCLN	4C	20			
QUALSCMP	4D	20			
QUALSCNT	4C	10			
QUALSCPR	4D	40			
QUALSCRQ	4D	80			
QUALSDEF	4C	80			
QUALSDSZ	5C				
QUALSDTM	54				
QUALSDWG	4C	8			
QUALSHWM	60				
QUALSLEN	2				
QUALSLFT	64				
QUALSNAME	4				
QUALSPFG	4D	10			
QUALSPFH	70				
QUALSPFM	6C				
QUALSPFT	68				

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## IFAUCCC Information

### IFAUCCC Programming Interface information

Programming Interface information

#### IFAUCCC

End of Programming Interface information

## IFAUCCC Heading Information • IFAUCCC Cross Reference

### IFAUCCC Heading Information

**Common Name:** Usage Report Program Customer Data  
**Macro ID:** IFAUCCC  
**DSECT Name:** UCCC  
**Owning Component:** Usage Report Program (SCURP)  
**Eye-Catcher ID:** UCCC  
 Offset: '00'X  
 Length: 4  
**Storage Attributes:** Main Storage: No  
 Virtual Storage: Yes  
 Auxiliary Storage: Yes  
 Subpool: 2  
 Key: 8  
 Data Space: No  
 Residency: Virtual  
**Size:** 344  
**Created by:** IFAUARTN  
**Pointed to by:** UPRMCD  
**Serialization:** N/A  
**Function:** Maps data specified on CUSTOMER control statement of Usage Report Program, IFAURP.

### IFAUCCC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UCCC	, UCCC Mapping
0	(0)	CHARACTER	4	UCCCID	UCCC eye catcher
4	(4)	SIGNED	2	UCCCLEN	UCCC length
6	(6)	BITSTRING	1	UCCCVERS	UCCC version
7	(7)	BITSTRING	1	UCCCRES	Reserved
8	(8)	CHARACTER	40	UCCCNAM	Customer Name
48	(30)	CHARACTER	40	UCCCADD1	Customer address line 1
88	(58)	CHARACTER	40	UCCCADD2	Customer address line 2
128	(80)	CHARACTER	40	UCCCADD3	Customer address line 3
168	(A8)	CHARACTER	40	UCCCADD4	Customer address line 4
208	(D0)	CHARACTER	40	UCCCADD5	Customer address line 5
248	(F8)	CHARACTER	40	UCCCADD6	Customer address line 6
288	(120)	CHARACTER	20	UCCCONTA	Customer contact
308	(134)	CHARACTER	20	UCCCPHON	Customer contact's phone
328	(148)	CHARACTER	1	UCCCDATA	Customer data origination
329	(149)	CHARACTER	15	UCCCRSV1	Reserved
329	(149)	X'158'	0	UCCCE	"" End of UCCC
329	(149)	X'158'	0	UCCCSIZE	"UCCCE-UCCC" Size of UCCC
329	(149)	X'C3C3C3'	0	UCCCID	"C'UCCC" UCCC Eye Catcher
329	(149)	X'1'	0	UCCC313	"1" UCCC Version
329	(149)	X'2'	0	UCCCS29	"2" UCCC Version OS/390 02.09
329	(149)	X'2'	0	UCCCV	"UCCCS29" Current version

### IFAUCCC Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
UCCC	0		UCCCV	6	
UCCCADD1	30		UCCC313	149	1
UCCCADD2	58				
UCCCADD3	80				
UCCCADD4	A8				
UCCCADD5	D0				
UCCCADD6	F8				
UCCCID	149	C3C3C3			
UCCCDATA	148				
UCCCE	149	158			
UCCCID	0				
UCCCLEN	4				
UCCCNAM	8				
UCCCONTA	120				
UCCCPHON	134				
UCCCRES	7				
UCCCRSV1	149				
UCCCSIZE	149	158			
UCCCS29	149	2			
UCCCV	149	2			

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## IFAUMCC Information

### IFAUMCC Programming Interface information

Programming Interface information

IFAUMCC

End of Programming Interface information

## IFAUMCC Heading Information • IFAUMCC Map

### IFAUMCC Heading Information

**Common Name:** Usage Report Program Processor Table  
**Macro ID:** IFAUMCC  
**DSECT Name:** UMCC UMCPROCT  
**Owning Component:** Usage Report Program (SCURP)  
**Eye-Catcher ID:** UMCC  
 Offset: '00'X  
 Length: 4  
**Storage Attributes:** Main Storage: No  
 Virtual Storage: Yes  
 Auxiliary Storage: Yes  
 Subpool: 2  
 Key: 8  
 Data Space: No  
 Residency: Virtual  
**Size:** UMCC - 36 bytes  
 UMCPROCT - 44 bytes \* UMCCPRCT  
 UMCCCLST - 28 bytes \* UMCCCLCT  
**Created by:** IFAURP  
**Pointed to by:** UPRMMCCT  
**Serialization:** N/A  
**Function:** Maps processor and cluster entries in processor table of Usage Report Program, IFAURP.

### IFAUMCC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UMCC	UMCC Mapping
0	(0)	CHARACTER	4	UMCCID	UMCC eye catcher
4	(4)	SIGNED	2	UMCCLEN	UMCC length
6	(6)	BITSTRING	1	UMCCVERS	UMCC version
7	(7)	CHARACTER	1	UMCCRSV1	Reserved
8	(8)	SIGNED	2	UMCCPRCT	Processor Table entry count
10	(A)	SIGNED	2	UMCCCLCT	Cluster Table entry count
12	(C)	ADDRESS	4	UMCCPRPT	Address of processor table
16	(10)	ADDRESS	4	UMCCCLPT	Address of cluster table
20	(14)	CHARACTER	16	UMCCRSV2	Reserved
20	(14)	X'24'	0	UMCCEND	*** End of UMCC
20	(14)	X'24'	0	UMCCSIZE	"UMCCEND-UMCC" Size of UMCC

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UMCPROCT	Processor Table entries
0	(0)	BITSTRING	2	UMCPTYPE	Processor Type - e.g. '9021'x
2	(2)	CHARACTER	4	UMCPTYPEC	Processor Type - e.g. '9021'
6	(6)	CHARACTER	8	UMCPMOD	Processor Model - e.g. '982 '
14	(E)	BITSTRING	1	UMCPVER	Version Number
15	(F)	SIGNED	1	UMCPCPCT	CP Count
16	(10)	BITSTRING	2	UMCPFLAG (0)	Flags
16	(10)	BITSTRING	1	UMCPFLG1	Flag byte 1
		1... ....		UMCPDCCP	"X'80" On= Processor is coupling capable
		..1. ....		UMCPNVAL	"X'40" On= version in this entry not valid
		..1. ....		UMCPNVPS	"X'20" On= this entry cannot be used in the PROCESSOR statement
		...1 ....		UMCPRMOD	"X'10" On= additional processing needed to determine processor model
17	(11)	BITSTRING	1	UMCPFLG2	Flag byte 2
24	(18)	DBL WORD	8	UMCPNUM	SU Factor - float format
32	(20)	CHARACTER	16	UMCPMDL	V1-CPC Model
48	(30)	CHARACTER	2	UMCPRS2	Reserved
48	(30)	X'32'	0	UMCPTEND	***
48	(30)	X'32'	0	UMCPTLEN	"UMCPTEND-UMCPROCT" Length of processor table entry

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UMCCCLST	Cluster table
0	(0)	CHARACTER	6	UMCCTYPE	Cluster type - e.g. '9672 '
6	(6)	CHARACTER	3	UMCCMOD	Cluster model - e.g. 'E06'
9	(9)	CHARACTER	16	UMCCRSV3	Reserved
9	(9)	X'19'	0	UMCCCTEND	***
9	(9)	X'19'	0	UMCCCTLEN	"UMCCCTEND-UMCCCLST" Length of cluster table entry

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
9	(9)	X'D4C3C3'	0	UMCCCID	"C'UMCC" UMCC Eye Catcher
9	(9)	X'1'	0	UMCC313	"1" UMCC Version
9	(9)	X'1'	0	UMCCVERC	"UMCC313" Current version

**IFAUMCC Cross Reference**

Name	Hex Offset	Hex Value
UMCC	0	
UMCCCID	9	D4C3C3
UMCCCLCT	A	
UMCCCLPT	10	
UMCCEND	14	24
UMCCID	0	
UMCCLEN	4	
UMCCCLST	0	
UMCCMOD	6	
UMCCPRCT	8	
UMCCPRPT	C	
UMCCRSV1	7	
UMCCRSV2	14	
UMCCRSV3	9	
UMCCSIZE	14	24
UMCCTEND	9	19
UMCCTLEN	9	19
UMCCTYPE	0	
UMCCVERC	9	1
UMCCVERS	6	
UMCC313	9	1
UMCCPCT	F	
UMCPDCCP	10	80
UMCPFLAG	10	
UMCPFLG1	10	
UMCPFLG2	11	
UMCPMDL	20	
UMCPMOD	6	
UMCPNUM	18	
UMCPNVAL	10	40
UMCPNVPS	10	20
UMCPRMOD	10	10
UMCPROCT	0	
UMCPRS2	30	
UMCPTEND	30	32
UMCPTLEN	30	32
UMCPTYPC	2	
UMCPTYPE	0	
UMCPVER	E	





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## IFAUOCC Information

### IFAUOCC Programming Interface information

Programming Interface information

#### IFAUOCC

End of Programming Interface information

## IFAUOCC Heading Information • IFAUOCC Cross Reference

### IFAUOCC Heading Information

**Common Name:** Usage Report Program Product Owner Data  
**Macro ID:** IFAUOCC  
**DSECT Name:** UOCC  
**Owning Component:** Usage Report Program (SCURP)  
**Eye-Catcher ID:** UOCC  
 Offset: '00'X  
 Length: 4  
**Storage Attributes:** Main Storage: No  
 Virtual Storage: Yes  
 Auxiliary Storage: Yes  
 Subpool: 2  
 Key: 8  
 Data Space: No  
 Residency: Virtual  
**Size:** 58 \* Number of Unique Product Owners Specified  
 when running IFAURP.  
**Created by:** IFAUARTN  
**Pointed to by:** USIDUOCC, UOCCNEXT  
**Serialization:** N/A  
**Function:** Maps product owner data specified on PRODUCT control  
 statement of Usage Report Program, IFAURP.

### IFAUOCC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UOCC	UOCC Mapping
0	(0)	CHARACTER	4	UOCCID	UOCC eye catcher
4	(4)	BITSTRING	2	UOCCLEN	UOCC length
6	(6)	BITSTRING	1	UOCCVERS	UOCC verion
7	(7)	BITSTRING	1	UOCCFLAG	Flags
		1... ....		UOCCHIST	"X'80" ON=UOCC from history
		.1.. ....		UOCCSTRT	"X'40" ON=1st product started
8	(8)	ADDRESS	4	UOCCNEXT	Address of next UOCC
12	(C)	CHARACTER	16	UOCCNAME	Product owner name
28	(1C)	ADDRESS	4	UOCCUPCC	Address of 1st UPCC
32	(20)	CHARACTER	2	UOCCALGN	ALIGN value
34	(22)	CHARACTER	8	UOCCDATE	1st product start date for this vendor or testdate
42	(2A)	CHARACTER	16	UOCCRSV3	Reserved
42	(2A)	X'3A'	0	UOCCEND	"" End of UOCC
42	(2A)	X'3A'	0	UOCCSIZE	"UOCCEND-UOCC" Size of UOCC
42	(2A)	X'D6C3C3'	0	UOCCCID	"C'UOCC" UOCC Eye catcher
42	(2A)	X'1'	0	UOCC313	"1" UOCC Version - SP313
42	(2A)	X'1'	0	UOCCVERC	"UOCC313" Current Version

### IFAUOCC Cross Reference

Name	Hex Offset	Hex Value
UOCC	0	
UOCCALGN	20	
UOCCCID	2A	D6C3C3
UOCCDATE	22	
UOCCEND	2A	3A
UOCCFLAG	7	
UOCCHIST	7	80
UOCCID	0	
UOCCLEN	4	
UOCCNAME	C	
UOCCNEXT	8	
UOCCRSV3	2A	
UOCCSIZE	2A	3A
UOCCSTRT	7	40
UOCCUPCC	1C	
UOCCVERC	2A	1
UOCCVERS	6	
UOCC313	2A	1

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## IFAUPCC Information

### IFAUPCC Programming Interface information

Programming Interface information

#### IFAUPCC

End of Programming Interface information

## IFAUPCC Heading Information • IFAUPCC Map

### IFAUPCC Heading Information

**Common Name:** Usage Report Program Product Data  
**Macro ID:** IFAUPCC  
**DSECT Name:** UPCC  
**Owning Component:** Usage Report Program (SCURP)  
**Eye-Catcher ID:** UPCC  
 Offset: '00'X  
 Length: 4  
**Storage Attributes:** Main Storage: No  
 Virtual Storage: Yes  
 Auxiliary Storage: Yes  
 Subpool: 2  
 Key: 8  
 Data Space: No  
 Residency: Virtual  
**Size:** 90  
**Created by:** IFAUARTN  
**Pointed to by:** UOCCUPCC, UPCCNEXT  
**Serialization:** N/A  
**Function:** Maps info specified on PRODUCT keyword of Usage Report Program, IFAURP.

### IFAUPCC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UPCC	UPCC Mapping
0	(0)	CHARACTER	4	UPCCID	UPCC eye catcher
4	(4)	BITSTRING	2	UPCCLEN	UPCC length
6	(6)	BITSTRING	1	UPCCVERS	UPCC verion
7	(7)	BITSTRING	1	UPCCFLAG	Flags
		1... ..		UPCCHIST	"X'80" ON=UPCC from history
		.1.. ..		UPCCHFND	"X'40" ON=Match found in history
8	(8)	ADDRESS	4	UPCCNEXT	Address of next UPCC
12	(C)	CHARACTER	16	UPCCNAME	Product owner name
28	(1C)	CHARACTER	8	UPCCFUNC	Product function
36	(24)	CHARACTER	8	UPCCSTRT	Product start or testdate date in YYYYMMDD format
44	(2C)	CHARACTER	30	UPCCSTAA	Product status array
74	(4A)	CHARACTER	16	UPCCRSV3	Reserved

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UPCCSTAD	Mapping of UPCCSTAA array Product status array - one entry for each of last three measurement periods
0	(0)	BITSTRING	1	UPCCDAT	1st day of measurement period in which START or STOP takes effect Blank if UPCCSET=0. Date in YYYYMMDD format.
1	(1)	BITSTRING	1	UPCCSET	0= product in neither "START" nor "STOP" state 1= product in "START" state 2= product in "STOP" state
2	(2)	BITSTRING	1	UPCCRSV4	Reserved
2	(2)	X'3'	0	UPCCEND	"*" End of UPCC
2	(2)	X'3'	0	UPCCSIZE	"UPCCEND-UPCC" Size of UPCC
2	(2)	X'D7C3C3'	0	UPCCCID	"C'UPCC" UPCC Eye catcher
2	(2)	X'1'	0	UPCC313	"1" UPCC Version - SP313
2	(2)	X'1'	0	UPCCVERC	"UPCC313" Current Version

## IFAUPCC Cross Reference

Name	Hex Offset	Hex Value
UPCC	0	
UPCCCID	2	D7C3C3
UPCCDAT	0	
UPCCEND	2	3
UPCCFLAG	7	
UPCCFUNC	1C	
UPCCHFND	7	40
UPCCHIST	7	80
UPCCID	0	
UPCCLEN	4	
UPCCNAME	C	
UPCCNEXT	8	
UPCCRSV3	4A	
UPCCRSV4	2	
UPCCSET	1	
UPCCSIZE	2	3
UPCCSTAA	2C	
UPCCSTAD	0	
UPCCSTRT	24	
UPCCVERC	2	1
UPCCVERS	6	
UPCC313	2	1



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## IFAUPRM Information

### IFAUPRM Programming Interface information

Programming Interface information

### IFAUPRM

End of Programming Interface information

## IFAUPRM Heading Information • IFAUPRM Map

### IFAUPRM Heading Information

**Common Name:** Usage Report Program Vendor Exit Parm List  
**Macro ID:** IFAUPRM  
**DSECT Name:** UPRM  
**Owning Component:** Usage Report Program (SCURP)  
**Eye-Catcher ID:** UPRM  
 Offset: '00'X  
 Length: 4  
**Storage Attributes:** Main Storage: No  
 Virtual Storage: Yes  
 Auxiliary Storage: Yes  
 Subpool: 2  
 Key: 8  
 Data Space: No  
 Residency: Virtual  
**Size:** 88  
**Created by:** IFAURP  
**Pointed to by:** R1->@UPRM  
**Serialization:** N/A  
**Function:** Provides parameter list between Usage Report Program IFAURP and vendor exits.

### IFAUPRM Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UPRM	, UPRM Mapping
0	(0)	CHARACTER	4	UPRMID	UPRM eye catcher
0	(0)	X'D7D9D4'	4	UPRMCID	"C'UPRM'" UPRM eye catcher
4	(4)	SIGNED	2	UPRMLEN	UPRM length
6	(6)	BITSTRING	1	UPRMVERS	UPRM version
6	(6)	X'1'	0	UPRM313	"1" UPRM version - JBB3313
6	(6)	X'2'	0	UPRM#OW11350	"2" UPRM version - OW11350
6	(6)	X'3'	0	UPRM#OW27078	"3" UPRM version - OW27078
6	(6)	X'3'	0	UPRMVERC	"UPRM#OW27078" Current UPRM version
7	(7)	BITSTRING	1	UPRMFC	Function Code

Comment

Exit function codes

End of Comment

7	(7)	X'1'	0	UPRMFCIN	"1" Initialization
7	(7)	X'2'	0	UPRMFCPR	"2" Record processing
7	(7)	X'3'	0	UPRMFCTE	"3" Termination
8	(8)	ADDRESS	4	UPRMREC	Pointer to record
12	(C)	ADDRESS	4	UPRMVD	Pointer to Vendor Data
16	(10)	ADDRESS	4	UPRMCD	Pointer to Customer Data
20	(14)	ADDRESS	4	UPRMMCCT	Pointer to Processor Table
24	(18)	ADDRESS	4	UPRMUSID	Pointer to Sysplex ID Data
28	(1C)	ADDRESS	4	UPRMMSG	Pointer to SYSMSGS DCB
32	(20)	ADDRESS	4	UPRMPRINT	Pointer to SYSPRINT DCB
36	(24)	BITSTRING	1	UPRMFLAG (0)	Flags
36	(24)	BITSTRING	1	UPRMFLG1	Flag byte 1
		1... ..		UPRMHI	"BIT0" ON if UPRMREC points to a history record
		..1... ..		UPRM89SU	"BIT1" ON if exit accepts all SMF 89 record subtypes
37	(25)	BITSTRING	3	UPRMIVRM (0)	IFAURP version, release and modification level
37	(25)	SIGNED	1	UPRMIVER	IFAURP version
37	(25)	X'4'	0	UPRMIVCU	"4" Current IFAURP version
38	(26)	SIGNED	1	UPRMIREL	IFAURP release
38	(26)	X'1'	0	UPRMIRCU	"1" Current IFAURP release
39	(27)	SIGNED	1	UPRMIMOD	IFAURP modification level
39	(27)	X'2'	0	UPRMIMCU	"2" Current IFAURP modification level
40	(28)	ADDRESS	4	UPRMUD	User Data
44	(2C)		4	UPRMHCD	History cutoff date - records will be discarded from history file is earlier than this date. Set to be 1 year before last record found on each run. Always on 1st of month - format is packed 0cyydddF where c is century (0= 20th), yy is year within century, ddd is day in julian format, F is a constant (sign indicator).
48	(30)	CHARACTER	16	UPRMIFAV	IFAURP Version Code - See Prolog
64	(40)	CHARACTER	4	UPRMRDAT	Report date in packed 0cyydddF format where c is century (0= 20th), yy is year within century, ddd is day in julian format. F is a constant (sign indicator).
68	(44)	SIGNED	4	UPRMCT	Counter for number of times current record presented to vendor exit
72	(48)	CHARACTER	6	UPRMRSV2	Reserved
78	(4E)	BITSTRING	1	UPRMDFCD	Code indicating which type 89 data fields to process



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.... .1..		UPRMDFRD	"BIT5" SMF89URD (resource units)
		.... ..1.		UPRMDFSR	"BIT6" SMF89USR (SRB) converted to SUs
		.... ...1		UPRMDFTC	"BIT7" SMF89UCT (TCB) converted to SUs
79	(4F)	SIGNED	1	UPRMDSCD	Reporting scale for usage values in powers of ten
80	(50)	ADDRESS	4	UPRMFNOT	Pointer to special footnote supplied by the exit, which is to be associated with usage values.
84	(54)	ADDRESS	4	UPRMMETR	Pointer to special metric description to be used to reflect the usage reported on the Statistics Report.
84	(54)	X'58'	0	UPRMEND	*** End of UPRM
84	(54)	X'58'	0	UPRMSIZE	"UPRMEND-UPRM" Size of UPRM

Comment

Exit processing return codes

End of Comment

84	(54)	X'0'	0	UPRMRCPR	"0" Process record
84	(54)	X'4'	0	UPRMRCIG	"4" Ignore record
84	(54)	X'8'	0	UPRMRCDI	"8" Process record, then disable exit
84	(54)	X'C'	0	UPRMRCAG	"12" Process record, then call exit again with same record

### IFAUPRM Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
UPRM	0		UPRM313	6	1
UPRM#OW11350	6	2	UPRM89SU	24	40
UPRM#OW27078	6	3			
UPRMCD	10				
UPRMCID	0	D7D9D4			
UPRMCT	44				
UPRMDFC	4E				
UPRMDFRD	4E	4			
UPRMDFSR	4E	2			
UPRMDFTC	4E	1			
UPRMDSCD	4F				
UPRMEND	54	58			
UPRMFC	7				
UPRMFCIN	7	1			
UPRMFCPR	7	2			
UPRMFCTE	7	3			
UPRMFLAG	24				
UPRMFLG1	24				
UPRMFNOT	50				
UPRMHCD	2C				
UPRMHI	24	80			
UPRMID	0				
UPRMIFAV	30				
UPRMIMCU	27	2			
UPRMIMOD	27				
UPRMIRCU	26	1			
UPRMIREL	26				
UPRMIVCU	25	4			
UPRMIVER	25				
UPRMIVRM	25				
UPRMLEN	4				
UPRMMCCT	14				
UPRMMETR	54				
UPRMMSG	1C				
UPRMPRNT	20				
UPRMRCAG	54	C			
UPRMRCDI	54	8			
UPRMRCIG	54	4			
UPRMRCPR	54	0			
UPMRDAT	40				
UPRMREC	8				
UPRMRSV2	48				
UPRMSIZE	54	58			
UPRMUD	28				
UPRMUSID	18				
UPRMVD	C				
UPRMVERC	6	3			
UPRMVERS	6				



**IFAUSID Information**

**IFAUSID Programming Interface information**

Programming Interface information

IFAUSID

End of Programming Interface information

## IFAUSID Heading Information • IFAUSID Map

### IFAUSID Heading Information

**Common Name:** System Configuration Information  
**Macro ID:** IFAUSID  
**DSECT Name:** USID - header USIDP - processor array USIDC - cluster array  
**Owning Component:** Usage Report Program (SCURP)  
**Eye-Catcher ID:** USID  
 Offset: '00'X  
 Length: 4  
**Storage Attributes:** Main Storage: No  
 Virtual Storage: Yes  
 Auxiliary Storage: Yes  
 Subpool: 2  
 Key: 8  
 Data Space: No  
 Residency: Virtual  
**Size:** 64 + 50 \* USIDCMCN + 42 \* USIDPMCN  
**Created by:** IFAUARTN  
**Pointed to by:** UPRMUSID, USIDNEXT  
**Serialization:** N/A  
**Function:** Defines a processor or sysplex on which usage pricing products execute.

### IFAUSID Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	USID	, USID Mapping
0	(0)	CHARACTER	4	USIDID	USID eye catcher
4	(4)	SIGNED	2	USIDLEN	USID length
6	(6)	BITSTRING	1	USIDVERS	USID version
7	(7)	BITSTRING	1	USIDFLAG	USID Flags
		1... ....		USIDHIST	"X'80" On= USID from history file
		.1... ....		USIDFNDH	"X'40" On= Matched one sysplex statement to this USID (reset each run)
8	(8)	ADDRESS	4	USIDNEXT	Address of the next USID
12	(C)	CHARACTER	8	USIDCNID	Sysplex ID
20	(14)	ADDRESS	4	USIDPPTR	Pointer to processor table
24	(18)	SIGNED	2	USIDPCCN	Processor table count
26	(1A)	SIGNED	2	USIDPMCN	Processor table max count
28	(1C)	ADDRESS	4	USIDCPTR	Pointer to the cluster table
32	(20)	SIGNED	2	USIDCCCN	Cluster table count
34	(22)	SIGNED	2	USIDCMCN	Cluster table max count
36	(24)	CHARACTER	8	USIDPDAT	Value of PLEXDATE keyword in yyyyymmdd format.
44	(2C)	ADDRESS	4	USIDUOCC	Address of 1st UOCC
48	(30)	CHARACTER	16	USIDRSV2	Reserved
48	(30)	X'40'	0	USIDEND	"" End of USID
48	(30)	X'40'	0	USIDSIZE	"USIDEND-USID" Size of USID

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	USIDP	, Sysplex processor Table
0	(0)	BITSTRING	2	USIDTYPE	Type Number - e.g. X'9021'
2	(2)	CHARACTER	4	USIDTYPC	Type Number - e.g. '9021'
6	(6)	CHARACTER	8	USIDMOD	Model Number - e.g. '982 '
14	(E)	BITSTRING	3	USIDSERN	Serial Number
17	(11)	CHARACTER	7	USIDSERC	Serial Number as specified on PROCESSOR statement or keyword
24	(18)	BITSTRING	1	USIDVER	Version Number
25	(19)	BITSTRING	1	USIDPFLG	Flags
		1... ....		USIDPFND	"X'80" On= Matched one processor keyword for this USID to this processor (reset each run)
		.1... ....		USIDNVAL	"X'40" On= version in this entry not valid
26	(1A)	CHARACTER	16	USIDMDL	V1-CPC model
26	(1A)	X'2A'	0	USIDPEND	""
26	(1A)	X'2A'	0	USIDPSZE	"USIDPEND-USIDP"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	USIDC	, Sysplex Cluster table
0	(0)	CHARACTER	6	USIDCTYP	Type Number - e.g. '9672 '
6	(6)	CHARACTER	3	USIDCMOD	Model Number - e.g. 'E06'
9	(9)	CHARACTER	12	USIDCLST	Cluster Number

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
21	(15)	CHARACTER	12	USIDCLSC	Printable Cluster Number
33	(21)	BITSTRING	1	USIDCFLG	Flags
		1... ..		USIDCFND	"X'80" On= Matched one cluster keyword for this USID to this processor (reset each run)
34	(22)	CHARACTER	16	USIDCRSV	Reserved
34	(22)	X'32'	0	USIDCEND	""
34	(22)	X'32'	0	USIDCSZE	"USIDCEND-USIDC"
34	(22)	X'E2C9C4'	0	USIDCID	"C'USID" USID Eye Catcher
34	(22)	X'1'	0	USID313	"1" USID Version
34	(22)	X'1'	0	USIDVERC	"USID313" Current version

**IFAUSID Cross Reference**

Name	Hex Offset	Hex Value
USID	0	
USIDC	0	
USIDCCCN	20	
USIDCEND	22	32
USIDCFLG	21	
USIDCFND	21	80
USIDCID	22	E2C9C4
USIDCLSC	15	
USIDCLST	9	
USIDCMCN	22	
USIDCMOD	6	
USIDCNID	C	
USIDCPTR	1C	
USIDCRSV	22	
USIDCSZE	22	32
USIDCTYP	0	
USIDEND	30	40
USIDFLAG	7	
USIDFNDH	7	40
USIDHIST	7	80
USIDID	0	
USIDLEN	4	
USIDMDL	1A	
USIDMOD	6	
USIDNEXT	8	
USIDNVAL	19	40
USIDP	0	
USIDPCCN	18	
USIDPDAT	24	
USIDPEND	1A	2A
USIDPFLG	19	
USIDPFND	19	80
USIDPMCEN	1A	
USIDPPTR	14	
USIDPSZE	1A	2A
USIDRSV2	30	
USIDSERC	11	
USIDSERN	E	
USIDSIZE	30	40
USIDTYP	2	
USIDTYPE	0	
USIDUOCC	2C	
USIDVER	18	
USIDVERC	22	1
USIDVERS	6	
USID313	22	1



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## IFAUVCC Information

### IFAUVCC Programming Interface information

Programming Interface information

#### IFAUVCC

End of Programming Interface information

## IFAUVCC Heading Information • IFAUVCC Cross Reference

### IFAUVCC Heading Information

**Common Name:** Usage Report Program Vendor Data  
**Macro ID:** IFAUVCC  
**DSECT Name:** UVCC  
**Owning Component:** Usage Report Program (SCURP)  
**Eye-Catcher ID:** UVCC  
 Offset: '00'X  
 Length: 4  
**Storage Attributes:** Main Storage: No  
 Virtual Storage: Yes  
 Auxiliary Storage: Yes  
 Subpool: 2  
 Key: 8  
 Data Space: No  
 Residency: Virtual  
**Size:** 364  
**Created by:** IFAUARTN  
**Pointed to by:** UPRMVD, UVCCNEXT  
**Serialization:** N/A  
**Function:** Maps data specified on CUSTOMER control statement of Usage Report Program, IFAURP.

### IFAUVCC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UVCC	, UVCC Mapping
0	(0)	CHARACTER	4	UVCCID	UVCC eye catcher
4	(4)	SIGNED	2	UVCCLEN	UVCC length
6	(6)	BITSTRING	1	UVCCVERS	UVCC version
7	(7)	BITSTRING	1	UVCCFLAG	Flags
		1... ....		UVCCHIST	"X'80" On= UVCC from history file
		.1... ....		UVCCFNDH	"X'40" On= Matched one vendor statement to this UVCC (reset each run)
8	(8)	ADDRESS	4	UVCCNEXT	Pointer to next UVCC
12	(C)	CHARACTER	16	UVCCPO	Product Owner Name, as it appears in field SMF89UPO
28	(1C)	CHARACTER	40	UVCCNAME	Vendor Name
68	(44)	CHARACTER	40	UVCCADD1	Vendor address line 1
108	(6C)	CHARACTER	40	UVCCADD2	Vendor address line 2
148	(94)	CHARACTER	40	UVCCADD3	Vendor address line 3
188	(BC)	CHARACTER	40	UVCCADD4	Vendor address line 4
228	(E4)	CHARACTER	40	UVCCADD5	Vendor address line 5
268	(10C)	CHARACTER	40	UVCCADD6	Vendor address line 6
308	(134)	ADDRESS	4	UVCCUD	Vendor user data - copy of UPRMUD
312	(138)	ADDRESS	4	UVCCPEP	Vendor Exit Entry Point
316	(13C)	CHARACTER	8	UVCCEN	Vendor Exit name
324	(144)	CHARACTER	8	UVCCDD	Vendor PRINTDD name
332	(14C)	CHARACTER	8	UVCCNUM	Customer number
340	(154)	CHARACTER	8	UVCCEXTL	Exit level designator
348	(15C)	CHARACTER	16	UVCCRSV1	Reserved
348	(15C)	X'16C'	0	UVCCEND	"" End of UVCC
348	(15C)	X'16C'	0	UVCCSIZE	"UVCCEND-UVCC" Size of UVCC
348	(15C)	X'E5C3C3'	0	UVCCCID	"C'UVCC" UVCC Eye Catcher
348	(15C)	X'1'	0	UVCC313	"1" UVCC Version
348	(15C)	X'1'	0	UVCCVERC	"UVCC313" Current version

### IFAUVCC Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
UVCC	0		UVCCFNDH	7	40
UVCCADD1	44		UVCCHIST	7	80
UVCCADD2	6C		UVCCID	0	
UVCCADD3	94		UVCCLEN	4	
UVCCADD4	BC		UVCCNAME	1C	
UVCCADD5	E4		UVCCNEXT	8	
UVCCADD6	10C		UVCCNUM	14C	
UVCCCID	15C	E5C3C3	UVCCPO	C	
UVCCDD	144		UVCCRSV1	15C	
UVCCEN	13C		UVCCSIZE	15C	16C
UVCCEND	15C	16C	UVCCUD	134	
UVCCPEP	138		UVCCVERC	15C	1
UVCCEXTL	154		UVCCVERS	6	
UVCCFLAG	7		UVCC313	15C	1



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## IFAU29LM Information

### IFAU29LM Programming Interface information

Programming Interface information

IFAU29LM

End of Programming Interface information

## IFAU29LM Heading Information • IFAU29LM Map

### IFAU29LM Heading Information

**Common Name:** Parmlist mapping to IEFU29L exit routine  
**Macro ID:** IFAU29LM  
**DSECT Name:** U29L\_PARM  
**Owning Component:** System Management Facilities (SC100)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: 229  
Key: zero  
Residency: any  
**Size:** Variable  
U29L\_PARM -- X'001C' bytes  
KEY and RESIDENCY.  
**Created by:** IFALSMOD and passed as parameter list to IEFU29L  
**Pointed to by:** Register 1 on entry to IFAU29L exit  
**Serialization:** None required  
**Function:** Maps the data provided to the IEFU29L exit routine.

### IFAU29LM Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	U29L_PARM	
0	(0)	SIGNED	2	U29L_LSNAME_LENGTH	
2	(2)	CHARACTER	26	U29L_LSNAME	
2	(2)	X'1C'	0	U29L_PARM_LEN	
					"*-U29L_PARM"

# IFBDCBDC Information

## IFBDCBDC Heading Information

**Common Name:** Mapping for Logrec Data CSECT in nucleus resident module IFBDCB01  
**Macro ID:** IFBDCBDC  
**DSECT Name:** IFBDCBDC  
**Owning Component:** System Environmental Recording - Logrec (SCOBR)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Virtual Storage: Data Only Module (IFBDCB01)  
 Residency: Nucleus  
**Size:** 408 bytes ('198'X)  
 Frequency: 1 per MVS image  
**Created by:** Permanently resides in the nucleus  
**Pointed to by:** CVTDCBA - IFBDISP  
**Serialization:** None  
**Function:** This data area maps the nucleus resident DCB and DEB control blocks used for the logrec data set. It is also used for DEMF and NPDA processing.

## IFBDCBDC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IFBDCBDC	Logrec Data CSECT Expansion
0	(0)	SIGNED	4	(0)	Word alignment
0	(0)	ADDRESS	4	IFBDCB_LOGCA_PTR	Pointer to Logrec Control Area
4	(4)	ADDRESS	4		Reserved for IBM
8	(8)	ADDRESS	4		Reserved for IBM
12	(C)	SIGNED	4	IFBDEB	START OF DEB
16	(10)	ADDRESS	4	IFBDCB	SPARE POINTER
20	(14)	SIGNED	4	(4)	OVERLAYED DCB
36	(24)	BITSTRING	1		DEB ID FIELD
37	(25)	ADDRESS	3		ADDRESS OF DCB
40	(28)	SIGNED	4	(5)	
60	(3C)	ADDRESS	4		ADDRESS OF SER DEB
64	(40)	BITSTRING	1		FLAG
65	(41)	BITSTRING	3		
68	(44)	SIGNED	4	(2)	

Comment

THE FOLLOWING ADDED TO SUPPORT DISPLAY EXCEPTION MONITORING FACILITY (DEMF) - MVS Version 3.7

End of Comment

356	(164)	SIGNED	4	IFBBUFP	DEMF BUFFER POINTER
360	(168)	SIGNED	4	IFBASCBP	DEMF BNGLOGR ASCB POINTER (MVS)
364	(16C)	SIGNED	4	(4)	DEMF RESERVED
380	(17C)	BITSTRING	1	IFBFLGS1	DEMF FLAGS1
381	(17D)	BITSTRING	1	IFBFLGS2	DEMF FLAGS2
		..1. ....		IFBNPDAA	"X'20" NPDA MODULE AVAILABLE
382	(17E)	BITSTRING	1	IFBFLGS3	DEMF FLAGS3
383	(17F)	BITSTRING	1	IFBFLGS4	DEMF FLAGS4
384	(180)	SIGNED	4	IFBNPDA	ADDR OF NPDA SVC76 PROCESS PROCESSING MODULE
388	(184)	SIGNED	4	IFBNPDAC	ADDR OF NPDA CLEANUP RTN
392	(188)	SIGNED	4	IFBNWORK	ADDR OF NPDA LOCAL WORKAREA
396	(18C)	SIGNED	2	IFDNLNG	SIZE OF NPDA LOCAL WORKAREA
398	(18E)	SIGNED	2		RESERVED

Comment

The following fields are used by SCOBR to keep a local pointer to the LOGREC data set name and to keep track of the WTO id in order to DOM message IFB080E when necessary.

End of Comment

400	(190)	ADDRESS	4		Reserved for IBM
404	(194)	SIGNED	4	IFB080E	IFB080E WTO DOM id - set and cleared in IFBSVC76
404	(194)	X'198'	0	IFBDCB_END	*** End of the data CSECT

## IFBDCBDC Cross Reference

### IFBDCBDC Cross Reference

Name	Hex Offset	Hex Value
IFBASCBP	168	0
IFBBUFP	164	0
IFBDCB	10	
IFBDCB_END	194	198
IFBDCB_LOGCA_PTR		
	0	
IFBDCBDC	0	
IFBDEB	C	0
IFBD080E	194	0
IFBFLGS1	17C	0
IFBFLGS2	17D	0
IFBFLGS3	17E	0
IFBFLGS4	17F	0
IFBNPDA	180	0
IFBNPDAA	17D	20
IFBNPDAC	184	0
IFBNWORK	188	0
IFDNLNG	18C	0

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## IFBENF36 Information

### IFBENF36 Programming Interface information

\_\_\_\_\_ Programming Interface information \_\_\_\_\_

#### IFBENF36

The following field is **NOT** programming interface information:

- IFBENF36\_RECORD\_START

\_\_\_\_\_ End of Programming Interface information \_\_\_\_\_

## IFBENF36 Heading Information • IFBENF36 Map

### IFBENF36 Heading Information

**Common Name:** Mapping for ENF event code 36 listen exit parameter list  
**Macro ID:** IFBENF36  
**DSECT Name:** IFBENF36  
**Owning Component:** System Environmental Recording - Logrec (SCOBR)  
**Eye-Catcher ID:** 'ENF36 '  
 Offset: 0  
 Length: 6  
**Storage Attributes:** Subpool: 241  
 Key: 0  
 Residency: Any  
**Size:** 20 (dec.) bytes plus size of Logrec record  
 Frequency: 1 per Logrec record written to a recording medium. Record type '9x' will not cause the signal to occur.  
**Created by:** IFBSVC76  
**Pointed to by:** Register 1 on input to ENF event code 36 Listen exit  
**Serialization:** None  
**Function:** This data area maps the input parameter list for ENF event code 36 listen exits.

### IFBENF36 Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IFBENF36	, ENF 36 Listen exit parameter list
0	(0)	SIGNED	4	(0)	Word alignment
0	(0)	BITSTRING	1	IFBENF36_HEADER (0)	Start of ENF36 header
0	(0)	CHARACTER	6	IFBENF36_ID	Data Area ID 'ENF36 '
6	(6)	SIGNED	2	IFBENF36_LENGTH	Length of IFBENF36 header, does not include actual Logrec record
8	(8)	CHARACTER	3	IFBENF36_RSVD1	Reserved for IBM
11	(B)	BITSTRING	1	IFBENF36_VERSION	Version of IFBENF36 data area
12	(C)	BITSTRING	4	IFBENF36_QUALIFIER (0)	ENF 36 qualifier
12	(C)	CHARACTER	2	IFBENF36_RSVD2	Reserved for IBM
14	(E)	BITSTRING	1	IFBENF36_BYTE3_QUAL	Qualifier code - record category
15	(F)	BITSTRING	1	IFBENF36_BYTE4_QUAL	Qualifier code - record type
16	(10)	SIGNED	4	IFBENF36_RECORD_LENGTH	Length of Logrec record
16	(10)	X'14'	0	IFBENF36_HEADER_LENGTH	**_IFBENF36" Assembled length of header not including actual Logrec record
20	(14)	BITSTRING	1	IFBENF36_RECORD_START (0)	Start of Logrec record
Comment					
Versions of data area					
End of Comment					
	....	...1		IFBENF36_LATEST_VERSION	"X'01" Latest version of mapping
	....	...1		IFBENF36_1ST_VERSION	"X'01" First version of mapping

**IFBENF36 Cross Reference**

Name	Hex Offset	Hex Value
IFBENF36	0	
IFBENF36_BYTE3_QUAL	E	
IFBENF36_BYTE4_QUAL	F	
IFBENF36_HEADER	0	
IFBENF36_HEADER_LENGTH	10	14
IFBENF36_ID	0	
IFBENF36_LATEST_VERSION	14	1
IFBENF36_LENGTH	6	
IFBENF36_QUALIFIER	C	
IFBENF36_RECORD_LENGTH	10	
IFBENF36_RECORD_START	14	
IFBENF36_RSVD1	8	
IFBENF36_RSVD2	C	
IFBENF36_VERSION	B	
IFBENF36_1ST_VERSION	14	1





## IFBLOGLB Information

### IFBLOGLB Heading Information

**Common Name:** Logrec - Log Stream Log Block  
**Macro ID:** IFBLOGLB  
**DSECT Name:** IFBLOGLB, Loglb\_current\_record  
**Owning Component:** System Environmental Recording - Logrec (SCOBR)  
**Eye-Catcher ID:** 'IFBLOGLB'  
 Offset: 0  
 Length: 8  
**Storage Attributes:** Subpool: based on IXGBRWSE invoker  
 Key: based on IXGBRWSE invoker  
 Residency: ANY  
**Size:** 4096 bytes (1 page)  
 IFBLOGLB -- X'001C' bytes  
**Created by:** IFBLOGBF - LOGREC Log Stream Log Block Buffering Routine  
**Pointed to by:** contained within the buffer specified on the BUFFER= parameter of the IXGBRWSE macro service  
**Serialization:** None  
**Function:** Mapping contains the format of a Logrec log stream log block.

### IFBLOGLB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	28	IFBLOGLB	Logrec log stream log block
0	(0)	CHARACTER	28	LOGLB	Common name
0	(0)	CHARACTER	28	LOGLB_HEADER	
0	(0)	CHARACTER	8	LOGLB_ID	Eye Catcher
8	(8)	UNSIGNED	2	LOGLB_VERS	Version number
10	(A)	SIGNED	2	LOGLB_HEADER_LEN	Length of the header
12	(C)	CHARACTER	8	LOGLB_SYSTEM_NAME	System name where log block originated
20	(14)	SIGNED	4	LOGLB_NUM_REC_IN_BLOCK	The number of records within this log block
24	(18)	SIGNED	4	LOGLB_DATA_LEN	Length of all the records in the block excluding the Loglb_header
28	(1C)	CHARACTER	0	LOGLB_DATA	The variable length records in the format described by Loglb_current_record

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	LOGLB_CURRENT_RECORD	
0	(0)	SIGNED	4	LOGLB_REC_LEN	Length of record text excluding this len field
4	(4)	CHARACTER	*	LOGLB_REC_TEXT	Variable length LOGREC record

### IFBLOGLB Constants

Len	Type	Value	Name	Description
Comment				
These constants are used with the IFBLOGLB mapping				
End of Comment				
8	CHARACTER	IFBLOGLB	LOGLB_EYE_CATCHER	The Loglb identifier
2	DECIMAL	1	LOGLB_VERSION	The version of the Loglb

## IFBLOGLB Cross Reference

### IFBLOGLB Cross Reference

Name	Hex Offset	Hex Value
IFBLOGLB	0	
LOGLB	0	
LOGLB_CURRENT_RECORD	0	
LOGLB_DATA	1C	
LOGLB_DATA_LEN	18	
LOGLB_HEADER	0	
LOGLB_HEADER_LEN	A	
LOGLB_ID	0	
LOGLB_NUM_REC_IN_BLOCK	14	
LOGLB_REC_LEN	0	
LOGLB_REC_TEXT	4	
LOGLB_SYSTEM_NAME	C	
LOGLB_VERS	8	

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## IFBNTASM Information

### IFBNTASM Programming Interface information

Programming Interface information

IFBNTASM

End of Programming Interface information

## IFBNTASM Heading Information • IFBNTASM Map

### IFBNTASM Heading Information

**Common Name:** System Level DSNLOGREC Name/Token Retrieve and ENF 49 signal mapping  
**Macro ID:** IFBNTASM  
**DSECT Name:** IFBNT\_TOKEN and IFBNT\_LOGREC  
**Owning Component:** System Environmental Recording - LOGREC (SCOBR)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: Determined by invoker of IEANTRT or 241 for ENF 49 signals  
 Key: Determined by invoker of IEANTRT or 0 for ENF 49 signals  
 Residency: Any  
**Size:** IFBNT\_TOKEN area is 16 (dec.) bytes, and  
 IFBNT\_LOGREC area is 72 (dec.) bytes  
 Frequency: For DSNLOGREC name/token retrieve  
 IFBNT\_TOKEN: 1 per invoker of IEANTRT  
 IFBNT\_LOGREC: 1 per MVS image  
 For ENF 49 signal:  
 IFBNT\_TOKEN: 1 per SETLOGRC command when  
 Logrec medium changed  
 IFBNT\_LOGREC: 1 per SETLOGRC command when  
 Logrec medium changed  
**Created by:** Invoker of the system level DSNLOGREC Name/Token  
 service or Logrec SETLOGRC command  
 processor.  
**Pointed to by:** For DSNLOGREC name/token retrieve request:  
 TOKEN parameter from IEANTRT contains IFBNT\_TOKEN area, and  
 IFBNT\_LOGREC\_NAME\_PTR points to IFBNT\_LOGREC area.  
 For ENF event code 49 signal:  
 Register 1 points to a word which contains the address  
 of the IFBNT\_TOKEN area.  
**Serialization:** None  
**Function:** Provides a mapping for the use of system level  
 DSNLOGREC Name/Token Retrieve service from  
 390 Assembly Language, and the mapping  
 for the ENF event code 49 listen exit  
 input parameter list.

### IFBNTASM Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IFBNT_TOKEN	, Token area
0	(0)	ADDRESS	4	IFBNT_LOGREC_NAME_PTR	Address of the LOGREC data set name area
4	(4)	BITSTRING	1	IFBNT_VERSION	Version of IFBNT_LOGREC
5	(5)	BITSTRING	1	IFBNT_RESV1	Reserved for IBM
6	(6)	BITSTRING	2	IFBNT_LENGTH	Length of IFBNT_LOGREC area
8	(8)	CHARACTER	8	IFBNT_RESV2	Reserved for IBM
8	(8)	X'10'	0	IFBNT_TOKEN_LEN	**_IFBNT_TOKEN" Length of IFBNT_TOKEN

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IFBNT_LOGREC	, Pointed to by IFBNT_LOGREC_NAME_PTR
0	(0)	CHARACTER	44	IFBNT_LOGREC_NAME	LOGREC data set name or no data set name string (see comments at end of mapping). Actual data set name is valid when the current recording medium is IFBNT_USE_DATASET
44	(2C)	BITSTRING	1	IFBNT_LOGREC_CURRENT	Current Logrec recording medium
45	(2D)	BITSTRING	1	IFBNT_LOGREC_PREVIOUS	Previous Logrec recording medium
46	(2E)	CHARACTER	26	IFBNT_LOGREC_LOGSTREAM	Logrec log stream name, valid when current recording medium is IFBNT_USE_LOGSTREAM
46	(2E)	X'48'	0	IFBNT_LOGREC_LEN	**_IFBNT_LOGREC" Length of IFBNT_LOGREC

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
The following values are used in the following fields: IFBNT_LOGREC_CURRENT IFBNT_LOGREC_PREVIOUS					
End of Comment					
	....	...1		IFBNT_USE_DATASET	"X'01" Logrec data set being used
	....	..1.		IFBNT_USE_LOGSTREAM	"X'02" Logrec log stream being used
	....	..11		IFBNT_IGNORE_RECORDS	"X'03" Logrec recording is ignored
Comment					
If a Logrec data set was not defined during the IPL of the system then the following string will appear in field IFBNT_LOGREC_NAME = '...NO.LOGREC.DATA.SET.DEFINED...' End of DSNLOGREC Retrieve Name/Token Services Include					
End of Comment					

### IFBNTASM Cross Reference

Name	Hex Offset	Hex Value
IFBNT_IGNORE_RECORDS	2E	3
IFBNT_LENGTH	6	
IFBNT_LOGREC	0	
IFBNT_LOGREC_CURRENT	2C	
IFBNT_LOGREC_LEN	2E	48
IFBNT_LOGREC_LOGSTREAM	2E	
IFBNT_LOGREC_NAME	0	
IFBNT_LOGREC_NAME_PTR	0	
IFBNT_LOGREC_PREVIOUS	2D	
IFBNT_RESV1	5	
IFBNT_RESV2	8	
IFBNT_TOKEN	0	
IFBNT_TOKEN_LEN	8	10
IFBNT_USE_DATASET	2E	1
IFBNT_USE_LOGSTREAM	2E	2
IFBNT_VERSION	4	



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## IGVCAUB Information

### IGVCAUB Programming Interface information

Programming Interface information

#### IGVCAUB

End of Programming Interface information

## IGVCAUB Heading Information

### IGVCAUB Heading Information

**Common Name:** Common Area User Block  
**Macro ID:** IGVCAUB  
**DSECT Name:** CAUB  
**Owning Component:** Virtual Storage Manager (SC1CH)  
**Eye-Catcher ID:** CAUB  
Offset: 8  
Length: 4

**Storage Attributes:** Subpool: 245  
Key: 0  
Residency: Above 16M line

**Size:** CAUB -- X'0068' bytes  
**Created by:** IGVGCAS (VSM address space creation module).  
IEAIPL04 (VSM IPL Resource Initialization Module).  
IGVRQVR2 (VSM cell definition).  
IGVSFBTB (VSMDATA summary/detail table).  
IGVSFOWN (VSMDATA OWNCOMM report).

**Pointed to by:** IGVVSCSEL (VSM cell processing).  
VAB\_CAUB  
VAB\_AS\_CAUB  
GDASCAUB  
GDAFCAUB  
GDALCAUB  
CAUB\_Unowned\_Next  
CAUB\_Unowned\_Prev  
Details are as follows:  
Address Space CAUB is pointed to by:  
ASCBASSB -> ASSBVAB -> VAB\_AS\_CAUB -> CAUB  
System CAUB is pointed to by:  
GDASCAUB -> CAUB  
ASCBASSB -> ASSBVAB -> VAB\_CAUB points to:  
- Address Space CAUB  
While no job is running  
- Job CAUB  
While a job is running  
- System CAUB  
After address space end but before the ASCB  
is re-initialized  
Unknown CAUB (aka "no detail" CAUB) is pointed to by:  
GDAUCAUB -> CAUB  
CAUBs on the Unowned Queue (aka "owner gone" CAUBs)  
are anchored by:  
GDAFCAUB - Address of 1st CAUB on the unowned queue.  
(GDAFCAUB has the address of itself when the  
queue is empty.)  
GDALCAUB - Address of last CAUB on the unowned queue.  
(GDALCAUB is not valid and should not be used  
when the queue is empty.)  
Unowned Queue is double headed, double threaded, circular.

**Serialization:** When writing to the CAUB, VSM uses the VSMFIX lock.  
When monitor programs read the CAUB, it would be best to do  
so with no serialization. (This is because holding the lock  
could impact system performance.) Note that this means that  
the CAUB could be freemained while being read. The CAUB may  
also be put on the queue of free CAUBs while being read.  
Monitors will need to handle this (e.g., a recovery routine  
could catch the reference to a freemained CAUB, and  
encountering a CAUB on the free queue could be taken as the  
end of the queue being run.) A CAUB on the free queue has a  
CAUB\_ID field that is not 'CAUB'.

**Function:** Lists the number of bytes of common storage that are 'in use'.  
(Bytes that have been given to a caller of GETMAIN or STORAGE  
OBTAIN are 'in use'.)  
The CAUB\_Level field will change if the CAUB changes.  
Users should interrogate the CAUB\_Level field, and ignore  
CAUBs with an unrecognized level.  
There are 5 types of CAUBs:



-\*- The job CAUB is a CAUB that describes storage owned by a job. In general, a job owns all the common storage that is GETMAINed when the address space in which the job runs is the home address space. (See the "Owner" keyword on the Getmain, Storage and Cpool macros for information about when the home address space is not the owner.)

-\*- The address space CAUB describes storage obtained by an initiator address space when it is between jobs. For example, storage that is GETMAINed between the end of a batch job and the beginning of the next batch job is collected in the address space CAUB.

-\*- The system CAUB describes storage owned by the system. The system owns common storage that was GETMAINed during times when it would be impossible or misleading to assign ownership to the job running in the home address space. For example, storage obtained during IPL, before any address spaces exist, is owned by the system. In addition, some operating system components explicitly indicate that the storage they obtain should be owned by the system.

-\*- The "No Detail" CAUB describes common storage that was in use at the instant CSA tracking was stopped or started.

-\*- An "Owner Gone" CAUB describes storage owned by a job that has terminated. These CAUBs are linked together on the "unowned" queue.

## IGVCAUB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CAUB	Common area user block.
0	(0)	CHARACTER	52	CAUB_HEADER (0)	Header for CAUB_Proper. (CAUB_Proper has the counts, CAUB_Header has owner information.)
Comment					
Link fields pertaining to the unowned queue. CAUBs are put on this queue when a job or address space terminates holding some common storage. These fields are the first thing in the CAUB because that makes queue manipulation a little easier.					
End of Comment					
0	(0)	ADDRESS	4	CAUB_UNOWNED_NEXT	Address of the next CAUB on the 'unowned' queue.
4	(4)	ADDRESS	4	CAUB_UNOWNED_PREV	Address of the previous CAUB on the 'unowned' queue. This is double threaded to make it easy to remove elements from the middle.
Comment					
Fields that identify this control block as a CAUB.					
End of Comment					
8	(8)	CHARACTER	4	CAUB_ID	Char string 'CAUB' - eyecatcher.
12	(C)	SIGNED	2	CAUB_LEVEL	Indicates the level of the CAUB. The value can be used to determine how the CAUB is mapped. CAUB_LEVEL_K1 indicates the HBB4430 level of this macro. Equate value CAUB_LEVEL_KCURRENT can be used to determine the most recent update level.
14	(E)	CHARACTER	2		Reserved
Comment					
Fields that identify the job that owns some common storage. Part of the process of completing a common area GETMAIN requires that VSM decide which CAUB describes the job doing the GETMAIN. Which CAUB is chosen depends on how the GETMAIN was coded. The coder can choose to have VSM update the counts in the CAUB associated with the home, primary or secondary address space. The coder can also specify that VSM use the 'system CAUB', which is associated with no address space.					
End of Comment					
16	(10)	CHARACTER	36	CAUB_CALLERID (0)	Whole register is stored here, but only bits 16-31 are meaningful. Reserved, set to 0 when CAUB_ASN is stored.
16	(10)	CHARACTER	4	CAUB_ASN_WORD (0)	
16	(10)	CHARACTER	2		Address Space Number (ASN) identifying the address space that is associated with the job that owns some common storage. Note: '00'X here means that this CAUB tracks 'system' storage, which is not associated with any address space. This field comes from ASCBASID.
18	(12)	BITSTRING	2	CAUB_ASN	

# IGVCAUB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
20	(14)	CHARACTER	8	CAUB_JOBNAME	Name of the job that was active when the storage was obtained. This is taken from ASCBJBNI or ASCBJBNS.
28	(1C)	CHARACTER	8	CAUB_JOBID (0)	Items from the JSAB that identify the owning job. These are obtained via the IAZXJSAB macro.
28	(1C)	CHARACTER	8	CAUB_WORKID	Work Unit ID, aka Job ID. This comes from the JSAB. (There is 1 'valid' JSAB per address space) This ID is NOT unique within an instance of MVS when running in a 'Poly-JES' environment. Also, this ID is null for entities started under the master scheduler subsystem (e.g., some system address spaces, some started tasks).

Comment

Fields pertaining to the unowned queue. CAUBs are put on this queue when a job or address space terminates holding some common storage. These fields are undefined (and probably 0) for CAUBs describing jobs that have not terminated.

End of Comment

36	(24)	CHARACTER	4	CAUB_UNOWNED_DATE	Date when the owner of this common storage terminated. This is undefined (and probably 0) for active jobs. Format is decimal, OYYYYDDD, YYYY=Year, DDD=Day (Julian). For example, 01992001 represents Jan 1, 1992. (See documentation of the 'TIME' macro.)
40	(28)	CHARACTER	4	CAUB_UNOWNED_TIME	Time when the owner of this common storage terminated. This is undefined (and probably 0) for active jobs. (Packed decimal, HHMMSSth, HH=Hours, MM=Minutes, SS=Seconds, t=tenths, h=hundredths See documentation of the 'TIME' macro.)

Comment

Various flags.

End of Comment

44	(2C)	CHARACTER	4	CAUB_FLAGS (0)	Indicates if this CAUB is a Job CAUB, an address space CAUB, or a system CAUB, and indicates whether this CAUB is on the unowned queue. Note that there is no bit to identify the unknown (aka the "no detail") Caub. "X'80" If on, this CAUB is on the unowned queue. Needed by FREEMAIN, so it can determine whether to free this CAUB if the counts are 0. A CAUB on the unowned queue is still marked as a Job or Address Space CAUB.
44	(2C)	CHARACTER	1	CAUB_TYPE (0)	
		1... ....		CAUB_UNOWNED	

Comment

No more than one of the following bits should be on. Any other combination indicates a VSM bug.

End of Comment

		.1.. ....		CAUB_SYSTEM	"X'40" If on, this CAUB is the 'system' CAUB. Common storage obtained by system functions should be charged to the system. Thus, the job CAUB is sometimes really the system CAUB. CAUB_System exists to make it easy to tell when this is the case.
		..1. ....		CAUB_JOB	"X'20" If on, this CAUB is a 'job CAUB'. (See "Function" section for more information on 'job CAUB').
		...1 ....		CAUB_ADDRESSSPACE	"X'10" If on, this CAUB is an 'address space CAUB'. See "Function" section for more information on 'address space CAUB'
45	(2D)	CHARACTER	1	CAUB_DATAINCOMPLETE (0)	Bits indicating that tracking was not enabled at some point during the life of this CAUB
		1... ....		CAUB_CSADATAINCOMPLETE	"X'80" If on, tracking for CSA data was not enabled at some point during the life of this CAUB
		.1.. ....		CAUB_SQADATAINCOMPLETE	"X'40" If on, tracking for SQA data was not enabled at some point during the life of this CAUB
48	(30)	CHARACTER	4		Reserved

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
The fields below contain a count of how much common storage is being used by the entity described in CAUB_Header.					
End of Comment					
52	(34)	CHARACTER	16	CAUB_COUNTS (0)	
52	(34)	SIGNED	4	CAUB_CSA_BELOW	Amount of GETMAINed non-extended CSA storage, in bytes, owned by the entity described in CAUB_Header.
56	(38)	SIGNED	4	CAUB_SQA_BELOW	Amount of GETMAINed non-extended SQA storage, in bytes, owned by the entity described in CAUB_Header.
60	(3C)	SIGNED	4	CAUB_CSA_ABOVE	Amount of GETMAINed extended CSA storage, in bytes, owned by the entity described in CAUB_Header.
64	(40)	SIGNED	4	CAUB_SQA_ABOVE	Amount of GETMAINed extended SQA storage, in bytes, owned by the entity described in CAUB_Header.
68	(44)	CHARACTER	4		
72	(48)	CHARACTER	16	CAUB_PROTECT_COUNTS (0)	
72	(48)	SIGNED	4	CAUB_PROTECT_CSA_BELOW	Amount of GETMAINed non-extended CSA storage, in bytes, owned by the entity described in CAUB_Header, used for Protect Area
76	(4C)	SIGNED	4	CAUB_PROTECT_SQA_BELOW	Amount of GETMAINed non-extended SQA storage, in bytes, owned by the entity described in CAUB_Header, used for Protect Area
80	(50)	SIGNED	4	CAUB_PROTECT_CSA_ABOVE	Amount of GETMAINed extended CSA storage, in bytes, owned by the entity described in CAUB_Header, used for Protect Area
84	(54)	SIGNED	4	CAUB_PROTECT_SQA_ABOVE	Amount of GETMAINed extended SQA storage, in bytes, owned by the entity described in CAUB_Header, used for Protect Area
88	(58)	CHARACTER	16	CAUB_DETECT_COUNTS (0)	
88	(58)	SIGNED	4	CAUB_DETECT_CSA_BELOW	Amount of GETMAINed non-extended CSA storage, in bytes, owned by the entity described in CAUB_Header, used for Detect Suffix
92	(5C)	SIGNED	4	CAUB_DETECT_SQA_BELOW	Amount of GETMAINed non-extended SQA storage, in bytes, owned by the entity described in CAUB_Header, used for Detect Suffix
96	(60)	SIGNED	4	CAUB_DETECT_CSA_ABOVE	Amount of GETMAINed extended CSA storage, in bytes, owned by the entity described in CAUB_Header, used for Detect Suffix
100	(64)	SIGNED	4	CAUB_DETECT_SQA_ABOVE	Amount of GETMAINed extended SQA storage, in bytes, owned by the entity described in CAUB_Header, used for Detect Suffix
100	(64)	X'C1E4C2'	0	CAUB_ID_K	"C'CAUB" Eyecatcher.
100	(64)	X'0'	0	CAUB_ASN_KSYSTEM	"0" When CAUB_ASN contains this value, there is no owning address space - the storage is owned by the 'system'.
100	(64)	X'1'	0	CAUB_LEVEL_KCURRENT	"1" Most recent level of the CAUB.
Comment					
Constants are declared for every existing level of the CAUB.					
End of Comment					
100	(64)	X'1'	0	CAUB_LEVEL_K1	"1" HBB4430 level
100	(64)	X'68'	0	CAUB_LEN	"*-CAUB"

## IGVCAUB Cross Reference

### IGVCAUB Cross Reference

Name	Hex Offset	Hex Value
CAUB	0	
CAUB_ADDRESSSPACE	2C	10
CAUB_ASN	12	
CAUB_ASN_KSYSTEM	64	0
CAUB_ASN_WORD	10	
CAUB_CALLERID	10	
CAUB_COUNTS	34	
CAUB_CSA_ABOVE	3C	
CAUB_CSA_BELOW	34	
CAUB_CSADATAINCOMPLETE	2D	80
CAUB_DATAINCOMPLETE	2D	
CAUB_DETECT_COUNTS	58	
CAUB_DETECT_CSA_ABOVE	60	
CAUB_DETECT_CSA_BELOW	58	
CAUB_DETECT_SQA_ABOVE	64	
CAUB_DETECT_SQA_BELOW	5C	
CAUB_FLAGS	2C	
CAUB_HEADER	0	
CAUB_ID	8	
CAUB_ID_K	64	C1E4C2
CAUB_JOB	2C	20
CAUB_JOBID	1C	
CAUB_JOBNAME	14	
CAUB_LEN	64	68
CAUB_LEVEL	C	
CAUB_LEVEL_KCURRENT	64	1
CAUB_LEVEL_K1	64	1
CAUB_PROTECT_COUNTS	48	
CAUB_PROTECT_CSA_ABOVE	50	
CAUB_PROTECT_CSA_BELOW	48	
CAUB_PROTECT_SQA_ABOVE	54	
CAUB_PROTECT_SQA_BELOW	4C	
CAUB_SQA_ABOVE	40	
CAUB_SQA_BELOW	38	
CAUB_SQADATAINCOMPLETE	2D	40
CAUB_SYSTEM	2C	40
CAUB_TYPE	2C	
CAUB_UNOWNED	2C	80
CAUB_UNOWNED_DATE	24	
CAUB_UNOWNED_NEXT	0	
CAUB_UNOWNED_PREV	4	
CAUB_UNOWNED_TIME	28	
CAUB_WORKID	1C	

# IGVDGNB Information

## IGVDGNB Heading Information

**Common Name:** Diagnostic traps indicators  
**Macro ID:** IGVDGNB  
**DSECT Name:** DGNB  
**Owning Component:** VSM (SC1CH)  
**Eye-Catcher ID:** DGNB  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Key: 0  
 Residency: EXTENDED NUCLEUS,Above 16M line  
**Size:** 1128 bytes  
 DGNBCBLOCV24 -- X'0004' bytes  
 DGNBCBLOCV31 -- X'0004' bytes  
 DGNBAUTOIPL -- X'0040' bytes  
 DGNB -- X'04A8' bytes  
**Created by:** IGVTRCTL  
**Pointed to by:** ECVTDGNB  
**Serialization:** ENQ/DEQ is used to that only 1 SET DIAG command is processing at any time.  
 Programs which use filters (such as the asid/jobname filter routine) must use the following protocol to ensure that a concurrent partial update of the DGNB by SET DIAG processing does not allow them to process a trap in a case where it was not requested.  
 Make a copy of DgnbSyncCnt  
 IF applicable trap active bit is on THEN  
 Check other applicable filters  
 IF filtering passes THEN  
 IF DgnbSyncCnt = the copy of DgnbSyncCnt THEN  
 Process the trap  
 ELSE  
 Do not process the trap  
 ELSE  
 Do not process the trap  
 ELSE  
 Do not process the trap  
 SET DIAG processing must follow the following protocol:  
 1) Turn off all trap active bits.  
 2) Increment DgnbSyncCnt.  
 3) Update the filters.  
 4) Turn on the new trap active bits.  
**Function:** The DGNB indicates which diagnostic traps are active.

## IGVDGNB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNB	
0	(0)	CHARACTER	4	DGNBID	Control block id
4	(4)	CHARACTER	2	DGNBVER	Version number
6	(6)	CHARACTER	1	DGNBFLAGS	Flags
6	(6)	BITSTRING	1	DGNBFLAG1	First flag byte
6	(6)	BITSTRING	1		Reserved
7	(7)	CHARACTER	1	DGNBRESV1	Reserved
8	(8)	CHARACTER	4	DGNBRESV2	Reserved
12	(C)	ADDRESS	4	DGNBFILTERROUTINEADDR	Address of filter routine, with Amode bit set on
16	(10)	CHARACTER	1060	DGNBZERO	Initialize to zeros
16	(10)	SIGNED	2	DGNBSYNCCNT	Update synchronization count
18	(12)	CHARACTER	2		Reserved
20	(14)	CHARACTER	60	DGNBBITS	
20	(14)	CHARACTER	4	DGNBWORD1	
20	(14)	BITSTRING	1	DGNBBYTE1	

Comment

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Bit definitions:

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End of Comment

1... .... DGNB\_TEMP1C1 "X'80" For temporary use

# IGVDGNB Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		.1.. ....		DGNB_TEMPMC2	"X'40" For temporary use
		..1. ....		DGNB_TEMPMC3	"X'20" For temporary use
		...1 ....		DGNB_TEMPMC4	"X'10" For temporary use
		.... 1...		DGNB_TEMPMC5	"X'08" For temporary use
		.... .1..		DGNB_TEMPMC6	"X'04" For temporary use
		.... ..1.		DGNB_TEMPMC7	"X'02" For temporary use
		.... ...1		DGNB_TEMPMC8	"X'01" For temporary use
21	(15)	BITSTRING	1	DGNBBYTE2	
Comment					
Bit definitions:					
End of Comment					
		1... ....		DGNB_TEMPMC9	"X'80" For temporary use
		..1. ....		DGNB_TEMPMC10	"X'40" For temporary use
		...1 ....		DGNB_TEMPMC11	"X'20" For temporary use
		.... 1...		DGNB_TEMPMC12	"X'10" For temporary use
		.... .1..		DGNB_TEMPMC13	"X'08" For temporary use
		.... ..1.		DGNB_TEMPMC14	"X'04" For temporary use
		.... ...1		DGNB_TEMPMC15	"X'02" For temporary use
		.... ...1		DGNB_TEMPMC16	"X'01" For temporary use
22	(16)	BITSTRING	1	DGNBBYTE3	
Comment					
Bit definitions:					
End of Comment					
		1... ....		DGNB_TEMP1	"X'80" For temporary use
		..1. ....		DGNB_TEMP2	"X'40" For temporary use
		...1 ....		DGNB_TEMP3	"X'20" For temporary use
		.... 1...		DGNB_TEMP4	"X'10" For temporary use
		.... .1..		DGNB_TEMP5	"X'08" For temporary use
		.... ..1.		DGNB_TEMP6	"X'04" For temporary use
		.... ...1		DGNB_TEMP7	"X'02" For temporary use
		.... ...1		DGNB_TEMP8	"X'01" For temporary use
23	(17)	BITSTRING	1	DGNBBYTE4	
Comment					
Bit definitions:					
End of Comment					
		1... ....		DGNB_TEMP9	"X'80" For temporary use
		..1. ....		DGNB_TEMP10	"X'40" For temporary use
		...1 ....		DGNB_TEMP11	"X'20" For temporary use
		.... 1...		DGNB_TEMP12	"X'10" For temporary use
		.... .1..		DGNB_TEMP13	"X'08" For temporary use
		.... ..1.		DGNB_TEMP14	"X'04" For temporary use
		.... ...1		DGNB_TEMP15	"X'02" For temporary use
		.... ...1		DGNB_TEMP16	"X'01" For temporary use
24	(18)	CHARACTER	4	DGNBWORD2	
24	(18)	BITSTRING	1	DGNBBYTE5	
Comment					
Bit definitions:					
End of Comment					
		1... ....		DGNB_IGVINITCPOOL	"X'80" Initialize Cpool storage
		..1. ....		DGNB_IGVUNCOND	"X'40" Make all Freemains and STORAGE RELEASEs unconditional
		...1 ....		DGNB_IGVINITGETMAIN	"X'20" Initialize GETMAINed storage

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		...1 ....		DGNB_IGVNEWPAGE24	"X'10" Use new page for 24 bit Getmains
		.... 1...		DGNB_IGVNEWPAGE31	"X'08" Use new page for 31 bit Getmains
		.... .1..		DGNB_IGVDIAGXXABEND	"X'04" Issue abend for some DIAGxx processing errors
		.... ..1.		DGNB_IGVNOUSERKEYCSA	"X'02" Abend requestors of user key CSA
		.... ...1		DGNB_IGVCPOOLGETV	"X'01" CPOOL GET validity checking
25	(19)	BITSTRING	1	DGNBBYTE6	

Comment

Bit definitions:

End of Comment

		1... ....		DGNB_IEANOSUSPSYSTRC	"X'80" Do not suspend system trace when WAIT task is dispatched
		.1.. ....		DGNB_IEASCHEDULEV	"X'40" SCHEDULE validity checking
		..1. ....		DGNB_IEASPINLOCKV	"X'20" Spin lock validity checking
		...1 ....		DGNB_IEAINITARSRB	"X'10" Initialize access registers for SRB dispatch. Also does G64H
		.... 1...		DGNB_IEACMSETV	"X'08" CMSET validity checking
		.... .1..		DGNB_IEASCHEDULETRACE	"X'04" SCHEDULE tracing
		.... ..1.		DGNB_IEARISGNLTRACE	"X'02" RISGNL tracing
		.... ...1		DGNB_IEARPSGNLTRACE	"X'01" RPSGNL tracing
26	(1A)	BITSTRING	1	DGNBBYTE7	

Comment

Bit definitions:

End of Comment

		1... ....		DGNB_IEANOSDWA	"X'80" (E)STAE(X) and ARR routines get no SDWA
		.1.. ....		DGNB_IXCRECSTRALLOC	"X'40" Do symrec recording for structure allocation
		..1. ....		DGNB_IEAINITREGSTASK	"X'20" Initialize ARs and G64H for task dispatch
		...1 ....		DGNB_IGVINITFREEMAIN	"X'10" Initialize FREEMAINed storage
		.... 1...		DGNB_IGVCPOOLFREEQ	"X'08" Check for already freed CPOOL cell
		.... .1..		DGNB_CNZTRON	"X'04" Early SETCON TR=ON. Do not use as of HBB7790.
		.... ..1.		DGNB_CNZTRONWITHABEND	"X'02" Early SETCON TR=OnWithAbend. Do not use as of HBB7790.
		.... ...1		DGNB_IXLDUPOUTOFSSYNCH	"X'01" Initiate CFCC diag cmd for duplex out of synch conditions
27	(1B)	BITSTRING	1	DGNBBYTE8	

Comment

Bit definitions:

End of Comment

		1... ....		DGNB_IOSPROTCAPTUREB	"X'80" Protect captured views of UCBs
		.1.. ....		DGNB_CSVRENTSP252	"X'40" Put all private RENT modules in SP252
		..1. ....		DGNB_CSVRENTPROTECT	"X'20" Page Protect full pages of RENT modules
		...1 ....		DGNB_IHLBREAKDUPLEX	"X'10" Initiate SVC dump for break duplex condition
		.... 1...		DGNB_CSVSP252ROUNDUP	"X'08" Round extent sizes of SP 252 modules up to a page multiple
		.... .1..		DGNB_CSVSP228ROUNDUP	

# IGVDGNB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.... ..1.		DGNB_CSVSP241ROUNDUP	"X'04" Round extent sizes of SP 228 modules up to a page multiple
		.... ...1		DGNB_IGVCPoolFREEQPXT	"X'02" Round extent sizes of SP 241 modules up to a page multiple
					"X'01" Use HEXDATA as a list of PXT addresses for filtering
28	(1C)	CHARACTER	4	DGNBWORD3	
28	(1C)	BITSTRING	1	DGNBBYTE9	
Comment					
Bit definitions:					
End of Comment					
		1... ....		DGNB_IARSERIALIZEPIN	
		.1.. ....		DGNB_IEFABENDIEF702I	"X'80" Serialize RSMPIN processing
		..1. ....		DGNB_IEASETFRRENV	"X'40" Abend on msg IEF702I
		...1 ....		DGNB_IEASETFRRAMODE	"X'20" Check environment (locked, disabled, SRB mode, or EUT FRR mode) when using SETFRR
		.... 1...		DGNB_ASNREUSE	"X'10" Abend if SETFRR is used for a super FRR stack in 24-bit addressing mode. IeaSetFrrEnv must also be active for this to take effect.
		.... .1..		DGNB_IOSDCMMSGSGS	"X'08" Activate ASNReuse code
		.... ..1.		DGNB_HZSCHECK	"X'04" IOS DCM Messages
		.... ...1		DGNB_ICVTESTEADSCB	"X'02" Healthchecker checks
					"X'01" Fail OBTAIN and CVAFxx requests if the data set is EAV eligible and the EADSCB=OK parameter is not specified, regardless of whether the volume is an EAV
29	(1D)	BITSTRING	1	DGNBBYTE10	
Comment					
Bit definitions:					
End of Comment					
		1... ....		DGNB_IOSCCMMSGSGS	"X'80" IOS CCM Messages
		.1.. ....		DGNB_IEAMISUSEPMC	"X'40" Detect misuse of Process Must Complete
		..1. ....		DGNB_BLWEXSNXESDETECT	"X'20" Excessive spin XES hang detection
		...1 ....		DGNB_IOSFCTCLOG	"X'10" Ficon CTC log
		.... 1...		DGNB_IGVDAQATCKPT	"X'08" Make copy of AQATs before doing compression
		.... .1..		DGNB_IXLNORTESUPPRESS	"X'04"
		.... ..1.		DGNB_IXLDUPLEXWRTCLI	"X'02"
		.... ...1		DGNB_IXLNOIRTCCOMP	"X'01" Suppress immediate RTC completion
30	(1E)	BITSTRING	1	DGNBBYTE11	
Comment					
Bit definitions:					
End of Comment					
		1... ....		DGNB_IARST64INITGET	"X'80"
		.1.. ....		DGNB_IARST64INITFREE	"X'40"
		..1. ....		DGNB_IARCP64INITGET	"X'20"
		...1 ....		DGNB_IARCP64INITFREE	"X'10"
		.... 1...		DGNB_IARCP64TRAILER	"X'08"



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.... .1..		DGNB_IARST64TRAILER	"X'04"
		.... ..1.		DGNB_IEASYSTRCNOLIMIT	"X'02"
		.... ...1		DGNB_IOSZDACMSG	"X'01"
31	(1F)	BITSTRING	1	DGNBBYTE12	
Comment					
Bit definitions:					
End of Comment					
		1... ....		DGNB_IDAVSAMHC	"X'80"
		.1.. ....		DGNB_IEAZADUNCOND	"X'40"
		..1. ....		DGNB_IARNOPAGE0DS	"X'20"
		...1 ....		DGNB_IEARTM2SNAPX22	"X'10" Tell RTM to capture SNAPTRC for Cancel/Detach
		.... 1...		DGNB_ATRSERCHECKS	"X'08" Enable serialization hierarchy checks for RRS
		.... .1..		DGNB_IEARTM2NOSNAPTRC	"X'04" Tell RTM not to capture SNAPTRC at all
		.... ..1.		DGNB_IEATXABEVERY	"X'02"
		.... ...1		DGNB_IEATXABRANDOM	"X'01"
32	(20)	CHARACTER	4	DGNBWORD4	
32	(20)	BITSTRING	1	DGNBBYTE13	
Comment					
Bit definitions:					
End of Comment					
		1... ....		DGNB_IEARTMRECORDALL	"X'80" Tell RTM to record after calling every recovery routine
		.1.. ....		DGNB_IEADIEFPR	"X'40" Check that a timer DIE does not clobber any FPR
		..1. ....		DGNB_IBMSYSTEMTEST	"X'20"
		...1 ....		DGNB_BLWEXSNPROC DIAG	"X'10" Perform processor diagnostics for excessive spin. Use only as directed by IBM support
		.... 1...		DGNB_BLWEXSNABEND06B	"X'08" Issue a 06B-04 abend for excessive spin. Use only as directed by IBM support
		.... .1..		DGNB_BLWEXSNXESPROC DG	"X'04" Excessive spin XES processor diagnostics. Use only as directed by IBM support
		.... ..1.		DGNB_IOSPCIESIMMSG	"X'02" IOS PCIE Simulation should issue messages
33	(21)	BITSTRING	1	DGNBBYTE14	
Comment					
Bit definitions:					
End of Comment					
		1... ....		DGNB_IOSHPNOTHROTTL	"X'80" I/O Supervisor trap - use only as directed by IOS Level 2 support.
		.1.. ....		DGNB_IOSBVOF	"X'40" I/O Supervisor trap - use only as directed by IOS Level 2 support.
		..1. ....		DGNB_IOSIGNOREPLUSONE	"X'20" IOS PCIE ignore setting of PlusOne bit
34	(22)	BITSTRING	1	DGNBBYTE15	
Comment					
Bit definitions:					
End of Comment					

# IGVDGNB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		1... ..		DGNB_CSRPOOLDIAG	"X'80" CSRPOOL diagnostics
35	(23)	BITSTRING	1	DGNBBYTE16	
36	(24)	CHARACTER	44		Reserved
80	(50)	CHARACTER	248	DGNBTRAPS	
80	(50)	CHARACTER	72	DGNB#JOBS	
80	(50)	SIGNED	2	DGNB#JOBS	Count of how many Jobnames are in list. Maximum is 8.
82	(52)	BITSTRING	1	DGNB#JOBSFLAGS	Flags

Comment

Bit definitions:

End of Comment

		1... ..		DGNBJOBNAMEWILD	"X'80" At least one of the jobnames in the list contains a wildcard
83	(53)	CHARACTER	5		Reserved
88	(58)	CHARACTER	8	DGNBJOBNAME	List of Jobnames
152	(98)	CHARACTER	72	DGNBLENS	
152	(98)	SIGNED	2	DGNB#LENS	Count of how many lengths are in list. Maximum is 8.
154	(9A)	CHARACTER	6		Reserved
160	(A0)	CHARACTER	8	DGNBLENLIST	List of lengths.
160	(A0)	SIGNED	4	DGNBLENSTART	Start length for range.
164	(A4)	SIGNED	4	DGNBLENSTOP	Stop length for range.
224	(E0)	CHARACTER	68	DGNBASIDS	
224	(E0)	SIGNED	2	DGNB#ASIDS	Count of how many Asids are in list. Maximum is 16.
226	(E2)	CHARACTER	2		Reserved
228	(E4)	CHARACTER	4	DGNBASIDLIST	List of Asids.
228	(E4)	SIGNED	2	DGNBASIDSTART	Start Asid for range.
230	(E6)	SIGNED	2	DGNBASIDSTOP	Stop Asid for range.
292	(124)	BITSTRING	2	DGNBKEYBITS	Key N is being traced when DgnbKeyBits(N+1) is on.
294	(126)	BITSTRING	1	DGNBFILTERFLAGS	

Comment

Bit definitions:

End of Comment

		1111 1...		DGNBFILTERACTIVE	"X'F8"
		1... ..		DGNBJOBNAMEFILT	"X'80" Jobname filtering is active
		.1.. ....		DGNBASIDFILT	"X'40" Asid filtering is active
		..1. ....		DGNBSUBPOOLFILT	"X'20" Subpool filtering is active
		...1 ....		DGNBKEYFILT	"X'10" Key filtering is active
		.... 1...		DGNBLENGTHFILT	"X'08" Length filtering is active
295	(127)	CHARACTER	1		Reserved
296	(128)	BITSTRING	32	DGNBSUBPOOLBITS	Subpool N is being traced when DgnbSubpoolBits(N+1) is on.
328	(148)	CHARACTER	248	DGNBPROTECT	PROTECT filters
576	(240)	CHARACTER	248	DGNBDETECT	DETECT filters
824	(338)	CHARACTER	72	DGNB#CHARDATALIST	
824	(338)	SIGNED	2	DGNB#CHARDATAS	Count of how many CharData fields are in the list. Maximum is 8.
826	(33A)	CHARACTER	6		Reserved
832	(340)	CHARACTER	8	DGNB#CHARDATA	CharData value
896	(380)	CHARACTER	36	DGNB#HEXDATALIST	
896	(380)	SIGNED	2	DGNB#HEXDATAS	Count of how many HexData fields are in the list. Maximum is 8.
898	(382)	CHARACTER	2		Reserved
900	(384)	CHARACTER	4	DGNB#HEXDATA	HexData value
932	(3A4)	SIGNED	4	DGNBCPOOLFREEQMAX	
936	(3A8)	CHARACTER	100	DGNB#SUFFIXES	
936	(3A8)	SIGNED	2	DGNB#SUFFIXES	Count of the number of suffixes. Maximum is 8
938	(3AA)	CHARACTER	2		Reserved
940	(3AC)	CHARACTER	12	DGNB#SUFFIX	
940	(3AC)	CHARACTER	4	DGNB#SUFFIXTIME	Time when this suffix became the current suffix

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
Bit definitions:					
End of Comment					
		1... ..		DGNBSUFFIXTIMEHIGHBIT	"X'80"
944	(3B0)	CHARACTER	8	DGNBSUFFIXDATA	Data for DETECT suffix
1036	(40C)	CHARACTER	2	DGNBSTGINIT	Data for storage initialization
1036	(40C)	CHARACTER	1	DGNBSTGINITFLAGS	Flags
Comment					
Bit definitions:					
End of Comment					
		1... ..		DGNBSTGINITSPEC	"X'80" Storage initialization value was specified
1037	(40D)	CHARACTER	1	DGNBSTGINITVAL	Value for initializing CPOOL GET and Getmain/Storage Obtains
1038	(40E)	BITSTRING	1	DGNBPROTDETON	PROTECT/DETECT ON flags
Comment					
Bit definitions:					
End of Comment					
		1111 ....		DGNBPROTECTON	"X'F0" PROTECT indicators
		11.. ....		DGNBPROTECTCSAON	"X'C0"
		1... ....		DGNBPROTECTCSA24ON	"X'80" PROTECT CSA24(ON)
		.1.. ....		DGNBPROTECTCSA31ON	"X'40" PROTECT CSA31(ON)
		..11 ....		DGNBPROTECTSQAON	"X'30"
		..1. ....		DGNBPROTECTSQA24ON	"X'20" PROTECT SQA24(ON)
		...1 ....		DGNBPROTECTSQA31ON	"X'10" PROTECT SQA31(ON)
		.... 1111		DGNBDETECTON	"X'0F" DETECT indicators
		.... 11..		DGNBDETECTCSAON	"X'0C"
		.... 1...		DGNBDETECTCSA24ON	"X'08" DETECT CSA24(ON)
		.... .1..		DGNBDETECTCSA31ON	"X'04" DETECT CSA31(ON)
		.... ..11		DGNBDETECTSQAON	"X'03"
		.... ..1.		DGNBDETECTSQA24ON	"X'02" DETECT SQA24(ON)
		.... ...1		DGNBDETECTSQA31ON	"X'01" DETECT SQA31(ON)
1039	(40F)	BITSTRING	1	DGNBPROTDEACTIVE	PROTECT/DETECT Active flags
Comment					
Bit definitions:					
End of Comment					
		1111 ....		DGNBCSAACTIVE	"X'F0" CSA tracking required
		1... ....		DGNBPROTECTCSA24ACTIVE	"X'80" PROTECT has been ON for CSA24 at some time since IPL
		.1.. ....		DGNBPROTECTCSA31ACTIVE	"X'40" PROTECT has been ON for CSA31 at some time since IPL
		..1. ....		DGNBDETECTCSA24ACTIVE	

# IGVDGNB Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		...1 ....		DGNBDETECTCSA31ACTIVE	"X'20" DETECT has been ON for CSA24 at some time since IPL
		.... 1111		DGNBSQAACTIVE	"X'10" DETECT has been ON for CSA31 at some time since IPL
		.... 1...		DGNBPROTECTSQA24ACTIVE	"X'0F" SQA tracking required
		.... .1..		DGNBPROTECTSQA31ACTIVE	"X'08" PROTECT has been ON for SQA24 at some time since IPL
		.... ..1.		DGNBDETECTSQA24ACTIVE	"X'04" PROTECT has been ON for SQA31 at some time since IPL
		.... ...1		DGNBDETECTSQA31ACTIVE	"X'02" DETECT has been ON for SQA24 at some time since IPL
1040	(410)	CHARACTER	10	DGNBCHECKREGIONLOSS	"X'01" DETECT has been ON for SQA31 at some time since IPL
1040	(410)	SIGNED	4	DGNBCHECKREGIONLOSS24	
1044	(414)	SIGNED	4	DGNBCHECKREGIONLOSS31	
1048	(418)	CHARACTER	1	DGNBCHECKREGIONLOSS24UNIT	K, M, or X'00'
1049	(419)	CHARACTER	1	DGNBCHECKREGIONLOSS31UNIT	K, M, or X'00'
1050	(41A)	CHARACTER	2		Reserved
1052	(41C)	CHARACTER	4	DGNBPRIMEPSAVALUE	Test value being used for PrimePSA function
1056	(420)	CHARACTER	8	DGNBVSMDETECTMONITORTIME	Time at which last completed IGVDGNMN pass was started
1064	(428)	CHARACTER	10	DGNBPRIVATEBUFFER	
1064	(428)	SIGNED	4	DGNBPRIVATEBUFFER24	
1068	(42C)	SIGNED	4	DGNBPRIVATEBUFFER31	
1072	(430)	CHARACTER	1	DGNBPRIVATEBUFFER24UNIT	K, M, or X'00'
1073	(431)	CHARACTER	1	DGNBPRIVATEBUFFER31UNIT	K, M, or X'00'
1074	(432)	BITSTRING	1	DGNBOPTIONS1	

Comment

Bit definitions:

End of Comment

		1... ....		DGNBALLOWUSERKEYCSANO	"X'80" AllowUserKeyCSA(NO) was specified or defaulted
		.1.. ....		DGNBALLOWUSERKEYCSASPEC	"X'40" AllowUserKeyCSA was specified
		..1. ....		DGNBREUSASIDYES	"X'20" ReusAsid(Yes) was specified or defaulted
		...1 ....		DGNBREUSASIDSPEC	"X'10" ReusAsid was specified
		.... 1...		DGNBUSEZOSV1R9RULESNO	"X'08" UseZOSV1R9Rules(NO) was specified
		.... .1..		DGNBALLOWUSERKEYCADSNO	"X'04" AllowUserKeyCADS(NO) was specified or defaulted
		.... ..1.		DGNBALLOWUSERKEYCADSSPEC	"X'02" AllowUserKeyCADS was specified
1075	(433)	BITSTRING	1	DGNBOPTIONS2	

Comment

Bit definitions:

End of Comment

		1... ....		DGNBBESTFITCSA	"X'80" BestFitCSA was specified
1076	(434)	CHARACTER	32	DGNBNONZERO1	Do not initialize to zeros
1076	(434)	ADDRESS	4	DGNBCBLOCV24ADDR	
1080	(438)	ADDRESS	4	DGNBCBLOCV31ADDR	
1084	(43C)	ADDRESS	4	DGNBAUTOIPLADDR	
1088	(440)	CHARACTER	20	DGNBNONZERO1RESV	Reserved
1108	(454)	CHARACTER	12	DGNBZERO2	Initialize to zeros
1108	(454)	CHARACTER	12		Reserved
1120	(460)	CHARACTER	4	DGNBCBLOCV24STG	
1124	(464)	CHARACTER	4	DGNBCBLOCV31STG	
1128	(468)	CHARACTER	64	DGNBAUTOIPLSTG	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
1128	(468)	X'4A8'	0	DGNB_LEN	""-DGNB"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNBCBLOCV24	
0	(0)	BITSTRING	1	DGNBCBLOCV24BYTE0	

Comment

Bit definitions:

End of Comment

		1... ....		DGNBCBLOCV24IEAFRRSTACKS	"X'80" I/O and External super FRR stacks and SDWAs
		.1.. ....		DGNBCBLOCV24IEFALLOCDYNSTG	"X'40" Allocation dynamic area storage (ie. GSPACE)
		..1. ....		DGNBCBLOCV24IHAPCCA	"X'20"
		...1 ....		DGNBCBLOCV24IHALCCA	"X'10"
		.... 1..		DGNBCBLOCV24IHASDWAFRR	"X'08" SDWA for FRRs
		.... .1..		DGNBCBLOCV24IHAASVT	"X'04" Not Supported!
		.... ..1.		DGNBCBLOCV24IHAXTLST	"X'02"
		.... ...1		DGNBCBLOCV24CNZSSICB	"X'01"
1	(1)	CHARACTER	3		Reserved
1	(1)	X'4'	0	DGNBCBLOCV24_LEN	""-DGNBCBLOCV24"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNBCBLOCV31	
0	(0)	BITSTRING	1	DGNBCBLOCV31BYTE0	

Comment

Bit definitions:

End of Comment

		1... ....		DGNBCBLOCV31IEFSUBMSTRSWA	"X'80" SWA for address spaces started with SUB=MSTR which specify IEFBR14 (or nothing) as an initialization routine Not supported!
		.1.. ....		DGNBCBLOCV31IEFMASTERSWA	"X'40" SWA for *MASTER* address space Not supported!
		..1. ....		DGNBCBLOCV31IHAASVT	"X'20" Not Supported!
		...1 ....		DGNBCBLOCV31IHAPCCA	"X'10"
		.... 1..		DGNBCBLOCV31IHALCCA	"X'08"
		.... .1..		DGNBCBLOCV31IHAXTLST	"X'04"
		.... ..1.		DGNBCBLOCV31CNZSSICB	"X'02"
1	(1)	CHARACTER	3		Reserved
1	(1)	X'4'	0	DGNBCBLOCV31_LEN	""-DGNBCBLOCV31"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DGNBAUTOIPL	
0	(0)	CHARACTER	64	DGNBAI	
0	(0)	ADDRESS	4	DGNBAIREGWSATADDR	Registered WSAT

# IGVDGNB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
4	(4)	ADDRESS	4	DGNBAIUSERWSATADDR	User WSAT
8	(8)	CHARACTER	24	DGNBAISADINFO	SADMP info.
8	(8)	SIGNED	2	DGNBAISADDEV#	Reserved
10	(A)	CHARACTER	2		
12	(C)	CHARACTER	8	DGNBAISADLOADPARM	
20	(14)	ADDRESS	4	DGNBAISADUCBADDR	
24	(18)	CHARACTER	8	DGNBAISADPINTOKEN	
32	(20)	CHARACTER	24	DGNBAIMVSINFO	MVS info.
32	(20)	SIGNED	2	DGNBAIMVSDEV#	Reserved
34	(22)	CHARACTER	2		
36	(24)	CHARACTER	8	DGNBAIMVSLOADPARM	
44	(2C)	ADDRESS	4	DGNBAIMVSUCBADDR	
48	(30)	CHARACTER	8	DGNBAIMVSPINTOKEN	
56	(38)	BITSTRING	1	DGNBAIAUTOIPLFLAGS	

Comment

Bit definitions:

End of Comment

	1... ....			DGNBAI_SADIPL	"X'80" Take a SADMP
	.1.. ....			DGNBAI_MVSREIPL	"X'40" Re-IPL z/OS
	..1. ....			DGNBAI_SADSIDDEFAULT	"X'20" Use subchannel set id of IPL device for the SAD volume
	...1 ....			DGNBAI_MVSSIDDEFAULT	"X'10" Use current subchannel set id for the IPL volume
57	(39)	CHARACTER	7		Reserved
57	(39)	X'C7D5C2'	0	DGNBIDC	"C'DGNB" Dgnb control block id string
57	(39)	X'F0F5'	0	DGNBVERC	"C'05" Current version
57	(39)	X'F0F1'	0	DGNBVER1	"C'01" Dgnb version HBB6606
57	(39)	X'F0F2'	0	DGNBVER2	"C'02" Dgnb version HBB7708
57	(39)	X'F0F3'	0	DGNBVER3	"C'03" Dgnb version HBB7709
57	(39)	X'F0F4'	0	DGNBVER4	"C'04" Dgnb version HBB7730
57	(39)	X'F0F5'	0	DGNBVER5	"C'05" Dgnb version HBB7750
57	(39)	X'8'	0	DGNBCHARDATAMAX	"8" Maximum number of CharData fields.
57	(39)	X'8'	0	DGNBHEXDATAMAX	"8" Maximum number of HexData fields.
57	(39)	X'8'	0	DGNBJOBMAX	"8" Maximum number of jobname ranges.
57	(39)	X'10'	0	DGNBASIDMAX	"16" Maximum number of asid ranges.
57	(39)	X'8'	0	DGNBLENMAX	"8" Maximum number of length ranges.
57	(39)	X'8'	0	DGNBSUFFIXESMAX	"8" Maximum number of suffixes
57	(39)	X'C7E5C4'	0	DGNBSETEVENTNAME_0TO3	"C'IGVD" This is the first 4-byte segment of an 8-byte constant. Name parameter value for SETEVENT macro
57	(39)	X'C1C7C2'	0	DGNBSETEVENTNAME_4TO7	"C'IAGB" This is the second 4-byte segment of an 8-byte constant. Name parameter value for SETEVENT macro
57	(39)	X'40'	0	DGNBAUTOIPL_LEN	**_DGNBAUTOIPL"

## IGVDGNB Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DGNB	0		DGNB_IEARTM2NOSNAPTRC		
DGNB_ASNREUSE			1F	4	
	1C	8	DGNB_IEARTM2SNAPX22		
DGNB_ATRSERCHECKS			1F	10	
	1F	8	DGNB_IEASCHEDULETRACE		
DGNB_BLWEXSNABEND06B			19	4	
	20	8	DGNB_IEASCHEDULEV		
DGNB_BLWEXSNPROC DIAG			19	40	
	20	10	DGNB_IEASETFRRAMODE		
DGNB_BLWEXSNXESDETECT			1C	10	
	1D	20	DGNB_IEASETFRRENV		
DGNB_BLWEXSNXESPROCDG			1C	20	
	20	4	DGNB_IEASPINLOCKV		
DGNB_CNZTRON	1A	4	19	20	
DGNB_CNZTRONWITHABEND			DGNB_IEASYSTRCNOLIMIT		
	1A	2	1E	2	
DGNB_CSRPOOLDIAG			DGNB_IEATXABEVERY		
	22	80	1F	2	
DGNB_CSVRENTPROTECT			DGNB_IEATXABRANDOM		
	1B	20	1F	1	
DGNB_CSVRENTSP252			DGNB_IEAZADUNCOND		
	1B	40	1F	40	
DGNB_CSVSP228ROUNDUP			DGNB_IEFABENDIEF702I		
	1B	4	1C	40	
DGNB_CSVSP241ROUNDUP			DGNB_IGVCPOOLFREEQ		
	1B	2	1A	8	
DGNB_CSVSP252ROUNDUP			DGNB_IGVCPOOLFREEQPXT		
	1B	8	1B	1	
DGNB_HZSCHECK			DGNB_IGVCPOOLGETV		
	1C	2	18	1	
DGNB_IARCP64INITFREE			DGNB_IGVDAQATCKPT		
	1E	10	1D	8	
DGNB_IARCP64INITGET			DGNB_IGVDIAGXXABEND		
	1E	20	18	4	
DGNB_IARCP64TRAILER			DGNB_IGVINITCPOOL		
	1E	8	18	80	
DGNB_IARNOPAGE0DS			DGNB_IGVINITFREEMAIN		
	1F	20	1A	10	
DGNB_IARSERIALIZEPIN			DGNB_IGVINITGETMAIN		
	1C	80	18	20	
DGNB_IARST64INITFREE			DGNB_IGVNEWPAGE24		
	1E	40	18	10	
DGNB_IARST64INITGET			DGNB_IGVNEWPAGE31		
	1E	80	18	8	
DGNB_IARST64TRAILER			DGNB_IGVNOUSERKEYCSA		
	1E	4	18	2	
DGNB_IBMSYSTEMTEST			DGNB_IGVUNCOND		
	20	20	18	40	
DGNB_ICVTESTEADSCB			DGNB_IOSBVOF	21	40
	1C	1	DGNB_IOSCCMMSGS		
DGNB_IDAVSAMHC			1D	80	
	1F	80	DGNB_IOSDCMMSGS		
DGNB_IEACMSETV			1C	4	
	19	8	DGNB_IOSFCTCLOG		
DGNB_IEADIEFPR			1D	10	
	20	40	DGNB_IOSHPNOTHROTTLE		
DGNB_IEAINITARSRB			21	80	
	19	10	DGNB_IOSIGNOREPLUSONE		
DGNB_IEAINITREGSTASK			21	20	
	1A	20	DGNB_IOSPCIESIMMSGS		
DGNB_IEAMISUSEPMC			20	2	
	1D	40	DGNB_IOSPROTCAPTUCB		
DGNB_IEANOSDWA			1B	80	
	1A	80	DGNB_IOSZDACMSG		
DGNB_IEANOSUSPSYSTRC			1E	1	
	19	80	DGNB_IXCRECSTRALLOC		
DGNB_IEARISGNLTRACE			1A	40	
	19	2	DGNB_IXLBREAKDUPLEX		
DGNB_IEARPSGNLTRACE			1B	10	
	19	1	DGNB_IXLDUPLEXWRTCLI		
DGNB_IEARTMRECORDALL			1D	2	
	20	80	DGNB_IXLDUPOUTOFSYNCH		

# IGVDGNB Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DGNB_IXLNOIRTCOMP	1A	1	DGNBAIREGWSATADDR	2C	
DGNB_IXLNORTESUPPRESS	1D	1	DGNBAISADDEV#	0	
DGNB_LEN	1D	4	DGNBAISADINFO	8	
DGNB_TEMPMC1	468	4A8	DGNBAISADLOADPARM	8	
DGNB_TEMPMC10	14	80	DGNBAISADPINTOKEN	C	
DGNB_TEMPMC11	15	40	DGNBAISADUCBADDR	18	
DGNB_TEMPMC12	15	20	DGNBAISADUCBADDR	14	
DGNB_TEMPMC13	15	10	DGNBAIUSERWSATADDR	4	
DGNB_TEMPMC14	15	8	DGNBALLOWUSERKEYCADSNO	432	4
DGNB_TEMPMC15	15	4	DGNBALLOWUSERKEYCADSSPEC	432	2
DGNB_TEMPMC16	15	2	DGNBALLOWUSERKEYCSANO	432	80
DGNB_TEMPMC2	14	40	DGNBALLOWUSERKEYCSASPEC	432	40
DGNB_TEMPMC3	14	20	DGNBASIDFILT	126	40
DGNB_TEMPMC4	14	10	DGNBASIDLIST	E4	
DGNB_TEMPMC5	14	8	DGNBASIDMAX	39	10
DGNB_TEMPMC6	14	4	DGNBASIDS	E0	
DGNB_TEMPMC7	14	2	DGNBASIDSTART	E4	
DGNB_TEMPMC8	14	1	DGNBASIDSTOP	E6	
DGNB_TEMPMC9	15	80	DGNBAUTOIPL	0	
DGNB_TEMP1	16	80	DGNBAUTOIPL_LEN	39	40
DGNB_TEMP10	17	40	DGNBAUTOIPLADDR	43C	
DGNB_TEMP11	17	20	DGNBAUTOIPLSTG	468	
DGNB_TEMP12	17	10	DGNBBESTFITCSA	433	80
DGNB_TEMP13	17	8	DGNBBITS	14	
DGNB_TEMP14	17	4	DGNBBYTE1	14	
DGNB_TEMP15	17	2	DGNBBYTE10	1D	
DGNB_TEMP16	17	1	DGNBBYTE11	1E	
DGNB_TEMP2	16	40	DGNBBYTE12	1F	
DGNB_TEMP3	16	20	DGNBBYTE13	20	
DGNB_TEMP4	16	10	DGNBBYTE14	21	
DGNB_TEMP5	16	8	DGNBBYTE15	22	
DGNB_TEMP6	16	4	DGNBBYTE16	23	
DGNB_TEMP7	16	2	DGNBBYTE2	15	
DGNB_TEMP8	16	1	DGNBBYTE3	16	
DGNB_TEMP9	17	80	DGNBBYTE4	17	
DGNB#ASIDS	E0		DGNBBYTE5	18	
DGNB#CHARDATAS	338		DGNBBYTE6	19	
DGNB#HEXDATAS	380		DGNBBYTE7	1A	
DGNB#JOBS	50		DGNBBYTE8	1B	
DGNB#LENS	98		DGNBBYTE9	1C	
DGNB#SUFFIXES	3A8		DGNBCBLOCV24	0	
DGNBAI	0		DGNBCBLOCV24_LEN	1	4
DGNBAI_MVSREIPL	40		DGNBCBLOCV24ADDR	434	
DGNBAI_MVSSIDDEFAULT	38	10	DGNBCBLOCV24BYTE0	0	
DGNBAI_SADIPL	38	80	DGNBCBLOCV24CNZSSICB	0	1
DGNBAI_SADSIDDEFAULT	38	20	DGNBCBLOCV24IEAFRRSTACKS	0	80
DGNBAIAUTOIPLFLAGS	38		DGNBCBLOCV24IEFALLOCDYNSTG	0	40
DGNBAIMVSDEV#	20		DGNBCBLOCV24IHAASVT	0	4
DGNBAIMVSINFO	20		DGNBCBLOCV24IHALCCA	0	10
DGNBAIMVSLOADPARM	24		DGNBCBLOCV24IHAPCCA		
DGNBAIMVSPINTOKEN	30				
DGNBAIMVSUCBADDR					



Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DGNBCBLOCV24IHASDWAFRR	0	20	DGNBFILTERROUTINEADDR	126	
DGNBCBLOCV24IHAXTLST	0	8	DGNBFLAGS	C	
DGNBCBLOCV24STG	0	2	DGNBFLAG1	6	
DGNBCBLOCV31	460		DGNBHEXDATA	384	
DGNBCBLOCV31_LEN	0		DGNBHEXDATALIST	380	
DGNBCBLOCV31ADDR	1	4	DGNBHEXDATAMAX	39	8
DGNBCBLOCV31BYTE0	438		DGNBID	0	
DGNBCBLOCV31CNZSSICB	0		DGNBIDC	39	C7D5C2
DGNBCBLOCV31IEFMASTERSWA	0	2	DGNBJOBMAX	39	8
DGNBCBLOCV31IEFSUBMSTRSWA	0	40	DGNBJOBNAME	58	
DGNBCBLOCV31IHAASVT	0	80	DGNBJOBNAMEFILT	126	80
DGNBCBLOCV31IHALCCA	0	20	DGNBJOBNAMEWILD	52	80
DGNBCBLOCV31IHAPCCA	0	8	DGNBJOBS	50	
DGNBCBLOCV31IHAXTLST	0	10	DGNBJOBSFLAGS	52	
DGNBCBLOCV31STG	0	4	DGNBKEYBITS	124	
DGNBCHARDATA	464		DGNBKEYFILT	126	10
DGNBCHARDATALIST	340		DGNBLENGTHFILT	126	8
DGNBCHARDATAMAX	338		DGNBLENLIST	A0	
DGNBCHECKREGIONLOSS	39	8	DGNBLENMAX	39	8
DGNBCHECKREGIONLOSS24	410		DGNBLENS	98	
DGNBCHECKREGIONLOSS24UNIT	410		DGNBLENSTART	A0	
DGNBCHECKREGIONLOSS31	418		DGNBLENSTOP	A4	
DGNBCHECKREGIONLOSS31UNIT	414		DGNBNONZERO1	434	
DGNBCPOOLFREEQMAX	419		DGNBNONZERO1RESV	440	
DGNBCSAACTIVE	3A4		DGNBOPTIONS1	432	
DGNBDETECT	40F	F0	DGNBOPTIONS2	433	
DGNBDETECTCSAON	240		DGNBPRIMEPSAVALUE	41C	
DGNBDETECTCSA24ACTIVE	40E	C	DGNBPRIVATEBUFFER	428	
DGNBDETECTCSA24ON	40F	20	DGNBPRIVATEBUFFER24	428	
DGNBDETECTCSA31ACTIVE	40E	8	DGNBPRIVATEBUFFER24UNIT	430	
DGNBDETECTCSA31ON	40F	10	DGNBPRIVATEBUFFER31	42C	
DGNBDETECTON	40E	4	DGNBPRIVATEBUFFER31UNIT	431	
DGNBDETECTSQAON	40E	F	DGNBPROTDEACTIVE	40F	
DGNBDETECTSQA24ACTIVE	40E	3	DGNBPROTDETON	40E	
DGNBDETECTSQA24ON	40F	2	DGNBPROTECT	148	
DGNBDETECTSQA31ACTIVE	40E	2	DGNBPROTECTCSAON	40E	C0
DGNBDETECTSQA31ON	40F	1	DGNBPROTECTCSA24ACTIVE	40F	80
DGNBFILTERACTIVE	40E	1	DGNBPROTECTCSA24ON	40E	80
DGNBFILTERFLAGS	126	F8	DGNBPROTECTCSA31ACTIVE	40F	40
			DGNBPROTECTCSA31ON	40E	40
			DGNBPROTECTON	40E	F0
			DGNBPROTECTSQAON	40E	30
			DGNBPROTECTSQA24ACTIVE	40F	8
			DGNBPROTECTSQA24ON	40E	20
			DGNBPROTECTSQA31ACTIVE	40F	4
			DGNBPROTECTSQA31ON	40E	10

## IGVDGNB Cross Reference

Name	Hex Offset	Hex Value
DGNBRESV1	7	
DGNBRESV2	8	
DGNBREUSASIDSPEC	432	10
DGNBREUSASIDYES	432	20
DGNBSETEVENTNAME_0TO3	39	C7E5C4
DGNBSETEVENTNAME_4TO7	39	C1C7C2
DGNBSQAACTIVE	40F	F
DGNBSTGINIT	40C	
DGNBSTGINITFLAGS	40C	
DGNBSTGINITSPEC	40C	80
DGNBSTGINITVAL	40D	
DGNBSUBPOOLBITS	128	
DGNBSUBPOOLFILT	126	20
DGNBSUFFIX	3AC	
DGNBSUFFIXDATA	3B0	
DGNBSUFFIXES	3A8	
DGNBSUFFIXESMAX	39	8
DGNBSUFFIXTIME	3AC	
DGNBSUFFIXTIMEHIGHBIT	3AC	80
DGNBSYNCCNT	10	
DGNBTRAPS	50	
DGNBUSEZOSV1R9RULESNO	432	8
DGNBVER	4	
DGNBVERC	39	F0F5
DGNBVER1	39	F0F1
DGNBVER2	39	F0F2
DGNBVER3	39	F0F3
DGNBVER4	39	F0F4
DGNBVER5	39	F0F5
DGNBVSMDETECTMONITORTIME	420	
DGNBWORD1	14	
DGNBWORD2	18	
DGNBWORD3	1C	
DGNBWORD4	20	
DGNBZERO	10	
DGNBZERO2	454	

## IGVDGNX Information

### IGVDGNX Heading Information

**Common Name:** Diagnostic traps extraction area  
**Macro ID:** IGVDGNX  
**DSECT Name:** DGNX  
**Owning Component:** VSM (SC1CH)  
**Eye-Catcher ID:** DGNX  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Residency: Above 16MB  
**Size:** X'3C64' bytes  
**Created by:** IGVDGNXT  
**Pointed to by:** When IGVDGNXT returns to its caller, the third parameter of the standard parameter list is a fullword containing the address of the DGNX created by IGVDGNXT.  
**Serialization:** None.  
**Function:** The DGNX indicates in text format the contents of DIAGxx.

### IGVDGNX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	DGNX	
0	(0)	CHARACTER	20	DGNXFIXEDAREA	
0	(0)	CHARACTER	4	DGNXID	Control block id
4	(4)	CHARACTER	2	DGNXVER	Version number
6	(6)	UNSIGNED	1	DGNXSUBPOOL	Subpool of DGNX
7	(7)	CHARACTER	1	DGNXRESV1	Reserved
8	(8)	SIGNED	4	DGNXLENGTH	Total length of DGNX, to be used when freeing the DGNX
12	(C)	ADDRESS	4	DGNXTEXTAREAADDR	Address of text area. This should be used to find the beginning of the text area (not Addr(DgnxTextArea)) so the the DgnxFixedArea can be expanded without forcing a recompile
16	(10)	SIGNED	4	DGNXTEXTAREALEN	Number of bytes used in DgnxTextArea
20	(14)	CHARACTER	*	DGNXTEXTAREA	Text area

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	DGNXTEXTLINE	Text line
0	(0)	UNSIGNED	1	DGNXTEXTLEN	Text data length
1	(1)	CHARACTER	*	DGNXTEXTDATA	Text data

### IGVDGNX Constants

Len	Type	Value	Name	Description
4	CHARACTER	DGNX	DGNXIDC	DGNX control block id string
2	CHARACTER	01	DGNXVERC	Current version
2	CHARACTER	01	DGNXVER1	DGNX version HBB7706
4	DECIMAL	70	DGNXMAXLINELEN	Maximum length of a text line (chosen so than a line can be used as a MLWTO line)

## IGVDGNX Cross Reference

### IGVDGNX Cross Reference

Name	Hex Offset	Hex Value
DGNX	0	
DGNXFIXEDAREA		
	0	
DGNXID	0	
DGNXLENGTH	8	
DGNXRESV1	7	
DGNXSUBPOOL	6	
DGNXTEXTAREA	14	
DGNXTEXTAREAADDR		
	C	
DGNXTEXTAREALEN		
	10	
DGNXTEXTDATA	1	
DGNXTEXTLEN	0	
DGNXTEXTLINE	0	
DGNXVER	4	

## IGVGQAT Information

### IGVGQAT Heading Information

**Common Name:** GQE Queue Anchor Table  
**Macro ID:** IGVGQAT  
**DSECT Name:** GQATITBL GQAT GQATENT  
**Owning Component:** Virtual Storage Manager (SC1CH)  
**Eye-Catcher ID:** GQAT  
 Offset: 0  
 Length: 4

**Storage Attributes:** Subpool: 245  
 Key: 0  
 Residency: Above 16M line

**Size:** GQATITBL -- X'0400' bytes  
 GQAT -- X'0204' bytes  
 GQATENT -- X'0004' bytes

**Created by:** IEAIPL04 & IEAVNP08 build GQAT index tables and GQATs.  
 When the system is fully initialized, a GQAT index table exists that describes 2G, and there exists GQAT table entries for all of SQA and CSA.

**Pointed to by:** GQAT Index Table is pointed to by GDAGQAT\_Index.  
 GQATs are pointed to by entries in the GQAT index table.

**Serialization:** When writing to the GQAT, VSM uses the VSMFIX lock.  
 The only time the GQAT index table is updated is during initialization, so no serialization is needed.  
 When monitor programs read the GQAT, it would be best to do so with no serialization. (This is because holding the lock could impact system performance.) Note that this means that the GQE pointed to by a GQAT entry could be freemained while being read. The GQE may also be put on the queue of free GQEs while being read. Monitors will need to handle this (e.g., a recovery routine could catch the reference to a freemained GQE, and encountering a GQE on the free queue could be taken as the end of the queue being run.)

**Function:** This macro contains a map of the GQAT and the GQAT Index Table. These two mappings provide the basis for the two-table lookup scheme that VSM uses to keep track of GQEs. (There is 1 GQE for every GETMAINed piece of common storage.) These tables enable VSM to take a virtual address (e.g., the virtual address passed by a FREEMAIN invocation) and find the GQE that represents the storage at that address.

Each entry in the GQAT index table points to a GQAT. There are no null entries in the GQAT index table. However, a GQAT index table entry may point to the "dummy GQAT", which is a GQAT all of whose entries point to the GQE that describes 0 bytes at address 0. (This GQE is called the dummy GQE.)

Each entry in a GQAT points to a queue of GQEs. (An entry of 0 indicates an empty queue.) Each 64K portion of virtual storage has its own entry in a GQAT. Storage that is in use within a 64K chunk is described by a queue of GQEs pointed to by the GQAT entry for that 64K chunk. The GQEs on this queue are in LIFO order. The GQE queues end with a GQE\_NEXT field of 0.

There are 256 entries in the GQAT index table, and the table can map all of storage (2G). Thus, each entry in the GQAT represents 8M of storage (because 2G/256 = 8M). Each GQAT index table entry points to a GQAT, so GQATs must also represent 8M of storage. GQATs have 128 entries, so each entry represents 64K of virtual storage. The smallest possible GETMAIN is 8 bytes, so the maximum number of GQEs per GQAT entry is 8K, or 8,192 (because 64K/8=8K).

### IGVGQAT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	GQATITBL	,
0	(0)	ADDRESS	4	GQATINDX	Address of GQAT table
1024	(400)	X'400'	0	GQATITBL_LEN	""-GQATITBL"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	GQAT	,
0	(0)	CHARACTER	4	GQATID	Control block identifier
4	(4)	CHARACTER	512	GQATARRAY (0)	Array of 128 elements
4	(4)	CHARACTER	4	GQATNTRY	Each cell of this array contains a pointer to a queue of GQEs.
516	(204)	X'204'	0	GQAT_LEN	""-GQAT"

## IGVGQAT Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	GQATENT	,
0	(0)	ADDRESS	4	GQATGQE	Address of the first GQE in a GQE queue. All GQEs on this LIFO queue describe storage whose start address is within the 64K area represented by the GQAT entry.
0	(0)	X'4'	0	GQATENT_LEN	"*-GQATENT"

## IGVGQAT Cross Reference

Name	Hex Offset	Hex Value
GQAT	0	
GQAT_LEN	204	204
GQATARRAY	4	
GQATENT	0	
GQATENT_LEN	0	4
GQATGQE	0	
GQATID	0	
GQATINDX	0	
GQATITBL	0	
GQATITBL_LEN	400	400
GQATNTRY	4	

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## IGVGQE Information

### IGVGQE Programming Interface information

Programming Interface information

IGVGQE

End of Programming Interface information

## IGVGQE Heading Information • IGVGQE Map

### IGVGQE Heading Information

**Common Name:** GETMAINed Queue Element.  
**Macro ID:** IGVGQE  
**DSECT Name:** GQE  
**Owning Component:** Virtual Storage Manager (SC1CH)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: 245  
 Key: 0  
 Residency: Above 16M  
**Size:** X'0018' Bytes  
 GQE -- X'0018' bytes  
**Created by:** IGVGCSA, IGVGSQA  
**Pointed to by:** GqeNext  
 GqatGQE  
**Serialization:** When writing to the GQE, VSM uses the VSMFIX lock.  
 When monitor programs read the GQE, it would be best to do so with no serialization. (This is because holding the lock could impact system performance.) Note that this means that the GQE could be freemained while being read. The GQE may also be put on the queue of free GQEs while being read, and a GQE may appear to be "out of range" (i.e., it describes storage outside the range of storage described by the anchoring GQAT entry). Monitors will need to handle this (e.g., a recovery routine could catch the reference to a freemained GQE, and encountering a GQE that is "out of range" or on the free queue could be taken as the end of the queue being run.) A GQE on the free queue has a size of 0.  
**Function:** Describes a range of virtual storage that was allocated by a single GETMAIN or STORAGE OBTAIN. These blocks, in concert with the CAUB, are used to identify who owns every chunk of GETMAINed common storage.

### IGVGQE Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	GQE	Common area GETMAINed element.
0	(0)	ADDRESS	4	GQE_NEXT	Address of the next GQE.
4	(4)	SIGNED	4	GQE_GMTIME (0)	High order 4 bytes of the TOD clock when the storage was obtained. Last bit incremented every second (approx), 00000000 = Jan 1, 1900.
		1... ..		GQE_GMTIMEHIGHBIT	"X'80"
8	(8)	ADDRESS	4	GQE_CAUB	Address of the CAUB describing the address space that owns the storage pointed to by GQE_Area.
12	(C)	ADDRESS	4	GQE_AREA (0)	Start address of the allocated area. Bits 0 and 29 to 31 must be masked off before using this value. GQE_AreaMask can be used for this.
12	(C)	SIGNED	2	GQE_AREA_BITS0TO15 (0)	64K boundary index
12	(C)	BITSTRING	1	GQE_AREA_BYTE0 (0)	Storage area flags, this overloads bit 0 of GQE_Size, which can never otherwise be set because all requests must be located less than 2GB.
14	(E)	CHARACTER	1		Bits of the area address
15	(F)	BITSTRING	1	GQE_AREA_BYTE3 (0)	Storage Area flags, this overloads bits 29 to 31 of GQE_Area, which can never otherwise be set because all requests are rounded to a doubleword address.
16	(10)	SIGNED	4	GQE_SIZE (0)	Length of the allocated area, in bytes. This will never be negative. If this field is zero, then this GQE is on the free queue, and is thus not a valid GQE. Bits 0 and 29 to 31 must be masked off before using this value. GQE_SizeMask can be used for this
16	(10)	BITSTRING	1	GQE_SIZE_BYTE0 (0)	System size flags, this overloads bit 0 of GQE_Size, which can never otherwise be set because all requests must be less than 2GB in size.
		1... ..		GQE_DETECT_PRIOR_ERROR	"X'80" A prior error has been detected for this storage, so it should not be reported in error again.
17	(11)	CHARACTER	2		Bits of the storage length
19	(13)	BITSTRING	1	GQE_SIZE_BYTE3 (0)	System size flags, this overloads bits 29 to 31 of GQE_Size, which can never otherwise be set because all requests are rounded to a doubleword size.



Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
Note: GQE_Protect and GQE_Detect are mutually exclusive, and will never be set on at the same time.					
End of Comment					
		.... .1..		GQE_PROTECT	"X'04" CSA Protect processing applies to this storage. A 4K suffix has been added by the system. This suffix can not be backed, so any reference to it will cause an unresolved page fault to occur. When this bit is set, 4096 must be added to GQE_Size, with bits 0 and 29 to 31 masked off, to determine the amount of storage actually allocated by the system for the users request.
		.... ..1.		GQE_DETECT_SET	"X'02" CSA Detect suffix value has been set. This bit can only be set on when GQE_Detect is on. If this bit is not set then do not validate the prefix value. Due to disablement needs, a window exists between logical allocation of storage, building of the GQE, and the actual setting of the suffix value in storage.
		.... ...1		GQE_DETECT	"X'01" CSA Detect processing applies to this storage. An 8 byte suffix has been added by the system. This suffix will contain a system defined value that can be validated to identify that storage has gone beyond the expected point in storage. When this bit is set, 8 bytes must be added to GQE_Size, with bits 0 and 29 to 31 masked off, to determine the amount of storage actually allocated by the system for the users request.
20	(14)	ADDRESS	4	GQE_RETADDR (0)	The GETMAIN that obtained the storage described by this GQE returned to this address. This is here because we think that it will help identify the module and thus the component that did the GETMAIN. 'FFFFFFF'X here means that this GQE describes storage that was allocated before GETMAIN was available.
20	(14)	BITSTRING	1	GQE_RETADDR_BYTE0	
21	(15)	BITSTRING	2	GQE_RETADDR_BYTES1AND2	
23	(17)	BITSTRING	1	GQE_RETADDR_BYTE3X'01" (0)	If on, indicates that this is a GQE for CSA storage. If off, SQA storage. Instructions are on halfword boundaries, so the last bit of the return address is always zero, so we can use it without really destroying the return address.
		.... ...1		GQE_CSA	
24	(18)	BITSTRING	0	GQE_SIZEMASK	"X'7FFFFFF8" Mask to AND with GQE_Size to remove the overload bits
24	(18)	BITSTRING	0	GQE_AREAMASK	"X'7FFFFFF8" Mask to AND with GQE_Area to remove the overload bits
24	(18)	X'18'	0	GQE_LEN	"*-GQE"

**IGVGQE Cross Reference**

Name	Hex Offset	Hex Value
GQE	0	
GQE_AREA	C	
GQE_AREA_BITS0TO15		
	C	
GQE_AREA_BYTE0		
	C	
GQE_AREA_BYTE3		
	F	
GQE_AREAMASK	18	FFFFFF8
GQE_CAUB	8	
GQE_CSA	17	1
GQE_DETECT	13	1
GQE_DETECT_PRIOR_ERROR		
	10	80
GQE_DETECT_SET		
	13	2
GQE_GMTIME	4	
GQE_GMTIMEHIGHBIT		
	4	80
GQE_LEN	18	18
GQE_NEXT	0	
GQE_PROTECT	13	4
GQE_RETADDR	14	
GQE_RETADDR_BYTES1AND2		
	15	
GQE_RETADDR_BYTE0		
	14	
GQE_RETADDR_BYTE3		
	17	
GQE_SIZE	10	
GQE_SIZE_BYTE0		
	10	
GQE_SIZE_BYTE3		

Name	Hex Offset	Hex Value
	13	
GQE_SIZEMASK	18	FFFFFF8



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## IGVVAB Information

### IGVVAB Programming Interface Information

Programming Interface Information

IGVVAB

End of Programming Interface Information

## IGVVAB Heading Information • IGVVAB Map

### IGVVAB Heading Information

**Common Name:** VSM Address space Block  
**Macro ID:** IGVVAB  
**DSECT Name:** VAB  
**Owning Component:** Virtual Storage Manager (SC1CH)  
**Eye-Catcher ID:** VAB  
 Offset: 0  
 Length: 3  
**Storage Attributes:** Subpool: 245  
 Key: 0  
 Residency: Above 16M line  
**Size:** 12 bytes  
**Created by:** IGVGCAS, IEAIPL04  
**Pointed to by:** ASBVAB  
 GDASYVAB  
**Serialization:** VSM uses the VSMFIX lock to serialize the VAB.  
 When monitor programs read the VAB, it would be best to do so with no serialization. (This is because holding the lock could impact system performance.) Note that this means that the VAB could be freemained while being read. The VAB may also be put on the queue of free VABs while being read. Monitors will need to handle this (e.g., via a recovery routine).  
**Function:** Provides access to VSM control blocks that are both address space related and in common storage.

### IGVVAB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	VAB	, VSM Address space Block
0	(0)	CHARACTER	16	VAB_HEADER (0)	Header for VAB_Proper.
0	(0)	CHARACTER	3	VAB_ID	Character string 'VAB' - eyecatcher This is a product sensitive programming interface.
3	(3)	CHARACTER	1		Reserved.
4	(4)	ADDRESS	4	VAB_CAUB	Address of the Common Area User Block. This is a product sensitive programming interface.
8	(8)	ADDRESS	4	VAB_AS_CAUB	Address of the Common Area User Block for this Address Space. This is a product sensitive programming interface.
12	(C)	CHARACTER	4		Reserved.
12	(C)	X'E5C1C2'	0	VAB_ID_K	"C'VAB"
12	(C)	X'10'	0	VAB_LEN	**-VAB"

# IGVSMWK Information

## IGVSMWK Heading Information

**Common Name:** VSM Work Area  
**Macro ID:** IGVSMWK  
**DSECT Name:** VSWK  
**Owning Component:** Virtual Storage Manager (SC1CH)  
**Eye-Catcher ID:** VSWK  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: 245, 255  
 Key: 0  
 Residency: Above 16M line  
**Size:** VSWK -- X'5152' bytes  
**Created by:** IGVGCAS (VSM address space creation module),  
 IEAIPL04 (VSM IPL Resource Initialization Module).  
**Pointed to by:** GDAWRKA, GDAWRKAP, LDAWRKA  
**Serialization:** VSMFIX LOCK FOR FIXED GLOBAL WORK AREA  
 VSMPAG LOCK FOR PAGEABLE GLOBAL WORK AREA  
 LOCAL LOCK FOR LOCAL WORK AREA  
**Function:** DESCRIBES THE VSM WORK AREA

## IGVSMWK Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	5152	VSWK	VSM work area. This is the 'VSWK proper'.
0	(0)	CHARACTER	4	VSWKID	CONTROL BLOCK IDENTIFIER
4	(4)	ADDRESS	4	VSWKSADR	ADDRESS OF STACK AREA
8	(8)	CHARACTER	312	VSWKMAIN	MAIN PORTION OF WORK AREA
8	(8)	CHARACTER	72	VSWKEXTS	EXTERNAL REGISTER SAVE AREA
80	(50)	ADDRESS	4	VSWKGDA	GDA address
84	(54)	ADDRESS	4	VSWK LDA	LDA address
88	(58)	ADDRESS	4	VSWKT CB	TCB ADDRESS
92	(5C)	SIGNED	2	VSWKACDE	EXTERNAL ABEND CODE
94	(5E)	UNSIGNED	1	VSWKARSN	EXTERNAL ABEND REASON CODE
95	(5F)	UNSIGNED	1	VSWK MKEY	Key specified on the macro invocation for SVC 120. Only valid if VSWKMSPEC=ON
96	(60)	CHARACTER	4	VSWKPROC	PROCESSING INFORMATION
96	(60)	UNSIGNED	1	VSWK SVC	EXTERNAL SVC OR BRANCH ENTRY NUMBER
97	(61)	CHARACTER	1	VSWK PFLG	PROCESSING FLAGS
		1... ....		VSWK RFX	0 => DON'T RELEASE VSMFIX LOCK 1 => RELEASE VSMFIX LOCK
		.1. ....		VSWK ENT	0 => BRANCH ENTRY 1 => SVC Entry or PC entry. (VSWKSTOR distinguishes between the two.)
		..1. ....		VSWK GLBL	0 => NOT GLOBAL BRANCH ENTRY 1 => GLOBAL BRANCH ENTRY
		...1 ....		VSWK RPAG	0 => DON'T RELEASE VSMPAG LOCK 1 => RELEASE VSMPAG LOCK
		.... 1...		VSWK R CML	0 => DON'T RELEASE CML LOCK 1 => RELEASE CML LOCK
		.... .1..		VSWK LST	0 => THIS IS NOT A LIST REQUEST 1 => THIS IS A LIST REQUEST
		.... ..1.		VSWK RCUR	0 => THIS IS NOT A RECOVERY RECURSION 1 => THIS IS A RECOVERY RECURSION
		.... ...1		VSWK FSP	0 => THIS IS NOT A SUBPOOL FREEMAIN 1 => THIS IS A SUBPOOL FREEMAIN
98	(62)	UNSIGNED	1	VSWK CKEY	CALLER'S KEY AND STATE
		1111 ....		VSWK KEY	CALLER'S KEY
		1... ....		VSWK KEY8	HIGH ORDER BIT OF KEY
		.... 111.		*	
		.... ...1		VSWK STAT	0 => CALLER IS IN SUPERVISOR STATE 1 => CALLER IS IN PROBLEM PROGRAM STATE
99	(63)	CHARACTER	1	VSWK FLGS	Flags processing
		1... ....		VSWK STOR	0 => STORAGE service is not in process 1 => STORAGE service in process
		.1. ....		VSWK RSET	0 => don't CMSET (RESET) 1 => CMSET (RESET)
		..1. ....		VSWK RFRR	0 => don't delete SETFRR 1 => delete SETFRR
		...1 ....		VSWK R CPU	0 => Don't release CPU lock 1 => Release CPU lock
		.... 1...		VSWK UNUSABLE	0 => Freed Page OK 1 => Freed Page Unusable
		.... .111		*	Reserved
100	(64)	ADDRESS	4	VSWK TOP	TOP OF VSM STACK
104	(68)	ADDRESS	4	VSWK LLST	LENGTH LIST ADDRESS
108	(6C)	ADDRESS	4	VSWK ELST	END OF LENGTH LIST
112	(70)	ADDRESS	4	VSWK ALST	ADDRESS LIST ADDRESS
116	(74)	ADDRESS	4	VSWK LIST	ADDRESS OF LIST ENTRY BEING PROCESSED
120	(78)	ADDRESS	4	VSWK RCWK	ADDRESS OF RECOVERY WORK AREA
124	(7C)	ADDRESS	4	VSWK SAVE	ADDRESS OF CALLERS REGISTERS

# IGVVSMWK Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
128	(80)	CHARACTER	192	VSWKCOMA	COMMUNICATION AREA
320	(140)	CHARACTER	4832	VSWKSTCK	VSM modules use this space for their dynamic areas.
5152	(1420)	CHARACTER	0	*	IEAIPL04 wants this to be on an 8-byte boundary

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE IsA(VSWKCOMMTYPE)	192	VSWKCOMM	COMMUNICATION AREA
0	(0)	ADDRESS	4	VSWKCOMS	ADDRESS OF SAVED COMMUNICATION AREA OR ZERO
4	(4)	CHARACTER	32	VSWKRQST	REQUEST INFORMATION
4	(4)	UNSIGNED 1... ..	4	VSWKMAXS VSWKMAXS_BIT0	GETMAIN MAXIMUM REQUEST SIZE
8	(8)	UNSIGNED 1... ..	4	VSWKMINS VSWKMINS_BIT0	GETMAIN MINIMUM REQUEST SIZE
12	(C)	UNSIGNED 1... ..	4	VSWKFSIZ VSWKFSIZ_BIT0	FREEMAIN REQUEST SIZE
16	(10)	ADDRESS	4	VSWKFADR	FREEMAIN REQUEST ADDRESS
16	(10)	UNSIGNED	2	VSWKFA01	High bytes
16	(10)	UNSIGNED	1	VSWKFAD0	High Byte
17	(11)	UNSIGNED	1	VSWKFAD1	Byte 1
20	(14)	CHARACTER	10	VSWKSPTT	SUBPOOL TRANSLATION TABLE ENTRY
30	(1E)	CHARACTER	1	VSWKRFLG2	MORE REQUEST FLAGS

Comment

The following byte is copied from an interface register. Do not use this byte for anything that is not passed from the macro to VSM service routines.

End of Comment

		1... ..		*	Reserved
		.1. ....		VSWKMSPEC	'1'B means that the key was specified on the getmain, freemain or storage macro. This is not used by SVC 4 5,10, SVC 4,5,10 branch entry or SVC 120 branch entry
		..1. ....		VSWKAR15USED	AR15 is used
		...1 ....		VSWKR64	AMODE(,ANY64)
		.... 1...		VSWKCHECKZERO	CHECKZERO=YES was specified on STORAGE OBTAIN or GETMAIN
		.... ..1.		VSWKTCBS	TCBADDR was specified on STORAGE OBTAIN or RELEASE
		.... ..11		VSWKOWNER	Owner information. See VswkOwner_xxxx constants
31	(1F)	CHARACTER	1	VSWKMFLG	MISCELLANEOUS FLAGS
		1... ..		VSWKRCVR	0 => RECOVERY NOT IN PROCESS 1 => RECOVERY IN PROCESS
		.1. ....		VSWKGLSR	IGVGLSQA is ('1'B) or is not ('0'B) being called recursively.
		..1. ....		VSWKNOBK	IGVGLSQA should ('0'B) or should not ('1'B) call RSM to back the the LSQA storage it is being called to obtain.
		...1 ....		VSWK2FRR	Flag: TRUE if IGVVSTOR has put two FRRs onto the stack, FALSE otherwise
		.... 1...		VSWKREQT	0 => NOT AN ELEMENT OR VARIABLE REQUEST 1 => ELEMENT OR VARIABLE REQUEST
		.... ..111		VSWKWEXP	3 bits indicating where IGVGPTA obtained storage by by address from. Used by recovery to back out the request
		.... ..1.		VSWKFFQE	First part of storage requested allocated from an FQE
		.... ..1.		VSWKMFBQ	Middle part of storage requested allocated from an FBQE
		.... ...1		VSWKLFQE	Last part of storage requested allocated from an FQE
32	(20)	CHARACTER	3	VSWKSPKY	SUBPOOL / KEY COMBINATION
32	(20)	SIGNED	2	VSWKEXSP	EXTERNAL SUBPOOL ID
32	(20)	UNSIGNED	1	*	
33	(21)	UNSIGNED	1	VSWKESPL	LOW ORDER BYTE OF SUBPOOL
34	(22)	UNSIGNED	1	VSWKSKEY	KEY OF STORAGE TO BE OBTAINED IS IN BITS 0-3 OF THIS FIELD. SEE IGVVSM31 PROLOG FOR MORE INFORMATION ON HOW THIS KEY IS PROCESSED
34	(22)	BITSTRING 1... ..	1	*	
		..111 1111		VSWKSKEYUSER	User key storage
				*	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
The following byte is copied from an interface register. That is, this byte is passed in a register from the macro to VSM service routines.					
End of Comment					
35	(23)	CHARACTER	1	VSWKRFLG	REQUEST FLAGS
		1... ....		VSWKALET	0 => ALET WAS SPECIFIED 1 => ALET WAS NOT SPECIFIED
		.1. ....		VSWKREAL	0 => BACK BELOW 16M 1 => BACK ANYWHERE < 2G
		.1. ....		VSWKR31	0 => BACK BELOW 16M 1 => BACK ANYWHERE < 2G (Also on when VSWKR64)
		..11 ....		VSWKVIRT	VIRTUAL ALLOCATION FLAGS: 00 => RESIDENCE 01 => BELOW 16M 10 => EXPLICIT (on entry to IGVSMRT) 10 => ABOVE 16M (otherwise) 11 => ANYWHERE
		..1. ....		VSWKVABV	1 => LOCATION ABOVE 16M
		...1 ....		VSWKVBLW	1 => LOCATION BELOW 16M
		.... 1..		VSWKVAR	0 => NON-VARIABLE REQUEST 1 => VARIABLE REQUEST
		.... .1.		VSWKBNDY	0 => DOUBLE WORD BOUNDARY 1 => PAGE BOUNDARY
		.... ..1		VSWKUNCD	0 => CONDITIONAL REQUEST 1 => UNCONDITIONAL REQUEST
		.... ...1		VSWKTYPE	0 => GETMAIN 1 => FREEMAIN
Comment					
Start of area cleared in recovery by IGVRRTR					
End of Comment					
36	(24)	CHARACTER	64	VSWKCNTL	CONTROL INFORMATION
36	(24)	ADDRESS	4	VSWKGADR	ADDRESS OF ALLOCATED AREA
36	(24)	UNSIGNED	2	VSWKGA01	High bytes
36	(24)	UNSIGNED	1	VSWKGAD0	High Byte
37	(25)	UNSIGNED	1	VSWKGAD1	Byte 1
40	(28)	CHARACTER	60	VSWKWOGA	control information without VSWKGADR
40	(28)	UNSIGNED	4	VSWKACTS	SIZE OF ALLOCATED AREA
44	(2C)	UNSIGNED	4	VSWKSIZP	GETMAIN REQUEST SIZE ROUNDED UP TO A MULTIPLE OF 4K
48	(30)	UNSIGNED	1	VSWKRC	INTERNAL RETURN CODE
49	(31)	CHARACTER	1	VSWKPDFL	Protect Detect flags
		1... ....		VSWK_PROTECT	Need Protect processing
		.1. ....		VSWK_DETECT	Need Detect processing
50	(32)	CHARACTER	2	*	RESERVED
52	(34)	ADDRESS	4	VSWKCELA	ADDRESS OF CELL POOL FIELDS IN GDA OR LDA
56	(38)	ADDRESS	4	VSWKQA	ADDRESS OF QUEUE ANCHOR FIELDS IN GDA OR LDA
60	(3C)	ADDRESS	4	VSWKRD	ADDRESS OF RD IN USE
64	(40)	ADDRESS	4	VSWKFBQE	ADDRESS OF FBQE BEING PROCESSED
68	(44)	ADDRESS	4	VSWKSPQE	ADDRESS OF SPQE BEING PROCESSED
72	(48)	ADDRESS	4	VSWKDQE	ADDRESS OF DQE BEING PROCESSED
76	(4C)	ADDRESS	4	VSWKAQTF	ADDRESS OF AQAT TABLE ENTRY FOR AREA BEING PROCESSED
80	(50)	ADDRESS	4	VSWKAQTI	ADDRESS OF AQATINDX ENTRY FOR AREA BEING PROCESSED
84	(54)	ADDRESS	4	VSWKDFE	ADDRESS OF DFE BEING PROCESSED
88	(58)	UNSIGNED	4	VSWKMAXA	GETMAIN MAX SIZE AVAILABLE
92	(5C)	ADDRESS	4	VSWKFRFP	USED TO COMMUNICATE BETWEEN MAINLINE GET AND FREE SERVICE ROUTINES AND FRR ROUTINES
96	(60)	CHARACTER	1	VSWKCFLG	CONTROL FLAGS
		1... ....		VSWKPG	0 => A PAGE HAS NOT FREED UP 1 => A PAGE HAS FREED UP
		.1. ....		VSWKEXPL	Address of area to get was explicitly specified
		..1. ....		VSWKEALL	For recovery - indicates that allocation for an explicit request has commenced
		...1 ....		VSWKALLZERO	Every byte of obtained storage contains X'00'.
		.... 1..		VSWKOWNINFO	1 => VswkOwnAsid and VswkOwnJobname contain valid data
		.... .1.		VSWKNEWPG24	1 => Use a new page if obtaining 24 bit storage
		.... ..1		VSWKNEWPG31	1 => Use a new page if obtaining 31 bit storage
		.... ...1		VSWKDGST	Initialize the obtained storage to a nonzero pattern
97	(61)	UNSIGNED	1	VSWKLOC	LOCATION INDICATOR (See VSWKRLOC, VSWKVLOC)
97	(61)	UNSIGNED	1	VSWKVLOC	VIRTUAL LOCATION INDICATOR 1 => ALLOCATE BELOW 16M 2 => ALLOCATE ABOVE 16M
97	(61)	UNSIGNED	1	VSWKRLOC	REAL LOCATION INDICATOR 1 => Below,Below 2 => Below,Any31 3 => Below,Any64 4 => Above,Any31 5 => Above,Any64 6 => Above,Any64,PageFrameSize1MB
98	(62)	BITSTRING	1	VSWKFRF	Used to communicate between mainline Getmain/Freemain routines and VSM's recovery routines.
		1... ....		VSWK_CSARE_SET	For Recovery. '1'B => GDACSARE has been set. (GDACSARE contains the number of bytes of common storage that remain unallocated.)

# IGVVSMMWK Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.1.. ....		VSWK_CSACV_SET	For Recovery. '1'B => GDACSACV, GDA_CSA_Conv and GDA_ECSCA_Conc has been set. (GDACSACV contains the number of bytes of CSA that have been converted to SQA.)
		..1. ....		VSWK_ALLOCSET	For Recovery. '1'B => VSM has already set GDA_xxxx_Alloc. (xxxx = CSA or ECSA or SQA or ESQA.)
		...1 ....		VSWKEXTRACKERCODE	For Recovery. '1'B => VSM is "Executing CSA Tracker Code". Recovery takes special actions when a failure occurs in this code.
		.... 11..		*	Reserved.
		.... ..1.		VSWKDEFERRELA	For Recovery. '1'B => VSM has detected a deferred release condition that involves an "Associated" page.
		.... ...1		VSWKDEFERREL	For Recovery. '1'B => VSM has detected a deferred release condition that involves an fixed page.

## Comment

VSWKTracking bits are copied from the GDA at the start of every SQA/CSA Getmain/Freemain. We copy these bits to the VSWK so we will be insulated from changes to the state of tracking. This insures, for example, that no Getmain will ever see Tracking flip from on to off while it is in the middle of manipulating Tracking-related data structures.

## End of Comment

99	(63)	BITSTRING 1111 ....	1	VSWKTRACKING	Indicates if on or off. Must be mapped same as GDAFLGS
		.... 1...		*	Reserved DO NOT USE
		.... .1..		VSWKCSATRACKING	Reserved DO NOT USE
		.... ..11		VSWKSQATRACKING	
				*	
100	(64)	CHARACTER	12	VSWKRQS2	Request information
100	(64)	ADDRESS	4	VSWK@PTR	Pointer to the target address space
104	(68)	CHARACTER	2	VSWK45TR	Trace data for SVC 4 and 5
104	(68)	BITSTRING	1	VSWK45FL	SVC 4 and 5 request flags
105	(69)	UNSIGNED	1	VSWK45SP	SVC 4 and 5 subpool id
106	(6A)	CHARACTER	2	*	Reserved
108	(6C)	UNSIGNED	4	VSWKPKMSASN	PKM and SASN
108	(6C)	BITSTRING	2	VSWKPKM	Caller's PKM, used in checking user-supplied key
110	(6E)	UNSIGNED	2	VSWKSASN	Secondary address space. This is used when OWNER=SECONDARY is specified for a common-area GETMAIN or STORAGE OBTAIN.
112	(70)	SIGNED	4	VSWKCSIZ	Size of CELL
116	(74)	ADDRESS	4	VSWKRETA	Return address of caller for any GETMAIN or STORAGE OBTAIN for common storage
116	(74)	BITSTRING	1	VSWKRETAHIGHBYTE	High order byte of VswkRetA
120	(78)	SIGNED	4	VSWKPAGENUM	Number of pages backed by a common area Getmain. (Can be negative.) (Mainline communicates with recovery thru this field.)
124	(7C)	ADDRESS	4	VSWKVSTORVSERRPTR	Address of a storage area where IGVVSTOR puts data which IGVVSERR uses for SSRV PTRACE entries
128	(80)	CHARACTER	8	VSWKOWNJOBNAME	Owning jobname for a common storage request if VswkOwnInfo is 1
136	(88)	UNSIGNED	2	VSWKOWNASID	Owning Asid for a common storage request if VswkOwnInfo is 1
138	(8A)	BITSTRING	1	VSWKMFLG2	
		1... ....		VSWKA31	Caller is Amode(31)
		.1.. ....		VSWKA64	Caller is Amode(64)
		..1. ....		VSWKABENDANTICIPATED	Mainline sets this to tell IGVRVSM that an abend is anticipated
		...1 ....		VSWKANTICIPATEDABENDOCURRED	IGVRVSM sets this to tell mainline that an anticipated abend occurred
		.... 1...		VSWKDETECTSUFFIXISVALID	VswkDetectSuffix contains value to be used for setting suffix
		.... .1..		VSWKLARGEPAGEOBTAINED	Large Page Frames Obtained to satisfy Obtain Request
		.... ..1.		VSWKLARGEPAGE4KFREE	4K Free being done for a large page DQE
		.... ...1		*	Reserved
139	(8B)	CHARACTER	1	*	Reserved
140	(8C)	UNSIGNED	4	VSWKAR15VALUE	AR15 on entry to GM/ST
140	(8C)	CHARACTER	1	VSWKAR15FLAGSEXT	Extended Flags



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		1... ....		*	Reserved for Future Extensions
		.1.. ....		VSWKPAGEFRAMESIZE1MB	PageFrameSize1MB Specified
		..11 1111		*	Reserved for Future Extensions
141	(8D)	UNSIGNED	1	VSWKCBDY	Containing Boundary
142	(8E)	UNSIGNED	1	VSWKSBDY	Start Boundary
143	(8F)	BITSTRING	1	VSWKAR15FLAGS	Flags
		1... ....		VSWKCAUBADDRSPACE	Caub(AddrSpace) specified
		.1.. ....		VSWKOWNERASIDSPECIFIED	OwnerAsid specified
		..11 ....		VSWKFIX	
		.... 11..		VSWKBACK	
		.... 1... ..		*	
		.... .1.. ..		VSWKBACKNONESPECIFIED	
		.... ..1..		VSWKCBDYSPECIFIED	
		.... ...1		VSWKSBDYSPECIFIED	
144	(90)	ADDRESS	4	VSWKRETADDRHIGH	High order half of the return address in VSWKRETA
148	(94)	ADDRESS	4	VSWKDETECTSUFFIXGQE@	Address of GQE in which suffix must be set
152	(98)	CHARACTER	8	VSWKDETECTSUFFIX	Suffix to use
160	(A0)	UNSIGNED	4	VSWKAR1VALUE	AR1 on entry to GM/ST
160	(A0)	CHARACTER	2	*	Reserved
162	(A2)	UNSIGNED	2	VSWKOWNERASID	OwnerAsid
164	(A4)	ADDRESS	4	VSWKLARGEPAGEDQEPTR	Large Page DQE Address
168	(A8)	SIGNED	4	VSWKINITIALMAXS	Value of VSWKMAXS before accounting for protect/detect
172	(AC)	ADDRESS	4	VSWKANTICIPATEDABENDRETRYADDR	Retry address for an anticipated abend
176	(B0)	SIGNED	4	VSWKINITIALFSIZ	Value of VswkFSiz before accounting for protect/detect
180	(B4)	ADDRESS	4	VSWKLARGEPAGE4KFQEQ	Address of Queue of FQEs that represent freed 4K pages within large page DQE that require a call to RSM for cleanup
184	(B8)	CHARACTER	8	*	Reserved
192	(C0)	CHARACTER	0	*	END OF VSWKCOMM

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	24	VSWKQANC	MAP OF QUEUE ANCHORS IN GDA OR LDA
0	(0)	ADDRESS	4	VSWKSQAT	ADDRESS OF SQAT IN USE
4	(4)	ADDRESS	4	VSWKAQAT	ADDRESS OF AQAT FOR SUBPOOL BEING PROCESSED
8	(8)	CHARACTER	16	VSWKDFEQ	DFE QUEUE HEADER IN USE
8	(8)	ADDRESS	4	VSWKADF	HEAD OF DFE ADDR QUEUE IN USE
12	(C)	ADDRESS	4	VSWKADL	TAIL OF DFE ADDR QUEUE IN USE
16	(10)	ADDRESS	4	VSWKSZF	HEAD OF DFE SIZE QUEUE IN USE
20	(14)	ADDRESS	4	VSWKSZL	TAIL OF DFE SIZE QUEUE IN USE

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	12	VSMCPANC	MAP OF CELL POOL ANCHORS IN LDA OR GDA
0	(0)	ADDRESS	4	VSMCPADR	ADDRESS OF VSM'S CELL POOL
4	(4)	SIGNED	4	VSMCPCNT	NUMBER OF FREE CELLS IN VSM'S CELL POOL
8	(8)	ADDRESS	4	VSMFCADR	ADDRESS OF FIRST FREE CELL IN VSM'S CELL POOL

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	VSWKPOOL	VSM CELL POOL BLOCK
0	(0)	CHARACTER	16	VSWKHDR	VSM CELL POOL HEADER
0	(0)	CHARACTER	4	VSWKPID	CONTROL BLOCK IDENTIFIER
4	(4)	ADDRESS	4	VSWKPNXT	ADDRESS OF THE NEXT CELL POOL BLOCK
8	(8)	SIGNED	4	VSWKPSZ	SIZE OF CELL POOL BLOCK
12	(C)	SIGNED	4	VSWKPNUM	NUMBER OF THE EXTENT

## IGVVSMWK Constants

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
16	(10)	CHARACTER	*	VSWKPCEL	AREA FOR CELLS

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	24	VSWKCELL	VSM CELL (SQA OR LSQA)
0	(0)	ADDRESS	4	VSWKCNXT	ADDRESS OF NEXT ELEMENT ON THE FREE CELL ON THE STACK

## IGVVSMWK Constants

Len	Type	Value	Name	Description
-----	------	-------	------	-------------

Comment

The constants below give the minimum number of free cells that must exist in each internal VSM cellpool in order to guarantee that no Getmain or Freemain or Storage request will exhaust the pool. NOTE: SQA-GQEs and global cells are consumed when the global cellpool is replenished, and when the SQA-GQE cellpool is replenished. The minimum numbers reflect the cost of this replenishment.

End of Comment

4	DECIMAL	10	VSWKCELLSPERGM	Max number of global cells needed to Get or Free storage. Increased to 9 because of contbdy/startbdy processing that could result in an extra FBQE. Increased to 10 because we get two SPQAs whenever we get an SPQA instead of one. The max ASSUMES NO REPLENISHMENT IS NECESSARY.
4	DECIMAL	1	VSWKGQECCELLSPERGM	Max number of GQE cells needed Get or Free storage, ASSUMING NO REPLENISHMENT IS NECESSARY.
4	DECIMAL	60	VSWKCMIN	Min cells in global pool. Worst case is when all pools need to be replenished. Replenishment of any pool does an "internal" getmain, which needs global cells Getmain proper needs cells
4	DECIMAL	6	VSWKGMIN	Min cells in SQA-GQE pool. Worst case is when all pools need to be replenished. Replenishment of any pool does an "internal" getmain, which needs GQEs. Getmain proper needs cells
4	DECIMAL	1	VSWKCMCA	MINIMUM NUMBER OF CELLS for CAUB
4	DECIMAL	1	VSWKCMVA	MINIMUM NUMBER OF CELLS for VAB

Comment

One way to get a cell from a global internal VSM cellpool is to issue Getmain (P) SP(cellid). The "cellid" is one of the constants below, and identifies the particular type of cell desired.

End of Comment

4	DECIMAL	0	VSWKCVAB	VAB subpool constant for GETMAIN TYPE(P)
4	DECIMAL	1	VSWKCCAUB	CAUB subpool constant for GETMAIN TYPE(P)
4	DECIMAL	2	VSWKCCSAGQE	CSA GQE subpool constant for GETMAIN TYPE(P)
4	DECIMAL	3	VSWKCSQAGQE	SQA GQE subpool constant for GETMAIN TYPE(P)
4	DECIMAL	245	@NM00021	"General use" global cellpool subpool constant GETMAIN TYPE(P)
4	DECIMAL	5	VSWKNUMGLOBALPOOLS	Number of global internal VSM cellpools. If you add a new cellpool or delete an old one you must update this constant.
0	BIT	0	VSWKRBLW	VSWKREAL IS BELOW 16M
0	BIT	1	VSWKRANY	VSWKREAL IS ANYWHERE
0	BIT	00	VSWKRES	VSWKVIRT IS RESIDENCE
0	BIT	01	VSWKBLW	VSWKVIRT IS BELOW 16M
0	BIT	10	VSWKABV	VSWKVIRT IS ABOVE 16M
0	BIT	10	VSWKEXP	EXPLICIT GETMAIN REQUEST
0	BIT	11	VSWKANY	VSWKVIRT IS ANYWHERE
0	BIT	1	VSWKL16M	VSWKVBLW IS BELOW 16M
0	BIT	1	VSWKG16M	VSWKVABV IS ABOVE 16M
0	BIT	1	VSWKVBL	VSWKVAR IS VARIABLE
0	BIT	0	VSWKELEM	VSWKVAR IS ELEMENT
0	BIT	0	VSWKDWRD	VSWKBNDY IS DOUBLE WORD
0	BIT	1	VSWKPAGE	VSWKBNDY IS PAGE
0	BIT	1	VSWKCOND	VSWKUNCD IS CONDITIONAL

Len	Type	Value	Name	Description
0	BIT	1	VSWKNOCD	VSWKUNCD IS UNCONDITIONAL
0	BIT	0	VSWKGET	VSWKTYPE IS GETMAIN
0	BIT	1	VSWKFREE	VSWKTYPE IS FREEMAIN
0	BIT	00	VSWKOWNER_HOME	
0	BIT	01	VSWKOWNER_PRIMARY	
0	BIT	10	VSWKOWNER_SECONDARY	
0	BIT	11	VSWKOWNER_SYSTEM	
4	DECIMAL	4096	VSWKPROTECTAREASIZE	This must be a power of 2 due to code expansions that use it for "rounding up". If this changes, also change VswkProtectAreaLog.
4	DECIMAL	12	VSWKPROTECTAREALOG	The log-base-2 of the protect area size.
4	DECIMAL	8	VSWKDETECTSUFFIXSIZE	
4	DECIMAL	112	VSWKBADSUFFIXREASON	Reason code for B78 abend when corrupted suffix is detected
0	BIT	00	VSWKBACKBYSPT	Back according to the subpool table
0	BIT	10	VSWKBACKALL	Back all pages
0	BIT	01	VSWKBACKNONE	Back no pages
0	BIT	11	VSWKBACKRESV	Reserved
0	BIT	00	VSWKFIXNO	No fix
0	BIT	01	VSWKFIXSHORT	Short term fix
0	BIT	10	VSWKFIXLONG	Long term fix
0	BIT	11	VSWKFIXRESV	Reserved

IGVSMWK Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
VSMCPADR	0			8F	80
VSMCPANC	0		VSWKCBDY	8D	
VSMPCNT	4		VSWKCBYSPECIFIED		
VSMFCADR	8			8F	02
VSWK	0		VSWKCELA	34	
VSWK_ALLOCSET			VSWKCELL	0	
	62	20	VSWKCFLG	60	
VSWK_CSACV_SET			VSWKCHECKZERO		
	62	40		1E	08
VSWK_CSARE_SET			VSWKCKEY	62	
	62	80	VSWKCNTL	24	
VSWK_DETECT	31	40	VSWKCNXT	0	
VSWK_PROTECT	31	80	VSWKCOMA	80	
VSWK@PTR	64		VSWKCOMM	0	
VSWKABENDANTICIPATED			VSWKCOMS	0	
	8A	20	VSWKCSATRACKING		
VSWKACDE	5C			63	08
VSWKACTS	28		VSWKCSIZ	70	
VSWKADF	8		VSWKDEFERREL	62	01
VSWKADL	C		VSWKDEFERRELA		
VSWKALET	23	80		62	02
VSWKALLZERO	60	10	VSWKDETECTSUFFIX		
VSWKALST	70			98	
VSWKANTICIPATEDABENDOCCURRED			VSWKDETECTSUFFIXGQE@		
	8A	10		94	
VSWKANTICIPATEDABENDRETRYADDR			VSWKDETECTSUFFIXISVALID		
	AC			8A	08
VSWKAQAT	4		VSWKDFE	54	
VSWKAQTF	4C		VSWKDFEQ	8	
VSWKAQTI	50		VSWKDGET	60	01
VSWKARSN	5E		VSWKDQE	48	
VSWKAR1VALUE	A0		VSWKEALL	60	20
VSWKAR15FLAGS			VSWKELST	6C	
	8F		VSWKENT	61	40
VSWKAR15FLAGSEXT			VSWKESPL	21	
	8C		VSWKEXPL	60	40
VSWKAR15USED	1E	20	VSWKEXSP	20	
VSWKAR15VALUE			VSWKEXTRACKERCODE		
	8C			62	10
VSWKA31	8A	80	VSWKEXTS	8	
VSWKA64	8A	40	VSWKFADR	10	
VSWKBACK	8F	0C	VSWKFAD0	10	
VSWKBACKNONESPECIFIED			VSWKFAD1	11	
	8F	04	VSWKFA01	10	
VSWKBNDY	23	04	VSWKFBQE	40	
VSWKCAUBADDRSPACE			VSWKFFQE	1F	04

# IGVSMWK Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
VSWKFIX	8F	30	VSWKPOOL	0	
VSWKFLGS	63		VSWKPROC	60	
VSWKFRR	62		VSWKPSZ	8	
VSWKFRRP	5C		VSWKQA	38	
VSWKFSIZ	C		VSWKQANC	0	
VSWKFSIZ_BIT0			VSWKRC	30	
	C	80	VSWKRCML	61	08
VSWKFSP	61	01	VSWKRCPU	63	10
VSWKGADR	24		VSWKRCUR	61	02
VSWKGAD0	24		VSWKRCVR	1F	80
VSWKGAD1	25		VSWKRCWK	78	
VSWKGA01	24		VSWKRD	3C	
VSWKGDA	50		VSWKREAL	23	40
VSWKGLBL	61	20	VSWKREQT	1F	08
VSWKGLSR	1F	40	VSWKRETA	74	
VSWKHDR	0		VSWKRETADDRHIGH		
VSWKID	0			90	
VSWKINITIALFSIZ			VSWKRETAHIGHBYTE		
	B0			74	
VSWKINITIALMAXS			VSWKRFIX	61	80
	A8		VSWKRFLG	23	
VSWKKEY	62	F0	VSWKRFLG2	1E	
VSWKKEY8	62	80	VSWKRFRR	63	20
VSWKLARGEPAGEDQEPT			VSWKRLOC	61	
	A4		VSWKRPAG	61	10
VSWKLARGEPAGESOBTAINED			VSWKRQST	4	
	8A	04	VSWKRQS2	64	
VSWKLARGEPAGE4KFQE			VSWKRSET	63	40
	B4		VSWKR31	23	40
VSWKLARGEPAGE4KFREE			VSWKR64	1E	10
	8A	02	VSWKSADR	4	
VSWKLDA	54		VSWKSASN	6E	
VSWKLFQE	1F	01	VSWKSAVE	7C	
VSWKLIST	74		VSWKSBDY	8E	
VSWKLLST	68		VSWKSBDYSPECIFIED		
VSWKLOC	61			8F	01
VSWKLST	61	04	VSWKSIZP	2C	
VSWKMAIN	8		VSWKSKEY	22	
VSWKMAXA	58		VSWKSKEYUSER	22	80
VSWKMAXS	4		VSWKSPKY	20	
VSWKMAXS_BIT0			VSWKSPQE	44	
	4	80	VSWKSPTT	14	
VSWKMFBQ	1F	02	VSWKSQAT	0	
VSWKMFLG	1F		VSWKSQATRACKING		
VSWKMFLG2	8A			63	04
VSWKMINS	8		VSWKSTAT	62	01
VSWKMINS_BIT0			VSWKSTCK	140	
	8	80	VSWKSTOR	63	80
VSWKMKEY	5F		VSWKSVC	60	
VSWKMSPEC	1E	40	VSWKSZF	10	
VSWKNEWPG24	60	04	VSWKSZL	14	
VSWKNEWPG31	60	02	VSWKTCB	58	
VSWKNOBK	1F	20	VSWKTCBS	1E	04
VSWKOWNASID	88		VSWKTOP	64	
VSWKOWNER	1E	03	VSWKTRACKING	63	
VSWKOWNERASID			VSWKTYPE	23	01
	A2		VSWKUNCD	23	02
VSWKOWNERASIDSPECIFIED			VSWKUNUSABLE	63	08
	8F	40	VSWKVABV	23	20
VSWKOWNINFO	60	08	VSWKVAR	23	08
VSWKOWNJOBNAME			VSWKVBLW	23	10
	80		VSWKVIRT	23	30
VSWKPAGEFRAMESIZE1MB			VSWKVLOC	61	
	8C	40	VSWKVSTORVSERRPTR		
VSWKPAGENUM	78			7C	
VSWKPCEL	10		VSWKWEXP	1F	07
VSWKPDFL	31		VSWKWOGA	28	
VSWKPFLG	61		VSWK2FRR	1F	10
VSWKPG	60	80	VSWK45FL	68	
VSWKPID	0		VSWK45SP	69	
VSWKPKM	6C		VSWK45TR	68	
VSWKPKMSASN	6C				
VSWKPNUM	C				
VSWKPNXT	4				

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## IHAARB Information

### IHAARB Programming Interface information

Programming Interface information

IHAARB

End of Programming Interface information

## IHAARB Heading Information • IHAARB Map

### IHAARB Heading Information

**Common Name:** Associated Request Block Mapping  
**Macro ID:** IHAARB  
**DSECT Name:** ARB  
**Owning Component:** SVC Dump (SCDMP)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** 4096 bytes  
**Created by:** N/A  
**Pointed to by:** User  
**Serialization:** None required  
**Function:** Provides a map for the dumping Associated Request Block  
 The associated request block is a list of all of the ranges of objects that were validly requested to be dumped. It is created based on what is specified in the STRLIST and placed in the dump header (IHADWHDR) when the dump is taken and written to the dump data set.

### IHAARB Map

Offsets		Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ARB	, Associated Request Block (ARB)
0	(0)	CHARACTER	16	ARB_RANGEENTRY (0)	Array of range entries in the ARB. The maximum number of range entries that can be specified in the ARB is 256,. To find how many actual ranges are in the ARB, look at the field DWHDRDUMPLISTLEN found in the dump header. The dump header is mapped by IHADWHDR
0	(0)	CHARACTER	16	ARB_RANGE (0)	A single range ...
0	(0)	BITSTRING	2	ARB_OBJECTTYPE	Dump Object Type

Comment

The following field only apply if the ARB-OBJECT Type is equal to either KARB\_Castout\_Type, KARB\_StorClass\_Type, or KARB\_ListNum\_Type

End of Comment

2	(2)	CHARACTER	1	ARB_RANGEFLAGS (0)	Reserved
		1... ....		ARB_INCLUDEADJ	"X'80" Adjunct inclusion - 0 => Indicates that adjunct data was not requested to be dumped 1 => Indicates that adjunct data was requested to be dumped NOTE: If on, see the ARB_AdjDirect bit to see how the adjunct data was dumped
		.1.. ....		ARB_SUMMARY	"X'40" Summary indicator 0 => Indicates that the the entries will be dumped for this object SUMMARY=NO 1 => Indicates that no entries will be dumped for this object SUMMARY=YES
3	(3)	CHARACTER	1	ARB_RANGEINFO (0)	Range Information
		1... ....		ARB_EDATAREQ	"X'80" Entry data requested flag 0 => EDATA=NO - Indicates that entry data associated with data entries should not be dumped 1 => EDATA=SERIALIZED  UNSERIALIZED - Indicates that entry data associated with data entries should be dumped NOTE: if this bit is set on, check the ARB_EDataSer to see if the entry data was dumped serialized or unserialized
		.1.. ....		ARB_EDATASER	"X'40" Entry Data serialized flag 0 => EDATA=UNSERIALIZED - Indicates that the entry data is to be dumped without dump serialization being held on the structure 1 =>EDATA=SERIALIZED - Indicates that the entry data is to be dumped with dump serialization on the structure NOTE: Only valid if ARB_EDataReq is set to on
		..1. ....		ARB_ADJDIRECT	"X'20" ADJUNCT=DIRECTIO bit - 0 => Indicates that the adjunct data was captured and dumped with the entry controls (ADJUNCT=CAPTURE) 1 => Indicates that the adjunct data was written directly to the dump data set from the structure ADJUNCT=DIRECTIO NOTE: Valid only if the ARB_IncludeAdj bit is on
4	(4)	CHARACTER	4		Reserved
8	(8)	SIGNED	4	ARB_RANGESTART	Start of Range
12	(C)	SIGNED	4	ARB_RANGEEND	End of Range

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
Constants for the Dumping Object Type					
End of Comment					
12	(C)	BITSTRING	0	KARB_LOCKTABLE_TYPE	"X'0301" Lock table
12	(C)	BITSTRING	0	KARB_LISTNUM_TYPE	"X'0302" List Number
12	(C)	BITSTRING	0	KARB_USERCNTLS_TYPE	"X'0303" List User Controls
12	(C)	BITSTRING	0	KARB EMCNTL_TYPE	"X'0304" Event Monitor Control
12	(C)	BITSTRING	0	KARB_EVENTQ_TYPE	"X'0305" Event Queue
12	(C)	BITSTRING	0	KARB_STORCLASS_TYPE	"X'0401" Storage class
12	(C)	BITSTRING	0	KARB_CASTOUT_TYPE	"X'0402" Castout class
12	(C)	BITSTRING	0	KARB_LCCNTLS_TYPE	"X'0403" Local cache Controls
4096	(1000)	X'1000'	0	ARB_LEN	"*-ARB"

### IHAARB Cross Reference

Name	Hex Offset	Hex Value
ARB	0	
ARB_ADJDIRECT	3	20
ARB_EDATAREQ	3	80
ARB_EDATASER	3	40
ARB_INCLUDEADJ	2	80
ARB_LEN	1000	1000
ARB_OBJECTTYPE	0	
ARB_RANGE	0	
ARB_RANGEEND	C	
ARB_RANGEENTRY	0	
ARB_RANGEFLAGS	2	
ARB_RANGEINFO	3	
ARB_RANGESTART	8	
ARB_SUMMARY	2	40
KARB_CASTOUT_TYPE	C	402
KARB EMCNTL_TYPE	C	304
KARB_EVENTQ_TYPE	C	305
KARB_LCCNTLS_TYPE	C	403
KARB_LISTNUM_TYPE	C	302
KARB_LOCKTABLE_TYPE	C	301
KARB_STORCLASS_TYPE	C	401
KARB_USERCNTLS_TYPE	C	303





# IHAASTE1 Information

## IHAASTE1 Heading Information

**Common Name:** ADDRESS SPACE SECOND TABLE ENTRY (ASTE)  
**Macro ID:** IHAASTE1  
**DSECT Name:** ASTE1  
**Owning Component:** SUPERVISOR CONTROL (SC1C5)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: 245  
 Key: 0  
**Size:** 64 BYTES. THERE IS ONE ASTE PER ADDRESS SPACE.  
**Created by:** IEAVNP09  
 (SUBPOOL 245 - COMMON SQA/ESQA)  
**Pointed to by:** ASCBASTE (VIRTUAL ADDRESS)  
**Serialization:** FIELDS ARE SERIALIZED BY THE PC/AUTH ADDRESS SPACE LOCAL LOCK AND BY COMPARE AND SWAP.  
**Function:** MAPS THE ASTE. THE ASTE CONTAINS THE REAL ADDRESS AND LENGTH OF THE LT, THE REAL ADDRESS AND LENGTH OF THE AT, AND OTHER ADDRESS SPACE ORIENTED CROSS MEMORY INFORMATION.

## IHAASTE1 Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	64	ASTE1	ADDRESS SPACE SECOND TABLE ENTRY.
0	(0)	ADDRESS	4	ASTE1ATO	AUTHORIZATION TABLE ORIGIN. CONTAINS REAL ADDRESS OF THE AT FOR THIS ADDRESS SPACE. BITS 1-29 OF ASTE1ATO, WITH TWO LOW ORDER ZEROS APPENDED, FORM THE AUTHORIZATION TABLE REAL ADDRESS. SERIALIZED BY THE PC/AUTH ADDRESS SPACE LOCAL LOCK AND CS
		1... ....		ASTE1ICMA	INVALID CROSS MEMORY ACCESS INDICATOR. IF 1, THE ADDRESS SPACE ASSOCIATED WITH THIS ASTE1 IS NOT AVAILABLE FOR CROSS MEMORY FUNCTIONS.
4	(4)	UNSIGNED	2	ASTE1AX	AUTHORIZATION INDEX. SERIALIZED BY THE PC/AUTH ADDRESS SPACE LOCAL LOCK.
6	(6)	UNSIGNED	2	ASTE1ATL	AUTHORIZATION TABLE LENGTH. BITS 0-11 CONTAIN THE NUMBER OF WORDS, MINUS ONE, IN THE AT. BITS 12-13 ARE ZERO. BITS 14-15 ARE INDICATORS. SERIALIZED BY THE PC/AUTH ADDRESS SPACE LOCAL LOCK.
6	(6)	BITSTRING	1	ASTE1ATL0	
7	(7)	BITSTRING	1	ASTE1ATL1	
		1111 ....		*	
		.... 11..		ASTE1RV01	RESERVED BITS - ZERO
		.... ..1.		ASTE1CA	CONTROLLED ASID
		.... ...1		ASTE1RA	REUSABLE ASID
8	(8)	BITSTRING	8	ASTE1ASCE	SEGMENT/REGION TABLE DESCRIPTOR AND LENGTH IN FORMAT OF CRS 1 AND 7. SERIALIZED BY CS.
8	(8)	CHARACTER	8	ASTE1TA	TABLE ADDRESS. 0-51 OF THE ASCE, WITH 12 ZEROS APPENDED, FORM THE 64 BIT REAL ADDRESS OF THE SEGMENT/REGION TABLE.
8	(8)	BITSTRING	6	*	BYTES 0-5 OF THE ASCE
14	(E)	BITSTRING	1	ASTE1TFL	TABLE FLAGS
		1111 ....		*	PART OF REAL ADDRESS
		.... 11..		ASTE1ASCEBITS52AND53	
		.... ..1.		ASTE1SUBSP	ASCE.52/53
		.... ...1		ASTE1PVT	SUBSPACE-GROUP CONTROL (ONLY IN PSTD AND SSTD)
15	(F)	BITSTRING	1	ASTE1TL	PRIVATE-SPACE CONTROL
		1... ....		ASTE1SAEM	TABLE LENGTH (IN BITS 62-63), MINUS ONE, IN UNITS OF 4096 BYTES. STORAGE ALTERATION EVENT MASK. IF ON, A STORAGE ALTERATION PER EVENT CAN OCCUR WITHIN THE DESIGNATED SPACE. SERIALIZED BY COMPARE AND SWAP.
		.1.. ....		ASTE1SSEM	SPACE SWITCH EVENT MASK. IF 1, A PROGRAM INTERRUPT WILL BE PRESENTED ON COMPLETION OF A PC OR PT THAT CAUSES A SPACE SWITCH. SERIALIZED BY COMPARE AND SWAP.
		..1. ....		ASTE1REAL	REAL-SPACE CONTROL
		...1 ....		*	UNUSED
		.... 11..		ASTE1DTYPE	DESIGNATION TYPE SEE CONSTANT ASTE1DTYPE_XXX. '00' = SEGMENT TABLE '01' = REGION 3RD TABLE '10' = REGION 2ND TABLE '11' = REGION 1ST TABLE. NOT USED WHEN REAL-SPACE
		.... ..11		ASTE1TLEN	TABLE LENGTH. NOT USED WHEN REAL-SPACE

## IHAASTE1 Constants

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
16	(10)	ADDRESS	4	ASTE1PALD	PASN ACCESS LIST DESIGNATOR. BITS 1-24 WITH SEVEN ZEROES APPENDED ON THE RIGHT FORM THE 31-BIT REAL ADDRESS OF THE PASN ACCESS LIST. BITS 25-31 REPRESENT THE NUMBER OF 128 BYTE ACCESS LISTS, MINUS ONE.
20	(14)	UNSIGNED	4	ASTE1SQN	ASTE1 SEQUENCE NUMBER. (UNSIGNED)
24	(18)	CHARACTER	4	*	
24	(18)	ADDRESS	4	ASTE1LTD	LINKAGE TABLE DESIGNATOR. BITS 1-24, WITH SEVEN LOW ORDER ZEROS APPENDED, FORM THE LINKAGE TABLE REAL ADDRESS. BITS 25-31 CONTAIN THE NUMBER OF 128 BYTE EXTENTS, MINUS ONE, IN THE LINKAGE TABLE. SERIALIZED BY THE PC/AUTH ADDRESS SPACE LOCAL LOCK.
		1... ....		ASTE1LTV	LINKAGE TABLE VALID FLAG. IF 1, LT IS VALID, IF 0, LT IS INVALID.
24	(18)	ADDRESS	4	ASTE1LFTD	LINKAGE FIRST TABLE DESIGNATOR. BITS 1-23, WITH EIGHT LOW ORDER ZEROS APPENDED, FORM THE LINKAGE FIRST TABLE REAL ADDRESS. BITS 24-31 CONTAIN THE NUMBER OF 256 BYTE EXTENTS, MINUS ONE, IN THE LINKAGE FIRST TABLE. SERIALIZED BY THE PC/AUTH ADDRESS SPACE LOCAL LOCK.
		1... ....		ASTE1LFTV	LINKAGE FIRST TABLE VALID FLAG. IF 1, LFT IS VALID, IF 0, LFT IS INVALID.
28	(1C)	ADDRESS	4	ASTE1PROG	ASTE1 PROGRAMMING WORD IF ADDRESS SPACE - CONTAINS ASCB ADDRESS.
		1111 ....		ASTE1TYPE	ASTE1PROG TYPE INFORMATION: '0000'B - ADDRESS SPACE ASTE1 '1000'B - DATA SPACE ASTE1 '0100'B - SUBSPACE ASTE1
32	(20)	CHARACTER	12	ASTE1R020	RESERVED
44	(2C)	UNSIGNED	4	ASTE1IIN	INSTANCE NUMBER
48	(30)	CHARACTER	16	ASTE1R030	RESERVED
64	(40)	CHARACTER	0	ASTE1END	END OF ASTE1.

## IHAASTE1 Constants

Len	Type	Value	Name	Description
Comment				
CONSTANTS FOR ASTE1DTYPE				
End of Comment				
0	BIT	00	ASTE1DTYPE_ST	SEGMENT TABLE
0	BIT	01	ASTE1DTYPE_R3T	REGION 3RD TABLE
0	BIT	10	ASTE1DTYPE_R2T	REGION 2ND TABLE
0	BIT	11	ASTE1DTYPE_R1T	REGION 1ST TABLE
Comment				
CONSTANTS FOR ASTE1TYPE				
End of Comment				
0	BIT	1000	ASTE1DS	DATA SPACE ASTE1
0	BIT	0100	ASTE1SS	SUBSPACE ASTE1
0	BIT	0000	ASTE1AS	ADDRESS SPACE ASTE1
Comment				
Constants for ASTE1ATL				
End of Comment				
2	HEX	FFF0	ASTE1ATLMASK	Mask for obtaining ATL*16 from ASTE1ATL
2	HEX	0001	ASTE1ATLNONATLMASK	Mask for obtaining non-ATL bits used by MVS from ASTE1ATL

## IHAASTE1 Cross Reference

Name	Hex Offset	Hex Value
ASTE1	0	
ASTE1ASCE	8	
ASTE1ASCEBITS52AND53	E	0C
ASTE1ATL	6	
ASTE1ATL0	6	
ASTE1ATL1	7	
ASTE1ATO	0	
ASTE1AX	4	
ASTE1CA	7	02
ASTE1DTYPE	F	0C
ASTE1END	40	
ASTE1ICMA	0	80
ASTE1IN	2C	
ASTE1LFTD	18	
ASTE1LFTV	18	80
ASTE1LTD	18	
ASTE1LTV	18	80
ASTE1PALD	10	
ASTE1PROG	1C	
ASTE1PVT	E	01
ASTE1RA	7	01
ASTE1REAL	F	20
ASTE1RV01	7	0C
ASTE1R020	20	
ASTE1R030	30	
ASTE1SAEM	F	80
ASTE1SQN	14	
ASTE1SSEM	F	40
ASTE1SUBSP	E	02
ASTE1TA	8	
ASTE1TFL	E	
ASTE1TL	F	
ASTE1TLEN	F	03
ASTE1TYPE	1C	F0



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## IHACDR Information

### IHACDR Programming Interface information

Programming Interface information

IHACDR

End of Programming Interface information

## IHACDR Heading Information • IHACDR Map

### IHACDR Heading Information

**Common Name:** Configuration Data Record  
**Macro ID:** IHACDR  
**DSECT Name:** CDR, NED, GNEQ, SNEQ  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** none  
**Storage Attributes:** Subpool: caller-provided  
 Key: caller-provided  
 Residency: caller-provided  
**Size:** Variable  
 CDR -- X'0020' bytes  
           byte records.  
 GNEQ -- X'0020' bytes  
 SNEQ -- X'0020' bytes  
 NED -- X'0020' bytes  
**Created by:** issuer of IOSCDR service  
**Pointed to by:** User defined  
**Serialization:** N/A  
**Function:** IHACDR maps the configuration data record (CDR), which is returned by the read configuration data (RCD) command. A CDR consists of a variable number of 32-byte fields. Each 32-byte field is identified in the first 2 bits (field identifier) as one of four types: unused, a general node element qualifier (GNEQ), a specific node element qualifier (SNEQ), or a node element descriptor (NED). After the field identifier, the contents of the rest of the 32-byte field depends on the type. If the 32-byte field is a GNEQ, it is mapped by the GNEQ structure included in IHACDR. If the 32-byte field is an SNEQ, it is mapped by the SNEQ structure included in IHACDR. If the 32-byte field is an NED, it is mapped by the NED structure included in IHACDR. Unused fields have no mapping.  
 The GNEQ is required and is the last 32-byte field in a CDR. The GNEQ contains information that applies to all of the node elements in a CDR.  
 An SNEQ or set of contiguous SNEQs contain information regarding the node element described by the immediately preceding NED in the CDR. SNEQs are optional.  
 An NED is a required 32-byte field in a CDR. There may be more than 1 NED in a CDR. The NED contains information that uniquely identifies a node element.

### IHACDR Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CDR	Configuration data record
0	(0)	CHARACTER	32	CDRFIELD (0)	A CDR consists of a variable number of 32-byte fields
0	(0)	CHARACTER	32	CDRFINFO (0)	CDR field information
0	(0)	CHARACTER	1	CDRFLAGS (0)	Byte 0
		11.. ....		CDRFLDID	"X'CO" Field identifier - identifies the contents of the 32-byte field. The content of the remaining fields of this structure depend on the field identifier.
1	(1)	CHARACTER	31		Bytes 1-31
Comment					
Values for CDRFLDID					
End of Comment					
		.... ....		CDRFUNUS	"B'00000000" Unused
		.1.. ....		CDRFSNEQ	"B'01000000" SNEQ
		1... ....		CDRFGNEQ	"B'10000000" GNEQ
		11.. ....		CDRFNED	"B'11000000" NED
1	(1)	X'20'	0	CDR_LEN	"*-CDR"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	GNEQ	General Node-Element Qualifier
0	(0)	CHARACTER	1	GNEFLAGS (0)	Flags
		11.. ....		GNEFLDID	"X'CO'" Field identifier
1	(1)	BITSTRING	1	GNERS	Record selector
2	(2)	SIGNED	2	GNEINTID	Interface ID
4	(4)	BITSTRING	1	GNEDDITO	Device-Dependent Time Out
5	(5)	CHARACTER	1		Reserved
6	(6)	BITSTRING	1	GNEMIHPT	MIH primary time out
7	(7)	BITSTRING	1	GNEMIHST	MIH secondary time out
8	(8)	CHARACTER	24	GNEXINFO (0)	General node element extended information
8	(8)	BITSTRING	1	QNEQFLDS	Q fields
32	(20)	X'20'	0	GNEQ_LEN	"*-GNEQ"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SNEQ	Specific Node-Element Qualifier
0	(0)	CHARACTER	1	SNEFLAGS (0)	Flags
		11.. ....		SNEFLDID	"X'CO'" Field identifier
1	(1)	CHARACTER	7		Reserved
8	(8)	CHARACTER	24	SNEXINFO	Specific node element extended information
8	(8)	X'20'	0	SNEQ_LEN	"*-SNEQ"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	NED	Node-Element Descriptor
0	(0)	CHARACTER	1	NEDFLAGS (0)	Flags
		11.. ....		NEDFLDID	"X'CO'" Field identifier
		..1. ....		NEDTOKEN	"X'20'" Token indicator
		...1 ....		NEDSNIND	"X'10'" Serial number indicator
		.... 1...		NEDSUBSN	"X'08'" Substitute serial number indicator
		.... ..1..		NEDRECON	"X'04'" Reconfiguration NED indicator
		.... ..1.		NEDEMULA	"X'02'" Emulation NED indicator
1	(1)	BITSTRING	1	NEDTYPE	Type of node element described by this NED
2	(2)	BITSTRING	1	NEDCLASS	I/O device class. Valid only for I/O device type NEDs
3	(3)	BITSTRING	1	NEDFLAG2 (0)	
		.... ...1		NEDLEVEL	"X'01'" Level indicator
4	(4)	CHARACTER	28	NEDID (0)	Node element identifier
4	(4)	CHARACTER	26	NEDSRTID (0)	26 byte node element identifier
4	(4)	CHARACTER	6	NEDTYPEN	Type number
10	(A)	CHARACTER	3	NEDMODN	Model number
13	(D)	CHARACTER	3	NEDMANUF	Manufacturer
16	(10)	CHARACTER	2	NEDPMANU	Plant of manufacture
18	(12)	CHARACTER	12	NEDSEQN	Sequence number
30	(1E)	SIGNED	2	NEDTAG	Tag

Comment

Values for NEDTYPE

End of Comment

30	(1E)	X'0'	0	NEDTUNSP	"0" Unspecified
30	(1E)	X'1'	0	NEDTIODV	"1" I/O device
30	(1E)	X'2'	0	NEDTCU	"2" Control Unit

Comment

Values for NEDCLASS

End of Comment

30	(1E)	X'0'	0	NEDCUNSP	"0" Unspecified
30	(1E)	X'1'	0	NEDCDASD	"1" DASD
30	(1E)	X'2'	0	NEDCTAPE	"2" Magnetic tape
30	(1E)	X'3'	0	NEDCURIN	"3" Unit record (input)
30	(1E)	X'4'	0	NEDCUROT	"4" Unit record (output)
30	(1E)	X'5'	0	NEDCPRT	"5" Printer
30	(1E)	X'6'	0	NEDCCOMM	"6" Communications controller
30	(1E)	X'7'	0	NEDCFST	"7" Full screen terminal
30	(1E)	X'8'	0	NEDCLMT	"8" Line mode terminal
30	(1E)	X'9'	0	NEDCCTCA	"9" Channel-to-channel adapter

## IHACDR Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
30	(1E)	X'A'	0	NEDCSWIT	"10" Switch
30	(1E)	X'C'	0	NEDCTRL	"12" Controller
Comment					
Values for GNEQFLDS					
End of Comment					
30	(1E)	X'1'	0	GNEQITME	"1" Device dependent time out value field offset
30	(1E)	X'20'	0	NED_LEN	"*-NED"

## IHACDR Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
CDR	0		SNEFLAGS	0	
CDR_LEN	1	20	SNEFLDID	0	C0
CDRFGNEQ	1	80	SNEQ	0	
CDRFIELD	0		SNEQ_LEN	8	20
CDRFINFO	0		SNEXINFO	8	
CDRFLAGS	0				
CDRFLDID	0	C0			
CDRFNED	1	C0			
CDRFSNEQ	1	40			
CDRFUNUS	1	0			
GNEDDTO	4				
GNEFLAGS	0				
GNEFLDID	0	C0			
GNEINTID	2				
GNEMIHPT	6				
GNEMIHST	7				
GNEQ	0				
GNEQ_LEN	20	20			
GNEQFLDS	8				
GNEQITME	1E	1			
GNEQLEN	1				
GNEXINFO	8				
NED	0				
NED_LEN	1E	20			
NEDCCOMM	1E	6			
NEDCCTCA	1E	9			
NEDCTRL	1E	C			
NEDCDASD	1E	1			
NEDCFST	1E	7			
NEDCLASS	2				
NEDCLMT	1E	8			
NEDCPRT	1E	5			
NEDCSWIT	1E	A			
NEDCTAPE	1E	2			
NEDCUNSP	1E	0			
NEDCURIN	1E	3			
NEDCURROT	1E	4			
NEDMULA	0	2			
NEDFLAGS	0				
NEDFLAG2	3				
NEDFLDID	0	C0			
NEDID	4				
NEDLEVEL	3	1			
NEDMANUF	D				
NEDMODN	A				
NEDPMANU	10				
NEDRECON	0	4			
NEDSEQN	12				
NEDSNIND	0	10			
NEDSRTID	4				
NEDSUBSN	0	8			
NEDTAG	1E				
NEDTCU	1E	2			
NEDTIOV	1E	1			
NEDTOKEN	0	20			
NEDTUNSP	1E	0			
NEDTYPE	1				
NEDTYPEN	4				



# IHADPL Information

## IHADPL Heading Information

**Common Name:** SVC DUMP PACKING LIST  
**Macro ID:** IHADPL  
**DSECT Name:** DPL  
**Owning Component:** SVC Dump (SCDMP)  
**Eye-Catcher ID:** DPL  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: 245 (common) or 225 (private)  
 Key: 0  
 Residency: Above 16M, fixed common  
**Size:** 2920 bytes  
**Created by:** IEAVTSDI, IEAVTSDS  
**Pointed to by:** Reg 1 on entry to IEAVTDWT  
 RTCTDPLF, RTCTDPLB (common DPL queue)  
 RTSDDPF, RTSDPPB (private DPL queue)  
 DPLFWDPT, DPLBWDPT (next, prev DPL)  
 SddSYDPL (backup common DPL)  
**Serialization:** ENQ on SYSIEA01 DPLCHAIN for DPL queue  
**Function:** THE SVC DUMP PACKING LIST DESCRIBES THE ENTIRE  
 PACKAGED DUMP. IT CONTAINS POINTERS TO THE INFORMATION  
 WHICH WILL BE WRITTEN TO THE DUMP DATA SET.  
 THE DUMP PACKING LIST IS PASSED AS INPUT TO THE DUMP  
 WRITING TASK.

## IHADPL Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	2920	DPL	SVC DUMP PACKING LIST
0	(0)	CHARACTER	4	DPLID	DPL ACRONYM
Comment					
----- Caution ----- Fields from DplFirstNotCopy to DplLastNotCopy must be contiguous. They represent fields which must not be overlaid if/when a COMMON DPL is copied into a private DPL.					
End of Comment					
4	(4)	CHARACTER	0	DPLFIRSTNOTCOPY	
4	(4)	ADDRESS	4	DPLFWDPT	NEXT ELEMENT POINTER
8	(8)	ADDRESS	4	DPLBWDPT	PREVIOUS ELEMENT POINTER
12	(C)	ADDRESS	4	DPLSWT	Address of SWT being used to dump info in this DPL
16	(10)	ADDRESS	4	DPLHDDRP	POINTER TO DUMP HEADER AND 4K BUFFER
20	(14)	SIGNED	4	DPLSUBPOOL	Which subpool DPL is in
24	(18)	UNSIGNED	4	DPLWTECB	ECB WAITED ON BY IEAVTDWT DURING CAPTURE PHASE - POSTED AT END OF DUMP CAPTURE PHASE. It must not be copied, because copying would overlay the WAIT information.
28	(1C)	CHARACTER	1	DPLNOTCOPYFLAGS	Flags
		1... ....		DPLSYSTEM	If on, this is the single system DPL
		.1. ....		DPLDUMMY	If on, this is a private DPL which is waiting for the system DPL to be copied into it.
		..1. ....		DPLINPRIVATE	If on, this is a private DPL
		...1 ....		DPLEXITINHIGHVIRTUAL	
		.... 1111		*	If on, the dump is capturing exit data into dumpsrv high virtual (ME04648) Reserved
29	(1D)	CHARACTER	3	*	
32	(20)	CHARACTER	16	*	
48	(30)	CHARACTER	0	DPLLASTNOTCOPY	
48	(30)	ADDRESS	4	DPLDDSN	DUMP DATA SET NAME
52	(34)	CHARACTER	132	DPLSUMRY	SUMMARY DUMP INFORMATION
52	(34)	CHARACTER	8	DPLSDSP	STOKEN OF SUMDUMP DATA SPACE
60	(3C)	SIGNED	4	DPLSDNUM	NUMBER OF SUMDUMP DATA SECTIONS
64	(40)	CHARACTER	8	DPLSDATT	ARRAY OF THE ADDRESS AND SIZE OF EACH DATA SECTION (4294967311:562119240)
64	(40)	ADDRESS	4	DPLSDATP	ADDRESS OF THE CURRENT SUMDUMP DATA SECTION
68	(44)	SIGNED	4	DPLSDSIZ	SIZE OF THE VALID DATA IN THE CURRENT SDUMP DATA SECTION
184	(B8)	CHARACTER	16	DPLEXITD	EXIT DATA INFORMATION

# IHADPL Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
184	(B8)	CHARACTER	8	DPLDSTKN	STOKEN OF DumpSrv
192	(C0)	ADDRESS	4	DPLEBUFF	Address of the Exit Buffer Anchor in DumpSrv
196	(C4)	ADDRESS	4	DPLEWRKP	Address of a work area used by the SDUMP started task to obtain storage for the IARV64 invocation
200	(C8)	CHARACTER	24	DPLCOMN	COMMON CAPTURED RANGES
200	(C8)	CHARACTER	8	DPLCDSP	STOKEN OF COMMON DATA SPACE
208	(D0)	ADDRESS	4	DPLCROTB	ADDRESS OF THE READ ONLY COMMON RANGE TABLE COPY
212	(D4)	ADDRESS	4	DPLCDONC	ADDRESS OF THE DATOFF NUCLEUS RANGE TABLE COPY
216	(D8)	SIGNED	4	DPLCDPXN	NUMBER OF DRPX DATA SECTIONS
220	(DC)	ADDRESS	4	DPLCDPXP	ADDRESS OF FIRST DRPX SET FOR READ/WRITE STORAGE
224	(E0)	CHARACTER	16	DPLPTABL	LOCAL STORAGE DATA SPACE INFORMATION (4294967311:562121984)
224	(E0)	CHARACTER	8	DPLPTABS	STOKEN OF LOCAL DATA SPACE
232	(E8)	SIGNED	4	DPLPDPXN	NUMBER OF DRPX DATA SECTIONS
236	(EC)	ADDRESS	4	DPLPDPXP	ADDRESS TO FIRST DRPX SET
464	(1D0)	CHARACTER	4	DPLFLGWD	Word bdy for CS of DPLFLAGS
464	(1D0)	SIGNED	2	DPLLOCNM	NUMBER OF LOCAL DATA SPACES
466	(1D2)	CHARACTER	2	DPLFLAGS	FLAGS USED FOR WRITE PROCESS
		1... ....		DPLENSUM	WHEN 1 INDICATES ENABLED SUMMARY DUMP WAS TAKEN
		.1. ....		DPLSDEP	CALLER'S ECB POSTED
		..1. ....		DPLECB	ON - CALLER SPECIFIED WRITE PHASE ECB TO BE POSTED IF DPLECBAD = 0 OFF - CALLER SPECIFIED WRITE PHASE SRB TO BE SCHEDULED IF DPLSRBAD = 0
		...1 ....		DPLTSOXT	IF ON - TSO USER EXTENSION PRESENT
		.... 1...		DPLTPFRC	IF ON - FAILRC SPECIFIED
		.... .1.		DPLLFDSF	IF ON - LOOKING FOR A DATASET
		.... ..1.		DPLSDUNL	IF ON - DCB processing unlocked SDUMP
		.... ...1		DPLROCDN	IF ON - RO Common and DATOFF NUC tables initialized
467	(1D3)	1... ....		DPLDWTCL	IF ON - Indicates DWT was called for DCB case
		.1. ....		DPLREMOT	This is a remote dump
		..1. ....		DPLRMREQ	Remote dumps requested
		...1 ....		DPLGETSDDIE	Serialization bit for
		.... 1...		*	Reserved
		.... .1.		DPLSFFIXED	SFDPL is page fixed
		.... ..11		*	Reserved
468	(1D4)	ADDRESS	4	DPLUCBAD	Address of UCB
472	(1D8)	ADDRESS	4	DPLECBAD	ADDRESS OF USER SUPPLIED WRITE PHASE ECB
472	(1D8)	ADDRESS	4	DPLSRBAD	ADDRESS OF USER SUPPLIED WRITE PHASE SRB
476	(1DC)	ADDRESS	4	DPLDCBAD	ADDRESS OF USER SUPPLIED DCB
480	(1E0)	UNSIGNED	4	DPLDMPID	UNIQUE NUMBER FOR PRDSEQ
480	(1E0)	BITSTRING	3	DPLDMPTN	BITS 7-30 FROM THE TIME OF DUMP
483	(1E3)	BITSTRING	1	DPLDMPSN	SEQUENCE NUMBER FROM RTSDDNUM
484	(1E4)	SIGNED	4	DPRETCOD	RETURN CODE FROM DUMP ROUTINE
484	(1E4)	CHARACTER	2	*	RESERVED
486	(1E6)	UNSIGNED	1	DPNODUMP	NO DUMP REASON CODE RETURNED TO CALLER
487	(1E7)	UNSIGNED	1	DPRETURN	SVC DUMP RETURN CODE INDICATING COMPLETE, PARTIAL OR NO DUMP CONDITION
488	(1E8)	CHARACTER	16	DPLSDRSN	SDUMP REASON CODES MAPPED BY IHASDRSN
504	(1F8)	CHARACTER	8	DPLTUSID	TSO USERID ASSOCIATED WITH THIS DUMP
512	(200)	CHARACTER	51	DPLCID	CALLER'S ID DATA
512	(200)	UNSIGNED	1	DPLCIDL	LENGTH OF ID
513	(201)	CHARACTER	50	DPLCID	CALLER'S ID
563	(233)	UNSIGNED	1	DPPROGRS	VALUE TO INDICATE HOW FAR THE DUMP HAS GONE: 1: SUMDUMP 2: GLOBAL 3: LOCAL 4: STRLIST
564	(234)	UNSIGNED	2	DPLCASID	ASID OF CALLER
566	(236)	UNSIGNED	1	DPLEXITT	Exit error type
567	(237)	CHARACTER	1	DPLFLGS2	Second flag byte
		1... ....		DPLASMS	SMS Class added
		.1. ....		DPLAVOL	DASD volume added
568	(238)	ADDRESS	4	DPLDSQCU	Address SDDSQ entry that has been saved by DD ADD/CLEAR processing, or set at dataset selection time.
572	(23C)	UNSIGNED	4	DPLFDECB	ECB WAITED ON BY IEAVTSCD WHICH IS POSTED WHEN A DATASET IS DD ADDED OR CLEARED
576	(240)	CHARACTER	3	DPLDIDCO	DUMP ID USED FOR MESSAGES AND TO IDENTIFY THE DUMP TO THE OPERATOR
579	(243)	UNSIGNED	1	DPLSDNA	NUMBER OF ADDRESS SPACES TO DUMP
580	(244)	BITSTRING	2	DPLSDAS	ADDRESS SPACE IDS THAT ARE BEING DUMPED (4294967311:562114560)
610	(262)	BITSTRING	2	DPLHAID	Copy of RtsdHaid
612	(264)	ADDRESS	4	DPLDWT	Address of TCB of DWT that is passed this DPL
616	(268)	ADDRESS	4	DPLASCB	Copy of RtsdAscb
620	(26C)	CHARACTER	4	*	
624	(270)	CHARACTER	106	DPLDSPD	Copy of DSPD pointed to by SddDSPD
730	(2DA)	CHARACTER	6	*	Reserved

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
736	(2E0)	CHARACTER	8	DPLCSTOK	When the caller passed a write ECB, this will be the STOKEN of the caller's space. If the caller passed a write SRB, this is the STOKEN of SRBASCB
744	(2E8)	ADDRESS	4	DPLPRIVATEDPL@	Address of private DPL with which the system DPL is associated
748	(2EC)	SIGNED	4	DPLDMP#	Which dump this is. This is used in IECEB926 when determining which is the next dump to be processed when a dump data set becomes available.
752	(2F0)	SIGNED	4	DPLDUMPSRVALET	ALET of DUMPSRV
756	(2F4)	ADDRESS	4	DPLWTECB@	Address of DplWTECB in the *proper* DPL (could be the PRIVATE DPL, not this one).
760	(2F8)	ADDRESS	4	DPLPRIVATEDPLAREA@	Address of private DPL area for use in copying
764	(2FC)	CHARACTER	8	DPLJOBNM	Caller's jobname
772	(304)	CHARACTER	48	DPLSES	Data related to dumping the STRLIST
772	(304)	BITSTRING	4	DPLSESF	Flags related to dumping the STRLIST
		1... ....		*	Reserved
		.1.. ....		DPLCAPT	A capture phase ECB/SRB was requested but not processed by SCC since a serialized range was also requested
		..1. ....		DPLCAPTP	The capture phase ECB/SRB that was not processed by SCC has been processed
772	(304)	BITSTRING	3	*	Reserved
776	(308)	ADDRESS	4	DPLSFDPL	Pointer to the SFDPL
780	(30C)	SIGNED	4	DPLSTR#	Number of structures in SFDPL
784	(310)	ADDRESS	4	DPLDWSFD	Pointer to the DWSFD
788	(314)	CHARACTER	8	DPLHASHS	STOKEN of DWS/DWC hash data space
796	(31C)	ADDRESS	4	DPLHASHO	Origin of DWS/DWC hash data space
800	(320)	CHARACTER	8	DPLBUFRS	STOKEN of DWS/DWC buffer data space
808	(328)	ADDRESS	4	DPLBUFRO	Origin of DWS/DWC buffer data space
812	(32C)	SIGNED	4	DPLHSHNB	Number of 4K blocks in the hash data space
816	(330)	SIGNED	4	DPLBUFNB	Number of 4K blocks in the buffer data space
820	(334)	CHARACTER	32	DPLINTKN	Incident token
820	(334)	CHARACTER	8	DPLITSYSNAME	System name
828	(33C)	CHARACTER	8	DPLTIMESTAMP	Time stamp
836	(344)	CHARACTER	8	DPLITPLEXNAME	Sysplex name
844	(34C)	CHARACTER	8	*	Reserved
852	(354)	SIGNED	4	DPLASYNCMFID	Facility of async req
856	(358)	CHARACTER	16	DPLASYNCTOKEN	Async token
872	(368)	ADDRESS	4	DPLSDDIE	Ptr to DSC die storage
876	(36C)	CHARACTER	8	*	Reserved
884	(374)	CHARACTER	20	DPLLOCALDSPEXTTABLEINFO	Information regarding the local capture data space table extension that follows
884	(374)	CHARACTER	16	DPLDSPEXTTOKEN	DUMPSRV task token used to create the original local capture data spaces, and that should be used on subsequent DSPSERV CREATEs for additional data spaces
900	(384)	CHARACTER	4	DPLDSPEXTCSWORD	Compare and swap word for updating the next available extension table entry index. (See prolog note above.)
900	(384)	SIGNED	4	DPLDSPEXTNEXTINDEX	Table index of the next available table entry
904	(388)	CHARACTER	20	DPLLOCALDSPEXTTABLE (4294967396:562140888)	Local storage data spaces whose space was exhausted before the local capture for an ASID was completed
904	(388)	CHARACTER	16	DPLDSPEXTINFOA	Local data space info. THE FORMAT OF THIS SUBSTRUCTURE MUST MATCH THE FORMAT OF A DPLPTABL TABLE ENTRY
904	(388)	CHARACTER	8	DPLDSPEXTSTOKEN	Data space token
912	(390)	SIGNED	4	DPLDSPEXTDPRXCNT	Number of DRPX data sections in data space
916	(394)	ADDRESS	4	DPLDSPEXTDPRXFIRST	Address of first DPRX set in data space
920	(398)	CHARACTER	4	DPLDSPEXTINFOB	Related info
920	(398)	UNSIGNED	2	DPLDSPEXTASID	Asid of source address space captured in this data space
922	(39A)	UNSIGNED	2	DPLDSPEXTRELATED	Index of the DplPTABL entry from which this table extension entry was initialized
2904	(B58)	CHARACTER	16	*	Reserved
2920	(B68)	CHARACTER	0	*	Reserved

## IHADPL Constants • IHADPL Cross Reference

### IHADPL Constants

Len	Type	Value	Name	Description
4	CHARACTER	DPL	DPLIDC	CONTROL BLOCK IDENTIFIER TO BE USED WITH DPLID FIELD
2	DECIMAL	15	MAXNUM	MAXIMUM NUMBER OF ADDRESS SPACE/DATA SPACES
2	DECIMAL	100	DPLMAXLOCDSPEXT	Maximum number of dynamically allocated local capture data spaces (in addition to the initially allocated data spaces anchored in DPLPTABL) per SVC dump
4	DECIMAL	245	DPLSUBPOOLCOMMON	
4	DECIMAL	225	DPLSUBPOOLPRIVATE	

### IHADPL Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DPL	0		DPLDWTCL	1D3	80
DPLASCB	268		DPLEBUFF	C0	
DPLASMS	237	80	DPLECB	1D2	20
DPLASYNCFID	354		DPLECBAD	1D8	
DPLASYNCTOKEN			DPLENSUM	1D2	80
	358		DPLEWRKP	C4	
DPLAVOL	237	40	DPLEXITD	B8	
DPLBUFNB	330		DPLEXITINHIGHVIRTUAL		
DPLBUFRO	328			1C	10
DPLBUFRS	320		DPLEXITT	236	
DPLBWDPT	8		DPLFDECB	23C	
DPLCAPT	304	40	DPLFIRSTNOTCOPY		
DPLCAPTP	304	20		4	
DPLCASID	234		DPLFLAGS	1D2	
DPLCDONC	D4		DPLFLGS2	237	
DPLCDPXN	D8		DPLFLGWD	1D0	
DPLCDPXP	DC		DPLFWDPT	4	
DPLCDSP	C8		DPLGETSDDIE	1D3	10
DPLCID	201		DPLHAID	262	
DPLCIDD	200		DPLHASHO	31C	
DPLCIDL	200		DPLHASHS	314	
DPLCOMN	C8		DPLHDDRP	10	
DPLCROTB	D0		DPLHSHNB	32C	
DPLCSTOK	2E0		DPLID	0	
DPLDCBAD	1DC		DPLINPRIVATE	1C	20
DPLDDSN	30		DPLINTKN	334	
DPLDIDCO	240		DPLITPLEXNAME		
DPLDMP#	2EC			344	
DPLDMPID	1E0		DPLITSYSNAME	334	
DPLDMPSN	1E3		DPLITTIMESTAMP		
DPLDMPTN	1E0			33C	
DPLDSPD	270		DPLJOBNM	2FC	
DPLDSPEXTASID			DPLLASTNOTCOPY		
	398			30	
DPLDSPEXTCSWORD			DPLLFDSF	1D2	04
	384		DPLLOCALDSPEXTTABLE		
DPLDSPEXTDPRXCNT				388	
	390		DPLLOCALDSPEXTTABLEINFO		
DPLDSPEXTDPRXFIRST				374	
	394		DPLLOCNM	1D0	
DPLDSPEXTINFOA			DPLNOTCOPYFLAGS		
	388			1C	
DPLDSPEXTINFOB			DPLPDPXN	E8	
	398		DPLPDPXP	EC	
DPLDSPEXTNEXTINDEX			DPLPRIVATEDPL@		
	384			2E8	
DPLDSPEXTRELATED			DPLPRIVATEDPLAREA@		
	39A			2F8	
DPLDSPEXTSTOKEN			DPLPTABL	E0	
	388		DPLPTABS	E0	
DPLDSPEXTTTOKEN			DPLREMOT	1D3	40
	374		DPLRMREQ	1D3	20
DPLDSQCU	238		DPLROCDN	1D2	01
DPLDSTKN	B8		DPLSDAS	244	
DPLDUMMY	1C	40	DPLSDATP	40	
DPLDUMPSRVALET			DPLSDATT	40	
	2F0		DPLSDDIE	368	
DPLDWSFD	310		DPLSDEP	1D2	40
DPLDWT	264		DPLSDNA	243	

Name	Hex Offset	Hex Value
DPLSDNUM	3C	
DPLSDRSN	1E8	
DPLSDSIZ	44	
DPLSDSP	34	
DPLSDUNL	1D2	02
DPLSES	304	
DPLSESF	304	
DPLSFDPL	308	
DPLSFFIXED	1D3	04
DPLSRBAD	1D8	
DPLSTR#	30C	
DPLSUBPOOL	14	
DPLSUMRY	34	
DPLSWT	C	
DPLSYSTEM	1C	80
DPLTPFRC	1D2	08
DPLTSOXT	1D2	10
DPLTUSID	1F8	
DPLUCBAD	1D4	
DPLWTECB	18	
DPLWTECB@	2F4	
DPNODUMP	1E6	
DPPROGRS	233	
DPRETCOD	1E4	
DPRETURN	1E7	



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## IHADWHDR Information

### IHADWHDR Programming Interface information

Programming Interface information

**IHADWHDR**

End of Programming Interface information

## IHADWHDR Heading Information • IHADWHDR Map

### IHADWHDR Heading Information

**Common Name:** Dump Writing Structure Dump Header  
**Macro ID:** IHADWHDR  
**DSECT Name:** DWHDR DwHdrDumpCntlsMap  
**Owning Component:** SVC Dump (SCDMP)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** DWHDRDUMPCNTLSMAP -- X'0200' bytes  
 DWHDR -- X'2000' bytes  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** None required  
**Function:** Provides a map of the dump header. There is one dump header per structure in the dump. It contains the structure controls, dumping controls, dumping status, dump tailoring options, and the associated request block.  
 In the dump dataset, the dump header is located before the data associated with a given structure.

### IHADWHDR Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DWHDR	Mapping for dump header
0	(0)	CHARACTER	256	DWHDRSTRCONTROLS	Structure controls
256	(100)	CHARACTER	256		Reserved
512	(200)	CHARACTER	512	DWHDRDUMPCONTROLS	
1024	(400)	CHARACTER	32	DWHDRDUMPSTATUS	(0)
1024	(400)	BITSTRING	1	DWHDRCAPCOMPCODE	Dumping status
1025	(401)	CHARACTER	1		Capture-completion code X'00' Capture-in-progress X'01' Normal completion X'02' Dump table full X'03' Serialization released
1026	(402)	CHARACTER	2	DWHDRLASTOBJTYPE	Reserved
1028	(404)	SIGNED	4	DWHDRLASTRANGE	Last dumping-object type. Object type of the object specified by the LOID operand. Valid only when the last range object contains a nonzero value.
1032	(408)	SIGNED	4	DWHDRLASTOBJJID	Last range value processed by a dump request. Initialized to zero.
1036	(40C)	SIGNED	4	DWHDRLASTDIBCT	Last object identifier (LOID) processed by a dump request Valid only when both last range nonzero and last dumping-object-type X'0302', X'0401', or X'0402'
1040	(410)	SIGNED	4	DWHDRLASTELEMCT	Last DIB count. Number of DIBs stored in the dump table for the object specified by the LOID. Valid only when last range nonzero.
1044	(414)	SIGNED	4	DWHDRLASTDTEN	Last element count. Number of elements contained in the object specified by the LOID. Valid only when last range nonzero.
1048	(418)	CHARACTER	8		Last dump-table-entry number. Highest valued dump-table entry that contains a captured block.
1056	(420)	CHARACTER	224		Reserved
1280	(500)	CHARACTER	8	DWHDRDUMPTLROPT	(0)
1280	(500)	SIGNED	2	DWHDRDUMPLISTLEN	Dumping-tailoring options
1282	(502)	CHARACTER	1		Dumping-list length. Number of ranges in the range list of a dump request
1283	(503)	CHARACTER	1	DWHDRDUMPCACHEID	Reserved
1283	(503)	CHARACTER	1		Identifier of an attached local-cache associated with the dump table. Zero => no local cache. Only maintained when the structure type is X'04'.
1284	(504)	CHARACTER	4		Reserved for list
1288	(508)	CHARACTER	248		Reserved
1536	(600)	CHARACTER	512	DWHDRDUMPLISTLEN	Reserved
2048	(800)	CHARACTER	512	DWHDRDUMPLISTLEN	Extended Structure Controls
2560	(A00)	CHARACTER	60	DWHDRSCC	Structure Copy Controls
2560	(A00)	CHARACTER	60	DWHDRDUPLEXINGCONTROLS	



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
2620	(A3C)	CHARACTER	1476		Duplexing Controls
4096	(1000)	CHARACTER	4096	DWHDRASSOCREQBLK	Reserved
					Associated Request Block (ARB) Contains the dumping information and list of object-identifier ranges to be included in the dump. Also contains the dumping-object type, adjunct-inclusion indicator, and DIB-exclusion indicator for each object- identifier range. The ARB is provided in the data block of the associate-dump-table command when the dump table is created, and is copied into the dump header by the capture process. To view the contents of this area, use the ARB mapping found in IHAARB macro
4096	(1000)	X'2000'	0	DWHDR_LEN	**-DWHDR"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DWHDRDUMPCNTLSMAP	Mapping for dumping controls
0	(0)	CHARACTER	128	DWHDRDUMPINFO	Dumping Information
128	(80)	CHARACTER	128		Reserved
256	(100)	CHARACTER	16	DWHDRDUMPAUTH	Dumping authority. Zero => dumping controls available Nonzero => dumping controls in use
272	(110)	CHARACTER	16	DWHDRDUMPSER	Dumping serialization. Nonzero => Dumping serialization held on the structure
288	(120)	SIGNED	4	DWHDRDUMPTBSIZE	Dump-table size. Number of 4096-byte units of CF storage assigned to the dump table.
292	(124)	CHARACTER	1	DWHDRSTRTYPE	Structure type
293	(125)	CHARACTER	1	DWHDRFLAGS (0)	
		1... ....		DWHDRINITCOMP	"X'80" Initialization complete indicator
		.1.. ....		DWHDRRELEASEINPROG	"X'40" Release in progress indicator
294	(126)	CHARACTER	218		Reserved

Comment

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Capture Complete Constants

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End of Comment

		.... ....		DWHDRCAPCMPCIP	"X'00" Capture is in progress
		.... ...1		DWHDRCAPCMPOK	"X'01" Normal completion
		.... ..1.		DWHDRCAPCMPTABFULL	"X'02" Dump table is full
		.... ..11		DWHDRCAPCMPSERREL	"X'03" Dump serialization was released
294	(126)	X'200'	0	DWHDRDUMPCNTLSMAP_LEN	**-DWHDRDUMPCNTLSMAP"

**IHADWHDR Cross Reference**

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DWHDR	0		DWHDRDUMPCNTLSMAP	503	
DWHDR_LEN	1000	2000	DWHDRDUMPCNTLSMAP_LEN	0	
DWHDRASSOCREQBLK	1000		DWHDRDUMPCNTLSMAP_LEN	126	200
DWHDRCAPCMPCIP	126	0	DWHDRDUMPCONTROLS	200	
DWHDRCAPCMPOK	126	1	DWHDRDUMPINFO	0	
DWHDRCAPCMPSERREL	126	3	DWHDRDUMPLISTLEN	500	
DWHDRCAPCMPTABFULL	126	2	DWHDRDUMPSET	110	
DWHDRCAPCOMPCODE	400		DWHDRDUMPSTATUS	400	
DWHDRDUMPAUTH	100		DWHDRDUMPTBSIZE	120	
DWHDRDUMPCACHEID			DWHDRDUMPTLROPT		

## IHADWHDR Cross Reference

Name	Hex Offset	Hex Value
	500	
DWHDREDUPLEXINGCONTROLS	A00	
DWHDREXTSTRCONTROLS	600	
DWHDRFLAGS	125	
DWHDRIINITCOMP	125	80
DWHDRLASTDIBCT	40C	
DWHDRLASTDTEN	414	
DWHDRLASTELEMCT	410	
DWHDRLASTOBJID	408	
DWHDRLASTOBJTYPE	402	
DWHDRLASTRANGE	404	
DWHDRRELEASEINPROG	125	40
DWHDRSCC	800	
DWHDRSTRCONTROLS	0	
DWHDRSTRTYPE	124	

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## IHADWOBH Information

### IHADWOBH Programming Interface information

Programming Interface information

#### IHADWOBH

The following fields are **NOT** programming interface information:

- DWOBHDIBCT
- DWOBHDIBLISTSIZE
- DWOBHDIBSIZE

End of Programming Interface information

## IHADWOBH Heading Information • IHADWOBH Map

### IHADWOBH Heading Information

**Common Name:** Dump Writing Object Header  
**Macro ID:** IHADWOBH  
**DSECT Name:** DWOBH DWOBHOBHJHDRDATAMAP  
**Owning Component:** SVC Dump (SCDMP)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** DWOBH -- X'1000' bytes  
 DWOBHOBHJHDRDATAMAP -- X'0006' bytes  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** None required  
**Function:** Provides a map of the Object Header.

### IHADWOBH Map

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
0	(0)	STRUCTURE	0	DWOBH	, Mapping for Object Header	
0	(0)	CHARACTER	20	DWOBHOBJINFO (0)	Object information	
0	(0)	SIGNED	2	DWOBH DUMPOBJTYPE	Dumping-object type (DOT). X'0301' => CF-list lock table X'0302' => CF-list list number X'0303' => CF-list user controls X'0304' => CF-list event-monitor controls X'0305' => CF-list event-queue X'0401' => CF-cache storage class X'0402' => CF-cache castout class X'0403' => CF-cache local- cache controls	
2	(2)	CHARACTER 1... ..	1	DWOBHFLAGS (0) DWOBHCAPCOMPIND	Flags "X'80" Capture-complete indicator. 1 => capture complete 0 => additional elements exist on the element list that have not been captured in the dump table Reserved	
3	(3)	CHARACTER	1	DWOBHOBJID	Object identifier DOT Object identifier X'0301' => X'0000 0000' X'0302' => List-number value X'0303' => X'0000 0000' X'0304' => List-number value X'0305' => X'0000 0000' X'0401' => Storage-class value (right justified) X'0402' => Castout-class value (right justified) X'0403' => X'0000 0000'	
4	(4)	SIGNED	4			
8	(8)	SIGNED	4	DWOBH DIBCT	DIB count. Number of dumping- information blocks stored in the dump table for the object	
12	(C)	SIGNED	4	DWOBH DIBSIZE	DIB size	
16	(10)	SIGNED	4	DWOBH DIBLISTSIZE	DIB list size. Number of dump-table entries that contain the DIB list for the object.	
20	(14)	CHARACTER	108	DWOBHOBHJHDRDATA	Data relating to the object header - Use the DWOBHOBHJHDRDATAMAP to view the contents of this area	
128	(80)	CHARACTER	3456	DWOBHMAXPOSSIBLEOBJCONTROLS	Maximum possible object controls length. Refer to the actual mappings of the object controls to compute their associated lengths	
4096	(1000)	X'1000'	0	DWOBH_LEN	"*-DWOBH"	

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
0	(0)	STRUCTURE	0	DWOBHOBHJHDRDATAMAP	, Mapping for data relating to the Object Header	
0	(0)	ADDRESS	4	(0)	DWOBHOBHJHDRDATAENTRYCNTLPTR (0)	Pointer to the object's entry controls in the controls compdata space. This pointer name should be used for cast out class, storage class, and list number object types
0	(0)	ADDRESS	4			
0	(0)	ADDRESS	4	DWOBHOBHJHDRDATA LOCKPTR (0)	Pointer to the object's lock table entries in the lock table compdata space. This pointer name should be used for lock table object type only	
0	(0)	ADDRESS	4	DWOBHOBHJHDRDATA USERPTR (0)	Pointer to the object's user control data into the user control compdata space. This pointer name should be used for cache user or list user object types only	
0	(0)	ADDRESS	4	DWOBHOBHJHDRDATAEMCPTR (0)		

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	ADDRESS	4	DWOBHOBHJHDRDATAEVENTQPTR	Pointer to the object's event monitor control data in the event monitor control compdata space. This pointer name should be used for list event queue type only
4	(4)	CHARACTER	2	(0)	Pointer to the object's event queue data in the event queue compdata space. This pointer name should be used for list event queue type only
4	(4)	CHARACTER	2	DWOBHOBHJHDRDATAENTRYCNTLNUM	
				(0)	Number that indicates which entry control compdata space the pointer pertains to. This variable name should be used for cast out class, storage class, and list number object types
4	(4)	CHARACTER	2	DWOBHOBHJHDRDATALOCKNUM	
				(0)	Number that indicates which lock table compdata space the pointer pertains to. This variable name should be used for lock table object type only
4	(4)	CHARACTER	2	DWOBHOBHJHDRDATAUSERNUM	
				(0)	Number that indicates which user control compdata space the pointer pertains to. This variable name should be used for cache user or list user object type only
4	(4)	CHARACTER	2	DWOBHOBHJHDRDATAEMCNUM	
				(0)	Number that indicates which event monitor control compdata space the pointer pertains to. This variable name should be used for list event queue type only
4	(4)	CHARACTER	2	DWOBHOBHJHDRDATAEVENTQNUM	
				(0)	Number that indicates which event queue compdata space the pointer pertains to. This variable name should be used for list event queue type only
4	(4)	X'6'	0	DWOBHOBHJHDRDATAMAP_LEN	
				(0)	"*-DWOBHOBHJHDRDATAMAP"

IHADWOBH Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DWOBH	0		DWOBHOBHJID	4	
DWOBH_LEN	1000	1000	DWOBHOBHJINFO	0	
DWOBHCAPTCOMPIND	2	80			
DWOBHDIBCT	8				
DWOBHDIBLISTSIZE	10				
DWOBHDIBSIZE	C				
DWOBHDUMPOBJTYPE	0				
DWOBHFLAGS	2				
DWOBHMAXPOSSIBLEOBJCONTROLS	80				
DWOBHOBHJHDRDATA	14				
DWOBHOBHJHDRDATAEMCNUM	4				
DWOBHOBHJHDRDATAEMCPTR	0				
DWOBHOBHJHDRDATAENTRYCNTLNUM	4				
DWOBHOBHJHDRDATAENTRYCNTLPTR	0				
DWOBHOBHJHDRDATAEVENTQNUM	4				
DWOBHOBHJHDRDATAEVENTQPTR	0				
DWOBHOBHJHDRDATALOCKNUM	4				
DWOBHOBHJHDRDATALOCKPTR	0				
DWOBHOBHJHDRDATAMAP	0				
DWOBHOBHJHDRDATAMAP_LEN	4	6			
DWOBHOBHJHDRDATAUSERNUM	4				
DWOBHOBHJHDRDATAUSERPTR	0				



## IHAETE1 Information

### IHAETE1 Heading Information

**Common Name:** Entry Table Entry for ESAME  
**Macro ID:** IHAETE1  
**DSECT Name:** ETE1  
**Owning Component:** PC/AUTH (SCXMS)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: 255  
 Key: 0  
 Residency: PC/Auth LSQA  
 Size: 32 bytes  
**Created by:** IEAVXEER, deleted by IEAVXEDE  
**Pointed to by:** Linkage table entries (mapped by IHALTE).  
 The Entry Table is pointed to by  
 ETIBETR (real address) and ETIBETV  
 (virtual address).  
**Serialization:** LOCAL lock of the PC/Auth address space  
**Function:** Describes an entry in an entry table (used  
 by the Program Call instruction).  
 ETE1 maps the ESAME ETE.

### IHAETE1 Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	32	ETE1	ENTRY TABLE ENTRY DESCRIPTION
0	(0)	ADDRESS	4	ETE1EPA0	First word of EPA when AMODE 64
4	(4)	ADDRESS	4	ETE1EPA	VIRTUAL ADDRESS OF ROUTINE TO RECEIVE CONTROL
4	(4)	CHARACTER	1	ETE1ABYTE	BYTE TO ACCESS ETE1AMODE
		1... ..		ETE1AMODE	Addressing mode: if 1, routine executes in 31-bit mode. If 0, routine executes in 24-bit mode, unless bit 31 of new PSW=1 in which case 64-BIT
5	(5)	CHARACTER	2	*	PART OF ETE1EPA - NOT REFERENCEABLE
7	(7)	CHARACTER	1	ETE1PBYTE	BYTE TO ACCESS ETE1PS
		1111 111.		*	NOT REFERENCEABLE
		.... ..1		ETE1PS	CALLER ROUTINE EXECUTES (0) SUPERVISOR OR (1) PROBLEM STATE
8	(8)	BITSTRING	2	ETE1AKM	MASK OF STORAGE KEYS AUTHORIZED TO INVOKE THIS ROUTINE
10	(A)	BITSTRING	2	ETE1ASID	ASID IN WHICH THE CALLED ROUTINE WILL EXECUTE - IF ZERO, ROUTINE EXECUTES IN CALLERS ADDRESS SPACE SPACE SWITCH IF NOT ZERO
12	(C)	BITSTRING	2	ETE1EKM	KEY MASK TO BE COMBINED WITH CALLERS KEY MASK PRODUCING THE EXECUTION KEY MASK OF THE CALLED ROUTINE
14	(E)	CHARACTER	2	ETE1R00E	RESERVED FIELD
16	(10)	CHARACTER	1	ETE1OPTB1	ETE OPTIONS BYTE
		1... ..		ETE1PCTC	PC TYPE CONTROL: 0: NON-STACKING. 1: STACKING.
		.1.. ..		ETE1PC64	PC extended addressing mode: 0: PC.31 set to 0 (basic mode) 1: PC.31 set to 1 (64-bit)
		..1. ....		*	
		...1 ....		ETE1PKC	PSW KEY CONTROL: 0: NO CHANGE 1: SET PSW KEY FROM ETE1EK
		.... 1...		ETE1PKMK	PSW KEY MASK CONTROL: 0: OR ETE1EKM INTO PKM. 1: COPY ETE1EKM TO PKM
		.... .1..		ETE1EAXC	EAX CONTROL: 0: NO CHANGE. 1: REPLACE FROM ETE1EAX.
		.... ..1.		ETE1ASC	ADDRESS SPACE CONTROL: 0: PRIMARY MODE. 1: AR MODE.
		.... ..1		ETE1SASNC	SASN CONTROL: 0: SET TO OLD PASN. 1: SET TO NEW PASN.
17	(11)	CHARACTER	1	ETE1EK	ENTRY KEY. (HIGH 4 BITS)
18	(12)	UNSIGNED	2	ETE1EAX	MAS EXTENDED AUTHORITY INDEX
20	(14)	ADDRESS	4	ETE1ASTE	REAL ADDRESS OF THE ASTE IF SPACE SWITCH
24	(18)	CHARACTER	8	ETE1PARM	ADDRESS OF THE LATENT PARAMETER PASSED TO THE CALLED RTN
24	(18)	ADDRESS	4	ETE1PARMH	High half of parameter
28	(1C)	ADDRESS	4	ETE1PARML	Low half of parameter
32	(20)	CHARACTER	0	ETE1END	END OF ETE1

## IHAETE1 Cross Reference

### IHAETE1 Cross Reference

Name	Hex Offset	Hex Value
ETE1	0	
ETE1ABYTE	4	
ETE1AKM	8	
ETE1AMODE	4	80
ETE1ASC	10	02
ETE1ASID	A	
ETE1ASTE	14	
ETE1EAX	12	
ETE1EAXC	10	04
ETE1EK	11	
ETE1EKM	C	
ETE1END	20	
ETE1EPA	4	
ETE1EPA0	0	
ETE1OPTB1	10	
ETE1PARM	18	
ETE1PARMH	18	
ETE1PARML	1C	
ETE1PBYTE	7	
ETE1PCTC	10	80
ETE1PC64	10	40
ETE1PKC	10	10
ETE1PKMK	10	08
ETE1PS	7	01
ETE1R00E	E	
ETE1SASNC	10	01



**IHAETRI Information**

**IHAETRI Programming Interface information**

Programming Interface information

**IHAETRI**

End of Programming Interface information

## IHAETRI Heading Information • IHAETRI Map

### IHAETRI Heading Information

**Common Name:** ETR Status Information Mapping  
**Macro ID:** IHAETRI  
**DSECT Name:** ETRI  
**Owning Component:** SC1CV (Timer)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: N/A  
 Residency: In user's storage.  
**Size:** 24 bytes  
**Created by:** Invokers of the IEAMETR macro  
**Pointed to by:** Values specified via the OUTADDR parameter on IEAMETR macro invocations  
**Serialization:** None  
**Function:** Provide data mapping of the output from the IEAMETR macro service routine.

### IHAETRI Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ETRI	,
0	(0)	DBL WORD	8	ETRIDATA (0)	
0	(0)	BITSTRING	8	ETRITMSTMP (0)	STCK value at time information was collected.
0	(0)	BITSTRING	4	ETRITIMEH	
4	(4)	BITSTRING	4	ETRITIMEL	
8	(8)	CHARACTER	4	ETRIIMAGE (0)	This word contains information for the whole MVS image.
8	(8)	BITSTRING	1		
		1... ....		ETRIETR	"X'80" Image is in ETR mode.
		.1. ....		ETRILOCAL	"X'40" Image is in local mode.
		..1. ....		ETRISIMETR	"X'20" Image is in SIMETR mode.
		...1 ....		ETRINOTINSTALLED	
		.... 1..		ETRISIDE	"X'10" ETR is not installed on this machine.
		.... .1..		ETRITUNED	"X'08" Active machine side if in ETR mode.
		.... ..1.		ETRIREQSTD	"X'04" The active port is tuned.
		.... ...1		ETRICPLD	"X'02" The use of the ETR was requested.
					"X'01" The 9037 to which this MVS is attached is part of a High Availability Configuration.
9	(9)	BITSTRING	1	ETRISIMETRID	Net ID if in SIMETR mode.
10	(A)	BITSTRING	2		Reserved.
12	(C)	CHARACTER	4	ETRIPORT0 (0)	Status for CPC port 0.
12	(C)	BITSTRING	1		
		1... ....		ETRIPOFLAGS	"X'80" This port is operational.
		.1. ....		ETRIPOOPER	
		..1. ....		ETRIPOENABLED	
		...1 ....		ETRIPOACTIVE	"X'40" This port is enabled.
		.... 1..		ETRIPODATA	"X'20" This port is the active port.
		.... .1..		ETRIPONETID	"X'10" The ID data is valid.
13	(D)	BITSTRING	1	ETRIPONETID	ETR Net ID to which this port is connected.
14	(E)	BITSTRING	1	ETRIPOETRID	9037 ID to which this port is connected.
15	(F)	BITSTRING	1	ETRIPOPORTN0	ETR port number to which this port is connected.
16	(10)	CHARACTER	4	ETRIPORT1 (0)	Status for CPC port 1.
16	(10)	BITSTRING	1		
		1... ....		ETRIP1FLAGS	
		.1. ....		ETRIP1OPER	"X'80" This port is operational.
		..1. ....		ETRIP1ENABLED	
		...1 ....		ETRIP1ACTIVE	"X'40" This port is enabled.
		.... 1..		ETRIP1DATA	"X'20" This port is the active port.
		.... .1..		ETRIP1NETID	"X'10" The ID data is valid.
17	(11)	BITSTRING	1	ETRIP1NETID	ETR Net ID to which this port is connected.
18	(12)	BITSTRING	1	ETRIP1ETRID	9037 ID to which this port is connected.
19	(13)	BITSTRING	1	ETRIP1PORTN0	ETR port number to which this port is connected.
20	(14)	CHARACTER	4		Reserved.

## IHAETRI Cross Reference

Name	Hex Offset	Hex Value
ETRI	0	
ETRICPLD	8	1
ETRIDATA	0	
ETRIETR	8	80
ETRIIMAGE	8	
ETRILOCAL	8	40
ETRINOTINSTALLED		
	8	10
ETRIPORT0	C	
ETRIPORT1	10	
ETRIPOACTIVE	C	20
ETRIPODATA	C	10
ETRIPOENABLED		
	C	40
ETRIPOETRID	E	
ETRIPOFLAGS	C	
ETRIPONETID	D	
ETRIPOOPER	C	80
ETRIPOPORTN0	F	
ETRIPOACTIVE	10	20
ETRIPODATA	10	10
ETRIPOENABLED		
	10	40
ETRIPOETRID	12	
ETRIPOFLAGS	10	
ETRIPONETID	11	
ETRIPOOPER	10	80
ETRIPOPORTN0	13	
ETRIREQSTD	8	2
ETRISIDE	8	8
ETRISIMETR	8	20
ETRISIMETRID	9	
ETRITIMEH	0	
ETRITIMEL	4	
ETRITMSTMP	0	
ETRITUNED	8	4



# IHAFETWK Information

## IHAFETWK Heading Information

**Common Name:** Fetch work area definition  
**Macro ID:** IHAFETWK  
**DSECT Name:** FTWKAREA  
**Owning Component:** LOADER (SCLDR)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: Variable  
 Key: 0  
**Size:** Variable  
**Created by:** User  
**Pointed to by:** N/A  
**Serialization:** NONE  
**Function:** IHAFETWK (Fetch work area) has two sections:  
 FETCHHWK is addressed only by IEWFETCH (the fetch program)  
 WKCNTNSV is addressed by IEWFETCH and by the calling program (contents manager, overlay supervisor, or other)  
 Storage for the fetch work area is always gotten by the calling program, and must be fixed in storage below the 2G line since IEWFETCH keeps format 1 CCWs and IDALs in this area. The number of bytes of storage which must be obtained is the length of 'FTWKAREA'.

## IHAFETWK Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	1540	FTWKAREA	
0	(0)	CHARACTER	1424	FETCHWA	
0	(0)	CHARACTER	768	FTCLEAR	AREA CLEARED TO HEX ZEROS
Comment					
CONTENTS SUPERVISOR'S WORK AREA					
End of Comment					
1424	(590)	CHARACTER	116	WKCNTNSV	
1424	(590)	ADDRESS	4	WKDEBPTR	X'590' ADDRESS OF THE DEB IF VERIFIED BY CONTENTS MANAGER, IF WKDEBOK IS ZERO, THIS FIELD IS IGNORED
1428	(594)	ADDRESS	4	WKCDADDR	X'594' ADDRESS OF CDE
1432	(598)	ADDRESS	4	WKIOADDR	X'598' ADDRESS OF AREA GETMAINED. FETCH WILL DO I/O IN THIS AREA
1436	(59C)	BITSTRING	1	WKFLAG	X'59C' TASKLIB SEARCH IND
1437	(59D)	BITSTRING	1	WKFLG1	X'59D'
		1... ..		WKAUTH	MODULE IN AUTHORIZED LIBRARY
		.1.. ..		WKSYSREQ	THIS IS A SYSTEM REQUEST
		..1. ....		WKSYSDCB	SYSTEMDCB REQUEST
		...1 ....		WKIOADDR_IS_64	64-bit WKIOADDR
		.... 1111		*	
1438	(59E)	BITSTRING	1	WKFLG2	X'59E' FLAG BYTE 3
		1... ..		WKDEBOK	THE DEB HAS BEEN VERIFIED BY THE CALLING PROGRAM
		.111 ....		*	
		... 1...		WKUSRLIB	DCB IS FOR A USER LIBRARY
		.... .1..		WKJOBLIB	DCB IS FOR THE JOB LIBRARY
		.... ..1.		WKSVC LIB	DCB IS FOR THE SVC LIBRARY
		.... ...1		WKLNKLIB	DCB IS FOR THE LINK LIBRARY
1439	(59F)	BITSTRING	1	WKFLG3	X'59F'
1440	(5A0)	CHARACTER	16	*	X'5A0'
1440	(5A0)	SIGNED	4	WKREGIS	X'5A0' USED TO SAVE REGS ACROSS BLDL (4294967300:562122856)
1440	(5A0)	ADDRESS	8	WKIOADDR64	X'5A0' 8-byte address
1440	(5A0)	CHARACTER	8	WKIOADDR64C	X'5A0' 8-byte address
1456	(5B0)	ADDRESS	4	WKTCBSE	X'5B0' ADDRESS OF TCB CONTAINING LAST DCB
1460	(5B4)	ADDRESS	4	WKDCBSE	X'5B4' ADDRESS OF LAST DCB SEARCH ARGUMENT
Comment					
BLDL ENTRY					
End of Comment					

# IHAFETWK Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
1464	(5B8)	CHARACTER	76	WKBLDE	X'5B8'
1464	(5B8)	SIGNED	4	WKPREFIX	X'5B8' BLDL PREFIX
1468	(5BC)	CHARACTER	72	WKPDSDE	X'5BC' BLDL DIR ENTRY

Comment

NOTE THAT THE FOLLOWING AREA IS ALSO MAPPED BY IHAPDS (PDS DIRECTORY ENTRY) IN IEWFETCH (THE FETCH PROGRAM), BUT THAT THERE ARE MINOR DIFFERENCES IN BLDL AND PDS DEFINITIONS

End of Comment

1468	(5BC)	CHARACTER	8	WKNAME	X'5BC' MODULE NAME
1476	(5C4)	CHARACTER	4	WKTTRK	X'5C4' TRACK AND RECORD NUMBER
1476	(5C4)	UNSIGNED	2	WKTT	X'5C4' /TRACK NUMBER
1478	(5C6)	UNSIGNED	1	WKR	X'5C6' RECORD NUMBER
1479	(5C7)	UNSIGNED	1	WKK	NO. OF CONCATENATED DATA SETS
1480	(5C8)	BITSTRING	1	WKZBYTE	X'5C8' 'Z' BYTE
1481	(5C9)	BITSTRING	1	WKCBYTE	X'5C9' 'C' BYTE
1482	(5CA)	CHARACTER	8	WKTTESD	X'5CA'
1490	(5D2)	BITSTRING	2	WKATTR	X'5D2' ATTRIBUTE FLAGS
1492	(5D4)	CHARACTER	5	WKLNTH	
1492	(5D4)	UNSIGNED	3	WKLNTHM	X'5D4' LENG OF MODULE
1495	(5D7)	SIGNED	2	WKLNTHF	X'5D7' LENGTH OF FIRST TEXT RECORD
1497	(5D9)	ADDRESS	3	WKENTPT	X'5D9' ENTRY POINT ADDRESS
1500	(5DC)	ADDRESS	3	WKTXTRG	X'5DC' TEXT ORIGIN ADDRESS
1503	(5DF)	CHARACTER	37	WKAPFSSI	X'5DF' APF AND SSI FIELDS
1540	(604)	CHARACTER	0	WKEND	X'604' END OF FETCH WORK AREA

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	104	FTBELOW16M	Below 16M Fetch area
0	(0)	CHARACTER	40	FTIOB	EXCP IOB - Must be first
0	(0)	CHARACTER	32	*	
32	(20)	CHARACTER	8	FTIOBSEEK	
32	(20)	CHARACTER	3	*	
35	(23)	CHARACTER	5	FTIOBCCHHR	
40	(28)	CHARACTER	4	FTB16ID	Eye catcher
44	(2C)	ADDRESS	4	FTB16BACK	Pointer to fetch workarea
48	(30)	CHARACTER	48	FTIOBE	EXCP IOBE
96	(60)	CHARACTER	4	FTVIOECB	EXCP ECB
96	(60)	CHARACTER	1	FTVIOECBYT	
		1... ....		*	
		.1.. ....		FTVIOECPST	ECB POSTED COMPLETE
		..11 1111		*	
100	(64)	ADDRESS	4	FTDCBDEB	Pseudo DCB DEB pointer
104	(68)	CHARACTER	0	FTVIODEB	EXCP DEB copy

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
1503	(5DF)	STRUCTURE	11	WKALIAS	X'5DF'
1503	(5DF)	CHARACTER	3	WKENTBK	X'5DF'
1506	(5E2)	CHARACTER	8	WKNAMBK	X'5E2'

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
1503	(5DF)	STRUCTURE	37	WKSCATER	X'5DF'
1503	(5DF)	CHARACTER	8	WKSCATR	X'5DF'

Comment

DEFINE ENTRIES FOR SCATTER, ALIAS

End of Comment

1511	(5E7)	ADDRESS	3	WKENTSC	X'5E7'
1514	(5EA)	CHARACTER	8	WKNAMSC	X'5EA'
1522	(5F2)	CHARACTER	6	*	
1528	(5F8)	ADDRESS	4	WKMAINEP	X'5F8'

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
1532	(5FC)	CHARACTER	8	WKMAINAM	X'5FC'

## IHAFETWK Constants

Len	Type	Value	Name	Description
4	CHARACTER	FT16	FTB16IDC	Eye catcher constant

Comment

RETURN CODES FROM IEWFETCH, PASSED TO CALLER IN REG 15

End of Comment

1	DECIMAL	0	RCNORMAL	X'00' - NORMAL RETURN
1	DECIMAL	10	RCLRAERR	X'0A' - LRA FAILURE
1	DECIMAL	11	RCPGMCK	X'0B' - PROGRAM CHECK
1	DECIMAL	12	RCNOSTOR	X'0C' - NO STORAGE
1	DECIMAL	13	RCBADREC	X'0D' - BAD RECORD READ
1	DECIMAL	14	RCBADADR	X'0E' - INVALID ADDRESS
1	DECIMAL	15	RCIOERR	X'0F' - PERMANENT I/O ERROR

Comment

REASON CODES FOR LRA FAILURES

End of Comment

Comment

EXPLANATION OF RCLRAERR:

End of Comment

1	DECIMAL	1	RCLRA01	X'01'
1	DECIMAL	2	RCLRA02	X'02'
1	DECIMAL	3	RCLRA03	X'03'
1	DECIMAL	4	RCLRA04	X'04'
1	DECIMAL	5	RCLRA05	X'05'
1	DECIMAL	6	RCLRA06	X'06'
1	DECIMAL	7	RCLRA07	X'07'
1	DECIMAL	8	RCLRA08	X'08'
1	DECIMAL	9	RCLRA09	X'09'
1	DECIMAL	10	RCLRA10	X'0A'
1	DECIMAL	11	RCLRA11	X'0B'
1	DECIMAL	12	RCLRA12	X'0C'
1	DECIMAL	13	RCLRA13	X'0D'
1	DECIMAL	14	RCLRA14	X'0E'
1	DECIMAL	15	RCLRA15	X'0F'
1	DECIMAL	16	RCLRA16	X'10'
1	DECIMAL	17	RCLRA17	X'11'
1	DECIMAL	18	RCLRA18	X'12'
1	DECIMAL	19	RCLRA19	X'13'
1	DECIMAL	20	RCLRA20	X'14'
1	DECIMAL	21	RCLRA21	X'15'

Comment

REASON CODES FROM IEWFETCH, PASSED TO CALLER IN REG 0

End of Comment

Comment

EXPLANATION OF RCNOSTOR:

End of Comment

1	DECIMAL	4	RSNDATD	X'04' - NO STORAGE FOR DATD
1	DECIMAL	8	RSNDEB	X'08' - NO STORAGE FOR DEB
1	DECIMAL	12	RSNIOSB	X'0C' - NO STORAGE FOR IO SB
1	DECIMAL	16	RSNEXTL	X'10' - NO STORAGE FOR EXTLIST
1	DECIMAL	20	RSNMOD	X'14' - NO STORAGE FOR MODULE
1	DECIMAL	24	RSNFIK	X'18' - UNABLE TO FIX STORAGE

## IHAFETWK Cross Reference

Len	Type	Value	Name	Description
Comment				
EXPLANATION OF RCBADADR:				
End of Comment				
1	DECIMAL	32	RSNTTR	X'20' - ERROR CONVERTING TTR
1	DECIMAL	36	RSNBOM	X'24' - BLOCK OUTSIDE MODULE
1	DECIMAL	40	RSNADL	X'28' - ADCON LOCATION INVALID
1	DECIMAL	44	RSNV2G	X'2C' - VIO with area above 2G
Comment				
EXPLANATION OF RCIOERR::				
End of Comment				
1	DECIMAL	64	RSNRDS	X'40' - I/O ERROR ON A RDS
1	DECIMAL	68	RSNVDS	X'44' - ERROR ON A VIRTUAL DS
1	DECIMAL	72	RSNEXTV	X'48' - SEEK ADDR OUTSIDE EXTENT
1	DECIMAL	76	RSNPCI	X'4C' - POSSIBLE PCI LOGIC ERROR
1	DECIMAL	80	RSNPDSE	X'50' - DATA SET IS A PDSE

## IHAFETWK Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
FETCHWA	0		WKNAME	5BC	
FTBELOW16M	0		WKNAME	5EA	
FTB16BACK	2C		WKPDSE	5BC	
FTB16ID	28		WKPREFX	5B8	
FTCLEAR	0		WKR	5C6	
FTDCBDEB	64		WKREGIS	5A0	
FTIOB	0		WKSCATER	5DF	
FTIOBCCHHR	23		WKSCATR	5DF	
FTIOBE	30		WKSVCCLIB	59E	02
FTIOBSEEK	20		WKSYSDCB	59D	20
FTVIODEB	68		WKSYSREQ	59D	40
FTVIOECB	60		WKTCBSE	5B0	
FTVIOECBYT	60		WKT	5C4	
FTVIOECPOST	60	40	WKTTESD	5CA	
FTWKAREA	0		WKTTRK	5C4	
WKALIAS	5DF		WKTXTRG	5DC	
WKAPFSSI	5DF		WKUSRLIB	59E	08
WKATTR	5D2		WKZBYTE	5C8	
WKAUTH	59D	80			
WKBLDE	5B8				
WKCBYTE	5C9				
WKCDADDR	594				
WKCNTNSV	590				
WKDCBSE	5B4				
WKDEBOK	59E	80			
WKDEBPTR	590				
WKEND	604				
WKENTBK	5DF				
WKENTPT	5D9				
WKENTSC	5E7				
WKFLAG	59C				
WKFLG1	59D				
WKFLG2	59E				
WKFLG3	59F				
WKIOADDR	598				
WKIOADDR_IS_64					
	59D	10			
WKIOADDR64	5A0				
WKIOADDR64C	5A0				
WKJOBLIB	59E	04			
WKK	5C7				
WKLKLIB	59E	01			
WKLNTH	5D4				
WKLNTHF	5D7				
WKLNTHM	5D4				
WKMAINAM	5FC				
WKMAINEP	5F8				
WKNAMBK	5E2				



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## IHAFPC Information

### IHAFPC Programming Interface information

Programming Interface information

**IHAFPC**

End of Programming Interface information

## IHAFPC Heading Information • IHAFPC Cross Reference

### IHAFPC Heading Information

**Common Name:** FLOATING POINT CONTROL REGISTER  
**Macro ID:** IHAFPC  
**DSECT Name:** FPC  
**Owning Component:** SUPERVISOR CONTROL (SC1C5)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** FPC -- X'0004' bytes  
**Created by:** USER  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** Maps the architected Floating Point Control register

### IHAFPC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FPC	FLOATING POINT CONTROL REG
0	(0)	CHARACTER	1	FPCMASK	MASK BITS
		1.. ..		FPCMINVO	"X'80" INVALID OPERATION MASK
		.1. ....		FPCMDIVZ	"X'40" DIVISION BY ZERO MASK
		..1. ....		FPCMOVFL	"X'20" OVERFLOW MASK
		...1 ....		FPCMUNFL	"X'10" UNDERFLOW MASK
		.... 1..		FPCMINEX	"X'08" INEXACT MASK
1	(1)	CHARACTER	1	FPCFLAG	FLAG BITS
		1.. ..		FPCFINVO	"X'80" INVALID OPERATION FLAG
		.1. ....		FPCFDIVZ	"X'40" DIVISION BY ZERO FLAG
		..1. ....		FPCFOVFL	"X'20" OVERFLOW FLAG
		...1 ....		FPCFUNFL	"X'10" UNDERFLOW FLAG
		.... 1..		FPCFINEX	"X'08" INEXACT FLAG
2	(2)	CHARACTER	1	FPCDXC	DATA EXCEPTION CODE
		1.. ..		FPCDINVO	"X'80" INVALID OPERATION
		.1. ....		FPCDDIVZ	"X'40" DIVISION BY ZERO
		..1. ....		FPCDOVFL	"X'20" OVERFLOW
		...1 ....		FPCDUNFL	"X'10" UNDERFLOW
		.... 1..		FPCDINEX	"X'08" INEXACT
		.... .1.		FPCDINCR	"X'04" INCREMENTED
		.... ..11		FPCDR	"X'03" RESERVED
3	(3)	CHARACTER	1	FPCBYTE3	3 * BIT(6), RESERVED
		.... ..11		FPCRND	"X'03" ROUNDING MODE
4	(4)	X'4'	0	FPC_LEN	"*-FPC"

### IHAFPC Cross Reference

Name	Hex Offset	Hex Value
FPC	0	
FPC_LEN	4	4
FPCBYTE3	3	
FPCDDIVZ	2	40
FPCDINCR	2	4
FPCDINEX	2	8
FPCDINVO	2	80
FPCDOVFL	2	20
FPCDR	2	3
FPCDUNFL	2	10
FPCDXC	2	
FPCFDIVZ	1	40
FPCFINEX	1	8
FPCFINVO	1	80
FPCFLAG	1	
FPCFOVFL	1	20
FPCFUNFL	1	10
FPCMASK	0	
FPCMDIVZ	0	40
FPCMINEX	0	8
FPCMINVO	0	80
FPCMOVFL	0	20
FPCMUNFL	0	10
FPCRND	3	3

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## IHAFPRET Information

### IHAFPRET Programming Interface information

Programming Interface information

IHAFPRET

End of Programming Interface information

## IHAFPRET Heading Information • IHAFPRET Map

### IHAFPRET Heading Information

**Common Name:** IEAFP Return Information  
**Macro ID:** IHAFPRET  
**DSECT Name:** NONE  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** N/A  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** None required  
**Function:** Equates for IEAFP return and reason codes

### IHAFPRET Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	BITSTRING	0	IEAFPRSNCODEMASK	"X'0000FFFF" Use this mask to isolate the non component-diagnostic portion of the reason code.
Comment					
IEAFP Return and Reason Code definitions					
End of Comment					
		.... ....		IEAFPRC_OK	"X'00000000" Meaning: IEAFP request successful. Action: None required.
		.... 1...		IEAFPRC_INVPARM	"X'00000008" Meaning: IEAFP request specifies parameters that are not valid. Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IEAFPRSNBADFUNCTION	"X'00000801" Meaning: Incorrect value passed to target routine. Action: Check for possible storage overlay.
		.... 11..		IEAFPRC_ENV	"X'0000000C" Meaning: Environmental error Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IEAFPRSNFROMASYNCHEXIT	"X'00000C01" Meaning: IEAFP was issued from an asynchronous exit routine. Action: Avoid issuing IEAFP from an asynchronous exit routine.

## IHAFRRSO Information

### IHAFRRSO Heading Information

**Common Name:** OLD IHAFRRS  
**Macro ID:** IHAFRRSO  
**DSECT Name:** FRRSO, FRRSOXSTK, FRRSOENTR, FRRSOXENT  
**Owning Component:** RECOVERY TERMINATION MANAGER (SCRTM)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: 239  
 Key: 0  
**Size:** 856 BYTES OR LESS  
**Created by:** IEAVNIP0 OR IEFVCPU  
**Pointed to by:** PSA DATA AREA FIELDS -  
 PSACSTK (CURRENT FRR STACK)  
 PSANSTK (NORMAL FRR STACK)  
 PSASSTK (SVC-I/O-DISPATCHER FRR STACK)  
 PSASSAV (CURRENT FRR STACK SAVED BY SVC-I/O-DISPATCHER)  
 PSAMSTK (MACHINE CHECK FLIH FRR STACK)  
 PSAMSAV (CURRENT FRR STACK AT TIME OF MACHINE CHECK)  
 PSAPSTAK (PROGRAM CHECK FLIH FRR STACK)  
 PSAPSAV (CURRENT FRR STACK AT TIME OF PROGRAM CHECK)  
 PSAESTK1 (EXTERNAL FLIH1 FRR STACK)  
 PSAESAV1 (CURRENT FRR STACK AT TIME OF EXTERNAL INTERRUPT)  
 PSAESTK2 (EXTERNAL FLIH2 FRR STACK)  
 PSAESAV2 (CURRENT FRR STACK AT TIME OF FIRST RECURSIVE EXTERNAL INTERRUPT)  
 PSAESTK3 (EXTERNAL FLIH3 FRR STACK)  
 PSAESAV3 (CURRENT FRR STACK AT TIME OF SECOND RECURSIVE EXTERNAL INTERRUPT)  
 PSARSTK (RESTART FLIH FRR STACK)  
 PSARSAV (CURRENT FRR STACK AT TIME OF RESTART INTERRUPT)  
 PSATSTK (RECOVERY TERMINATION MANAGER FRR STACK)  
 PSATSAV (ERROR STACK SAVED BY RTM PROCESSING)  
 PSAASTK (ALTERNATE CPU RECOVERY FRR STACK)  
 PSAASAV (FRR STACK SAVED BY ACR PROCESSING)  
**Serialization:** AT LEAST ONE OF THE FOLLOWING -  
 DISABLEMENT, SRB MODE, ANY LOCK HELD, OR AN EUT=YES FRR IS ESTABLISHED AND HAS NOT BEEN DELETED  
**Function:** MAPPING OF FRR STACK CONTENTS, USED WITH THE SETFRR MACRO TO DEFINE FRRSO

### IHAFRRSO Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	600	FRRSO	
0	(0)	CHARACTER	88	FRRSOND	NON-DYNAMIC PART OF THE FRR STACK
0	(0)	CHARACTER	16	FRRSOHEAD	THE HEADER OF THE FRR STACK
0	(0)	ADDRESS	4	FRRSOEMP	ADDRESS WHICH INDICATES AN EMPTY STACK
4	(4)	ADDRESS	4	FRRSOLAST	ADDRESS OF LAST ENTRY IN STACK
8	(8)	SIGNED	4	FRRSOELEN	LENGTH OF EACH ENTRY IN THE STACK
12	(C)	ADDRESS	4	FRRSOCURR	ADDRESS OF CURRENT FRR ENTRY IN THE STACK
16	(10)	CHARACTER	24	FRRSORSA	SETFRR REG 14-3 SAVE AREA
40	(28)	CHARACTER	4	FRRSORTMW	RECURSION CONTROL DATA REMOVED FROM THE RT1W
44	(2C)	UNSIGNED	2	FRRSOENTL	RESERVED FOR FRRSOCOPY MACRO TO SAVE LENGTH OF ENTRIES ACTUALLY COPIED
46	(2E)	UNSIGNED	2	FRRSOEXTL	RESERVED FOR FRRSOCOPY MACRO TO SAVE LENGTH OF EXTENSIONS ACTUALLY COPIED
48	(30)	CHARACTER	8	*	RESERVED
56	(38)	ADDRESS	4	FRRSORTMA	ADDRESS OF RTM1 WORK AREA
60	(3C)	ADDRESS	4	FRRSOXSTA	ADDRESS OF THE EXTENSIONS TO THE FRR ENTRIES (ACTUAL SIZE IS 16 TIMES THE MAXIMUM NUMBER OF ENTRIES)
64	(40)	CHARACTER	24	FRRSOASA	SETFRR ACCESS REGISTER 14-3 SAVE AREA
88	(58)	CHARACTER	512	FRRSOENTS	THE FRR ENTRIES IN THE STACK

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	32	FRRSOENTR	THE MAPPING OF A FRR ENTRY
0	(0)	ADDRESS	4	FRRSOFRA	THE ADDRESS OF THE FRR
0	(0)	CHARACTER	3	*	

## IHAFRRSO Constants • IHAFRRSO Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
3	(3)	CHARACTER 1111 111. .... ...1	1	FRRSOFRA1 *	LOW ORDER BYTE
4	(4)	CHARACTER	4	FRRSOXFLG	FLAG INDICATING FRRSOFGLS INITIALIZED WHEN SETFRR WAS ISSUED
4	(4)	CHARACTER 1... ....	1	FRRSOFGL1 FRRSORCUR	FLAGS USED BY RTM DURING FRR PROCESSING RECURSION USED BY RTM RECURSION FLAG USED WHEN GIVING CONTROL TO FRR AND WHEN RECEIVING CONTROL BACK FROM FRR
		.1.. ....		FRRSONEST	FLAG INDICATING A NESTED FRR ENTRY
		..1. ....		FRRSONLCL	FLAG INDICATING THAT NESTED FRR IS A MODE=LOCAL FRR
		...1 ....		FRRSONGLB	FLAG INDICATING THAT NESTED FRR IS A MODE=GLOBAL FRR
		.... 1...		FRRSONRTY	FRR RETRY INDICATOR. IF ON, FRR CANNOT RETRY.
5	(5)	CHARACTER	1	FRRSOFGL2	RESERVED
6	(6)	CHARACTER 1111 11.. .... ..11	1	FRRSOFGL3 *	RESULT OF IAC INSTRUCTION FROM TIME OF SETFRR
7	(7)	CHARACTER 1... .... .1.. .... ..11 .... .... 1... .... ..1. .... ..1. .... ...1	1	FRRSOASC FRRSOFGL4 FRRSOEUT FRRSONCNL * FRRSOFULL FRRSOPRIM FRRSOLCL FRRSOGLB	ASC FLAGS FLAGS TO INDICATE OPTIONS CHOSEN WHEN THE SETFRR WAS ISSUED ENABLED UNLOCKED TASK FRR (EUT=YES ON SETFRR) CANCEL=NO FRR, PROTECTED FROM CANCELS, DETACHES RESERVED MODE=FULLXM WAS SPEC ON THE SETFRR MODE=PRIMARY WAS SPEC ON THE SETFRR MODE=LOCAL WAS SPEC ON THE SETFRR MODE=GLOBAL WAS SPEC ON THE SETFRR
8	(8)	CHARACTER	24	FRRSOPARM	PARAMETER AREA PASSED TO FRR

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	16	FRRSOXENT	THE MAPPING OF AN FRR ENTRY EXTENSION
0	(0)	CHARACTER	8	FRRSOXM	CROSS MEMORY INFO WHEN SETFRR WAS ISSUED
0	(0)	CHARACTER	4	FRRSOOCR3	CONTROL REGISTER 3 WHEN SETFRR WAS ISSUED
0	(0)	CHARACTER	2	FRRSOKM	KEY MASK
2	(2)	CHARACTER	2	FRRSOSAS	SASID
4	(4)	CHARACTER	4	FRRSOOCR4	CONTROL REGISTER 4 WHEN SETFRR WAS ISSUED
4	(4)	CHARACTER	2	FRRSOAX	AUTHORIZATION INDEX
6	(6)	CHARACTER	2	FRRSOPAS	PASID
8	(8)	ADDRESS	4	FRROEAX	EAX VALUE AT SETFRR
12	(C)	ADDRESS	4	FRRROLS	LINKAGE STACK AT SETFRR

## IHAFRRSO Constants

Len	Type	Value	Name	Description
4	DECIMAL	32	FRRSOESZE	LENGTH OF EACH FRR ENTRY
4	DECIMAL	16	FRRSOESZ	LENGTH OF EACH FRR EXTENSION
4	DECIMAL	16	FRRSONENT	NUMBER OF FRR ENTRIES IN THE STACK
4	DECIMAL	856	FRRSOTLEN	TOTAL LENGTH OF NORMAL FRR STACK

## IHAFRRSO Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
FRROEAX	8		FRRSOFGL4	7	
FRRROLS	C		FRRSOFRA1	3	
FRRSO	0		FRRSOFRA	0	
FRRSOASA	40		FRRSOFULL	7	08
FRRSOASC	6	03	FRRSOGLB	7	01
FRRSOAX	4		FRRSOHEAD	0	
FRRSOOCR3	0		FRRSOKM	0	
FRRSOOCR4	4		FRRSOLAST	4	
FRRSOCURR	C		FRRSOLCL	7	02
FRRSOELEN	8		FRRSONCNL	7	40
FRRSOEMP	0		FRRSOND	0	
FRRSOENTL	2C		FRRSONEST	4	40
FRRSOENTR	0		FRRSONGLB	4	10
FRRSOENTS	58		FRRSONLCL	4	20
FRRSOEUT	7	80	FRRSONRTY	4	08
FRRSOEXTL	2E		FRRSOPARM	8	
FRRSOFGLS	4		FRRSOPAS	6	
FRRSOFGL1	4		FRRSOPRIM	7	04
FRRSOFGL2	5		FRRSORCUR	4	80
FRRSOFGL3	6		FRRSORSA	10	

Name	Hex Offset	Hex Value
FRRSORTMA	38	
FRRSORTMW	28	
FRRSOSAS	2	
FRRSOXENT	0	
FRRSOXFLG	3	01
FRRSOXM	0	
FRRSOXSTA	3C	





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## IHAFSD Information

### IHAFSD Programming Interface information

Programming Interface information

IHAFSD

End of Programming Interface information

## IHAFSD Heading Information • IHAFSD Map

### IHAFSD Heading Information

**Common Name:** FICON Switch Data  
**Macro ID:** IHAFSD  
**DSECT Name:** FSD - FICON Switch Data MHR - Monitor Header Record MPIR - Monitor Port Information Record SCR - Statistical Counter Record  
MCR - Monitor Control Record SCCW - Statistical Counter Control Word  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** FSD  
Offset: 0  
Length: 4  
**Storage Attributes:** Subpool: 252 (system copy), or user-specified (user copy)  
Key: 0, or user-specified  
Residency: Above 16MB, or user-specified  
**Size:** FSD -- X'002C' bytes  
MHR -- X'0010' bytes  
MPIR -- X'0010' bytes  
SCR -- X'0008' bytes  
MCR -- X'0100' bytes  
SCCW -- X'0004' bytes  
**Created by:** IOSVFSD  
**Pointed to by:** FsdDceFsdDataPtr, or IRDFSD\_XFSDADDRESS  
**Serialization:** SYSZIOS,FSD resource  
**Function:** Maps the area containing the port statistical data returned by the IRDFSD service.  
The area contains a header followed by a Monitor Information Record (MIR) for a single switch.  
The MIR consists of one Monitor Header Record (MHR), one or more Monitor Port Information Records (MPIRs), and one or more Statistical Counter Records (SCRs) for each MPIR.

```

FSD
-----
|FsdHeader      |
| FsdID         |
| FsdVers       |
| FsdSubp       |
| FsdAreaSize   |
| FsdTimeStamp  |
| FsdDevn       |
| FsdFlags      |
| FsdOffsetOfMIR |
|FsdStartOfMIR |
| MIR           |
|              |
-----
MIR
-----
| MHR           |
|-----|
| MPIR for some port |
|-----|
| SCR for some counter for this port |
|-----|
| SCR for some counter for this port |
|-----|
| MPIR for some port |
|-----|
| SCR for some counter for this port |
|-----|
| SCR for some counter for this port |
|-----|

```

### IHAFSD Map

Offsets		Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FSD	FICON Switch Data
0	(0)	CHARACTER	44	FSDHEADER (0)	
0	(0)	CHARACTER	4	FSDID	FSD ID field
4	(4)	BITSTRING	1	FSDVERS	Version
5	(5)	CHARACTER	2		Reserved
7	(7)	BITSTRING	1	FSDSUBP	FSD Subpool
8	(8)	SIGNED	4	FSDAREASIZE	Total size of the area
12	(C)	CHARACTER	4		Reserved
16	(10)	CHARACTER	16	FSDTIMESTAMP	Extended TOD clock value

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
32	(20)	CHARACTER	2	FSDDEVN	Device number
34	(22)	CHARACTER	2	FSDFLAGS (0)	Flags
34	(22)	BITSTRING	1		
35	(23)	BITSTRING	1		
36	(24)	CHARACTER	4		Reserved
40	(28)	SIGNED	4	FSDOFFSETOFMIR	Offset from the beginning of FSD of the MIR data
44	(2C)	CHARACTER	1	FSDSTARTOFMIR (0)	
44	(2C)	X'2C'	0	FSD_LEN	"*-FSD"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MHR	Monitor Header Record
0	(0)	CHARACTER	1	MHRID	MHR ID is x'60'
1	(1)	BITSTRING	1	MHRCOUNT	MHR length in 4-byte words
2	(2)	CHARACTER	1	MHRSTATUS (0)	Status
		..1. ....		MHRELAPSEDTIMEOVERFLOW	"X'20" Elapsed time overflow
		...1 ....		MHRCOUNTERSET	"X'10" On indicates the complete counter set has been read, off indicates that a subset has been returned
		.... 1...		MHRRECORDTRUNCATED	"X'08" On indicates that the byte count was not sufficient to transfer the entire record, and the record has been truncated
3	(3)	CHARACTER	3		Reserved
6	(6)	CHARACTER	2	MHRELAPSEDTIMECOUNT	Elapsed time counter
8	(8)	CHARACTER	1	MHRVERSIONSUPPORTED	Version supported
9	(9)	CHARACTER	1	MHRVERSIONPRESENTED	Version presented
10	(A)	CHARACTER	2		Reserved
12	(C)	CHARACTER	4	MHRSEQUENCENUMBER	Sequence Number
12	(C)	X'10'	0	MHR_LEN	"*-MHR"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MPIR	Monitor Port Information record
0	(0)	CHARACTER	1	MPIRID	MPIR ID is x'61'
1	(1)	BITSTRING	1	MPIRCOUNT	MPIR length in 4-byte words
2	(2)	CHARACTER	1	MPIRSTATUS (0)	Status
		1... ....		MPIRSTATITCALCOUNTERSPROVIDED	"X'80" Counters provided
		.1.. ....		MPIRLAST	"X'40" Last MPIR
		...1 ....		MPIRINTERNALPORT	"X'10" On indicates an internal port, off indicates an external port
3	(3)	CHARACTER	2		Reserved
5	(5)	BITSTRING	1	MPIRPORTNUMBER	Port number (always x'FF' for internal ports)
6	(6)	BITSTRING	1	MPIRPORTADDRESS	Port address
7	(7)	CHARACTER	1		Reserved
8	(8)	CHARACTER	4	MPIRPORTDESCRIPTOR	Port descriptor
12	(C)	CHARACTER	4		Reserved
12	(C)	X'10'	0	MPIR_LEN	"*-MPIR"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SCR	Statistical Counter Record
0	(0)	CHARACTER	1	SCRSTATUS (0)	Status
		1... ....		SCRCOUNTERVALID	"X'80" Counters provided
		.1.. ....		SCRLAST	"X'40" Last SCR
		..1. ....		SCROVERFLOW	"X'20" Counter overflowed

# IHAFSD Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		.... ..11		SCRSCALE	"X'03" Counter scaling factor: '00'b = scale by 1x '01'b = scale by 16x '10'b = scale by 256x '11'b = scale by 4096x
1	(1)	BITSTRING	1	SCRCOUNT	SCR length in 4-byte words
2	(2)	CHARACTER	2	SCRSTATISTICALCOUNTERID	Counter ID
4	(4)	SIGNED	4	SCRSTATISTICALCOUNTERDATA	Statistical Counter Data

Comment

Performance Counter Identifiers

End of Comment

4	(4)	BITSTRING	0	SCIDNUMBEROFWORDSTRANSMITTED	"X'0901"
4	(4)	BITSTRING	0	SCIDNUMBEROFWORDSRECEIVED	"X'0902"
4	(4)	BITSTRING	0	SCIDNUMBEROFFRAMESTRANSMITTED	"X'0903"
4	(4)	BITSTRING	0	SCIDNUMBEROFFRAMESRECEIVED	"X'0904"
4	(4)	BITSTRING	0	SCIDNUMBEROFCLASS2FRAMESRECV	"X'0905"
4	(4)	BITSTRING	0	SCIDNUMBEROFCLASS3FRAMESRECV	"X'0906"
4	(4)	BITSTRING	0	SCIDNUMBEROFLINKCNTLFRAMESR	"X'0907"
4	(4)	BITSTRING	0	SCIDNUMBEROFMULTICASTFRAMESR	"X'0908"
4	(4)	BITSTRING	0	SCIDFRAMEPACINGTIME	"X'0909"

Comment

Frame Error Counter Identifiers

End of Comment

4	(4)	BITSTRING	0	SCIDNUMBEROFDISPARITYERRORSIN	"X'0910"
4	(4)	BITSTRING	0	SCIDNUMBEROFRCRERRORS	"X'0911"
4	(4)	BITSTRING	0	SCIDNUMBEROFFRAMESGTFMAX	"X'0912"
4	(4)	BITSTRING	0	SCIDNUMBEROFFRAMESLTFMIN	"X'0913"
4	(4)	BITSTRING	0	SCIDNUMBEROFFRAMESWITHBADEOF	"X'0914"
4	(4)	BITSTRING	0	SCIDNUMBEROFDISPARITYERRORSOUT	"X'0915"
4	(4)	BITSTRING	0	SCIDNUMBEROFINVALIDORDSETS	"X'0916"
4	(4)	BITSTRING	0	SCIDNUMBEROFCLASS3FRAMESDISC	"X'0917"

Comment

Link Error Counter Identifiers

End of Comment

4	(4)	BITSTRING	0	SCIDNUMBEROFLINKFAILURES	"X'0920"
4	(4)	BITSTRING	0	SCIDNUMBEROFLOSSOF SYNC	"X'0921"
4	(4)	BITSTRING	0	SCIDNUMBEROFLOSSOF SIGNAL	"X'0922"
4	(4)	BITSTRING	0	SCIDNUMBEROFPROTOCOLERRORS	"X'0923"
4	(4)	BITSTRING	0	SCIDNUMBEROFINVTRANWORDS	"X'0924"
4	(4)	BITSTRING	0	SCIDNUMBEROFADDRESSIDERRORS	"X'0925"
4	(4)	BITSTRING	0	SCIDNUMBEROFLRRISSUEDBYPORT	"X'0926"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
4	(4)	BITSTRING	0	SCIDNUMBEROFOLSRECEIVED	"X'0927"
4	(4)	BITSTRING	0	SCIDNUMBEROFOLSISSUED	"X'0928"
4	(4)	BITSTRING	0	SCIDERRORSUMMARYCOUNT	"X'0929"

Comment

Constants  
Some of these will need to be updated as additional counter IDs are defined.

End of Comment

4	(4)	X'A'	0	NUMBEROFDEFAULTCOUNTERS	"10"
4	(4)	X'1B'	0	NUMBEROFCOUNTERSDEFINED	"27"
4	(4)	X'901'	0	CODEMINIMUM	"2305" Lowest valid ID
4	(4)	X'929'	0	CODEMAXIMUM	"2345" Highest valid ID

Comment

Statistical Counter Scaling Factors

End of Comment

		.... ....		SCRSCALE_1	"B'00000000" Scale by 1
		.... ..1		SCRSCALE_16	"B'00000001" Scale by 16
		.... ..1.		SCRSCALE_256	"B'00000010" Scale by 256
		.... ..11		SCRSCALE_4096	"B'00000011" Scale by 4096
4	(4)	X'8'	0	SCR_LEN	"*-SCR"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MCR	Monitor control record
0	(0)	CHARACTER	2		Reserved
2	(2)	CHARACTER	1	MCRMC	Monitor control
3	(3)	CHARACTER	1		Reserved
4	(4)	CHARACTER	4		Reserved
8	(8)	CHARACTER	1	MCRVERSION	Version requested
9	(9)	CHARACTER	2		Reserved
11	(B)	CHARACTER	1	MCRSTARTPORT	Starting Port Number
12	(C)	CHARACTER	3		Reserved
15	(F)	CHARACTER	1	MCRENDPORT	Ending Port Number
16	(10)	CHARACTER	240	MCRCCW	Counter control words
16	(10)	X'100'	0	MCR_LEN	"*-MCR"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SCCW	Statistical Counter Control Word (60 maximum)
0	(0)	CHARACTER	1	SCCWFLAG (0)	Flag byte
		1... ....		SCCWLAST	"X'80" Last counter control word
1	(1)	CHARACTER	1		Reserved
2	(2)	BITSTRING	2	SCCWSTATISTICALCOUNTERID	Statistical Counter ID

Comment

CCW Op Codes

End of Comment

		..11 ...1		FSDSETMONITOR	"X'31"
		..11 ..1.		FSDREADPORTSTATISTICS	"X'32"

## IHAFSD Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
Other Constants					
End of Comment					
2	(2)	X'E2C440'	0	FSDIDNAME	"C'FSD ""
2	(2)	X'2'	0	FSDVERSION02	"2"
		.11. ....		MHRID60	"X'60"
		.... .1..		MHRCOUNT04	"X'04"
		.11. ...1		MPIRID61	"X'61"
		.... .1..		MPIRCOUNT04	"X'04"
2	(2)	X'4'	0	SCCW_LEN	"*-SCCW"

## IHAFSD Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
CODEMAXIMUM	4	929	MPIRID61	2	61
CODEMINIMUM	4	901	MPIRINTERNALPORT		
FSD	0			2	10
FSD_LEN	2C	2C	MPIRLAST	2	40
FSDAREASIZE	8		MPIRPORTADDRESS		
FSDDEVN	20			6	
FSDFLAGS	22		MPIRPORTDESCRIPTOR		
FSDHEADER	0			8	
FSDID	0		MPIRPORTNUMBER		
FSDIDNAME	2	E2C440		5	
FSDOFFSETOFMIR			MPIRSTATITCALCOUNTERSPROVIDED		
	28			2	80
FSDREADPORTSTATISTICS			MPIRSTATUS	2	
	2	32	NUMBEROFCOUNTERSDEFINED		
FSDSETMONITOR				4	1B
	2	31	NUMBEROFDEFAULTCOUNTERS		
FSDSTARTOFMIR				4	A
	2C		SCCW	0	
FSDSUBP	7		SCCW_LEN	2	4
FSDTIMESTAMP	10		SCCWFLAG	0	
FSDVERS	4		SCCWLAST	0	80
FSDVERSION02	2	2	SCCWSTATISTICALCOUNTERID		
MCR	0			2	
MCR_LEN	10	100	SCIDERRORSUMMARYCOUNT		
MCRCCW	10			4	929
MCRENDPORT	F		SCIDFRAMEPACINGTIME		
MCRMC	2			4	909
MCRSTARTPORT	B		SCIDNUMBEROFADDRESSIDERRORS		
MCRVERSION	8			4	925
MHR	0		SCIDNUMBEROFCLASS2FRAMESRECV		
MHR_LEN	C	10		4	905
MHRCOUNT	1		SCIDNUMBEROFCLASS3FRAMESDISC		
MHRCOUNTERSET				4	917
	2	10	SCIDNUMBEROFCLASS3FRAMESRECV		
MHRCOUNT04	2	4		4	906
MHRELAPSEDTIMECOUNT			SCIDNUMBEROFCRCERRORS		
	6			4	911
MHRELAPSEDTIMEOVERFLOW			SCIDNUMBEROFDISPARITYERRORSIN		
	2	20		4	910
MHRID	0		SCIDNUMBEROFDISPARITYERRORSOUT		
MHRID60	2	60		4	915
MHRRECORDTRUNCATED			SCIDNUMBEROFFRAMESGTFMAX		
	2	8		4	912
MHRSEQUENCENUMBER			SCIDNUMBEROFFRAMESLTFCMIN		
	C			4	913
MHRSTATUS	2		SCIDNUMBEROFFRAMESRECEIVED		
MHRVERSIONPRESENTED				4	904
	9		SCIDNUMBEROFFRAMESTRANSMITTED		
MHRVERSIONSUPPORTED				4	903
	8		SCIDNUMBEROFFRAMESWITHBADEOF		
MPIR	0			4	914
MPIR_LEN	C	10	SCIDNUMBEROFINVALIDORDSETS		
MPIRCOUNT	1			4	916
MPIRCOUNT04	2	4	SCIDNUMBEROFINVTRANWORDS		
MPIRID	0			4	924

Name	Hex Offset	Hex Value
SCIDNUMBEROFLINKCNTLFRAMESR	4	907
SCIDNUMBEROFLINKFAILURES	4	920
SCIDNUMBEROFLOSSOFSIGNAL	4	922
SCIDNUMBEROFLOSSOFSYNC	4	921
SCIDNUMBEROFLRRISSUEDBYPORT	4	926
SCIDNUMBEROFMULTICASTFRAMESR	4	908
SCIDNUMBEROFOLSISSUED	4	928
SCIDNUMBEROFOLSRECEIVED	4	927
SCIDNUMBEROFPROTOCOLERRORS	4	923
SCIDNUMBEROFWORDSRECEIVED	4	902
SCIDNUMBEROFWORDSTRANSMITTED	4	901
SCR	0	
SCR_LEN	4	8
SCRCOUNT	1	
SCROUNTERVALID	0	80
SCRLAST	0	40
SCROVERFLOW	0	20
SCRSCALE	0	3
SCRSCALE_1	4	0
SCRSCALE_16	4	1
SCRSCALE_256	4	2
SCRSCALE_4096	4	3
SCRSTATISTICALCOUNTERDATA	4	
SCRSTATISTICALCOUNTERID	2	
SCRSTATUS	0	





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## IHAIPA Information

### IHAIPA Programming Interface information

Programming Interface information

IHAIPA

End of Programming Interface information

## IHAIPA Heading Information • IHAIPA Map

### IHAIPA Heading Information

**Common Name:** Initialization Parameter Area  
**Macro ID:** IHAIPA  
**DSECT Name:** IPA IPAPDE IPAPLI  
**Owning Component:** Nucleus Initialization Program (SC1C8)  
**Eye-Catcher ID:** IPA  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Main Storage: NO  
 Virtual Storage: YES  
 Auxiliary Storage: YES  
 Subpool: 241  
 Key: 0  
 Data Space: NO  
 Residency: Above 16M virtual  
**Size:** IPA -- X'0B80' bytes  
 IPAPDE -- X'0008' bytes  
 IPAPLI -- X'0040' bytes  
**Created by:** IEAVNIPX  
**Pointed to by:** ECVTIPA  
**Serialization:** NONE  
**Function:** The IPA contains system initialization parameters defined in:  
 1) the load parameter used to IPL.  
 2) the LOADxx member used to IPL.  
 3) all IEASYSxx members used to IPL.  
 Each set of parameter information is mapped by dsect IPAPDE.

### IHAIPA Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	IPA	Initialization Parameter Area
0	(0)	CHARACTER	96	IPAHEAD	Header section
0	(0)	CHARACTER	4	IPAID	Eye-catcher
4	(4)	SIGNED	2	IPALEN	Length
6	(6)	BITSTRING	1	IPASP	Subpool
7	(7)	BITSTRING	1	IPAVR	Version number
8	(8)	CHARACTER	8	IPAICTOD	TOD at completion of system initialization
16	(10)	CHARACTER	8	IPALPARM	IPL load parameter
16	(10)	CHARACTER	4	IPAIODFU	IODF unit address
20	(14)	CHARACTER	2	IPALLOADS	LOADxx suffix
22	(16)	CHARACTER	1	IPAPROMT	Operator prompt flag
23	(17)	CHARACTER	1	IPANUCID	Nucleus ID
24	(18)	CHARACTER	24	IPANAMES	System name values
24	(18)	CHARACTER	8	IPAHWNAM	HWNAME value
32	(20)	CHARACTER	8	IPALPNAM	LPARNAME value
40	(28)	CHARACTER	8	IPAVMNAM	VMUSERID value
48	(30)	CHARACTER	44	IPALPDSN	IPL load parameter dataset name
92	(5C)	CHARACTER	4	IPALPDDV	IPL load parameter dataset device number
96	(60)	CHARACTER	2056	IPALOAD	LOADxx section
96	(60)	CHARACTER	64	IPAIODF	IODF card image
96	(60)	CHARACTER	2	IPAIOSUF	IODF dataset name suffix
98	(62)	CHARACTER	1		Reserved
99	(63)	CHARACTER	8	IPAIOHLQ	IODF dataset name high-level qualifier
107	(6B)	CHARACTER	1		Reserved
108	(6C)	CHARACTER	8	IPAIOCFG	Operating system configuration identifier
116	(74)	CHARACTER	1		Reserved
117	(75)	CHARACTER	2	IPAIOEDT	EDT identifier
119	(77)	CHARACTER	1		Reserved
120	(78)	CHARACTER	1	IPAIODDS	Load all device support modules ("Y"= " ", or "N")
160	(A0)	CHARACTER	64	IPASPARM	SYSARM card image
160	(A0)	CHARACTER	2	IPASPSUF	IEASYSxx suffix
160	(A0)	CHARACTER	63	IPASPLST	List of IEASYSxx suffixes in parentheses
224	(E0)	CHARACTER	64	IPASCAT	SYSCAT card image
224	(E0)	CHARACTER	6	IPASCVOL	Master catalog VOLSER
230	(E6)	CHARACTER	1	IPASCTYP	Master catalog type (" "=VSAM, "1"=ICF, "2"=ICF and SYS%-SYS1 conversion)
231	(E7)	CHARACTER	1	IPASCANL	Alias name level
232	(E8)	CHARACTER	2	IPASCCAS	CAS service task lower limit ("18" to "B4")
234	(EA)	CHARACTER	44	IPASCDSN	Master catalog dataset name
278	(116)	CHARACTER	8	IPASCHLQ	HLQ of master cat
288	(120)	CHARACTER	64	IPASYM	IEASYM card image
288	(120)	CHARACTER	2	IPASYSUF	IEASYMxx suffix
288	(120)	CHARACTER	63	IPASYLST	List of IEASYMxx suffixes in parentheses
352	(160)	CHARACTER	64	IPAPLEX	SYSPLEX card image

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
352	(160)	CHARACTER	8	IPASXNAM	SYSPLEX name
360	(168)	CHARACTER	1		Reserved
361	(169)	CHARACTER	1	IPASXSCU	SYSCONE uniqueness indicator
416	(1A0)	CHARACTER	64	IPAPLIB	PARMLIB card images
416	(1A0)	CHARACTER	44	IPAPLDSN	PARMLIB dataset name
460	(1CC)	CHARACTER	1		Reserved
461	(1CD)	CHARACTER	6	IPAPLVOL	PARMLIB VOLSER
467	(1D3)	CHARACTER	12		Reserved
479	(1DF)	BITSTRING	1	IPAPFLG	PARMLIB usage flags

Comment

Bit definitions:

End of Comment

		1... ....		IPAPLUSE	"X'80" PARMLIB in use
		.1. ....		IPAPLDEF	"X'40" Default PARMLIB
		..1. ....		IPAPLCAT	"X'20" IPAPLVOL found from catalog
		.... 1...		IPAPLLCF	"X'08" PARMLIB not used - LOCATE failed
		.... .1..		IPAPLMNF	"X'04" PARMLIB not used - MOUNT failed
		.... ..1.		IPAPLOPF	"X'02" PARMLIB not used - OPEN failed
1504	(5E0)	CHARACTER	64	IPASTMTMM	This is not part of the programming interface.
1696	(6A0)	CHARACTER	64	IPASTMT	Reserved, use from the end in case we need to add more MACHMIG statements
2080	(820)	CHARACTER	40		Reserved
2120	(848)	CHARACTER	8	IPAALTOD	Local time at completion of system initialization, in TOD format.
2128	(850)	ADDRESS	4	IPAMACHMIGADDR	Address of MACHMIG statements. This is an array of 64-character card images. The number of array entries is indicated by IPANumMachmigs
2132	(854)	SIGNED	2	IPANUMMACHMIGS	Number of MACHMIG statements
2134	(856)	SIGNED	2	IPAPLNUMX	Number of PARMLIB card images. The card images must be found by using field IPAPLIB@. This field will be 0 (as will IPAPLIB@) on older systems where IPAPLNUMX is not functional.
2136	(858)	ADDRESS	4	IPAPLIB@	Address of PARMLIB card images when IPAPLNUMX is non-zero. The card images are contiguous. Each PARMLIB card is mapped by DSECT IPAPLI
2140	(85C)	SIGNED	2	IPANUMPDES	Number of parameter descriptor elements in IPASYS
2142	(85E)	CHARACTER	1	IPAMTLSH	MTLSHARE VALUE
2143	(85F)	CHARACTER	1	IPAARCHL	Architecture Level
2144	(860)	CHARACTER	4	IPANUCL	NUCLST information
2144	(860)	CHARACTER	2	IPANLID	NUCLSTxx member used
2146	(862)	CHARACTER	1	IPANUCW	Load wait state if NUCLSTxx INCLUDE member not found
2147	(863)	CHARACTER	1		Reserved
2148	(864)	SIGNED	2	IPAPLNUM	Number of PARMLIB card images. You can find the PARMLIB images in the IPAPLIB field of this mapping. This is the "old" field. It is preferred that you use IPAPLNUMX. If the number of user-specifiable parmlibs ever exceeds 16 (which could mean that there are 17 total parmlibs, if the system has added SYS1.PARMLIB), IPAPLNUM will never exceed 17. At such a time, IPAPLNUMX and IPAPLIB would have to be used to get the entire list.
2150	(866)	BITSTRING	1	IPALFLAG	LOADxx usage flags

Comment

Bit definitions:

End of Comment

		1... ....		IPAJCLP	"X'80" Master JCL came from PARMLIB
		.1. ....		IPAUJCL	"X'40" Use Master JCL IEFPARMs instead of LOADxx PARMLIBs
2151	(867)	CHARACTER	1	IPANUCXID	Nucleus extension ID
2152	(868)	CHARACTER	792	IPASYS	IEASYSxx section
2152	(868)	CHARACTER	8	IPAPDES	Parameter descriptor elements
2152	(868)	CHARACTER	792	IPAPDESC	Individual parameter descriptors
2152	(868)	CHARACTER	8	IPAALLOC	

Comment

PDE for ALLOC

End of Comment

2160	(870)	CHARACTER	8	IPAAPF	
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# IHAIPA Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
					Comment
PDE for APF					
2168	(878)	CHARACTER	8	IPAAPG	End of Comment
					Comment
PDE for APG					
2176	(880)	CHARACTER	8	IPABDL	End of Comment
					Comment
PDE for BLDL					
2184	(888)	CHARACTER	8	IPABDLF	End of Comment
					Comment
PDE for BDLF					
2192	(890)	CHARACTER	8	IPACLOCK	End of Comment
					Comment
PDE for CLOCK					
2200	(898)	CHARACTER	8	IPACLPA	End of Comment
					Comment
PDE for CLPA					
2208	(8A0)	CHARACTER	8	IPACMB	End of Comment
					Comment
PDE for CMB					
2216	(8A8)	CHARACTER	8	IPACMD	End of Comment
					Comment
PDE for CMD					
2224	(8B0)	CHARACTER	8	IPACON	End of Comment
					Comment
PDE for CON					
2232	(8B8)	CHARACTER	8	IPACONT	End of Comment
					Comment
PDE for CONT					
2240	(8C0)	CHARACTER	8	IPACOUPL	End of Comment

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
					Comment
PDE for COUPLE					
					End of Comment
2248	(8C8)	CHARACTER	8	IPACPQE	
					Comment
PDE for CPQE					
					End of Comment
2256	(8D0)	CHARACTER	8	IPACSA	
					Comment
PDE for CSA					
					End of Comment
2264	(8D8)	CHARACTER	8	IPACSCBL	
					Comment
PDE for CSCBLOC					
					End of Comment
2272	(8E0)	CHARACTER	8	IPACVIO	
					Comment
PDE for CVIO					
					End of Comment
2280	(8E8)	CHARACTER	8	IPAEVSU	
					Comment
PDE for DEVSUP					
					End of Comment
2288	(8F0)	CHARACTER	8	IPADIAG	
					Comment
PDE for DIAG					
					End of Comment
2296	(8F8)	CHARACTER	8	IPADUMP	
					Comment
PDE for DUMP					
					End of Comment
2304	(900)	CHARACTER	8	IPADUPLE	
					Comment
PDE for DUPLEX					
					End of Comment
2312	(908)	CHARACTER	8	IPAEXIT	
					Comment
PDE for EXIT					
					End of Comment
2320	(910)	CHARACTER	8	IPAFIX	

# IHAIPA Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
					Comment
PDE for FIX					
2328	(918)	CHARACTER	8	IPAGRS	End of Comment
					Comment
PDE for GRS					
2336	(920)	CHARACTER	8	IPAGRSCN	End of Comment
					Comment
PDE for GRSCNF					
2344	(928)	CHARACTER	8	IPAGRSRN	End of Comment
					Comment
PDE for GRSRNL					
2352	(930)	CHARACTER	8	IPAICS	End of Comment
					Comment
PDE for ICS					
2360	(938)	CHARACTER	8	IPAIOS	End of Comment
					Comment
PDE for IOS					
2368	(940)	CHARACTER	8	IPAIPS	End of Comment
					Comment
PDE for IPS					
2376	(948)	CHARACTER	8	IPALNK	End of Comment
					Comment
PDE for LNK					
2384	(950)	CHARACTER	8	IPALNKAU	End of Comment
					Comment
PDE for LNKAUTH					
2392	(958)	CHARACTER	8	IPALOGCL	End of Comment
					Comment
PDE for LOGCLS					
2400	(960)	CHARACTER	8	IPALOGLM	End of Comment

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
					Comment
					PDE for LOGLMT
					End of Comment
2408	(968)	CHARACTER	8	IPALOGRE	
					Comment
					PDE for LOGREC
					End of Comment
2416	(970)	CHARACTER	8	IPALPA	
					Comment
					PDE for LPA
					End of Comment
2424	(978)	CHARACTER	8	IPAMAXCA	
					Comment
					PDE for MAXCAD
					End of Comment
2432	(980)	CHARACTER	8	IPAMAXUS	
					Comment
					PDE for MAXUSER
					End of Comment
2440	(988)	CHARACTER	8	IPAMLPA	
					Comment
					PDE for MLPA
					End of Comment
2448	(990)	CHARACTER	8	IPAMSTRJ	
					Comment
					PDE for MSTRJCL
					End of Comment
2456	(998)	CHARACTER	8	IPANONVI	
					Comment
					PDE for NONVIO
					End of Comment
2464	(9A0)	CHARACTER	8	IPANSYSL	
					Comment
					PDE for NSYSLX
					End of Comment
2472	(9A8)	CHARACTER	8	IPANUCMA	
					Comment
					PDE for NUCMAP
					End of Comment
2480	(9B0)	CHARACTER	8	IPAOMVS	

# IHAIPA Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
					Comment
PDE for OMVS					
					End of Comment
2488	(9B8)	CHARACTER	8	IPAOP1	
					Comment
PDE for OPI					
					End of Comment
2496	(9C0)	CHARACTER	8	IPAOPT	
					Comment
PDE for OPT					
					End of Comment
2504	(9C8)	CHARACTER	8	IPAPAGEO	
					Comment
PDE for PAGE (operator-specified)					
					End of Comment
2512	(9D0)	CHARACTER	8	IPAPAGEP	
					Comment
PDE for PAGE (IEASYSxx-specified)					
					End of Comment
2520	(9D8)	CHARACTER	8	IPAPAGNU	
					Comment
PDE for PAGNUM					
					End of Comment
2528	(9E0)	CHARACTER	8	IPAPAGTO	
					Comment
PDE for PAGTOTL					
					End of Comment
2536	(9E8)	CHARACTER	8	IPAPAK	
					Comment
PDE for PAK					
					End of Comment
2544	(9F0)	CHARACTER	8	IPAPLEXC	
					Comment
PDE for PLEXCFG					
					End of Comment
2552	(9F8)	CHARACTER	8	IPAPRODP	
					Comment
PDE for PRODP					
					End of Comment
2560	(A00)	CHARACTER	8	IPAPROG	



Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
					Comment
					PDE for PROG
					End of Comment
2568	(A08)	CHARACTER	8	IPAPURGE	
					Comment
					PDE for PURGE
					End of Comment
2576	(A10)	CHARACTER	8	IPARDE	
					Comment
					PDE for RDE
					End of Comment
2584	(A18)	CHARACTER	8	IPAREAL	
					Comment
					PDE for REAL
					End of Comment
2592	(A20)	CHARACTER	8	IPARER	
					Comment
					PDE for RER
					End of Comment
2600	(A28)	CHARACTER	8	IPARSU	
					Comment
					PDE for RSU
					End of Comment
2608	(A30)	CHARACTER	8	IPARSVNO	
					Comment
					PDE for RSVNONR
					End of Comment
2616	(A38)	CHARACTER	8	IPARSVST	
					Comment
					PDE for RSVSTRT
					End of Comment
2624	(A40)	CHARACTER	8	IPASCH	
					Comment
					PDE for SCH
					End of Comment
2632	(A48)	CHARACTER	8	IPASMF	
					Comment
					PDE for SMF
					End of Comment
2640	(A50)	CHARACTER	8	IPASMS	

# IHAIPA Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
					Comment
PDE for SMS					
2648	(A58)	CHARACTER	8	IPASQA	End of Comment
					Comment
PDE for SQA					
2656	(A60)	CHARACTER	8	IPASSN	End of Comment
					Comment
PDE for SSN					
2664	(A68)	CHARACTER	8	IPASVC	End of Comment
					Comment
PDE for SVC					
2672	(A70)	CHARACTER	8	IPASWAP	End of Comment
					Comment
PDE for SWAP					
2680	(A78)	CHARACTER	8	IPASYSNA	End of Comment
					Comment
PDE for SYSNAME					
2688	(A80)	CHARACTER	8	IPASYSN	End of Comment
					Comment
PDE for SYSP					
2696	(A88)	CHARACTER	8	IPAVAL	End of Comment
					Comment
PDE for VAL					
2704	(A90)	CHARACTER	8	IPAVIODS	End of Comment
					Comment
PDE for VIODSN					
2712	(A98)	CHARACTER	8	IPAVRREG	End of Comment
					Comment
PDE for VRREGN					
2720	(AA0)	CHARACTER	8	IPARTLSP	End of Comment

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
					Comment	
					Support for RTLS has been withdrawn	
					End of Comment	
2728	(AA8)	CHARACTER	8	IPAUNIP		
					Comment	
					PDE for UNI	
					End of Comment	
2736	(AB0)	CHARACTER	8	IPAILML		
					Comment	
					Support for ILM has been withdrawn	
					End of Comment	
2744	(AB8)	CHARACTER	8	IPAILMOD		
					Comment	
					Support for ILM has been withdrawn	
					End of Comment	
2752	(AC0)	CHARACTER	8	IPATSO		
					Comment	
					PDE for IKJTSO	
					End of Comment	
2760	(AC8)	CHARACTER	8	IPALIC		
					Comment	
					PDE for LICENSE 010409	
					End of Comment	
2768	(AD0)	CHARACTER	8			
2776	(AD8)	CHARACTER	8	IPAHVSHARE	PDE for VSHAR	
2784	(AE0)	CHARACTER	8	IPAILM		
					Comment	
					Support for ILM has been withdrawn	
					End of Comment	
2792	(AE8)	CHARACTER	8	IPADRMOD		
					Comment	
					PDE for DRMODE	
					End of Comment	
2800	(AF0)	CHARACTER	8	IPACEE		
					Comment	
					PDE for CEE	
					End of Comment	
2808	(AF8)	CHARACTER	8	IPAPRCPU		

# IHAIPA Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
					Comment
PDE for PRESCPU					
					End of Comment
2816	(B00)	CHARACTER	8	IPALFAREA	PDE for LFAREA
2824	(B08)	CHARACTER	8	IPACEA	
					Comment
PDE for CEA					
					End of Comment
2832	(B10)	CHARACTER	8	IPAHVCOMMON	PDE for VCOMM
2840	(B18)	CHARACTER	8	IPAAXR	
					Comment
PDE for AXR					
					End of Comment
2848	(B20)	CHARACTER	8	IPAZAAPZIIP	PDE for zAAPzIIP (ZZ)
2856	(B28)	CHARACTER	8	IPAIQP	
					Comment
PDE for IQP					
					End of Comment
2864	(B30)	CHARACTER	8	IPACPCR	
					Comment
PDE for CPCR					
					End of Comment
2872	(B38)	CHARACTER	8	IPADDM	
					Comment
PDE for DDM					
					End of Comment
2880	(B40)	CHARACTER	8	IPAAUTOR	
					Comment
PDE for AUTOR					
					End of Comment
2888	(B48)	CHARACTER	8	IPACATALOG	PDE for CATALOG
2896	(B50)	CHARACTER	8	IPAIXGCFN	PDE for IXGCFN
2904	(B58)	CHARACTER	8	IPAPAGESCM	PDE for PAGESCM
2912	(B60)	CHARACTER	8	IPAWARNUND	PDE for WARNUND
2920	(B68)	CHARACTER	8	IPAHZS	
					Comment
PDE for HZS					
					End of Comment
2928	(B70)	CHARACTER	8	IPAGTZ	
					Comment
PDE for GTZ					
					End of Comment
2936	(B78)	CHARACTER	8	IPAHZSPROC	PDE for HZSPROC
2944	(B80)	CHARACTER	1	IPAPDESC_END (0)	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
2944	(B80)	CHARACTER	1	IPAEND (0)	End of IPA. The number of elements in IPAPDESC must be less than or equal to the dimension of IPAPDES.

Comment

```
?ASAXMAC ASSERT(Dim(IPAPDES) Length(IPAPDE),EQ,Length(IPAPDESC))
?ASAXMAC ASSERT(Dim(IPAPDES) L
length(IPAPDE),EQ,Length(IPAPDE
SC))
```

End of Comment

2944	(B80)	X'0'	0	ASSERT_EQ1_1	"0"
2944	(B80)	X'0'	0	ASSERT_EQ2_1	"0"

Comment

Constants for IPAHEAD

End of Comment

2944	(B80)	X'D7C140'	0	IPAIPA	"C'IPA " Eye-catcher
2944	(B80)	X'F1'	0	IPASPN	"241" IPA subpool
2944	(B80)	X'1'	0	IPACVN	"1" IPA current version

Comment

Constants for IPAPROMT (the last three letters of the name indicate the effects of IPLing with that prompt value: the sixth letter indicates whether ("Y") or not ("N") the master catalog prompt is issued, the seventh letter indicates whether or not the system parameters prompt is issued, and the eighth letter indicates whether or not IPL messages are displayed)

End of Comment

2944	(B80)	X'C1'	0	IPAPRYYY	"C'A"
2944	(B80)	X'D7'	0	IPAPRYYN	"C'P"
2944	(B80)	X'D4'	0	IPAPRNNY	"C'M"
2944	(B80)	X'40'	0	IPAPRNNN	"C' "
2944	(B80)	X'C3'	0	IPAPRYNN	"C'C"
2944	(B80)	X'C4'	0	IPAPRYNY	"C'D"
2944	(B80)	X'E2'	0	IPAPRNYN	"C'S"
2944	(B80)	X'E3'	0	IPAPRNY Y	"C'T"
2944	(B80)	X'B80'	0	IPA_LEN	"*-IPA"

#### Offsets

Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IPAPDE	Parameter descriptor element
0	(0)	ADDRESS	4	IPAPDESA	Address of parameter string (will be zero if the parameter was not specified and has no default value)
4	(4)	SIGNED	2	IPAPDESL	Length of parameter string, not including trailing null ('00'X) delimiter (will be zero if the parameter was not specified and has no default value)
6	(6)	SIGNED	2	IPAPDEDO	Source of parameter string (default value or from operator)
6	(6)	CHARACTER	2	IPAPDESS	Source of parameter string (IEASYSxx member)

Comment

Constants for IPAPDEDO

End of Comment

6	(6)	X'0'	0	IPAPDEDF	"0" Parameter was not specified and its default value was used by system initialization
6	(6)	X'FFFFFF'	0	IPAPDEOP	"-1" Operator provided the parameter value
6	(6)	X'8'	0	IPAPDE_LEN	"*-IPAPDE"

#### Offsets

Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IPAPLI	Parmlib card image
0	(0)	CHARACTER	44	IPAPLIDSN	PARMLIB dataset name
44	(2C)	CHARACTER	1		Reserved
45	(2D)	CHARACTER	6	IPAPLIVOL	PARMLIB VOLSER

## IHAIPA Cross Reference

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
51	(33)	CHARACTER	12		Reserved
63	(3F)	BITSTRING	1	IPAPLIFLG	PARMLIB usage flags
					Comment
Bit definitions:					
					End of Comment
		1... ....		IPAPLIUSE	"X'80" PARMLIB in use
		.1.. ....		IPAPLIDEF	"X'40" Default PARMLIB
		..1. ....		IPAPLICAT	"X'20" IPAPLIVOL found from catalog
		.... 1...		IPAPLILCF	"X'08" PARMLIB not used - LOCATE failed
		.... .1..		IPAPLIMNF	"X'04" PARMLIB not used - MOUNT failed
		.... ..1.		IPAPLIOPF	"X'02" PARMLIB not used - OPEN failed
64	(40)	X'40'	0	IPAPLI_LEN	**_IPAPLI"

## IHAIPA Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
ASSERT_EQ1_1	B80	0	IPAILTOD	848	
ASSERT_EQ2_1	B80	0	IPAIIOCFG	6C	
IPA	0		IPAIODDS	78	
IPA_LEN	B80	B80	IPAIODF	60	
IPAAALOC	868		IPAIODFU	10	
IPAAPF	870		IPAIODET	75	
IPAAPG	878		IPAIHQLQ	63	
IPAAARCHL	85F		IPAIOS	938	
IPAAUTOR	B40		IPAIOSUF	60	
IPAAXR	B18		IPAIPA	B80	D7C140
IPABDL	880		IPAIPS	940	
IPABDLDF	888		IPAIPQ	B28	
IPACATALOG	B48		IPAIXGCFN	B50	
IPACEA	B08		IPAJCLP	866	80
IPACEE	AF0		IPALEN	4	
IPACLOCK	890		IPALFAREA	B00	
IPACLPA	898		IPALFLAG	866	
IPACMB	8A0		IPALIC	AC8	
IPACMD	8A8		IPALNK	948	
IPACON	8B0		IPALNKAU	950	
IPACONT	8B8		IPALOAD	60	
IPACOUPL	8C0		IPALOADS	14	
IPACPCR	B30		IPALOGCL	958	
IPACPQE	8C8		IPALOGLM	960	
IPACSA	8D0		IPALOGRE	968	
IPACSCBL	8D8		IPALPA	970	
IPACVIO	8E0		IPALPARM	10	
IPACVN	B80	1	IPALPDDV	5C	
IPADDM	B38		IPALPDSN	30	
IPADEVSU	8E8		IPALPNAM	20	
IPADIAG	8F0		IPAMACHMIGADDR		
IPADRMOD	AE8			850	
IPADUMP	8F8		IPAMAXCA	978	
IPADUPLE	900		IPAMAXUS	980	
IPAEND	B80		IPAMLPA	988	
IPAEXIT	908		IPAMSTRJ	990	
IPAFIX	910		IPAMTSLH	85E	
IPAGRS	918		IPANAMES	18	
IPAGRSCN	920		IPANLID	860	
IPAGRSRN	928		IPANONVI	998	
IPAGTZ	B70		IPANSYSL	9A0	
IPAHEAD	0		IPANUCID	17	
IPAHVCOMMON	B10		IPANUCL	860	
IPAHVSHARE	AD8		IPANUCMA	9A8	
IPAHWNAM	18		IPANUCW	862	
IPAHZS	B68		IPANUCXID	867	
IPAHZSPROC	B78		IPANUMMACHMIGS		
IPAICS	930			854	
IPAICTOD	8		IPANUMPDES	85C	
IPAID	0		IPAOMVS	9B0	
IPAILM	AE0		IPAOP	9B8	
IPAILML	AB0		IPAOPT	9C0	
IPAILMOD	AB8		IPAPAGEO	9C8	

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
IPAPAGEP	9D0		IPASPLST	A0	
IPAPAGESCM	B58		IPASPN	B80	F1
IPAPAGNU	9D8		IPASPSUF	A0	
IPAPAGTO	9E0		IPASQA	A58	
IPAPAK	9E8		IPASSN	A60	
IPAPDE	0		IPASTMT	6A0	
IPAPDE_LEN	6	8	IPASTMTMM	5E0	
IPAPDEDF	6	0	IPASVC	A68	
IPAPDEDO	6		IPASWAP	A70	
IPAPDEOP	6	FFFFFF	IPASXNAM	160	
IPAPDES	868		IPASXSCU	169	
IPAPDESA	0		IPASYLST	120	
IPAPDESC	868		IPASYM	120	
IPAPDESC_END	B80		IPASYS	868	
IPAPDESL	4		IPASYSNA	A78	
IPAPDESS	6		IPASYSN	A80	
IPAPLCAT	1DF	20	IPASYSUF	120	
IPAPLDEF	1DF	40	IPATSO	AC0	
IPAPLDSN	1A0		IPAUJCL	866	40
IPAPLEX	160		IPAUNIP	AA8	
IPAPLEXC	9F0		IPAVAL	A88	
IPAPLFLG	1DF		IPAVER	7	
IPAPLI	0		IPAVIDS	A90	
IPAPLI_LEN	40	40	IPAVMNAM	28	
IPAPLIB	1A0		IPAVRREG	A98	
IPAPLIB@	858		IPAWARNUND	B60	
IPAPLICAT	3F	20	IPAZAAPZIIP	B20	
IPAPLIDDEF	3F	40			
IPAPLIDSN	0				
IPAPLIFLG	3F				
IPAPLILCF	3F	8			
IPAPLIMNF	3F	4			
IPAPLIOPF	3F	2			
IPAPLIUSE	3F	80			
IPAPLIVOL	2D				
IPAPLLCF	1DF	8			
IPAPLMNF	1DF	4			
IPAPLNUM	864				
IPAPLNUMX	856				
IPAPLOPF	1DF	2			
IPAPLUSE	1DF	80			
IPAPLVOL	1CD				
IPAPRCPU	AF8				
IPAPRNNN	B80	40			
IPAPRNNY	B80	D4			
IPAPRNYN	B80	E2			
IPAPRNY	B80	E3			
IPAPRODP	9F8				
IPAPROG	A00				
IPAPROMT	16				
IPAPRYNN	B80	C3			
IPAPRYNY	B80	C4			
IPAPRYYN	B80	D7			
IPAPRYYY	B80	C1			
IPAPURGE	A08				
IPARDE	A10				
IPAREAL	A18				
IPARER	A20				
IPARSU	A28				
IPARSVNO	A30				
IPARSVST	A38				
IPARTLSP	AA0				
IPASCANL	E7				
IPASCAT	E0				
IPASCAS	E8				
IPASCDSN	EA				
IPASCH	A40				
IPASCHLQ	116				
IPASCTYP	E6				
IPASCVOL	E0				
IPASMF	A48				
IPASMS	A50				
IPASP	6				
IPASPARM	A0				





# IHALCCAO Information

## IHALCCAO Heading Information

**Common Name:** Logical Configuration Communication Area  
**Macro ID:** IHALCCAO  
**DSECT Name:** LCCAO  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** LCCA  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: 239  
 Key: 0  
**Size:** OFFSET OF LCCAOEND MINUS THE OFFSET OF LCCAO  
**Created by:** IEAVNIP0  
 IEEVCPRA  
**Pointed to by:** PSALCCAV field of the PSA data area  
 PSALCCAR field of the PSA data area  
 LCCATxxP field of the LCCAVT data area  
 (where xx is the processor number)  
 LCCADCPU field of the LCCA data area  
 (failing processor's LCCA)  
 LCCARCPU field of the LCCA data area  
 (recovering processor's LCCA)  
**Serialization:** Disablement  
**Function:** Contains processor related data.

## IHALCCAO Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	2632	LCCAO	
0	(0)	CHARACTER	4	LCCAOLCCAO	CONTROL BLOCK ACRONYM IN EBCDIC
4	(4)	ADDRESS	2	LCCAOCPUA	LOGICAL CPU ADDRESS
6	(6)	BITSTRING	2	LCCAOCAFM	BIT MASK CORRESPONDING TO LOGICAL CPU ADDRESS
8	(8)	SIGNED	4	LCCAOPGR1	PROGRAM FLIH RECURSION REGISTER SAVE AREA 1 (4294967312:562114560)
72	(48)	SIGNED	4	LCCAOPGR2	PROGRAM FLIH MAIN ENTRY REGISTER SAVE AREA (MDC346) (4294967312:562114560)
136	(88)	CHARACTER	8	LCCAOPPSW	PROGRAM FLIH MAIN ENTRY PSW SAVE AREA
144	(90)	SIGNED	4	LCCAOPINT	PROGRAM FLIH MAIN ENTRY ILC AND INTERRUPT CODE SAVE AREA
144	(90)	CHARACTER	1	*	RESERVED - SET TO 0
145	(91)	BITSTRING	1	LCCAOPILC	INSTRUCTION LENGTH CODE
146	(92)	BITSTRING	1	LCCAOPEEC	EXCEPTION - EXTENSION CODE
147	(93)	BITSTRING	1	LCCAOPICD	PROGRAM INTERRUPT CODE
		1... ....		LCCAOPPER	PER BIT IN INTERRUPT CODE
		.111 1111		LCCAOPICA	The interrupt code without the PER bit
		.1... ....		LCCAOPMC	Monitor call bit in interrupt code
		..11 1111		LCCAOPICB	The "clean" interrupt code
148	(94)	SIGNED	4	LCCAOPVAD	PROGRAM FLIH MAIN ENTRY TRANSLATION EXCEPTION ADDRESS SAVE AREA
148	(94)	CHARACTER	3	*	FIRST THREE BYTES OF ADDRESS
		1... ....		LCCAOPVXM	TEA MODE STATE. 0=PRIMARY 1=SECONDARY
151	(97)	UNSIGNED	1	LCCAOPDXC	Data exception code for PI 7
151	(97)	BITSTRING	1	LCCAOPSTD	LAST BYTE OF LCCAOPVAD
		1111 1...		*	
		.... .1..		LCCAOSOPI	Suppression-on-protection indicator
		.... ..11		LCCAOPSTF	STD FIELD - LAST TWO BITS OF LCCAOPVAD ..... '00' - PRIMARY STD USED .. '01' - STD WAS AR QUALIFIED .. '10' - SECONDARY STD USED .. '11' - HOME STD USED.
152	(98)	CHARACTER	3	*	Reserved
155	(9B)	UNSIGNED	1	LCCAOPICC	LCCAOPICD without PER. Should it be w/o MC?
156	(9C)	SIGNED	4	LCCAOOCR0	WORK AREA FOR TESTING BITS IN CONTROL REGISTER 0
160	(A0)	SIGNED	4	LCCAOPGR3	PROGRAM CHECK FLIH REGISTER SAVE AREA 3 (MDC317) (4294967312:562114560)
224	(E0)	CHARACTER	64	LCCAOPAR2	PROGRAM FLIH MAINLINE ACCESS REGISTER SAVEAREA 2
224	(E0)	UNSIGNED	4	LCCAOP2A0	ACCESS REGISTER 0
228	(E4)	UNSIGNED	4	LCCAOP2A1	ACCESS REGISTER 1
232	(E8)	UNSIGNED	4	LCCAOP2A2	ACCESS REGISTER 2
236	(EC)	UNSIGNED	4	LCCAOP2A3	ACCESS REGISTER 3
240	(F0)	UNSIGNED	4	LCCAOP2A4	ACCESS REGISTER 4
244	(F4)	UNSIGNED	4	LCCAOP2A5	ACCESS REGISTER 5
248	(F8)	UNSIGNED	4	LCCAOP2A6	ACCESS REGISTER 6

# IHALCCAO Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
252	(FC)	UNSIGNED	4	LCCAOP2A7	ACCESS REGISTER 7
256	(100)	UNSIGNED	4	LCCAOP2A8	ACCESS REGISTER 8
260	(104)	UNSIGNED	4	LCCAOP2A9	ACCESS REGISTER 9
264	(108)	UNSIGNED	4	LCCAOP2AA	ACCESS REGISTER 10
268	(10C)	UNSIGNED	4	LCCAOP2AB	ACCESS REGISTER 11
272	(110)	UNSIGNED	4	LCCAOP2AC	ACCESS REGISTER 12
276	(114)	UNSIGNED	4	LCCAOP2AD	ACCESS REGISTER 13
280	(118)	UNSIGNED	4	LCCAOP2AE	ACCESS REGISTER 14
284	(11C)	UNSIGNED	4	LCCAOP2AF	ACCESS REGISTER 15
288	(120)	SIGNED	4	LCCAORSGR	RESTART FLIH REGISTER SAVE AREA (4294967312:562114560)
352	(160)	ADDRESS	4	LCCAODSA2	REAL ADDRESS OF THE DATA SPACE ASTE CAUSING THE FAULT.
356	(164)	CHARACTER	64	LCCAOPCR2	PROGRAM FLIH MAINLINE CONTROL REGISTER SAVEAREA 2
356	(164)	UNSIGNED	4	LCCAOP2C0	CONTROL REGISTER 0
360	(168)	UNSIGNED	4	LCCAOP2C1	CONTROL REGISTER 1
364	(16C)	UNSIGNED	4	LCCAOP2C2	DUCT ORIGIN ADDRESS (CR2)
368	(170)	CHARACTER	8	LCCAOPXM2	PROGRAM FLIH CROSS MEMORY CONTROL REGISTER SAVEAREA 2 - MUST BE ON A DOUBLE WORD BOUNDARY.
368	(170)	UNSIGNED	4	LCCAOP2C3	CONTROL REGISTER 3
368	(170)	UNSIGNED	2	LCCAOPX2K	PROGRAM KEY MASK
370	(172)	UNSIGNED	2	LCCAOPX2S	SASN
372	(174)	UNSIGNED	4	LCCAOP2C4	CONTROL REGISTER 4
372	(174)	UNSIGNED	2	LCCAOPX2A	AX
374	(176)	UNSIGNED	2	LCCAOPX2P	PASN
376	(178)	UNSIGNED	4	LCCAOP2C5	ASTE REAL ADDRESS (CR5)
380	(17C)	UNSIGNED	4	LCCAOP2C6	CONTROL REGISTER 6
384	(180)	UNSIGNED	4	LCCAOP2C7	CONTROL REGISTER 7
388	(184)	UNSIGNED	4	LCCAOP2C8	CONTROL REGISTER 8
388	(184)	UNSIGNED	2	LCCAOPEX2	EAX VALUE (LH CR8)
390	(186)	UNSIGNED	2	*	SECOND HALF OF CR8
392	(188)	UNSIGNED	4	LCCAOP2C9	CONTROL REGISTER 9
396	(18C)	UNSIGNED	4	LCCAOP2CA	CONTROL REGISTER 10
400	(190)	UNSIGNED	4	LCCAOP2CB	CONTROL REGISTER 11
404	(194)	UNSIGNED	4	LCCAOP2CC	CONTROL REGISTER 12
408	(198)	UNSIGNED	4	LCCAOP2CD	CONTROL REGISTER 13
412	(19C)	UNSIGNED	4	LCCAOP2CE	CONTROL REGISTER 14
416	(1A0)	UNSIGNED	4	LCCAOP2CF	PROGRAM FLIH MAINLINE LINKAGE STACK ADDRESS (CR15)
420	(1A4)	CHARACTER	52	LCCAOR1A4	RESERVED
472	(1D8)	CHARACTER	8	LCCAOPSW3	PROGRAM FLIH PSW SAVE AREA 3 (MDC342)
480	(1E0)	SIGNED	4	LCCAOINGR	INTERSECT REGISTER SAVE AREA (MDC325) (4294967304:562114560)
512	(200)	SIGNED	2	LCCAOBBCT	COUNT OF THE NUMBER OF TIMES BIND BREAK HAS ENABLED.
514	(202)	SIGNED	2	LCCAOWFCT	Bind Break Window Function Count - Incremented by code which opens an EMS window after it has completed its function
516	(204)	SIGNED	4	LCCAOMCR0	MACHINE CHECK FLIH CR0 SAVE AREA (MDC312) * FIRST THREE BITS OF LCCAOMCR0
		111. ....			
		...1 ....		LCCAOMPEN	IF 0, PSA PROTECT DISABLED. IF 1, PSA PROTECT ENABLED. (MDC315)
520	(208)	CHARACTER	4	LCCAOIHRC	GENERAL FLIH RECURSION FLAGS
520	(208)	BITSTRING	1	LCCAOIHR1	FIRST BYTE OF LCCAOIHRC
		1.. ....		LCCAOXRC1	EXTERNAL FLIH RECURSION BIT 1
		.1.. ....		LCCAOXRC2	EXTERNAL FLIH RECURSION BIT 2
		.11 1111		*	RESERVED
521	(209)	BITSTRING	1	LCCAOIHR2	SECOND BYTE OF LCCAOIHRC
522	(20A)	BITSTRING	1	LCCAOIHR3	THIRD BYTE OF LCCAOIHRC
523	(20B)	BITSTRING	1	LCCAOIHR4	FOURTH BYTE OF LCCAOIHRC
524	(20C)	CHARACTER	4	LCCAOSPIN	PROCESSOR IS SPINNING INDICATORS
524	(20C)	BITSTRING	1	LCCAOSPN1	FIRST BYTE OF LCCAOSPIN
		1.. ....		LCCAOSIGS	IEAVSIGP SPIN BIT
		.1.. ....		LCCAOERIS	IEAVERI SPIN BIT
		.1. ....		LCCAOLOCK	LOCK MANAGER SPIN BIT
		...1 ....		LCCAOTSPN	SIMULATES SPIN FOR TIMER SUPERVISOR AT VARY TIME
		.... 1..		LCCAOSTR	USED BY A PROGRAM SPINNING FOR THE RESTART RESOURCE MDC035
		.... .1..		*	RESERVED
		.... .1.		LCCAOINT	INTERSECT FUNCTION SPIN BIT (MDC308)
		.... ...1		LCCAOEXSN	SPIN BIT FOR EXCESSIVE SPIN NOTIFICATION ROUTINE IEEVEXSN (MDC330)
525	(20D)	BITSTRING	1	LCCAOSPN2	SECOND BYTE OF LCCAOSPIN
		1... ....		LCCAOMSF	MSSFCALL SVC SPIN CONDITION
		.1. ....		LCCAOCHAP	ASCBCHAP SPIN BIT
		..1. ....		LCCAOCPUR	TIMER SPIN BIT
		...1 ....		LCCAOSTAS	STATUS SPIN BIT
		.... 1..		LCCAOESPN	IEAVESPN SPIN BIT
		.... .1..		LCCAOSTST	CPU/VF STOP/START spin bit IEEVCVSR.
		.... ...1.		LCCAOXLS	XLS spin bit

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
526	(20E)	BITSTRING	1	LCCAOSPN3	THIRD BYTE OF LCCAOSPIN
527	(20F)	BITSTRING	1	LCCAOSPN4	FOURTH BYTE OF LCCAOSPIN
528	(210)	CHARACTER	8	*	OWNERSHIP: SUPERVISOR SERIALIZATION: NONE
528	(210)	UNSIGNED	4	LCCAOTODH	STCK WORK AREA - HIGH ORDER WORD
532	(214)	UNSIGNED	4	LCCAOTODL	STCK WORK AREA - LOW ORDER WORD
536	(218)	ADDRESS	4	LCCAOCPPUS	POINTER TO CPU WORK/SAVE AREA VECTOR TABLE
540	(21C)	BITSTRING	1	LCCAODSF1	DISPATCHER STATUS INDICATOR BYTE 1 SPECIAL EXIT FLAGS
		1... ....		LCCAOACR	ACR IN PROGRESS
		.1. ....		LCCAOVCPU	VARY CPU IN PROGRESS
		..1. ....		LCCAOETSC	TOD SYNC CHECKS SHOULD BE ENABLED
		...1 ....		LCCAOTIMR	CPU'S TOD CLOCK IS TO BE OR IS BEING SYNCHRONIZED MDC011
		.... 1...		LCCAOTSMC	TOD SYNC CHECK THRESHOLD HAS BEEN EXCEEDED
		.... .1.		LCCAOSVC6	Dispatcher entry DSSRBRTN was spinning for the global intersect.
		.... .1.		LCCAOTCT2	Dispatcher entry IEAVDSTC was spinning for the global intersect.
		.... ...1		*	RESERVED
541	(21D)	BITSTRING	1	LCCAODSF2	DISPATCHER STATUS INDICATOR BYTE 2 SPECIAL EXIT FLAGS
		1... ....		LCCAOSRBM	SRB MODE INDICATOR
		.1. ....		*	
		..1. ....		LCCAOSSRB	DISPATCHER SSRB PATH FOOTPRINT
		...1 ....		LCCAOEUTS	EUTSAVE SUBROUTINE FOOTPRINT
		.... 1...		LCCAOEUTR	EUTREST SUBROUTINE FOOTPRINT
		.... .1.		LCCAOTVS	Dispatcher footprint for XES Schedule List Transition Notification
		.... .1.		LCCAODS7E	Dispatcher footprint on entry from external or i/o flih.
		.... ...1		LCCAOTVS2	Dispatcher footprint for iQDIO notification.
542	(21E)	CHARACTER	1	LCCAOPSMK	STORE AREA FOR FLIH'S STOSM INSTRUCTION
543	(21F)	BITSTRING	1	LCCAOSCFL	Supervisor Control flag byte. Current processor's field serialized via disablement.
		1... ....		LCCAOCRYP	THE ENCRYPTION FEATURE IS ENABLED ON THIS PROCESSOR (SET BY IEAMCPUF SERVICE).
		.1. ....		LCCAOHSCS	HPPI external interrupts are enabled on this processor (set by IEAMCPUF service).
		..1. ....		LCCAOPASS	Pass ABEND to interrupted unit of work indicator
		...1 ....		LCCAOTVSE	External FLIH footprint for XES processing in progress.
		.... 1...		LCCAOAOLS	Set when PSAOLD was refreshed and IEAVELCR needs to record the old value in the VRA. The old value is saved in LCCAOAOLD.
		.... .1.		LCCAOTOLS	Set when PSATOLD was refreshed and IEAVELCR needs to record the old value in the VRA. The old value is saved in LCCAOTOLD.
		.... ...1		LCCAOTVS3	External FLIH footprint for iQDIO processing in progress.
		.... ...1		*	RESERVED
544	(220)	CHARACTER	32	LCCAODS0W	DISPATCHER CPU RELATED WORK AREA
544	(220)	ADDRESS	4	LCCAOPWEB	Dispatcher Savearea for previous current WUQ. SERIALIZATION: Dispatcher Active OWNERSHIP: Supervisor Control
548	(224)	SIGNED	4	LCCAODBCT	DISPATCHER SAVEAREA FOR INTERNAL ASCB COUNTER. INITIALIZED TO SVTDSBCT AND DECREMENTED BY ONE FOR EACH ASCB SEARCHED.
		1... ....		LCCAORSWS	Turned on whenever the dispatcher is entered as a result of a successful Transfer request. Turned off by the dispatcher when a successful work search is completed.
552	(228)	ADDRESS	4	LCCAODSV1	DISPATCHER SAVEAREA
556	(22C)	ADDRESS	4	LCCAODSV2	DISPATCHER SAVEAREA
560	(230)	ADDRESS	4	LCCAODSV3	DISPATCHER SAVEAREA
564	(234)	ADDRESS	4	LCCAODSV4	DISPATCHER SAVEAREA
568	(238)	ADDRESS	4	LCCAODSV5	DISPATCHER SAVEAREA
572	(23C)	ADDRESS	4	LCCAODSV6	DISPATCHER SAVEAREA
576	(240)	ADDRESS	4	LCCAOEE1R	EXTERNAL FLIH MAINLINE RETRY ADDRESS
580	(244)	ADDRESS	4	LCCAOEE2R	EXTERNAL FLIH 1ST RECURSION RETRY ADDRESS
584	(248)	ADDRESS	4	LCCAOEE3R	EXTERNAL FLIH 2ND RECURSION RETRY ADDRESS
588	(24C)	UNSIGNED	1	LCCAOPTR1	PROGRAM FLIH RECURSION TEA AR NUMBER SAVEAREA 1
589	(24D)	UNSIGNED	1	LCCAOPTR2	PROGRAM FLIH MAINLINE TEA AR NUMBER SAVEAREA 2
590	(24E)	UNSIGNED	1	LCCAOPTR3	PROGRAM FLIH RECURSION TEA MC AR NUMBER SAVEAREA 3
591	(24F)	UNSIGNED	1	LCCAOPPR2	MAINLINE PER STORAGE ALTERATION AR NUMBER
592	(250)	SIGNED	4	LCCAOTCR0	SAVE AREA FOR CONTROL REGISTER 0 FOR TIMER ROUTINES (MDC322)
596	(254)	SIGNED	4	LCCAOWTD	AWM wait dispatch count
600	(258)	SIGNED	4	LCCAOWSD	AWM short wait dispatch count
604	(25C)	SIGNED	4	LCCAOWSU	Unproductive short wait dispatch count
608	(260)	SIGNED	4	LCCAOWS	Short wait time slice count
612	(264)	UNSIGNED	4	*	
612	(264)	UNSIGNED	1	LCCAOSTCT	The count of sequential transfers on this processor
613	(265)	UNSIGNED	3	LCCAOR265	RESERVED
616	(268)	CHARACTER	8	LCCAOWTIM	ACCUMULATED CPU WAIT TIME
624	(270)	CHARACTER	28	LCCAOR270	RESERVED
652	(28C)	ADDRESS	4	LCCAOLCCX	Virtual address of LCCX.
652	(28C)	ADDRESS	4	LCCAOPFWA	Virtual address of FPWA. Set during IPL and bringing processor online. Never reset. OWNERSHIP: Supervisor Control
656	(290)	ADDRESS	4	LCCAOLCXR	Real address of LCCX.

# IHALCCAO Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
656	(290)	ADDRESS	4	LCCAOPFWR	Real address of FPWA. Set during IPL and bringing processor online. Never reset. OWNERSHIP: Supervisor Control
660	(294)	ADDRESS	4	LCCAOESAV	Virtual address of area pointed to by FLCESAA. Set during IPL and bringing processor online. Never reset. OWNERSHIP: Supervisor Control
664	(298)	ADDRESS	4	LCCAOAOLD	If LCCAOAOLS = 1, PSAAOLD was refreshed and the original value of PSAAOLD is saved in this field, so it can be recorded in the VRA.
668	(29C)	ADDRESS	4	LCCAOOTOLD	If LCCAOOTOLS = 1, PSATOLD was refreshed and the original value of PSATOLD is saved in this field, so it can be recorded in the VRA.
672	(2A0)	SIGNED	4	LCCAO SRBJ	SUSPENDED SERVICE REQUEST BLOCK (SRB) JOURNAL WORD USED BY SETLOCK MDC043
676	(2A4)	ADDRESS	4	LCCAODCPU	VIRTUAL ADDRESS OF LCCAO OF FAILING CPU
680	(2A8)	ADDRESS	4	LCCAO RCPU	VIRTUAL ADDRESS OF LCCAO OF RECOVERING CPU
684	(2AC)	SIGNED	4	LCCAO CRLC	ACR SAVE AREA FOR HIGHEST LOCK HELD INDICATOR
688	(2B0)	SIGNED	4	LCCAO LCR0	SAVE AREA FOR CONTROL REGISTER 0 WHEN OPENING A WINDOW
692	(2B4)	BITSTRING	1	LCCAO CRFL	ACR FLAGS
		1... ....		LCCAO CRTM	RTM ENTRY BIT
		.1. ....		LCCAO CLMS	PROCESS SUSPENDED
		..11 111.		*	RESERVED
		.... ..1		LCCAO VARY	TELLS ACR THAT VARY IS IN PROGRESS MDC038
693	(2B5)	BITSTRING	1	LCCAO CREX	ACR ENTRY AND EXIT FLAGS
		1... ....		LCCAO CREF	EXTERNAL ROUTINE
		.1. ....		LCCAO CRRM	FINAL EXIT
		..1. ....		LCCAO CRLE	LOCK MANAGER EXIT
		...1 ....		LCCAO CRRT	FRR EXIT
		.... 1..		LCCAO CRIN	ENTRY TYPE = ACR
		.... ..1.		LCCAO CRLM	ENTRY TYPE = ACRLM
		.... ..1.		LCCAO CRDP	ENTRY TYPE = ACRDISP
		.... ..1		LCCAO CRST	SYSTEM TERMINATION EXIT FLAG MDC037
694	(2B6)	BITSTRING	1	LCCAO LKFG	LOCK FLAG BYTE MDC005
		111. ....		*	RESERVED
		...1 ....		LCCAO LKRD	THIS IS A LOCK MANAGER RELEASE DISABLED REQUEST MDC047
		.... 1111		*	RESERVED
695	(2B7)	CHARACTER	1	*	RESERVED
696	(2B8)	CHARACTER	4	LCCAO SLEB	SPIN LOOP EXEMPTION BITS
696	(2B8)	BITSTRING	1	LCCAO SLE1	FLAG BYTE OWNERSHIP: RECONFIG SERIALIZATION: CS
		1... ....		LCCAO STCP	BLWSPIN IN CONTROL.
		.1. ....		LCCAO RSTP	LOADWAIT/RESTART PROCESSING IS PLACING THIS PROCESSOR INTO A RESTARTABLE WAIT STATE.
		..1. ....		LCCAO VTOD	IEATVTOD IN CONTROL.
		...1 ....		LCCAO ESMR	IEATESMR IN CONTROL.
		.... 1..		LCCAO XMFA	IGFPXMFA HAS STOPPED THIS CPU.
		.... ..1.		LCCAO CVSR	IEEVCVSR IN CONTROL.
		.... ..1.		LCCAO BRCH	ISNBRNCH IN CONTROL.
		.... ..1		LCCAO BWTO	IEAVBWTO IN CONTROL.
697	(2B9)	BITSTRING	1	LCCAO SLE2	FLAG BYTE 2
		1... ....		LCCAO ESC2	IEATESCH or IEATTFDH in control. OWNERSHIP: RECONFIG. SERIALIZATION: CS.
		.1. ....		LCCAO XLS	XLS is in control. Ownership: XES. Serialization: Disablement.
		..11 1111		*	RESERVED
698	(2BA)	CHARACTER	2	*	RESERVED
700	(2BC)	ADDRESS	4	LCCAO SLIP	POINTER TO SLIP/PER WORK AREA (MDC316)
704	(2C0)	CHARACTER	8	LCCAO LWTM	VALUE OF LCCAO WTIM AT THE END OF A MEASUREMENT INTERVAL MDC001
712	(2C8)	ADDRESS	4	LCCAO SSA2	REAL ADDRESS OF SUBSPACE ASTE CAUSING THE FAULT. OWNERSHIP: SUPERVISOR CONTROL SERIALIZATION: DISABLEMENT
716	(2CC)	ADDRESS	4	LCCAO SSA5	REAL ADDRESS OF SUBSPACE ASTE CAUSING THE RECURSIVE FAULT. OWNERSHIP: SUPERVISOR CONTROL SERIALIZATION: DISABLEMENT
720	(2D0)	CHARACTER	8	LCCAO SRBF	SRB FIELDS MDC009
720	(2D0)	SIGNED	2	LCCAO SAFN	CPU AFFINITY IF IN SRB MODE MDC003
722	(2D2)	CHARACTER	6	LCCAO PGTA	ASID/TCB IF IN SRB MODE MDC004
728	(2D8)	ADDRESS	4	LCCAO ORMT	OLD SRB RMTR VALUE SERIALIZATION: DISABLEMENT OWNERSHIP: SUPERVISOR CONTROL
		1... ....		LCCAO SSTD	SRB SUSPEND WITH TOKEN DISABLED BIT
		.1. ....		LCCAO SSTA	SRB SUSPEND WITH TOKEN DISABLED BECAUSE SRB WAS ABENDED BY PURGEDQ PROCESSING.
		..1. ....		LCCAO SSTE	SRB SUSPEND WITH TOKEN DISABLED BECAUSE SRB IS REALLY A SUSPEND EXIT.
732	(2DC)	CHARACTER	4	LCCAO R2DC	RESERVED
736	(2E0)	ADDRESS	4	LCCAO IOWA	ADDRESS OF IOS WORKAREA (MDCXXX)@G860PVB
740	(2E4)	SIGNED	4	LCCAO IOR1	RESERVED FOR IOS (MDCXXX)
744	(2E8)	SIGNED	4	LCCAO IOR2	RESERVED FOR IOS (MDCXXX)
748	(2EC)	SIGNED	4	LCCAO IOR3	RESERVED FOR IOS (MDCXXX)
752	(2F0)	SIGNED	4	LCCAO R2F0	RESERVED
756	(2F4)	CHARACTER	64	LCCAO PCR1	PROGRAM FLIH RECURSION CONTROL REGISTER SAVEAREA 1

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
756	(2F4)	UNSIGNED	4	LCCAOP1C0	CONTROL REGISTER 0
760	(2F8)	UNSIGNED	4	LCCAOP1C1	CONTROL REGISTER 1
764	(2FC)	UNSIGNED	4	LCCAOP1C2	DUCT ORIGIN ADDRESS (CR2)
768	(300)	CHARACTER	8	LCCAOPXM1	PROGRAM FLIH CROSS MEMORY CONTROL REGISTER SAVEAREA 1 - MUST BE ON A DOUBLE WORD BOUNDARY.
768	(300)	UNSIGNED	4	LCCAOP1C3	CONTROL REGISTER 3
768	(300)	UNSIGNED	2	LCCAOPX1K	PROGRAM KEY MASK
770	(302)	UNSIGNED	2	LCCAOPX1S	SASN
772	(304)	UNSIGNED	4	LCCAOP1C4	CONTROL REGISTER 4
772	(304)	UNSIGNED	2	LCCAOPX1A	AX
774	(306)	UNSIGNED	2	LCCAOPX1P	PASN
776	(308)	UNSIGNED	4	LCCAOP1C5	ASTE REAL ADDRESS (CR5)
780	(30C)	UNSIGNED	4	LCCAOP1C6	CONTROL REGISTER 6
784	(310)	UNSIGNED	4	LCCAOP1C7	CONTROL REGISTER 7
788	(314)	UNSIGNED	4	LCCAOP1C8	CONTROL REGISTER 8
788	(314)	UNSIGNED	2	LCCAOPEX1	EAX VALUE (LH CR8)
790	(316)	UNSIGNED	2	*	SECOND HALF OF CR8
792	(318)	UNSIGNED	4	LCCAOP1C9	CONTROL REGISTER 9
796	(31C)	UNSIGNED	4	LCCAOP1CA	CONTROL REGISTER 10
800	(320)	UNSIGNED	4	LCCAOP1CB	CONTROL REGISTER 11
804	(324)	UNSIGNED	4	LCCAOP1CC	CONTROL REGISTER 12
808	(328)	UNSIGNED	4	LCCAOP1CD	CONTROL REGISTER 13
812	(32C)	UNSIGNED	4	LCCAOP1CE	CONTROL REGISTER 14
816	(330)	UNSIGNED	4	LCCAOP1CF	PROGRAM FLIH RECURSION LINKAGE STACK ADDRESS SAVEAREA 1 (CR15)
820	(334)	UNSIGNED	1	LCCAOWDT (4294967312:562114560)	WEB Distribution table. 16 one- byte elements. INITIALIZED BY: IEAVINIT SERIALIZATION: Dispatcher Active OWNERSHIP: Supervisor Control
836	(344)	ADDRESS	4	LCCAOCWEB	Address of current workunit's WEB Address. SERIALIZATION: Disablement. Global Intersect required to change another processor's LCCAOCWEB field OWNERSHIP: Supervisor Control
840	(348)	ADDRESS	4	LCCAONWEB	Address of the next WEB to be dispatched on the current CPU. SERIALIZATION: Compare and Swap OWNERSHIP: Supervisor Control
844	(34C)	SIGNED	2	LCCAOWUQI	Dispatcher's current index into the WUQ Array (LCCAOWUQA), used during Dispatcher Work Search. SERIALIZATION: Dispatcher Active OWNERSHIP: Supervisor Control
846	(34E)	UNSIGNED	2	LCCAOWUQR	Dispatcher work queue rescans remaining count.
848	(350)	ADDRESS	4	LCCAOWUQM	Address of this processor's PWUQ. SERIALIZATION: Global Intersect OWNERSHIP: Supervisor Control
852	(354)	CHARACTER	8	LCCAOFWP	Processor Free WEB Pool and count. SERIALIZATION: Disablement for current processor's LCCAOFWP OWNERSHIP: Supervisor Control
852	(354)	ADDRESS	4	LCCAOFWPP	Processor WEB Free Pool Header. SERIALIZATION: Disablement for current processor's LCCAOFWPP. OWNERSHIP: Supervisor Control
856	(358)	SIGNED	4	LCCAOFWPC	Processor WEB Free Pool element count. SERIALIZATION: Disablement for current processor's LCCAOFWPC. OWNERSHIP: Supervisor Control
860	(35C)	CHARACTER	4	LCCAOR35C	Reserved
864	(360)	SIGNED	4	LCCAOSMQJ	GLOBAL SERVICE MANAGER QUEUE (GSMQ) AND LOCAL SERVICE MANAGER QUEUE (LSMQ) JOURNAL WORD USED BY DISPATCHER AND SCHEDULE MDC044
868	(364)	SIGNED	4	LCCAOSPLJ	GLOBAL SYSTEM PRIORITY LIST (GSPL) AND LOCAL SYSTEM PRIORITY LIST (LSPL) JOURNAL WORD USED BY DISPATCHER MDC045
872	(368)	CHARACTER	4	LCCAOETP	Unproductive task preemptions count due to timeslices (External Flih Detected).
876	(36C)	CHARACTER	4	LCCAOETPB	Unproductive task preemptions count Base. Previous value of LCCAOETP
880	(370)	CHARACTER	12	LCCAOR370	RESERVED
892	(37C)	ADDRESS	4	LCCAORWQL	Recovery word for WebQLock address. Ownership: Supervisor Control Serialization: Disablement
896	(380)	SIGNED	4	LCCAOSGPR (4294967312:562114560)	SVC FLIH GENERAL REGISTER SAVE AREA (MDC301)
960	(3C0)	CHARACTER	1	LCCAODS0F	DISPATCHER DIAGNOSTIC EXIT FLAG BYTE
		1... ..		LCCAODSE1	DISPATCHER UNLOCKED TASK DISPATCH DIAGNOSTIC EXIT ROUTED CONTROL
		.1.. ....		LCCAODSE2	DISPATCHER LOCKED TASK DISPATCH DIAGNOSTIC EXIT ROUTED CONTROL
		..1. ....		LCCAODSE3	DISPATCHER SRB DISPATCH DIAGNOSTIC EXIT ROUTED CONTROL
		...1 ....		LCCAODSE4	DISPATCHER SSRB DISPATCH DIAGNOSTIC EXIT ROUTED CONTROL
		.... 1...		LCCAODSE5	DISPATCHER WAIT TASK DISPATCH DIAGNOSTIC EXIT ROUTED CONTROL
961	(3C1)	BITSTRING	1	LCCAOFPFL	FP Flags
		111. ....		*	Reserved
		...1 ....		LCCAOBFP	Additional FP status is being saved.
		.... 111.		*	Reserved
		.... ...1		LCCAOBFPH	BFP hardware is present. This bit is a duplicate of CVTBFPH so that dat-off reference can be made. It is set only at IPL and when a processor is brought online
962	(3C2)	CHARACTER	2	LCCAOPERC	PROGRAM EVENT RECORDING CODE (MDC326)
964	(3C4)	ADDRESS	4	LCCAOPERA	PER ADDRESS (MDC327)

# IHALCCAO Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
968	(3C8)	ADDRESS	4	LCCAOSDUV	SRB RELATED DUCT VIRTUAL ADDRESS
972	(3CC)	ADDRESS	4	LCCAOSDUR	SRB RELATED DUCT REAL ADDRESS
976	(3D0)	ADDRESS	4	LCCAOIDUV	INTERRUPT HANDLER DUCT VIRTUAL ADDRESS
980	(3D4)	ADDRESS	4	LCCAOIDUR	INTERRUPT HANDLER DUCT REAL ADDRESS
984	(3D8)	ADDRESS	4	LCCAOSCW1	SUPERVISOR CONTROL WORK AREA 1 USED BY VARIOUS SUPERVISOR ROUTINES PRESERVED ACROSS CALLS TO IEAVECMS OWNERSHIP: SUPERVISOR CONTROL SERIALIZATION: DISABLEMENT
988	(3DC)	ADDRESS	4	LCCAOSCW2	SUPERVISOR CONTROL WORK AREA 2 USED BY VARIOUS SUPERVISOR ROUTINES PRESERVED ACROSS CALLS TO IEAVECMS OWNERSHIP: SUPERVISOR CONTROL SERIALIZATION: DISABLEMENT
992	(3E0)	CHARACTER	8	LCCAOSXMR	SVC FLIH CROSS MEMORY CONTROL REGISTER SAVE AREA (MDC338)
1000	(3E8)	CHARACTER	72	LCCAOLKG1	LOCK MANAGER REGISTER SAVE AREA (MDC338)
1072	(430)	CHARACTER	64	LCCAOLKG2	LOCK MANAGER SUSPENSION REGISTER SAVE AREA (MDC338)
1136	(470)	CHARACTER	8	LCCAOELKP	LOCK MANAGER PSW SAVE AREA (MDC338)
1144	(478)	CHARACTER	72	LCCAOSTG1	STATUS REGISTER SAVE AREA (MDC338)
1216	(4C0)	CHARACTER	20	LCCAOSCSA	PCLINK SAVE AREA FOR REGISTERS 8-12 (CALLER'S REGISTERS) (MDC341)
1236	(4D4)	CHARACTER	52	LCCAOSREG	PCLINK REGISTER SAVE AREA (MDC341)
1288	(508)	CHARACTER	1	LCCAOSMSK	PCLINK SYSTEM MASK (MDC341)
1289	(509)	CHARACTER	1	LCCAORSMK	RESUME TCTL SYSTEM MASK (MDC340)
1290	(50A)	CHARACTER	1	LCCAOPGMM	PCLINK PROGRAM MASK (MDC341)
1291	(50B)	BITSTRING	1	LCCAOTCFB	RESUME/TCTL RECOVERY FOOTPRINT BYTE (MDC346)
		1... ....		LCCAOTCTL	TCTL IN CONTROL AT ABEND (MDC346)
		.1.. ....		LCCAOTCAC	TCBACTIV AND TCBS3A SET (MDC346)
1292	(50C)	CHARACTER	40	LCCAORSME	RESUME REGISTER SAVE AREA FOR REGISTERS 11-4 (MDC338)
1292	(50C)	CHARACTER	28	LCCAORES1	RESUME REGISTER SAVE AREA REG 11-REG 1 (MDC338)
1320	(528)	CHARACTER	12	LCCAORES2	RESUME REGISTER SAVE AREA REG 2 - REG 4 (MDC338)
1332	(534)	CHARACTER	4	LCCAOSPSW	SYSTEM MASK SAVE AREA, USED BY MACHINE CHECK HANDLER
1336	(538)	ADDRESS	4	LCCAOSRGS	RETURN ADDRESS SAVE AREA, USED BY MACHINE CHECK HANDLER
1340	(53C)	ADDRESS	4	LCCAOPRMW	Address of the WEB on whose behalf a priority promotion was initiated. SERIALIZATION: Dispatcher Active OWNERSHIP: Supervisor Control
1344	(540)	ADDRESS	4	LCCAOPTCB	ADDRESS OF THE TCB ON WHOSE BEHALF A PRIORITY PROMOTION WAS INITIATED. (MDC347)
1348	(544)	ADDRESS	4	LCCAOPTRN	DISPATCHER RETURN POINT IF NO DISPATCHABLE WORK IS FOUND IN A PROMOTED ADDRESS SPACE. (MDC347)
1352	(548)	CHARACTER	8	LCCAOCDXM	CALLDISP XMEM SAVE AREA (MDC338)
1360	(550)	CHARACTER	8	LCCAOSRXM	CROSS MEMORY SAVE AREA FOR STOP/RESET AND SRB STATUS SAVE/RESTORE/MODIFY ROUTINES.
1360	(550)	SIGNED	4	LCCAOSRSA	STOP/RESET IAC SAVE AREA.
1364	(554)	SIGNED	4	LCCAOSRTK	HOLDS SSARTO TOKEN FOR STOP/RESET.
1368	(558)	SIGNED	4	LCCAOCR8W	WORK AREA FOR CTL REG 8
1372	(55C)	CHARACTER	12	LCCAOIOXM	IOS CROSS MEMORY SAVE AREA (MDC339)
1372	(55C)	SIGNED	4	LCCAIOISS	IOS PSW S-BIT REGISTER SAVE AREA (MDC339)
1376	(560)	SIGNED	4	LCCAIOIC3	IOS CONTROL REGISTER 3 SAVE AREA (MDC339)
1380	(564)	SIGNED	4	LCCAIOIC4	IOS CONTROL REGISTER 4 SAVE AREA (MDC339)
1384	(568)	SIGNED	4	LCCAOBBRC	BIND BREAK COMMUNICATION BUFFER USED BY IEAVEBBR (MDC344)
1388	(56C)	CHARACTER	64	LCCAOCDSV	CALLDISP SERVICE ROUTINE REGISTER SAVE AREA FOR REGISTERS 0-15 (MDC344)
1388	(56C)	CHARACTER	4	LCCAOCDS0	CALLDISP REGISTER 0 SAVE AREA (MDC344)
1392	(570)	CHARACTER	4	LCCAOCDS1	CALLDISP REGISTER 1 SAVE AREA (MDC344)
1396	(574)	CHARACTER	4	LCCAOCDS2	CALLDISP REGISTER 2 SAVE AREA (MDC344)
1400	(578)	CHARACTER	4	LCCAOCDS3	CALLDISP REGISTER 3 SAVE AREA (MDC344)
1404	(57C)	CHARACTER	4	LCCAOCDS4	CALLDISP REGISTER 4 SAVE AREA (MDC344)
1408	(580)	CHARACTER	4	LCCAOCDS5	CALLDISP REGISTER 5 SAVE AREA (MDC344)
1412	(584)	CHARACTER	4	LCCAOCDS6	CALLDISP REGISTER 6 SAVE AREA (MDC344)
1416	(588)	CHARACTER	4	LCCAOCDS7	CALLDISP REGISTER 7 SAVE AREA (MDC344)
1420	(58C)	CHARACTER	4	LCCAOCDS8	CALLDISP REGISTER 8 SAVE AREA (MDC344)
1424	(590)	CHARACTER	4	LCCAOCDS9	CALLDISP REGISTER 9 SAVE AREA (MDC344)
1428	(594)	CHARACTER	4	LCCAOCDSA	CALLDISP REGISTER 10 SAVE AREA (MDC344)
1432	(598)	CHARACTER	4	LCCAOCDSB	CALLDISP REGISTER 11 SAVE AREA (MDC344)
1436	(59C)	CHARACTER	4	LCCAOCDS C	CALLDISP REGISTER 12 SAVE AREA (MDC344)
1440	(5A0)	CHARACTER	4	LCCAOCDS D	CALLDISP REGISTER 13 SAVE AREA (MDC344)
1444	(5A4)	CHARACTER	4	LCCAOCDS E	CALLDISP REGISTER 14 SAVE AREA (MDC344)
1448	(5A8)	CHARACTER	4	LCCAOCDS F	CALLDISP REGISTER 15 SAVE AREA (MDC344)
1452	(5AC)	CHARACTER	64	LCCAOSLSA	LCCAO SINGLE LEVEL SAVE AREA USED BY MACHINE CHECK HANDLER (MDC344)
1516	(5EC)	ADDRESS	4	LCCAORWEB LCCAORWLK	Address of WEB expected to be locked by this CPU on entry to global recovery Indicator that WEB in LCCAORWEB is not validly locked but the AWQ lock for the WEB can be held by this CPU
1520	(5F0)	CHARACTER	40	LCCAOPOST	POST SAVE AREA FOR SRB POOL MANAGER
1560	(618)	ADDRESS	4	LCCAOALOV	SRB RELATED AL VIRTUAL ADDRESS OR ZERO (ZERO MEANS THE NULL OR BASIC ACCESS LIST)
1564	(61C)	ADDRESS	4	LCCAOPSB2	ASCB ADDRESS WHERE PAGE/SEGMENT FAULT OCCURRED
1568	(620)	ADDRESS	4	LCCAO LSSD	LSSD ADDRESS FOR THE PROCESSOR RELATED SRB LINKAGE STACK

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
1572	(624)	ADDRESS	4	LCCAOLSDP	ADDRESS OF THE FIRST LSED IN THE PROCESSOR RELATED SRB LINKAGE STACK
1576	(628)	CHARACTER	8	LCCAOXTIM	EXTERNAL FLIH TIMER SAVE AREA 1
1584	(630)	CHARACTER	64	LCCAOPAR3	PROGRAM FLIH RECURSION MC ACCESS REGISTER SAVEAREA 3
1584	(630)	UNSIGNED	4	LCCAOP3A0	ACCESS REGISTER 0
1588	(634)	UNSIGNED	4	LCCAOP3A1	ACCESS REGISTER 1
1592	(638)	UNSIGNED	4	LCCAOP3A2	ACCESS REGISTER 2
1596	(63C)	UNSIGNED	4	LCCAOP3A3	ACCESS REGISTER 3
1600	(640)	UNSIGNED	4	LCCAOP3A4	ACCESS REGISTER 4
1604	(644)	UNSIGNED	4	LCCAOP3A5	ACCESS REGISTER 5
1608	(648)	UNSIGNED	4	LCCAOP3A6	ACCESS REGISTER 6
1612	(64C)	UNSIGNED	4	LCCAOP3A7	ACCESS REGISTER 7
1616	(650)	UNSIGNED	4	LCCAOP3A8	ACCESS REGISTER 8
1620	(654)	UNSIGNED	4	LCCAOP3A9	ACCESS REGISTER 9
1624	(658)	UNSIGNED	4	LCCAOP3AA	ACCESS REGISTER 10
1628	(65C)	UNSIGNED	4	LCCAOP3AB	ACCESS REGISTER 11
1632	(660)	UNSIGNED	4	LCCAOP3AC	ACCESS REGISTER 12
1636	(664)	UNSIGNED	4	LCCAOP3AD	ACCESS REGISTER 13
1640	(668)	UNSIGNED	4	LCCAOP3AE	ACCESS REGISTER 14
1644	(66C)	UNSIGNED	4	LCCAOP3AF	ACCESS REGISTER 15
1648	(670)	CHARACTER	64	LCCAOWMS0	IEAVWUQA REGISTER SAVE AREA
1712	(6B0)	CHARACTER	8	LCCAOPPS1	PROGRAM FLIH RECURSION PSW SAVE AREA 1
1720	(6B8)	CHARACTER	4	LCCAOPIC1	PROGRAM FLIH RECURSION ILC AND INTERRUPT CODE SAVE AREA 1
1724	(6BC)	CHARACTER	4	LCCAOPTE1	PROGRAM FLIH RECURSION TRANSLATION EXCEPTION ADDRESS SAVE AREA 1
1728	(6C0)	CHARACTER	64	LCCAOPGR4	PROGRAM FLIH REGISTER SAVE AREA 4
1792	(700)	CHARACTER	72	LCCAOPSLI	PROGRAM FLIH SAVE AREA TO PASS TO SLIH ROUTINES
1864	(748)	ADDRESS	4	LCCAOLSHD	LSSD ADDRESS FOR THE INTERRUPT HANDLER LINKAGE STACK
1868	(74C)	ADDRESS	4	LCCAOLSHP	ADDRESS OF THE FIRST LSED IN THE INTERRUPT HANDLER LINKAGE STACK
1872	(750)	CHARACTER	8	LCCAOPPS3	PROGRAM FLIH RECURSION PSW SAVE AREA 3
1880	(758)	CHARACTER	4	LCCAOPIC3	PROGRAM FLIH RECURSION ILC AND INTERRUPT CODE SAVE AREA 3
1884	(75C)	CHARACTER	4	LCCAOPTE3	PROGRAM FLIH RECURSION TRANSLATION EXCEPTION ADDRESS SAVE AREA 3
1888	(760)	CHARACTER	64	LCCAOPAR1	PROGRAM FLIH RECURSION ACCESS REGISTER SAVEAREA 1
1888	(760)	UNSIGNED	4	LCCAOP1A0	ACCESS REGISTER 0
1892	(764)	UNSIGNED	4	LCCAOP1A1	ACCESS REGISTER 1
1896	(768)	UNSIGNED	4	LCCAOP1A2	ACCESS REGISTER 2
1900	(76C)	UNSIGNED	4	LCCAOP1A3	ACCESS REGISTER 3
1904	(770)	UNSIGNED	4	LCCAOP1A4	ACCESS REGISTER 4
1908	(774)	UNSIGNED	4	LCCAOP1A5	ACCESS REGISTER 5
1912	(778)	UNSIGNED	4	LCCAOP1A6	ACCESS REGISTER 6
1916	(77C)	UNSIGNED	4	LCCAOP1A7	ACCESS REGISTER 7
1920	(780)	UNSIGNED	4	LCCAOP1A8	ACCESS REGISTER 8
1924	(784)	UNSIGNED	4	LCCAOP1A9	ACCESS REGISTER 9
1928	(788)	UNSIGNED	4	LCCAOP1AA	ACCESS REGISTER 10
1932	(78C)	UNSIGNED	4	LCCAOP1AB	ACCESS REGISTER 11
1936	(790)	UNSIGNED	4	LCCAOP1AC	ACCESS REGISTER 12
1940	(794)	UNSIGNED	4	LCCAOP1AD	ACCESS REGISTER 13
1944	(798)	UNSIGNED	4	LCCAOP1AE	ACCESS REGISTER 14
1948	(79C)	UNSIGNED	4	LCCAOP1AF	ACCESS REGISTER 15
1952	(7A0)	CHARACTER	64	LCCAOPAR4	PROGRAM FLIH ACCESS REGISTER SAVEAREA 4
1952	(7A0)	UNSIGNED	4	LCCAOP4A0	ACCESS REGISTER 0
1956	(7A4)	UNSIGNED	4	LCCAOP4A1	ACCESS REGISTER 1
1960	(7A8)	UNSIGNED	4	LCCAOP4A2	ACCESS REGISTER 2
1964	(7AC)	UNSIGNED	4	LCCAOP4A3	ACCESS REGISTER 3
1968	(7B0)	UNSIGNED	4	LCCAOP4A4	ACCESS REGISTER 4
1972	(7B4)	UNSIGNED	4	LCCAOP4A5	ACCESS REGISTER 5
1976	(7B8)	UNSIGNED	4	LCCAOP4A6	ACCESS REGISTER 6
1980	(7BC)	UNSIGNED	4	LCCAOP4A7	ACCESS REGISTER 7
1984	(7C0)	UNSIGNED	4	LCCAOP4A8	ACCESS REGISTER 8
1988	(7C4)	UNSIGNED	4	LCCAOP4A9	ACCESS REGISTER 9
1992	(7C8)	UNSIGNED	4	LCCAOP4AA	ACCESS REGISTER 10
1996	(7CC)	UNSIGNED	4	LCCAOP4AB	ACCESS REGISTER 11
2000	(7D0)	UNSIGNED	4	LCCAOP4AC	ACCESS REGISTER 12
2004	(7D4)	UNSIGNED	4	LCCAOP4AD	ACCESS REGISTER 13
2008	(7D8)	UNSIGNED	4	LCCAOP4AE	ACCESS REGISTER 14
2012	(7DC)	UNSIGNED	4	LCCAOP4AF	ACCESS REGISTER 15
2016	(7E0)	CHARACTER	64	LCCAORARS	RESTART FLIH ACCESS REGISTER SAVEAREA
2016	(7E0)	UNSIGNED	4	LCCAORAR0	ACCESS REGISTER 0
2020	(7E4)	UNSIGNED	4	LCCAORAR1	ACCESS REGISTER 1
2024	(7E8)	UNSIGNED	4	LCCAORAR2	ACCESS REGISTER 2
2028	(7EC)	UNSIGNED	4	LCCAORAR3	ACCESS REGISTER 3
2032	(7F0)	UNSIGNED	4	LCCAORAR4	ACCESS REGISTER 4

# IHALCCAO Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
2036	(7F4)	UNSIGNED	4	LCCAORAR5	ACCESS REGISTER 5
2040	(7F8)	UNSIGNED	4	LCCAORAR6	ACCESS REGISTER 6
2044	(7FC)	UNSIGNED	4	LCCAORAR7	ACCESS REGISTER 7
2048	(800)	UNSIGNED	4	LCCAORAR8	ACCESS REGISTER 8
2052	(804)	UNSIGNED	4	LCCAORAR9	ACCESS REGISTER 9
2056	(808)	UNSIGNED	4	LCCAORARA	ACCESS REGISTER 10
2060	(80C)	UNSIGNED	4	LCCAORARB	ACCESS REGISTER 11
2064	(810)	UNSIGNED	4	LCCAORARC	ACCESS REGISTER 12
2068	(814)	UNSIGNED	4	LCCAORARD	ACCESS REGISTER 13
2072	(818)	UNSIGNED	4	LCCAORARE	ACCESS REGISTER 14
2076	(81C)	UNSIGNED	4	LCCAORARF	ACCESS REGISTER 15
2080	(820)	CHARACTER	2	LCCAOR820	RESERVED
2082	(822)	SIGNED	2	LCCAQOILC	Original ILC. Only valid when LCCAOFPPE is on
2084	(824)	CHARACTER	64	LCCAOPCR3	PROGRAM FLIH RECURSION MC CONTROL REGISTER SAVEAREA 3
2084	(824)	UNSIGNED	4	LCCAOP3C0	CONTROL REGISTER 0
2088	(828)	UNSIGNED	4	LCCAOP3C1	CONTROL REGISTER 1
2092	(82C)	UNSIGNED	4	LCCAOP3C2	DUCT ORIGIN ADDRESS (CR2)
2096	(830)	CHARACTER	8	LCCAOPXM3	PROGRAM FLIH CROSS MEMORY CONTROL REGISTER SAVEAREA 3 - MUST BE ON A DOUBLE WORD BOUNDARY.
2096	(830)	UNSIGNED	4	LCCAOP3C3	CONTROL REGISTER 3
2096	(830)	UNSIGNED	2	LCCAOPX3K	PROGRAM KEY MASK
2098	(832)	UNSIGNED	2	LCCAOPX3S	SASN
2100	(834)	UNSIGNED	4	LCCAOP3C4	CONTROL REGISTER 4
2100	(834)	UNSIGNED	2	LCCAOPX3A	AX
2102	(836)	UNSIGNED	2	LCCAOPX3P	PASN
2104	(838)	UNSIGNED	4	LCCAOP3C5	ASTE REAL ADDRESS
2108	(83C)	UNSIGNED	4	LCCAOP3C6	CONTROL REGISTER 6
2112	(840)	UNSIGNED	4	LCCAOP3C7	CONTROL REGISTER 7
2116	(844)	UNSIGNED	4	LCCAOP3C8	CONTROL REGISTER 8
2116	(844)	UNSIGNED	2	LCCAOPEX3	EAX VALUE (LH CR8)
2118	(846)	UNSIGNED	2	*	SECOND HALF OF CR8
2120	(848)	UNSIGNED	4	LCCAOP3C9	CONTROL REGISTER 9
2124	(84C)	UNSIGNED	4	LCCAOP3CA	CONTROL REGISTER 10
2128	(850)	UNSIGNED	4	LCCAOP3CB	CONTROL REGISTER 11
2132	(854)	UNSIGNED	4	LCCAOP3CC	CONTROL REGISTER 12
2136	(858)	UNSIGNED	4	LCCAOP3CD	CONTROL REGISTER 13
2140	(85C)	UNSIGNED	4	LCCAOP3CE	CONTROL REGISTER 14
2144	(860)	UNSIGNED	4	LCCAOP3CF	PROGRAM FLIH RECURSION LINKAGE STACK ADDRESS SAVEAREA 3 (CR15)
2148	(864)	CHARACTER	64	LCCAOPCR4	PROGRAM FLIH CONTROL REGISTER SAVEAREA 4
2148	(864)	UNSIGNED	4	LCCAOP4C0	CONTROL REGISTER 0
2152	(868)	UNSIGNED	4	LCCAOP4C1	CONTROL REGISTER 1
2156	(86C)	UNSIGNED	4	LCCAOP4C2	DUCT ORIGIN ADDRESS (CR2)
2160	(870)	CHARACTER	8	LCCAOPXM4	PROGRAM FLIH CROSS MEMORY CONTROL REGISTER SAVEAREA 4 - MUST BE ON A DOUBLE WORD BOUNDARY.
2160	(870)	UNSIGNED	4	LCCAOP4C3	CONTROL REGISTER 3
2160	(870)	UNSIGNED	2	LCCAOPX4K	PROGRAM KEY MASK
2162	(872)	UNSIGNED	2	LCCAOPX4S	SASN
2164	(874)	UNSIGNED	4	LCCAOP4C4	CONTROL REGISTER 4
2164	(874)	UNSIGNED	2	LCCAOPX4A	AX
2166	(876)	UNSIGNED	2	LCCAOPX4P	PASN
2168	(878)	UNSIGNED	4	LCCAOP4C5	ASTE REAL ADDRESS
2172	(87C)	UNSIGNED	4	LCCAOP4C6	CONTROL REGISTER 6
2176	(880)	UNSIGNED	4	LCCAOP4C7	CONTROL REGISTER 7
2180	(884)	UNSIGNED	4	LCCAOP4C8	CONTROL REGISTER 8
2180	(884)	UNSIGNED	2	LCCAOPEX4	EAX VALUE (LH CR8)
2182	(886)	UNSIGNED	2	*	SECOND HALF OF CR8
2184	(888)	UNSIGNED	4	LCCAOP4C9	CONTROL REGISTER 9
2188	(88C)	UNSIGNED	4	LCCAOP4CA	CONTROL REGISTER 10
2192	(890)	UNSIGNED	4	LCCAOP4CB	CONTROL REGISTER 11
2196	(894)	UNSIGNED	4	LCCAOP4CC	CONTROL REGISTER 12
2200	(898)	UNSIGNED	4	LCCAOP4CD	CONTROL REGISTER 13
2204	(89C)	UNSIGNED	4	LCCAOP4CE	CONTROL REGISTER 14
2208	(8A0)	UNSIGNED	4	LCCAOP4CF	PROGRAM FLIH RECURSION LINKAGE STACK ADDRESS SAVEAREA 4 (CR15)
2212	(8A4)	CHARACTER	64	LCCAORCRS	RESTART FLIH CONTROL REGISTER SAVEAREA
2212	(8A4)	UNSIGNED	4	LCCAORCR0	CONTROL REGISTER 0
2216	(8A8)	UNSIGNED	4	LCCAORCR1	CONTROL REGISTER 1
2220	(8AC)	ADDRESS	4	LCCAORCR2	DUCT ORIGIN ADDRESS (CR2)
2224	(8B0)	CHARACTER	8	LCCAORXMR	RESTART FLIH CROSS MEMORY CONTROL REGISTER SAVEAREA - MUST BE ON A DOUBLE WORD BOUNDARY.
2224	(8B0)	UNSIGNED	4	LCCAORCR3	CONTROL REGISTER 3
2224	(8B0)	UNSIGNED	2	LCCAORXRK	PROGRAM KEY MASK
2226	(8B2)	UNSIGNED	2	LCCAORXRS	SASN



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
2228	(8B4)	UNSIGNED	4	LCCAORCR4	CONTROL REGISTER 4
2228	(8B4)	UNSIGNED	2	LCCAORXRA	AX
2230	(8B6)	UNSIGNED	2	LCCAORXRP	PASN
2232	(8B8)	UNSIGNED	4	LCCAORCR5	CONTROL REGISTER 5
2236	(8BC)	UNSIGNED	4	LCCAORCR6	CONTROL REGISTER 6
2240	(8C0)	UNSIGNED	4	LCCAORCR7	CONTROL REGISTER 7
2244	(8C4)	UNSIGNED	4	LCCAORCR8	CONTROL REGISTER 8
2244	(8C4)	UNSIGNED	2	LCCAOREAX	EAX VALUE (LH CR8)
2246	(8C6)	UNSIGNED	2	*	SECOND HALF OF CR8
2248	(8C8)	UNSIGNED	4	LCCAORCR9	CONTROL REGISTER 9
2252	(8CC)	UNSIGNED	4	LCCAORCRA	CONTROL REGISTER 10
2256	(8D0)	UNSIGNED	4	LCCAORCRB	CONTROL REGISTER 11
2260	(8D4)	UNSIGNED	4	LCCAORCRC	CONTROL REGISTER 12
2264	(8D8)	UNSIGNED	4	LCCAORCRD	CONTROL REGISTER 13
2268	(8DC)	UNSIGNED	4	LCCAORCRE	CONTROL REGISTER 14
2272	(8E0)	ADDRESS	4	LCCAORCRF	LINKAGE STACK ENTRY ADDRESS (CR15)
2276	(8E4)	CHARACTER	64	LCCAOPGR5	PROGRAM FLIH RECURSION REGISTER SAVE AREA 5
2340	(924)	ADDRESS	4	LCCAOPSB5	ASCB ADDRESS WHERE PAGE/SEGMENT FAULT OCCURRED
2344	(928)	CHARACTER	64	LCCAOPAR5	PROGRAM FLIH RECURSION ACCESS REGISTER SAVEAREA 5
2344	(928)	UNSIGNED	4	LCCAOP5A0	ACCESS REGISTER 0
2348	(92C)	UNSIGNED	4	LCCAOP5A1	ACCESS REGISTER 1
2352	(930)	UNSIGNED	4	LCCAOP5A2	ACCESS REGISTER 2
2356	(934)	UNSIGNED	4	LCCAOP5A3	ACCESS REGISTER 3
2360	(938)	UNSIGNED	4	LCCAOP5A4	ACCESS REGISTER 4
2364	(93C)	UNSIGNED	4	LCCAOP5A5	ACCESS REGISTER 5
2368	(940)	UNSIGNED	4	LCCAOP5A6	ACCESS REGISTER 6
2372	(944)	UNSIGNED	4	LCCAOP5A7	ACCESS REGISTER 7
2376	(948)	UNSIGNED	4	LCCAOP5A8	ACCESS REGISTER 8
2380	(94C)	UNSIGNED	4	LCCAOP5A9	ACCESS REGISTER 9
2384	(950)	UNSIGNED	4	LCCAOP5AA	ACCESS REGISTER 10
2388	(954)	UNSIGNED	4	LCCAOP5AB	ACCESS REGISTER 11
2392	(958)	UNSIGNED	4	LCCAOP5AC	ACCESS REGISTER 12
2396	(95C)	UNSIGNED	4	LCCAOP5AD	ACCESS REGISTER 13
2400	(960)	UNSIGNED	4	LCCAOP5AE	ACCESS REGISTER 14
2404	(964)	UNSIGNED	4	LCCAOP5AF	ACCESS REGISTER 15
2408	(968)	UNSIGNED	1	LCCAOPTR5	PROGRAM FLIH RECURSION TEA AR NUMBER SAVEAREA 5
2409	(969)	UNSIGNED	1	LCCAOPMFV	RECURSIVE PAGE FAULT MAINLINE FUNCTION VALUE SAVEAREA
2410	(96A)	UNSIGNED	2	LCCAODIEP	PASN value set by previous CMSET,SET,DIE=YES,... Used by program FLIH to determine whether a SSE program interrupt is valid.
2412	(96C)	CHARACTER	64	LCCAOPCR5	PROGRAM FLIH RECURSION CONTROL REGISTER SAVEAREA 5
2412	(96C)	UNSIGNED	4	LCCAOP5C0	CONTROL REGISTER 0
2416	(970)	UNSIGNED	4	LCCAOP5C1	CONTROL REGISTER 1
2420	(974)	ADDRESS	4	LCCAOP5C2	DUCT ORIGIN ADDRESS (CR2)
2424	(978)	CHARACTER	8	LCCAOPXM5	PROGRAM FLIH CROSS MEMORY CONTROL REGISTER SAVEAREA 5 - MUST BE ON A DOUBLE WORD BOUNDARY.
2424	(978)	UNSIGNED	4	LCCAOP5C3	CONTROL REGISTER 3
2424	(978)	UNSIGNED	2	LCCAOPX5K	PROGRAM KEY MASK
2426	(97A)	UNSIGNED	2	LCCAOPX5S	SASN
2428	(97C)	UNSIGNED	4	LCCAOP5C4	CONTROL REGISTER 4
2428	(97C)	UNSIGNED	2	LCCAOPX5A	AX
2430	(97E)	UNSIGNED	2	LCCAOPX5P	PASN
2432	(980)	UNSIGNED	4	LCCAOP5C5	CONTROL REGISTER 5
2436	(984)	UNSIGNED	4	LCCAOP5C6	CONTROL REGISTER 6
2440	(988)	UNSIGNED	4	LCCAOP5C7	CONTROL REGISTER 7
2444	(98C)	UNSIGNED	4	LCCAOP5C8	CONTROL REGISTER 8
2444	(98C)	UNSIGNED	2	LCCAOPEX5	EAX VALUE (LH CR8)
2446	(98E)	UNSIGNED	2	*	SECOND HALF OF CR8
2448	(990)	UNSIGNED	4	LCCAOP5C9	CONTROL REGISTER 9
2452	(994)	UNSIGNED	4	LCCAOP5CA	CONTROL REGISTER 10
2456	(998)	UNSIGNED	4	LCCAOP5CB	CONTROL REGISTER 11
2460	(99C)	UNSIGNED	4	LCCAOP5CC	CONTROL REGISTER 12
2464	(9A0)	UNSIGNED	4	LCCAOP5CD	CONTROL REGISTER 13
2468	(9A4)	UNSIGNED	4	LCCAOP5CE	CONTROL REGISTER 14
2472	(9A8)	ADDRESS	4	LCCAOP5CF	LINKAGE STACK ENTRY ADDRESS (CR15)
2476	(9AC)	ADDRESS	4	LCCAODSA5	REAL ADDRESS OF THE DATA SPACE ASTE CAUSING THE RECURSIVE FAULT.
2480	(9B0)	CHARACTER	8	LCCAOPPS5	PROGRAM FLIH RECURSION PSW SA 5
2488	(9B8)	CHARACTER	4	LCCAOPIC5	PROGRAM FLIH RECURSION ILC AND INTERRUPT CODE SAVE AREA 5
2492	(9BC)	CHARACTER	4	LCCAOPTE5	PROGRAM FLIH RECURSION TRANSLATION EXCEPTION ADDRESS SAVE AREA 5
2492	(9BC)	CHARACTER	3	*	FIRST THREE BYTES OF ADDRESS
2495	(9BF)	BITSTRING	1	LCCAOPSTL	LAST BYTE OF LCCAOPTE5
		1111 11..		*	

## IHALCCAO Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		.... ..11		LCCAOPST5	STD FIELD - LAST TWO BITS OF LCCAOPT5 ..... .. '00' - PRIMARY STD USED .. '01' - STD WAS AR QUALIFIED .. '10' - SECONDARY STD USED .. '11' - HOME STD USED.
2496	(9C0)	CHARACTER	8	LCCAOTTSC	Workunit Time Slice Interval. Ownership: SRM Serialization: SRM Lock.
2496	(9C0)	BITSTRING	4	LCCAOTTSC1	High Order 32 bits of LCCAOTTSC. Ownership: SRM Serialization: SRM Lock.
2500	(9C4)	BITSTRING	4	LCCAOTTSC2	Low Order 32 bits of LCCAOTTSC. Ownership: SRM Serialization: SRM Lock.
2504	(9C8)	CHARACTER	8	LCCAOWTSC	WAIT TASK TIME SLICE INTERVAL
2504	(9C8)	BITSTRING	4	LCCAOWTS1	HIGH ORDER 32 BITS
2508	(9CC)	BITSTRING	4	LCCAOWTS2	LOW ORDER 32 BITS
2512	(9D0)	UNSIGNED	4	LCCAOTP	Workunit Preemption Count- number of workunit time slice expirations. Ownership: Supervisor Control. Serialization: Disablement on current processor.
2516	(9D4)	UNSIGNED	4	LCCAOTPU	Unproductive Workunit Preemption Count - number of workunit time slice expirations that were not needed. Ownership: Supervisor Control. Serialization: Disablement on current processor.
2520	(9D8)	UNSIGNED	4	LCCAOWP	WAIT PREEMPTION COUNT - NUMBER OF WAIT TASK TIME SLICE EXPIRATIONS
2524	(9DC)	UNSIGNED	4	LCCAOWPU	UNPRODUCTIVE WAIT PREEMPTION COUNT - NUMBER OF WAIT TASK TIME SLICE EXPIRATIONS THAT WERE NOT NEEDED
2528	(9E0)	UNSIGNED	4	LCCAOTPB	Workunit Preemption Count Base - previous value of LCCAOTP. Ownership: SRM Serialization: SRM Lock.
2532	(9E4)	UNSIGNED	4	LCCAOTPUB	Unproductive Workunit Preemption Count Base - previous value of LCCAOTPU. Ownership: SRM Serialization: SRM Lock.
2536	(9E8)	UNSIGNED	4	LCCAOWPB	WAIT PREEMPTION COUNT BASE - PREVIOUS VALUE OF LCCAOWP
2540	(9EC)	UNSIGNED	4	LCCAOWPUB	UNPRODUCTIVE WAIT PREEMPTION COUNT BASE - PREVIOUS VALUE OF LCCAOWPU
2544	(9F0)	SIGNED 1... ..	2	LCCAOOID LCCAOENID	Active ASID or Enclave ID when the workunit time slice expired. LCCAOOID is an Enclave ID.
2546	(9F2)	UNSIGNED	1	LCCAOMTSC	Maximum number of dispatchs per task
2547	(9F3)	UNSIGNED	1	LCCAOCTSC	Number of consecutive dispatches remaining for this task
2548	(9F4)	UNSIGNED	4	LCCAOPPRI	Priority of the active work unit when Time Slice Expired. SERIALIZATION: Disablement OWNERSHIP: Supervisor Control
2552	(9F8)	UNSIGNED	4	LCCAOCTM	THIS CPU'S COUNT DOWN TIMER OWNERSHIP: SUPERVISOR SERIALIZATION: NONE
2556	(9FC)	ADDRESS	4	LCCAOCLSD	The address of the LSSD for the currently executing SRB routine. Only valid when an SRB is executing.
2560	(A00)	ADDRESS	4	LCCAOWUQA (17:562114560)	Array of Work Unit Queues for this processor. SERIALIZATION: Disablement. Global Intersect is required to change an element in another processor's LCCAOWUQA. OWNERSHIP: Supervisor Control
2632	(A48)	CHARACTER	0	LCCAOEND	END OF LCCAO.

## IHALCCAO Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
LCCAO	0		LCCAOCDXM	548	
LCCAOACR	21C	80	LCCAOCHAP	20D	40
LCCAOALOV	618		LCCAOCLMS	2B4	40
LCCAOAOLD	298		LCCAOCLSD	9FC	
LCCAOAOLS	21F	08	LCCAOCTM	9F8	
LCCAOBBCT	200		LCCAOCPUA	4	
LCCAOBBRC	568		LCCAOCPUR	20D	20
LCCAOBFP	3C1	10	LCCAOCPUS	218	
LCCAOBFPH	3C1	01	LCCAOCRDP	2B5	02
LCCAOBRCH	2B8	02	LCCAOCREP	2B5	80
LCCAOBWTO	2B8	01	LCCAOCREX	2B5	
LCCAOCAFM	6		LCCAOCRFL	2B4	
LCCAOCDSA	594		LCCAOCRIN	2B5	08
LCCAOCDSB	598		LCCAOCRLC	2AC	
LCCAOCDSC	59C		LCCAOCRLE	2B5	20
LCCAOCDSD	5A0		LCCAOCRM	2B5	04
LCCAOCDSE	5A4		LCCAOCRM	2B5	40
LCCAOCDSF	5A8		LCCAOCRRT	2B5	10
LCCAOCDSV	56C		LCCAOCRST	2B5	01
LCCAOCDs0	56C		LCCAOCRTM	2B4	80
LCCAOCDs1	570		LCCAOCRYP	21F	80
LCCAOCDs2	574		LCCAOCR0	9C	
LCCAOCDs3	578		LCCAOCR8W	558	
LCCAOCDs4	57C		LCCAOCTSC	9F3	
LCCAOCDs5	580		LCCAOCVSR	2B8	04
LCCAOCDs6	584		LCCAOCTWEB	344	
LCCAOCDs7	588		LCCAOCTBCT	224	
LCCAOCDs8	58C		LCCAOCTCPU	2A4	
LCCAOCDs9	590		LCCAOCTDIEP	96A	

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
LCCAODSA2	160		LCCAOMCR0	204	
LCCAODSA5	9AC		LCCAOMPEN	204	10
LCCAODSE1	3C0	80	LCCAOMSF	20D	80
LCCAODSE2	3C0	40	LCCAOMTSC	9F2	
LCCAODSE3	3C0	20	LCCAONWEB	348	
LCCAODSE4	3C0	10	LCCAOOID	9F0	
LCCAODSE5	3C0	08	LCCAOOILC	822	
LCCAODSF1	21C		LCCAORMT	2D8	
LCCAODSF2	21D		LCCAOPAR1	760	
LCCAODSV1	228		LCCAOPAR2	E0	
LCCAODSV2	22C		LCCAOPAR3	630	
LCCAODSV3	230		LCCAOPAR4	7A0	
LCCAODSV4	234		LCCAOPAR5	928	
LCCAODSV5	238		LCCAOPASS	21F	20
LCCAODSV6	23C		LCCAOPCR1	2F4	
LCCAODS0F	3C0		LCCAOPCR2	164	
LCCAODS0W	220		LCCAOPCR3	824	
LCCAODS7E	21D	02	LCCAOPCR4	864	
LCCAOEE1R	240		LCCAOPCR5	96C	
LCCAOEE2R	244		LCCAOPDXC	97	
LCCAOEE3R	248		LCCAOPEEC	92	
LCCAOELKP	470		LCCAOPERA	3C4	
LCCAOEMS0	670		LCCAOPERC	3C2	
LCCAOEND	A48		LCCAOPEX1	314	
LCCAOENID	9F0	80	LCCAOPEX2	184	
LCCAOERIS	20C	40	LCCAOPEX3	844	
LCCAOESAV	294		LCCAOPEX4	884	
LCCAOESC2	2B9	80	LCCAOPEX5	98C	
LCCAOESMR	2B8	10	LCCAOPGMM	50A	
LCCAOESPN	20D	08	LCCAOPGR1	8	
LCCAOETP	368		LCCAOPGR2	48	
LCCAOETPB	36C		LCCAOPGR3	A0	
LCCAOETSC	21C	20	LCCAOPGR4	6C0	
LCCAOEUTR	21D	08	LCCAOPGR5	8E4	
LCCAOEUTS	21D	10	LCCAOPGTA	2D2	
LCCAOEXSN	20C	01	LCCAOPICA	93	7F
LCCAOFPFL	3C1		LCCAOPICB	93	3F
LCCAOFPWA	28C		LCCAOPICC	9B	
LCCAOFPWR	290		LCCAOPICD	93	
LCCAOFWP	354		LCCAOPIC1	6B8	
LCCAOFWPC	358		LCCAOPIC3	758	
LCCAOFWPP	354		LCCAOPIC5	9B8	
LCCAOHSCS	21F	40	LCCAOPILC	91	
LCCAOIDUR	3D4		LCCAOPIINT	90	
LCCAOIDUV	3D0		LCCAOPMC	93	40
LCCAOIHR	208		LCCAOPMFV	969	
LCCAOIHR1	208		LCCAOPOST	5F0	
LCCAOIHR2	209		LCCAOPPER	93	80
LCCAOIHR3	20A		LCCAOPPRI	9F4	
LCCAOIHR4	20B		LCCAOPPR2	24F	
LCCAOINGR	1E0		LCCAOPPSW	88	
LCCAOINT	20C	02	LCCAOPPS1	6B0	
LCCAOIOC3	560		LCCAOPPS3	750	
LCCAOIOC4	564		LCCAOPPS5	9B0	
LCCAOIOR1	2E4		LCCAOPRMW	53C	
LCCAOIOR2	2E8		LCCAOPRTN	544	
LCCAOIOR3	2EC		LCCAOPSB2	61C	
LCCAOIOSS	55C		LCCAOPSB5	924	
LCCAOIOWA	2E0		LCCAOPSLI	700	
LCCAOIOXM	55C		LCCAOPSMK	21E	
LCCAOLCCAO	0		LCCAOPSTD	97	
LCCAOLCCX	28C		LCCAOPSTF	97	03
LCCAOLCR0	2B0		LCCAOPSTL	9BF	
LCCAOLCXR	290		LCCAOPST5	9BF	03
LCCAOLKFG	2B6		LCCAOPSW3	1D8	
LCCAOLKG1	3E8		LCCAOPTCB	540	
LCCAOLKG2	430		LCCAOPTE1	6BC	
LCCAOLKRD	2B6	10	LCCAOPTE3	75C	
LCCAOLOCK	20C	20	LCCAOPTE5	9BC	
LCCAOLSDP	624		LCCAOPTR1	24C	
LCCAOLSHD	748		LCCAOPTR2	24D	
LCCAOLSHP	74C		LCCAOPTR3	24E	
LCCAOLSSD	620		LCCAOPTR5	968	
LCCAOLWTM	2C0		LCCAOPVAD	94	

## IHALCCAO Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
LCCAOPVXM	94	80	LCCAOP2A9	104	
LCCAOPWEB	220		LCCAOP2CA	18C	
LCCAOPXM1	300		LCCAOP2CB	190	
LCCAOPXM2	170		LCCAOP2CC	194	
LCCAOPXM3	830		LCCAOP2CD	198	
LCCAOPXM4	870		LCCAOP2CE	19C	
LCCAOPXM5	978		LCCAOP2CF	1A0	
LCCAOPX1A	304		LCCAOP2C0	164	
LCCAOPX1K	300		LCCAOP2C1	168	
LCCAOPX1P	306		LCCAOP2C2	16C	
LCCAOPX1S	302		LCCAOP2C3	170	
LCCAOPX2A	174		LCCAOP2C4	174	
LCCAOPX2K	170		LCCAOP2C5	178	
LCCAOPX2P	176		LCCAOP2C6	17C	
LCCAOPX2S	172		LCCAOP2C7	180	
LCCAOPX3A	834		LCCAOP2C8	184	
LCCAOPX3K	830		LCCAOP2C9	188	
LCCAOPX3P	836		LCCAOP3AA	658	
LCCAOPX3S	832		LCCAOP3AB	65C	
LCCAOPX4A	874		LCCAOP3AC	660	
LCCAOPX4K	870		LCCAOP3AD	664	
LCCAOPX4P	876		LCCAOP3AE	668	
LCCAOPX4S	872		LCCAOP3AF	66C	
LCCAOPX5A	97C		LCCAOP3A0	630	
LCCAOPX5K	978		LCCAOP3A1	634	
LCCAOPX5P	97E		LCCAOP3A2	638	
LCCAOPX5S	97A		LCCAOP3A3	63C	
LCCAOP1AA	788		LCCAOP3A4	640	
LCCAOP1AB	78C		LCCAOP3A5	644	
LCCAOP1AC	790		LCCAOP3A6	648	
LCCAOP1AD	794		LCCAOP3A7	64C	
LCCAOP1AE	798		LCCAOP3A8	650	
LCCAOP1AF	79C		LCCAOP3A9	654	
LCCAOP1A0	760		LCCAOP3CA	84C	
LCCAOP1A1	764		LCCAOP3CB	850	
LCCAOP1A2	768		LCCAOP3CC	854	
LCCAOP1A3	76C		LCCAOP3CD	858	
LCCAOP1A4	770		LCCAOP3CE	85C	
LCCAOP1A5	774		LCCAOP3CF	860	
LCCAOP1A6	778		LCCAOP3C0	824	
LCCAOP1A7	77C		LCCAOP3C1	828	
LCCAOP1A8	780		LCCAOP3C2	82C	
LCCAOP1A9	784		LCCAOP3C3	830	
LCCAOP1CA	31C		LCCAOP3C4	834	
LCCAOP1CB	320		LCCAOP3C5	838	
LCCAOP1CC	324		LCCAOP3C6	83C	
LCCAOP1CD	328		LCCAOP3C7	840	
LCCAOP1CE	32C		LCCAOP3C8	844	
LCCAOP1CF	330		LCCAOP3C9	848	
LCCAOP1C0	2F4		LCCAOP4AA	7C8	
LCCAOP1C1	2F8		LCCAOP4AB	7CC	
LCCAOP1C2	2FC		LCCAOP4AC	7D0	
LCCAOP1C3	300		LCCAOP4AD	7D4	
LCCAOP1C4	304		LCCAOP4AE	7D8	
LCCAOP1C5	308		LCCAOP4AF	7DC	
LCCAOP1C6	30C		LCCAOP4A0	7A0	
LCCAOP1C7	310		LCCAOP4A1	7A4	
LCCAOP1C8	314		LCCAOP4A2	7A8	
LCCAOP1C9	318		LCCAOP4A3	7AC	
LCCAOP2AA	108		LCCAOP4A4	7B0	
LCCAOP2AB	10C		LCCAOP4A5	7B4	
LCCAOP2AC	110		LCCAOP4A6	7B8	
LCCAOP2AD	114		LCCAOP4A7	7BC	
LCCAOP2AE	118		LCCAOP4A8	7C0	
LCCAOP2AF	11C		LCCAOP4A9	7C4	
LCCAOP2A0	E0		LCCAOP4CA	88C	
LCCAOP2A1	E4		LCCAOP4CB	890	
LCCAOP2A2	E8		LCCAOP4CC	894	
LCCAOP2A3	EC		LCCAOP4CD	898	
LCCAOP2A4	F0		LCCAOP4CE	89C	
LCCAOP2A5	F4		LCCAOP4CF	8A0	
LCCAOP2A6	F8		LCCAOP4C0	864	
LCCAOP2A7	FC		LCCAOP4C1	868	
LCCAOP2A8	100		LCCAOP4C2	86C	

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
LCCAOP4C3	870		LCCAOREAX	8C4	
LCCAOP4C4	874		LCCAORES1	50C	
LCCAOP4C5	878		LCCAORES2	528	
LCCAOP4C6	87C		LCCAORSGR	120	
LCCAOP4C7	880		LCCAORSME	50C	
LCCAOP4C8	884		LCCAORSMK	509	
LCCAOP4C9	888		LCCAORSTP	2B8	40
LCCAOP5AA	950		LCCAORSTR	20C	08
LCCAOP5AB	954		LCCAORSWS	224	80
LCCAOP5AC	958		LCCAORWEB	5EC	
LCCAOP5AD	95C		LCCAORWLK	5EC	80
LCCAOP5AE	960		LCCAORWQL	37C	
LCCAOP5AF	964		LCCAORXMR	8B0	
LCCAOP5A0	928		LCCAORXRA	8B4	
LCCAOP5A1	92C		LCCAORXRK	8B0	
LCCAOP5A2	930		LCCAORXRP	8B6	
LCCAOP5A3	934		LCCAORXRS	8B2	
LCCAOP5A4	938		LCCAOR1A4	1A4	
LCCAOP5A5	93C		LCCAOR2DC	2DC	
LCCAOP5A6	940		LCCAOR2F0	2F0	
LCCAOP5A7	944		LCCAOR265	265	
LCCAOP5A8	948		LCCAOR270	270	
LCCAOP5A9	94C		LCCAOR35C	35C	
LCCAOP5CA	994		LCCAOR370	370	
LCCAOP5CB	998		LCCAOR820	820	
LCCAOP5CC	99C		LCCAOSAFN	2D0	
LCCAOP5CD	9A0		LCCAOSCFI	21F	
LCCAOP5CE	9A4		LCCAOSCSA	4C0	
LCCAOP5CF	9A8		LCCAOSCW1	3D8	
LCCAOP5C0	96C		LCCAOSCW2	3DC	
LCCAOP5C1	970		LCCAOSDUR	3CC	
LCCAOP5C2	974		LCCAOSDUV	3C8	
LCCAOP5C3	978		LCCAOSGPR	380	
LCCAOP5C4	97C		LCCAOSIGS	20C	80
LCCAOP5C5	980		LCCAOSLEB	2B8	
LCCAOP5C6	984		LCCAOSLE1	2B8	
LCCAOP5C7	988		LCCAOSLE2	2B9	
LCCAOP5C8	98C		LCCAOSLIP	2BC	
LCCAOP5C9	990		LCCAOSLSA	5AC	
LCCAORARA	808		LCCAOSMQJ	360	
LCCAORARB	80C		LCCAOSMSK	508	
LCCAORARC	810		LCCAOSOP1	97	04
LCCAORARD	814		LCCAOSPIN	20C	
LCCAORARE	818		LCCAOSPLJ	364	
LCCAORARF	81C		LCCAOSPN1	20C	
LCCAORARS	7E0		LCCAOSPN2	20D	
LCCAORAR0	7E0		LCCAOSPN3	20E	
LCCAORAR1	7E4		LCCAOSPN4	20F	
LCCAORAR2	7E8		LCCAOSPSW	534	
LCCAORAR3	7EC		LCCAOSRBF	2D0	
LCCAORAR4	7F0		LCCAOSRBJ	2A0	
LCCAORAR5	7F4		LCCAOSRBM	21D	80
LCCAORAR6	7F8		LCCAOSREG	4D4	
LCCAORAR7	7FC		LCCAOSRGS	538	
LCCAORAR8	800		LCCAOSRSA	550	
LCCAORAR9	804		LCCAOSRTK	554	
LCCAORCPU	2A8		LCCAOSRXM	550	
LCCAORCRA	8CC		LCCAOSSA2	2C8	
LCCAORCRB	8D0		LCCAOSSA5	2CC	
LCCAORCRC	8D4		LCCAOSSRB	21D	20
LCCAORCRD	8D8		LCCAOSSTA	2D8	40
LCCAORCRE	8DC		LCCAOSSTD	2D8	80
LCCAORCRF	8E0		LCCAOSSTE	2D8	20
LCCAORCRS	8A4		LCCAOSTAS	20D	10
LCCAORCR0	8A4		LCCAOSTCP	2B8	80
LCCAORCR1	8A8		LCCAOSTCT	264	
LCCAORCR2	8AC		LCCAOSTG1	478	
LCCAORCR3	8B0		LCCAOSTST	20D	04
LCCAORCR4	8B4		LCCAOSVC6	21C	04
LCCAORCR5	8B8		LCCAOSXLS	20D	02
LCCAORCR6	8BC		LCCAOSXMR	3E0	
LCCAORCR7	8C0		LCCAOTCAC	50B	40
LCCAORCR8	8C4		LCCAOTCFB	50B	
LCCAORCR9	8C8		LCCAOTCR0	250	

## IHALCCAO Cross Reference

Name	Hex Offset	Hex Value
LCCAOTCTL	50B	80
LCCAOTCT2	21C	02
LCCAOTIMR	21C	10
LCCAOTODH	210	
LCCAOTODL	214	
LCCAOTOLD	29C	
LCCAOTOLS	21F	04
LCCAOTP	9D0	
LCCAOTPB	9E0	
LCCAOTPU	9D4	
LCCAOTPUB	9E4	
LCCAOTSMC	21C	08
LCCAOTSPN	20C	10
LCCAOTTSC	9C0	
LCCAOTTS1	9C0	
LCCAOTTS2	9C4	
LCCAOTVS	21D	04
LCCAOTVSE	21F	10
LCCAOTVS2	21D	01
LCCAOTVS3	21F	02
LCCAOVARY	2B4	01
LCCAOVCPU	21C	40
LCCAOVTD	2B8	20
LCCAOWDT	334	
LCCAOWFCT	202	
LCCAOWP	9D8	
LCCAOWPB	9E8	
LCCAOWPU	9DC	
LCCAOWPUB	9EC	
LCCAOWS	260	
LCCAOWSD	258	
LCCAOWSU	25C	
LCCAOWTD	254	
LCCAOWTIM	268	
LCCAOWTSC	9C8	
LCCAOWTS1	9C8	
LCCAOWTS2	9CC	
LCCAOWUQA	A00	
LCCAOWUQI	34C	
LCCAOWUQM	350	
LCCAOWUQR	34E	
LCCAOXLS	2B9	40
LCCAOXMFA	2B8	08
LCCAOXRC1	208	80
LCCAOXRC2	208	40
LCCAOXTIM	628	

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## IHALCCX Information

### IHALCCX Programming Interface information

Programming Interface information

#### IHALCCX

**ONLY** the following fields are part of the programming interface information:

- LCCX\_Sigp\_Count\_Addr
- LCCX\_SystrcBuf\_Count
- LCCX\_TimeParked
- LCCX\_TimerDIE\_CPUTime
- LCCXECCC

End of Programming Interface information

## IHALCCX Heading Information • IHALCCX Map

### IHALCCX Heading Information

**Common Name:** Extended Status Saving Work Area  
**Macro ID:** IHALCCX  
**DSECT Name:** LCCX  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** LCCX  
 Offset: X'6C0'  
 Length: 4  
**Storage Attributes:** Subpool: 239  
 Key: 0  
 Residency: Above 16M  
**Size:** LCCX -- X'0A50' bytes  
**Created by:** IEAVNIP0 (ipl CPU), IEEVCPRA (other CPU)  
**Pointed to by:** LCCALCCX (virtual)  
 LCCALCXR (real)  
**Serialization:** Disablement  
**Function:** Maps the area used for extended status saving things

### IHALCCX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	2640	LCCX	
0	(0)	CHARACTER	512	LCCXFPWA	The FPWA is mapped here
0	(0)	CHARACTER	128	LCCXTXPG641	64-bit regs resulting from program-interrupt-caused transaction abort (regs from PITDB are moved to "normal" place). IEAVEPCO requires that the high halves be first
0	(0)	CHARACTER	64	LCCXTXPG641_H	64-bit reg high halves
64	(40)	CHARACTER	64	LCCXTXPG641_L	64-bit reg low halves
128	(80)	CHARACTER	128	LCCXTXPG642	64-bit regs resulting from program-interrupt-caused transaction abort (regs from PITDB are moved to "normal" place). IEAVEPCO requires that the high halves be first
128	(80)	CHARACTER	64	LCCXTXPG642_H	64-bit reg high halves
192	(C0)	CHARACTER	64	LCCXTXPG642_L	64-bit reg low halves
256	(100)	CHARACTER	128	LCCXTXPG643	64-bit regs resulting from program-interrupt-caused transaction abort (regs from PITDB are moved to "normal" place). IEAVEPCO requires that the high halves be first
256	(100)	CHARACTER	64	LCCXTXPG643_H	64-bit reg high halves
320	(140)	CHARACTER	64	LCCXTXPG643_L	64-bit reg low halves
384	(180)	CHARACTER	128	LCCXTXPG644	64-bit regs resulting from program-interrupt-caused transaction abort (regs from PITDB are moved to "normal" place). IEAVEPCO requires that the high halves be first
384	(180)	CHARACTER	64	LCCXTXPG644_H	64-bit reg high halves
448	(1C0)	CHARACTER	64	LCCXTXPG644_L	64-bit reg low halves
512	(200)	CHARACTER	64	LCCXLCCAP64H1	Program FLIH recursion 64-bit GPR high-order half savearea 1
576	(240)	CHARACTER	64	LCCXLCCAP64H2	Program FLIH mainline 64-bit GPR high-order half savearea 2
640	(280)	CHARACTER	64	LCCXLCCAP64H3	Program FLIH recursion MC access 64-bit GPR high-order half savearea 3
704	(2C0)	CHARACTER	64	LCCXLCCAP64H4	Program FLIH 64-bit GPR high-order half savearea 4
768	(300)	CHARACTER	64	LCCXLCCAP64H5	Program FLIH recursion 64-bit GPR high-order half savearea 5
832	(340)	CHARACTER	64	LCCXLCCARG64H	Restart FLIH 64-bit GPR high-order half savearea
896	(380)	CHARACTER	16	LCCXPPSW16_1	16-byte PSW which is scrunched into LCCAPPS1
912	(390)	CHARACTER	16	LCCXPPSW16_2	16-byte PSW which is scrunched into LCCAPPS2
928	(3A0)	CHARACTER	16	LCCXPPSW16_3	16-byte PSW which is scrunched into LCCAPPS3
944	(3B0)	CHARACTER	16	LCCXPPSW16_5	16-byte PSW which is scrunched into LCCAPPS5
960	(3C0)	CHARACTER	128	LCCXTXPG645	64-bit regs resulting from program-interrupt-caused transaction abort (regs from PITDB are moved to "normal" place). IEAVEPCO requires that the high halves be first
960	(3C0)	CHARACTER	64	LCCXTXPG645_H	64-bit reg high halves
1024	(400)	CHARACTER	64	LCCXTXPG645_L	64-bit reg low halves



Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
1088	(440)	CHARACTER	16	LCCXTXPPSW16_1	64-bit reg low halves
					PSW resulting from program-interrupt-caused transaction abort (PSW from PITDB is moved to "normal" place)
1104	(450)	CHARACTER	16	LCCXTXPPSW16_2	
					PSW resulting from program-interrupt-caused transaction abort (PSW from PITDB is moved to "normal" place)
1120	(460)	CHARACTER	16	LCCXTXPPSW16_3	
					PSW resulting from program-interrupt-caused transaction abort (PSW from PITDB is moved to "normal" place)
1136	(470)	CHARACTER	16	LCCXTXPPSW16_4	
					PSW resulting from program-interrupt-caused transaction abort (PSW from PITDB is moved to "normal" place)
1152	(480)	CHARACTER	16	LCCXTXPPSW16_5	
					PSW resulting from program-interrupt-caused transaction abort (PSW from PITDB is moved to "normal" place)
1168	(490)	CHARACTER	48	LCCXR490	Reserved
1216	(4C0)	CHARACTER	128	LCCXR4C0	Reserved
1344	(540)	CHARACTER	128	LCCXLCCAPCR4	8-byte CRs
1344	(540)	CHARACTER	8	LCCXLCCAPCR4_0	CR0
1344	(540)	CHARACTER	4	LCCXLCCAPCR4_0H	CR 0 high half
1348	(544)	CHARACTER	4	LCCXLCCAPCR4_0L	CR 0 low half
1352	(548)	CHARACTER	8	LCCXLCCAPCR4_1	CR1
1360	(550)	CHARACTER	8	LCCXLCCAPCR4_2	CR2
1368	(558)	CHARACTER	16	LCCXLCCAPCR4_XM	CR3/4
1368	(558)	CHARACTER	8	LCCXLCCAPCR4_3	CR3
1376	(560)	CHARACTER	8	LCCXLCCAPCR4_4	CR4
1384	(568)	CHARACTER	8	LCCXLCCAPCR4_5	CR5
1392	(570)	CHARACTER	8	LCCXLCCAPCR4_6	CR6
1400	(578)	CHARACTER	8	LCCXLCCAPCR4_7	CR7
1408	(580)	CHARACTER	8	LCCXLCCAPCR4_8	CR8
1408	(580)	CHARACTER	4	LCCXLCCAPCR4_8H	CR 8 high half
1412	(584)	CHARACTER	4	LCCXLCCAPCR4_8L	CR 8 low half
1412	(584)	CHARACTER	2	LCCXLCCAPCR4_EAX	EAX in CR8
1416	(588)	CHARACTER	8	LCCXLCCAPCR4_9	CR9
1424	(590)	CHARACTER	8	LCCXLCCAPCR4_A	CR 10
1432	(598)	CHARACTER	8	LCCXLCCAPCR4_B	CR 11
1440	(5A0)	CHARACTER	8	LCCXLCCAPCR4_C	CR 12
1448	(5A8)	CHARACTER	8	LCCXLCCAPCR4_D	CR 13
1456	(5B0)	CHARACTER	8	LCCXLCCAPCR4_E	CR 14
1464	(5B8)	CHARACTER	8	LCCXLCCAPCR4_F	CR 15
1464	(5B8)	CHARACTER	4	LCCXLCCAPCR4_FH	CR 15 high half
1468	(5BC)	CHARACTER	4	LCCXLCCAPCR4_FL	CR 15 low half
1472	(5C0)	CHARACTER	128	LCCXLCCAPCR5	8-byte CRs
1472	(5C0)	CHARACTER	8	LCCXLCCAPCR5_0	CR0
1472	(5C0)	CHARACTER	4	LCCXLCCAPCR5_0H	CR 0 high half
1476	(5C4)	CHARACTER	4	LCCXLCCAPCR5_0L	CR 0 low half

## IHALCCX Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
1480	(5C8)	CHARACTER	8	LCCXLCCAPCR5_1	CR1
1480	(5C8)	CHARACTER	4	LCCXLCCAPCR5_1H	CR 1 high half
1484	(5CC)	CHARACTER	4	LCCXLCCAPCR5_1L	CR 1 low half
1488	(5D0)	CHARACTER	8	LCCXLCCAPCR5_2	CR2
1488	(5D0)	CHARACTER	4	LCCXLCCAPCR5_2H	CR 2 high half
1492	(5D4)	CHARACTER	4	LCCXLCCAPCR5_2L	CR 2 low half
1496	(5D8)	CHARACTER	16	LCCXLCCAPCR5_XM	CR3/4
1496	(5D8)	CHARACTER	8	LCCXLCCAPCR5_3	CR3
1496	(5D8)	CHARACTER	4	LCCXLCCAPCR5_SINS	
1500	(5DC)	CHARACTER	2	LCCXLCCAPCR5_KM	
1502	(5DE)	CHARACTER	2	LCCXLCCAPCR5_SASID	
1504	(5E0)	CHARACTER	8	LCCXLCCAPCR5_4	CR4
1504	(5E0)	CHARACTER	4	LCCXLCCAPCR5_PINS	
1508	(5E4)	CHARACTER	2	LCCXLCCAPCR5_AX	
1510	(5E6)	CHARACTER	2	LCCXLCCAPCR5_PASID	
1512	(5E8)	CHARACTER	8	LCCXLCCAPCR5_5	CR5
1512	(5E8)	CHARACTER	4	LCCXLCCAPCR5_5H	CR 5 high half
1516	(5EC)	CHARACTER	4	LCCXLCCAPCR5_5L	CR 5 low half
1520	(5F0)	CHARACTER	8	LCCXLCCAPCR5_6	CR6
1528	(5F8)	CHARACTER	8	LCCXLCCAPCR5_7	CR7
1528	(5F8)	CHARACTER	4	LCCXLCCAPCR5_7H	CR 7 high half
1532	(5FC)	CHARACTER	4	LCCXLCCAPCR5_7L	CR 7 low half
1536	(600)	CHARACTER	8	LCCXLCCAPCR5_8	CR8
1536	(600)	CHARACTER	4	LCCXLCCAPCR5_8H	CR 8 high half
1540	(604)	CHARACTER	4	LCCXLCCAPCR5_8L	CR 8 low half
1540	(604)	CHARACTER	2	LCCXLCCAPCR5_EAX	EAX in CR8
1544	(608)	CHARACTER	8	LCCXLCCAPCR5_9	CR9
1552	(610)	CHARACTER	8	LCCXLCCAPCR5_A	CR 10
1560	(618)	CHARACTER	8	LCCXLCCAPCR5_B	CR 11
1568	(620)	CHARACTER	8	LCCXLCCAPCR5_C	CR 12
1576	(628)	CHARACTER	8	LCCXLCCAPCR5_D	CR 13
1584	(630)	CHARACTER	8	LCCXLCCAPCR5_E	CR 14
1592	(638)	CHARACTER	8	LCCXLCCAPCR5_F	CR 15
1592	(638)	CHARACTER	4	LCCXLCCAPCR5_FH	CR 15 high half
1596	(63C)	CHARACTER	4	LCCXLCCAPCR5_FL	CR 15 low half
1600	(640)	CHARACTER	128	LCCXLCCARCRS	8-byte CRs
1600	(640)	CHARACTER	8	LCCXLCCARCR_0	CR0
1608	(648)	CHARACTER	8	LCCXLCCARCR_1	CR1
1616	(650)	CHARACTER	8	LCCXLCCARCR_2	CR2
1624	(658)	CHARACTER	16	LCCXLCCARCR_XM	CR3/4
1624	(658)	CHARACTER	8	LCCXLCCARCR_3	

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
1624	(658)	CHARACTER	4	LCCXLCCARCR_3H	CR3 CR3 high half
1628	(65C)	CHARACTER	4	LCCXLCCARCR_3L	CR3 low half
1628	(65C)	CHARACTER	2	LCCXLCCARCR_3KM	
1630	(65E)	CHARACTER	2	LCCXLCCARCR_3SASID	
1632	(660)	CHARACTER	8	LCCXLCCARCR_4	CR4
1632	(660)	CHARACTER	4	LCCXLCCARCR_4H	CR4 high half
1636	(664)	CHARACTER	4	LCCXLCCARCR_4L	CR4 low half
1636	(664)	CHARACTER	2	LCCXLCCARCR_4AX	
1638	(666)	CHARACTER	2	LCCXLCCARCR_4PASID	
1640	(668)	CHARACTER	8	LCCXLCCARCR_5	CR5
1648	(670)	CHARACTER	8	LCCXLCCARCR_6	CR6
1656	(678)	CHARACTER	8	LCCXLCCARCR_7	CR7
1664	(680)	CHARACTER	8	LCCXLCCARCR_8	CR8
1664	(680)	CHARACTER	4	LCCXLCCARCR_8H	CR 8 high half
1668	(684)	CHARACTER	4	LCCXLCCARCR_8L	CR 8 low half
1668	(684)	CHARACTER	2	LCCXLCCARCR_EAX	EAX in CR8
1672	(688)	CHARACTER	8	LCCXLCCARCR_9	CR9
1680	(690)	CHARACTER	8	LCCXLCCARCR_A	CR 10
1688	(698)	CHARACTER	8	LCCXLCCARCR_B	CR 11
1696	(6A0)	CHARACTER	8	LCCXLCCARCR_C	CR 12
1704	(6A8)	CHARACTER	8	LCCXLCCARCR_D	CR 13
1712	(6B0)	CHARACTER	8	LCCXLCCARCR_E	CR 14
1720	(6B8)	CHARACTER	8	LCCXLCCARCR_F	CR 15
1720	(6B8)	CHARACTER	4	LCCXLCCARCR_FH	CR 15 high half
1724	(6BC)	CHARACTER	4	LCCXLCCARCR_FL	CR 15 low half
1728	(6C0)	CHARACTER	4	LCCXID	Acronym
1732	(6C4)	CHARACTER	8	LCCXR6C4	Reserved
1740	(6CC)	UNSIGNED	2	LCCX_RR_COUNT_DOWN	round robin count down Round robin is the technique used by the dispatcher to provide specific help to equal priority workloads
1742	(6CE)	CHARACTER	2	LCCXLCCAPERC	PER code
1744	(6D0)	CHARACTER	8	LCCXLCCAPERA	PER address
1744	(6D0)	CHARACTER	4	LCCXLCCAPERA03	PER address 0-3
1748	(6D4)	ADDRESS	4	LCCXLCCAPERA47	PER address 4-7
1752	(6D8)	CHARACTER	8	LCCXLCCAPVAD	Translation exception address (from 168-175)
1760	(6E0)	CHARACTER	8	LCCXLCCAPTE1	Translation exception address analogous to LCCAPTE1
1768	(6E8)	CHARACTER	8	LCCXLCCAPTE3	Translation exception address analogous to LCCAPTE3
1776	(6F0)	CHARACTER	8	LCCXLCCAPTE5	Translation exception address analogous to LCCAPTE5
1784	(6F8)	CHARACTER	16	LCCXLCCASRXM	GROSS MEMORY SAVE AREA FOR STOP/RESET AND SRB STATUS SAVE/RESTORE/MODIFY ROUTINES.
1784	(6F8)	CHARACTER	8	*	
1792	(700)	CHARACTER	8	LCCXLCCASRTK	HOLDS SSARTO TOKEN FOR STOP/RESET.
1800	(708)	CHARACTER	48	LCCXRSM	RSM related LCCX fields
1800	(708)	CHARACTER	4	LCCXRSMQ	Ensure RSM queue headers do not start on a double word boundary
1804	(70C)	CHARACTER	4	LCCXR70C	skip so that the next field is on a dword
1808	(710)	ADDRESS	8	LCCXPHQH	CPU related preferred AFQ header
1816	(718)	ADDRESS	8	LCCXNHQH	CPU related non-preferred AFQ header
1824	(720)	CHARACTER	24	LCCXR720	
1848	(738)	UNSIGNED	4	LCCX_SPIN_DIAG	Count of DIAG 9C's issued to this CPU.

# IHALCCX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
1852	(73C)	UNSIGNED	4	LCCX_BASE_SPIN_DIAG	Base value, set by WLM.
1856	(740)	CHARACTER	8	LCCX_NATIVE_CPU_TIME (4294967300:562114560)	Normalized CPU time for work intended to run on this CPU in timer units.
1888	(760)	CHARACTER	8	LCCX_NATIVE_BASE_CPU_TIME (4294967300:562114560)	Base value, set by WLM.
1920	(780)	ADDRESS	4	LCCXAWUQ	Pointer to AWUQ this processor is assigned to
1924	(784)	ADDRESS	4	LCCXWUQ	Pointer to WUQ this processor dispatches work from
1928	(788)	UNSIGNED	4	LCCX_CPU_YIELD	Count of yields issued by this CPU.
1932	(78C)	UNSIGNED	4	LCCX_BASE_CPU_YIELD	Base value, set by WLM.
1936	(790)	UNSIGNED	4	LCCX_GENERIC_HELP_TOKEN	Token when generic help was last recognized as needed by this processor
1940	(794)	SIGNED	4	LCCXRICAL	The recalculation timer used to determine when a CPU should execute the need help recalculation logic. OWNERSHIP: SUPERVISOR
1944	(798)	CHARACTER	8	LCCX_BASE_WAIT_TIME	Base value for LCCAWTIM Ownership: SRM
1952	(7A0)	ADDRESS	4	LCCX_SIGP_COUNT_ADDR	The address of a 4 byte counter that holds the total number of SIGPs done by this CPU that contribute to LPAR overheads
1956	(7A4)	CHARACTER	4	LCCXR7A4	Reserved
1960	(7A8)	ADDRESS	4	LCCX_CPU_EXCLUDED_ADDR	CPUs that are excluded during need help processing. This mask is ECVTMaxMPNumBytesInMask bytes long where the first (CVTMAXMP+1) bits are valid. Ownership: Supervisor
1964	(7AC)	ADDRESS	4	LCCX_CPU_EXCLUDED_PARTIAL_ADDR	Partial exclusion mask CPUs excluded during need help processing, except CPUs with higher priority level. This mask is ECVTMaxMPNumBytesInMask bytes long where the first (CVTMAXMP+1) bits are valid. OWNERSHIP: SUPERVISOR
1968	(7B0)	BITSTRING	4	LCCX_CPU_EXCLUDED_BITMASK_SUMMARY	A bitmask summarizing which 64-bit CPU blocks have been populated in the exclude and partial exclude block. Current support depends on this value being 4 bytes. Ownership: Supervisor
1972	(7B4)	CHARACTER	4	LCCX_DIAG7B4	For IBM Use only
1976	(7B8)	ADDRESS	4	LCCXLCEB	Ptr to the LCEB
1980	(7BC)	ADDRESS	4	LCCXLCCC	Ptr to the LCCC
1984	(7C0)	ADDRESS	4	LCCX_PERFINSTBB_ADDR	
1988	(7C4)	ADDRESS	4	LCCX_SIGP_BLOCK_ADDR	
1992	(7C8)	ADDRESS	4	LCCX_NHLP_OTHER_CTRS_ADDR	
1996	(7CC)	ADDRESS	4	LCCX_PREV_OTHER_CTRS_ADDR	
2000	(7D0)	ADDRESS	4	LCCXECCC	External Logical CPU Counter block.
2004	(7D4)	ADDRESS	4	LCCXECCC_PREV	External Logical CPU Counter previous block. This is not a programming interface. Use LCCXECCC instead.
2008	(7D8)	CHARACTER	8	LCCX_DIAG7D8	Reserved for IBM use only
2016	(7E0)	CHARACTER	72	LCCXR7E0	Reserved 110@LBD
2088	(828)	CHARACTER	8	LCCXTOBPWAE	
2088	(828)	SIGNED	4	LCCXTOBPWAW0	Part of LccxTobPWAE
2092	(82C)	SIGNED	4	LCCXTOBPWAW1	Processor work area. Serialization - disablement on the processor.
2096	(830)	CHARACTER	48	LCCXR830	Reserved 28@LBD
2144	(860)	CHARACTER	8	LCCX_NH_SAVEAREA	Register save area for need help processing
2152	(868)	SIGNED	4	LCCX_NHTM_AT_RCAL_UPDATE	The NHTM timer value at the time RCAL is updated. In another word, this value is the CPU time that this CPU has run, consecutively or not, since the last RCAL update. By subtracting this value from the RCAL, we will know whether the RCAL timer popped OWNERSHIP: SUPERVISOR
2156	(86C)	SIGNED	4	LCCX_GH_LEVEL	The giving help level of this CPU 00000000: no priority 00010000: AWUQ_PRIORITY_LEVEL_1 00100000: AWUQ_PRIORITY_LEVEL_2 00110000: AWUQ_PRIORITY_LEVEL_3 01000000: AWUQ_PRIORITY_LEVEL_4 Only the last byte of the word is used. The values are the AWUQ_PRIORITY_LEVEL_xxx values plus AWUQ_Mask_Byte_Size
2160	(870)	CHARACTER	104	LCCXR870	Reserved
2264	(8D8)	CHARACTER	32	LCCXR8D8	Reserved
2296	(8F8)	CHARACTER	8	LCCX_TOD_WTI_START	The TOD z/OS honored the last WTI request
2304	(900)	CHARACTER	8	LCCX_TOD_WTI_END	The TOD z/OS was resumed after the WTI completed
2312	(908)	CHARACTER	8	LCCX_TIMEPARKED	

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
2320	(910)	CHARACTER	8	LCCX_TIMEPARKED_OFFICIAL	The amount of time a CPU was parked. This value contains the official parked time (meaning accounted for by EEXT waking up and adding the last official time parked into LCCX_TimeParked_Official) plus the time since this CPU was last parked. WLM updates this time parked value regularly while the CPU is parked. Ownership: WLM & Supervisor Serialization: Compare and Swap
2328	(918)	CHARACTER	8	LCCX_TOD_CPU_PARKED	The official amount of time this CPU has been parked. This value is updated when a parked CPU wakes up in EEXT due to a SIGP, EMS signal, or unpark. For a parked CPU, this value grows less accurate the longer the CPU remains parked without being woken up. Once the parked CPU is woken up, this value is updated. Ownership: WLM & Supervisor
2336	(920)	CHARACTER	8	LCCX_TOD_CPU_UNPARKED	A timestamp when this CPU was last parked
2344	(928)	UNSIGNED	2	LCCX_MINOR_HPWWUQ_COUNT_DOWN	A timestamp when this CPU was last unparked
2346	(92A)	UNSIGNED	2	LCCX_MINOR_HPWWUQ_COUNT_DOWN_FROM	In VCM=YES a countdown value from LCCX_Minor_HPWWUQ_Count_Down_From to 0. When this value reaches 0 on CPs, the external FLIH needs to check the HPWWUQ.
2348	(92C)	UNSIGNED	2	LCCX_NORMAL_TO_SHORT_MINOR_CONV	In VCM=YES the value to initialize LCCX_Minor_HPWWUQ_Count_Down to when the countdown reaches 0
2350	(92E)	CHARACTER	2	LCCXR92E	The normal minor to short minor conversion factor for this CPU. When this CPU has normal minors, the value in this field represents how many short minors would have occurred during this CPU's normal minor. If this CPU has short minors, the value is 1 because no conversion factor is needed.
2352	(930)	CHARACTER	8	LCCX_ENTITLE_WITHDRAWN	Reserved
2360	(938)	SIGNED	4	LCCX_NHTM_BASE_ENTITLE	Amount of time that this zIIP may use to run CP work
2364	(93C)	UNSIGNED	2	LCCX_RELUCTANT_HELP_COUNTDOWN	The NHTM timer value for entitlement
2366	(93E)	CHARACTER	2	LCCXR93E	When this CPU is reluctantly helping, the number of times to give help serially before helping concurrently
2368	(940)	CHARACTER	8	LCCX_TIMERDIE_CPUTIME	Reserved
2376	(948)	UNSIGNED	8	LCCX_SYSTRCBUF_COUNT	Accumulated time
2384	(950)	CHARACTER	256	LCCX_DIAG950	System trace buffer counts
2640	(A50)	CHARACTER	0	LCCX_END	Do not add new fields after Diag950 until Diag950 has moved to DiagA00. Instead, add before Diag950, rename Diag950, and recompile users of Diag950. End of mapping

**IHALCCX Constants**

Len	Type	Value	Name	Description
4	CHARACTER	LCCX	LCCXIDCHARS	
4	DECIMAL		LCCX_ASSERT_EQ1_1	
4	DECIMAL		LCCX_ASSERT_EQ2_1	

Ensure the LCCX ends on a QWORD boundary 70@LBD

**IHALCCX Cross Reference**

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
LCCX	0		LCCX_DIAG7D8	7D8	
LCCX_BASE_CPU_YIELD	78C		LCCX_DIAG950	950	
LCCX_BASE_SPIN_DIAG	73C		LCCX_END	A50	
LCCX_BASE_WAIT_TIME	798		LCCX_ENTITLE_WITHDRAWN	930	
LCCX_CPU_EXCLUDED_ADDR	7A8		LCCX_GENERIC_HELP_TOKEN	790	
LCCX_CPU_EXCLUDED_BITMASK_SUMMARY	7B0		LCCX_GH_LEVEL	86C	
LCCX_CPU_EXCLUDED_PARTIAL_ADDR	7AC		LCCX_MINOR_HPWWUQ_COUNT_DOWN	928	
LCCX_CPU_YIELD	788		LCCX_MINOR_HPWWUQ_COUNT_DOWN_FROM	92A	
LCCX_DIAG7B4	7B4		LCCX_NATIVE_BASE_CPU_TIME	760	
			LCCX_NATIVE_CPU_TIME		

## IHALCCX Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
LCCX_NH_SAVEAREA	740		LCCXLCCAPCR4_1	548	
LCCX_NHLP_OTHER_CTRS_ADDR	860		LCCXLCCAPCR4_2	550	
LCCX_NHTM_AT_RCAL_UPDATE	7C8		LCCXLCCAPCR4_3	558	
LCCX_NHTM_BASE_ENTITLE	868		LCCXLCCAPCR4_4	560	
LCCX_NORMAL_TO_SHORT_MINOR_CONV	938		LCCXLCCAPCR4_5	568	
LCCX_PERFINSTBB_ADDR	92C		LCCXLCCAPCR4_6	570	
LCCX_PREV_OTHER_CTRS_ADDR	7C0		LCCXLCCAPCR4_7	578	
LCCX_RELUCTANT_HELP_COUNTDOWN	7CC		LCCXLCCAPCR4_8	580	
LCCX_RR_COUNT_DOWN	93C		LCCXLCCAPCR4_8H	580	
LCCX_SIGP_BLOCK_ADDR	6CC		LCCXLCCAPCR4_8L	584	
LCCX_SIGP_COUNT_ADDR	7C4		LCCXLCCAPCR4_9	588	
LCCX_SPIN_DIAG	7A0		LCCXLCCAPCR5	5C0	
LCCX_SYSTRCBUF_COUNT	738		LCCXLCCAPCR5_A	610	
LCCX_TIMEPARKED	948		LCCXLCCAPCR5_AX	5E4	
LCCX_TIMEPARKED_OFFICIAL	908		LCCXLCCAPCR5_B	618	
LCCX_TIMERDIE_CPUTIME	910		LCCXLCCAPCR5_C	620	
LCCX_TOD_CPU_PARKED	940		LCCXLCCAPCR5_D	628	
LCCX_TOD_CPU_UNPARKED	918		LCCXLCCAPCR5_E	630	
LCCX_TOD_WTI_END	920		LCCXLCCAPCR5_EAX	604	
LCCX_TOD_WTI_START	900		LCCXLCCAPCR5_F	638	
LCCXAWUQ	8F8		LCCXLCCAPCR5_FH	638	
LCCXECCC	780		LCCXLCCAPCR5_FL	63C	
LCCXECCC_PREV	7D0		LCCXLCCAPCR5_KM	5DC	
LCCXFPWA	0		LCCXLCCAPCR5_PASID	5E6	
LCCXID	6C0		LCCXLCCAPCR5_PINS	5E0	
LCCXLCCAPCR4	540		LCCXLCCAPCR5_SASID	5DE	
LCCXLCCAPCR4_A	590		LCCXLCCAPCR5_SINS	5D8	
LCCXLCCAPCR4_B	598		LCCXLCCAPCR5_XM	5D8	
LCCXLCCAPCR4_C	5A0		LCCXLCCAPCR5_0	5C0	
LCCXLCCAPCR4_D	5A8		LCCXLCCAPCR5_0H	5C0	
LCCXLCCAPCR4_E	5B0		LCCXLCCAPCR5_0L	5C4	
LCCXLCCAPCR4_EAX	584		LCCXLCCAPCR5_1	5C8	
LCCXLCCAPCR4_F	5B8		LCCXLCCAPCR5_1H	5C8	
LCCXLCCAPCR4_FH	5B8		LCCXLCCAPCR5_1L	5CC	
LCCXLCCAPCR4_FL	5BC		LCCXLCCAPCR5_2	5D0	
LCCXLCCAPCR4_XM	558		LCCXLCCAPCR5_2H	5D0	
LCCXLCCAPCR4_0	540		LCCXLCCAPCR5_2L	5D4	
LCCXLCCAPCR4_0H	540		LCCXLCCAPCR5_3		
LCCXLCCAPCR4_0L	544				

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
LCCXLCCAPCR5_4	5D8		LCCXLCCARCR_3KM	658	
LCCXLCCAPCR5_5	5E0		LCCXLCCARCR_3L	65C	
LCCXLCCAPCR5_5H	5E8		LCCXLCCARCR_3SASID	65C	
LCCXLCCAPCR5_5L	5E8		LCCXLCCARCR_4	65E	
LCCXLCCAPCR5_6	5EC		LCCXLCCARCR_4AX	660	
LCCXLCCAPCR5_7	5F0		LCCXLCCARCR_4H	664	
LCCXLCCAPCR5_7H	5F8		LCCXLCCARCR_4L	660	
LCCXLCCAPCR5_7L	5F8		LCCXLCCARCR_4PASID	664	
LCCXLCCAPCR5_8	5FC		LCCXLCCARCR_5	666	
LCCXLCCAPCR5_8H	600		LCCXLCCARCR_6	668	
LCCXLCCAPCR5_8L	600		LCCXLCCARCR_7	670	
LCCXLCCAPCR5_9	604		LCCXLCCARCR_8	678	
LCCXLCCAPERA	608		LCCXLCCARCR_8H	680	
LCCXLCCAPERA03	6D0		LCCXLCCARCR_8L	680	
LCCXLCCAPERA47	6D0		LCCXLCCARCR_9	684	
LCCXLCCAPER	6D4		LCCXLCCARCRS	688	
LCCXLCCAPTE1	6CE		LCCXLCCARG64H	640	
LCCXLCCAPTE3	6E0			340	
LCCXLCCAPTE5	6E8		LCCXLCCASRTK	700	
LCCXLCCAPVAD	6F0		LCCXLCCASRXM	6F8	
LCCXLCCAP64H1	6D8		LCCXLCCC	7BC	
LCCXLCCAP64H2	200		LCCXLCEB	7B8	
LCCXLCCAP64H3	240		LCCXNHQH	718	
LCCXLCCAP64H4	280		LCCXPHQH	710	
LCCXLCCAP64H5	2C0		LCCXPPSW16_1	380	
LCCXLCCARCR_A	300		LCCXPPSW16_2	390	
LCCXLCCARCR_B	690		LCCXPPSW16_3	3A0	
LCCXLCCARCR_C	698		LCCXPPSW16_5	3B0	
LCCXLCCARCR_D	6A0		LCCXR4C0	794	
LCCXLCCARCR_E	6A8		LCCXRSM	708	
LCCXLCCARCR_EAX	6B0		LCCXRSMQ	708	
LCCXLCCARCR_F	684		LCCXR490	4C0	
LCCXLCCARCR_FH	6B8		LCCXR490	490	
LCCXLCCARCR_FL	6B8		LCCXR6C4	6C4	
LCCXLCCARCR_XM	6BC		LCCXR7A4	7A4	
LCCXLCCARCR_0	658		LCCXR7E0	7E0	
LCCXLCCARCR_1	640		LCCXR70C	70C	
LCCXLCCARCR_2	648		LCCXR720	720	
LCCXLCCARCR_3	650		LCCXR8D8	8D8	
LCCXLCCARCR_3H	658		LCCXR830	830	
			LCCXR870	870	
			LCCXR92E	92E	
			LCCXR93E	93E	
			LCCXTOBPWAE	828	
			LCCXTOBPWAW0	828	
			LCCXTOBPWAW1	82C	
			LCCXTXPG641	0	
			LCCXTXPG641_H	0	
			LCCXTXPG641_L	0	
			LCCXTXPG642	40	
			LCCXTXPG642_H	80	
			LCCXTXPG642_L	80	
			LCCXTXPG643	C0	
			LCCXTXPG643_H	100	

## IHALCCX Cross Reference

Name	Hex Offset	Hex Value
	100	
LCCXTXPG643_L	140	
LCCXTXPG644	180	
LCCXTXPG644_H	180	
LCCXTXPG644_L	180	
	1C0	
LCCXTXPG645	3C0	
LCCXTXPG645_H	3C0	
LCCXTXPG645_L	3C0	
	400	
LCCXTXPPSW16_1	440	
LCCXTXPPSW16_2	450	
LCCXTXPPSW16_3	460	
LCCXTXPPSW16_4	470	
LCCXTXPPSW16_5	480	
LCCXWUQ	784	



## IHALCCXO Information

### IHALCCXO Heading Information

**Common Name:** Extended Status Saving Work Area  
**Macro ID:** IHALCCXO  
**DSECT Name:** LCCXO  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** LCCX  
 Offset: X'6C0'  
 Length: 4  
**Storage Attributes:** Subpool: 239  
 Key: 0  
 Residency: Above 16M  
**Size:** LCCXO -- X'0720' bytes  
**Created by:** IEAVNIPO (ipl CPU), IEEVCPRA (other CPU)  
**Pointed to by:** LCCALCCX (virtual)  
 LCCALCXR (real)  
**Serialization:** Disablement  
**Function:** Maps the area used for extended status saving things

### IHALCCXO Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	1824	LCCXO	
0	(0)	CHARACTER	512	LCCXOFFWA	The FPWA is mapped here
512	(200)	CHARACTER	64	LCCXOLCCAP64H1	Program FLIH recursion 64-bit GPR high-order half savearea 1
576	(240)	CHARACTER	64	LCCXOLCCAP64H2	Program FLIH mainline 64-bit GPR high-order half savearea 2
640	(280)	CHARACTER	64	LCCXOLCCAP64H3	Program FLIH recursion MC access 64-bit GPR high-order half savearea 3
704	(2C0)	CHARACTER	64	LCCXOLCCAP64H4	Program FLIH 64-bit GPR high-order half savearea 4
768	(300)	CHARACTER	64	LCCXOLCCAP64H5	Program FLIH recursion 64-bit GPR high-order half savearea 5
832	(340)	CHARACTER	64	LCCXOLCCARG64H	Restart FLIH 64-bit GPR high-order half savearea
896	(380)	CHARACTER	64	LCCXOR380	Reserved
960	(3C0)	CHARACTER	128	LCCXOLCCAPCR1	8-byte CRs
1088	(440)	CHARACTER	128	LCCXOLCCAPCR2	8-byte CRs
1216	(4C0)	CHARACTER	128	LCCXOLCCAPCR3	8-byte CRs
1344	(540)	CHARACTER	128	LCCXOLCCAPCR4	8-byte CRs
1472	(5C0)	CHARACTER	128	LCCXOLCCAPCR5	8-byte CRs
1600	(640)	CHARACTER	128	LCCXOLCCARCRS	8-byte CRs
1728	(6C0)	CHARACTER	4	LCCXOID	Acronym
1732	(6C4)	CHARACTER	4	*	Reserved
1736	(6C8)	CHARACTER	6	*	Reserved
1742	(6CE)	CHARACTER	2	LCCXOLCCAPER	PER code
1744	(6D0)	CHARACTER	8	LCCXOLCCAPERA	PER address
1744	(6D0)	CHARACTER	4	LCCXOLCCAPERA03	PER address 0-3
1748	(6D4)	ADDRESS	4	LCCXOLCCAPERA47	PER address 4-7
1752	(6D8)	CHARACTER	8	LCCXOLCCAPVAD	Translation exception address (from 168-175)
1760	(6E0)	CHARACTER	8	LCCXOLCCAPTE1	Translation exception address analogous to LCCAPTE1
1768	(6E8)	CHARACTER	8	LCCXOLCCAPTE3	Translation exception address analogous to LCCAPTE3
1776	(6F0)	CHARACTER	8	LCCXOLCCAPTE5	Translation exception address analogous to LCCAPTE5
1784	(6F8)	CHARACTER	40	*	Reserved
1824	(720)	CHARACTER	0	*	End of mapping

## IHALCCXO Constants • IHALCCXO Cross Reference

### IHALCCXO Constants

Len	Type	Value	Name	Description
4	CHARACTER	LCCX	LCCXOIDCHARS	

### IHALCCXO Cross Reference

Name	Hex Offset	Hex Value
LCCXO	0	
LCCXOFFWA	0	
LCCXOID	6C0	
LCCXOLCCAPCR1	3C0	
LCCXOLCCAPCR2	440	
LCCXOLCCAPCR3	4C0	
LCCXOLCCAPCR4	540	
LCCXOLCCAPCR5	5C0	
LCCXOLCCAPERA	6D0	
LCCXOLCCAPERA03	6D0	
LCCXOLCCAPERA47	6D4	
LCCXOLCCAPERC	6CE	
LCCXOLCCAPTE1	6E0	
LCCXOLCCAPTE3	6E8	
LCCXOLCCAPTE5	6F0	
LCCXOLCCAPVAD	6D8	
LCCXOLCCAP64H1	200	
LCCXOLCCAP64H2	240	
LCCXOLCCAP64H3	280	
LCCXOLCCAP64H4	2C0	
LCCXOLCCAP64H5	300	
LCCXOLCCARCRS	640	
LCCXOLCCARG64H	340	
LCCXOR380	380	

## IHALCCXT Information

### IHALCCXT Heading Information

**Common Name:** LCCA Extension (LCCX) Vector Table  
**Macro ID:** IHALCCXT  
**DSECT Name:** LCCXVT  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** LCCXVT  
 Offset: ????????  
 Length: ????????  
**Storage Attributes:** Subpool: 245  
 Key: 0  
**Size:** CVTMAXMP+1 LCCXT00P Entries  
**Created by:** IEAVNIP0  
**Pointed to by:** ECVTLCXT field of the ECVT data area  
**Serialization:** None  
**Function:** Contains address of LCCX for each processor.

### IHALCCXT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	LCCXVT	
0	(0)	ADDRESS	4	LCCXT00P	- ADDRESS OF LCCX FOR CPU 0. There are CVTMAXMP+1 entries. Do not reference entries beyond CVTMAXMP+1.
4	(4)	ADDRESS	4	LCCXT01P	- ADDRESS OF LCCX FOR CPU 1
8	(8)	ADDRESS	4	LCCXT02P	- ADDRESS OF LCCX FOR CPU 2
12	(C)	ADDRESS	4	LCCXT03P	- ADDRESS OF LCCX FOR CPU 3
16	(10)	ADDRESS	4	LCCXT04P	- ADDRESS OF LCCX FOR CPU 4
20	(14)	ADDRESS	4	LCCXT05P	- ADDRESS OF LCCX FOR CPU 5
24	(18)	ADDRESS	4	LCCXT06P	- ADDRESS OF LCCX FOR CPU 6
28	(1C)	ADDRESS	4	LCCXT07P	- ADDRESS OF LCCX FOR CPU 7
32	(20)	ADDRESS	4	LCCXT08P	- ADDRESS OF LCCX FOR CPU 8
36	(24)	ADDRESS	4	LCCXT09P	- ADDRESS OF LCCX FOR CPU 9
40	(28)	ADDRESS	4	LCCXT10P	- ADDRESS OF LCCX FOR CPU 10
44	(2C)	ADDRESS	4	LCCXT11P	- ADDRESS OF LCCX FOR CPU 11
48	(30)	ADDRESS	4	LCCXT12P	- ADDRESS OF LCCX FOR CPU 12
52	(34)	ADDRESS	4	LCCXT13P	- ADDRESS OF LCCX FOR CPU 13
56	(38)	ADDRESS	4	LCCXT14P	- ADDRESS OF LCCX FOR CPU 14
60	(3C)	ADDRESS	4	LCCXT15P	- ADDRESS OF LCCX FOR CPU 15
64	(40)	ADDRESS	4	LCCXT16_31P (16)	- Addresses OF LCCXs for CPUs 16 to 31
128	(80)	ADDRESS	4	LCCXT32_63P (32)	- Addresses OF LCCXs for CPUs 32 to 63
256	(100)	ADDRESS	4	LCCXT64_127P (64)	- Addresses OF LCCXs for CPUs 64 - 127
512	(200)	DBL WORD	8	LCCXTEND (0)	- END OF LCCXT. There are CVTMAXMP+1 entries. Do not reference entries beyond CVTMAXMP+1

### IHALCCXT Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
LCCXTEND	200		LCCXT32_63P	80	
LCCXT00P	0		LCCXT64_127P	100	
LCCXT01P	4		LCCXVT	0	
LCCXT02P	8				
LCCXT03P	C				
LCCXT04P	10				
LCCXT05P	14				
LCCXT06P	18				
LCCXT07P	1C				
LCCXT08P	20				
LCCXT09P	24				
LCCXT10P	28				
LCCXT11P	2C				
LCCXT12P	30				
LCCXT13P	34				
LCCXT14P	38				
LCCXT15P	3C				
LCCXT16_31P	40				



## IHALFTE Information

### IHALFTE Heading Information

**Common Name:** Linkage First Table Entry  
**Macro ID:** IHALFTE  
**DSECT Name:** LFTE  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: 245  
 Key: 0  
 Residency: Above-16M  
**Size:** LFTE -- X'0004' bytes  
**Created by:** The Linkage First Table is created by IEAVXMAS during initialization of the PC/AUTH address space. The entry table connect service creates linkage tables for non-system connections. Entry contents are changed by the entry table connect and disconnect service routines (IEAVXECO/IEAVXEDI).  
**Pointed to by:** The linkage first table is pointed to by the ASCB field ascbtiov (virtual address) and the ASTE field ASTE1LFTD (real address). The ASTELFTD field also contains the length of the table.  
**Serialization:** Local lock of the PC/Auth address space  
**Function:** Describes an entry in the linkage first table. Each address space will be connected to a linkage first table in the PC/Auth LSQA

### IHALFTE Map

#### IHALFTE Constants

Len	Type	Value	Name	Description
4	HEX	7FFFFFF0	LFTELSTR_MASK	
4	HEX	80000000	LFTEINVALID_MASK	
4	DECIMAL	64	LFTESPERLFTUNIT	
4	DECIMAL	12	LFTBOUNDARY_LOG	
4	DECIMAL	4096	LFTBOUNDARY	LFT must be on a 2**8 (256) byte boundary but it must also be in contiguous real, so since we get a "page" we make sure to start on a page boundary.
4	DECIMAL	256	LFTUNITSIZE	
4	DECIMAL	1024	LFTESPERLFT	
4	DECIMAL	4096	LFTLEN	We always get 1-page for the LFT. Architecturally, it could be larger, but we do not support that.



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## IHALOCKI Information

### IHALOCKI Programming Interface information

Programming Interface information

IHALOCKI

End of Programming Interface information

## IHALOCKI Heading Information • IHALOCKI Map

### IHALOCKI Heading Information

**Common Name:** Lock Instrumentation Data  
**Macro ID:** IHALOCKI  
**DSECT Name:** LockInst\_Comm, LockInst\_Uniq\_CML  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** LKCM, LKUN  
 Offset: 0, 0  
 Length: 4, 4  
**Storage Attributes:** Main Storage: ESQA / ENUCLEUS  
 Virtual Storage: ESQA / ENUCLEUS  
 Auxiliary Storage: N/A  
 Subpool: 245 / NA  
 Key: 0  
 Data Space: N/A  
 Residency: 31 bit.  
**Size:** LockInst\_Comm -- X'0028' bytes  
 LockInst\_Uniq\_CML -- X'0040' bytes  
**Created by:** IEAVEMRQ  
 IEAMSWCB  
 IEAVESLA  
**Pointed to by:** LockInst\_Comm is pointed to by:  
 ASSB\_SMFCMS\_LockInst\_Addr  
 ASSB\_ENQDEQ\_CMS\_LockInst\_Addr  
 ASSB\_LATCH\_CMS\_LockInst\_Addr  
 ASSB\_CMS\_LockInst\_Addr  
 ASSB\_Local\_LockInst\_Addr  
 ECVT\_SMF\_CMS\_LockInst\_Addr  
 ECVT\_ENQDEQ\_CMS\_LockInst\_Addr  
 ECVT\_LATCH\_CMS\_LockInst\_Addr  
 ECVT\_CMS\_LockInst\_Addr  
 LockInst\_Uniq\_CML is pointed to by:  
 LockInst\_Comm\_Unique\_Lock\_Data\_Addr when  
 LockInst\_Comm\_LockType = LockInst\_LockType\_Local  
**Serialization:** Data updates to the lock instrumentation  
 blocks are serialized by one of the following mechanisms:  
 The lock the instrumentation block represents.  
 Compare and Swap  
 See individual fields for how updates are serialized.  
 Data reads should be done unserialized.  
**Function:** Maps suspend lock instrumentation data.

### IHALOCKI Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	LOCKINST_COMM	
0	(0)	CHARACTER	4	LOCKINST_COMM_ACRONYM	Acronym
4	(4)	SIGNED	4	LOCKINST_COMM_VERSION	Version number
8	(8)	SIGNED	2	LOCKINST_COMM_LENGTH	Length of block
10	(A)	SIGNED	2	LOCKINST_COMM_LOCKTYPE	The type of lock this lock instrumentation block represents. See EQUs for LockInst_LockType_*. Available with version LockInst_Comm_Version_Number1 and above. Serialization: N/A (none)
12	(C)	ADDRESS	4	LOCKINST_COMM_UNIQUE_LOCK_DATA_ADDR	A pointer to an area which contains information unique to the lock represented by this LockInst_Comm block. If there is no data associated with this lock, this pointer will be zero. Available with version LockInst_Comm_Version_Number1 and above. Serialization: N/A (none)
16	(10)	SIGNED	8	LOCKINST_COMM_SUSPENDS	The number of times a unit of work was suspended on this lock. Available with version LockInst_Comm_Version_Number1 and above. Serialization: Lock this instrumentation block represents.
24	(18)	SIGNED	8	LOCKINST_COMM_ALREADY_SUSPENDED	The number of times a unit of work was suspended on this lock when there was already at least 1 other unit of work suspended for for the lock. Available with version LockInst_Comm_Version_Number1 and above. Serialization: Lock this instrumentation block represents.
32	(20)	CHARACTER	8	LOCKINST_COMM_CONT_TIME	



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
					The amount of time in a TOD clock format of all units of work that were suspended on this lock. If Wn represents the time each unit of work was suspended, this field contains: W1 + W2 + W3 + ... + Wn. Available with version LockInst_Comm_Version_Number1 and above. Serialization: Lock this instrumentation block represents.
32	(20)	X'1'	0	LOCKINST_LOCKTYPE_MIN	"1" Note the LockInst_LockType_Min can change from release to release. LockInst_LockType_Min is the lowest lock type supported for a given release.
32	(20)	X'1'	0	LOCKINST_LOCKTYPE_SMFCMS	"1"
32	(20)	X'2'	0	LOCKINST_LOCKTYPE_ENQDEQCMS	"2"
32	(20)	X'3'	0	LOCKINST_LOCKTYPE_LATCHCMS	"3"
32	(20)	X'4'	0	LOCKINST_LOCKTYPE_CMS	"4"
32	(20)	X'5'	0	LOCKINST_LOCKTYPE_LOCAL	"5"
32	(20)	X'5'	0	LOCKINST_LOCKTYPE_MAX	"5" Note the LockInst_LockType_Max can change from release to release. LockInst_LockType_Max is the largest lock type supported for a given release.
32	(20)	X'D2C3D4'	0	LOCKINST_COMM_ACRONYM_CHARS	"C'LKCM"
32	(20)	X'1'	0	LOCKINST_COMM_CURR_VERSION_NUMBER	"1"
32	(20)	X'1'	0	LOCKINST_COMM_VERSION_NUMBER1	"1"
32	(20)	X'2E8'	0	LOCKINST_ASSB_SMFCMS_OFFSET	"744"
32	(20)	X'2EC'	0	LOCKINST_ASSB_ENQDEQ_OFFSET	"748"
32	(20)	X'2F0'	0	LOCKINST_ASSB_LATCH_OFFSET	"752"
32	(20)	X'2F4'	0	LOCKINST_ASSB_CMS_OFFSET	"756"
32	(20)	X'2F8'	0	LOCKINST_ASSB_LOCAL_OFFSET	"760"
32	(20)	X'28'	0	LOCKINST_COMM_LEN	**LockInst_Comm"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	LOCKINST_UNIQ_CML	
0	(0)	CHARACTER	4	LOCKINST_UNIQ_CML_ACRONYM	Acronym
4	(4)	SIGNED	4	LOCKINST_UNIQ_CML_VERSION	Version number
8	(8)	SIGNED	2	LOCKINST_UNIQ_CML_LENGTH	Length of block
10	(A)	SIGNED	2	LOCKINST_UNIQ_CML_LOCKTYPE	The type of unique lock this lock instrumentation block represents. The LockType between LockInst_Comm_LockType and LockInst_Uniq_CML_LockType are equal. See EQUs for LockInst_Uniq_LockType_Local. Available with version LockInst_Uniq_CML_Version_Number1 and above. Serialization: N/A (none)
12	(C)	CHARACTER	4		Reserved
16	(10)	SIGNED	8	LOCKINST_UNIQ_CML_SUSPENDS	The number of times a unit of work from some other address space was suspended for this address space's local lock. This count represents the cumulative number of times a unit of work from another address space was suspended when requesting the CML lock of this address space. LockInst_Comm_Suspends + LockInst_Uniq_CML_Suspends is the total number of suspends on this address space's local lock. Available with version LockInst_Uniq_CML_Version_Number1 and above. Serialization: Lock this instrumentation block represents.
24	(18)	SIGNED	8	LOCKINST_UNIQ_CML_ALREADY_SUSPENDED	

# IHALOCKI Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
32	(20)	CHARACTER	8	LOCKINST_UNIQ_CML_CONT_TIME	The number of times a unit of work from some other address space was suspended for this address space's local lock. This count represents the cumulative number of times a unit of work from another address space was suspended and there was already another unit of work waiting for that lock. LockInst_t_Comm_Already_Suspended + Loc kInst_Uniq_CML_Already_Suspend ed is the total number of times a unit of work was suspended for this address space's local lock and there was already another unit of work waiting for the lock. Available with version LockInst_t_Uniq_CML_Version_Number1 and above. Serialization: Lock this instrumentation block represents.
40	(28)	SIGNED	8	LOCKINST_UNIQ_CML_SUSPENDS_SRC	The cumulative amount of time in a TOD clock format a unit of work from some other address space was suspended for this address space's local lock. If Wn represents the time each unit of work was suspended, this field contains: W1 + W2 + W3 + ... + Wn. LockInst_Comm_Cont_Time + LockInst_Uniq_CML_Cont_Time is the total time suspended on this address space's local lock. Available with version L ockInst_Uniq_CML_Version_Numbe r1 and above. Serialization: Lock this instrumentation block represents.
48	(30)	SIGNED	8	LOCKINST_UNIQ_CML_ALREADY_SUSPENDED_SRC	The cumulative number of times a unit of work from this address space (source) was suspended for another address space's local lock. This count represents the cumulative number of times a unit of work from this address space was suspended when requesting the CML lock of another address space. Available with version LockInst_Uniq_CML_Version_Numb er1 and above. Serialization: CS
56	(38)	CHARACTER	8	LOCKINST_UNIQ_CML_CONT_TIME_SRC	The cumulative number of times a unit of work from this address space (source) was suspended for another address space's local lock and there was another unit of work already suspended on that lock. This count represents the cumulative number of times a unit of work from this address space was suspended when requesting the CML lock of another address space and there was already a unit of work suspended on that CML lock. Available with version L ockInst_Uniq_CML_Version_Numbe r1 and above. Serialization: CS
56	(38)	X'5'	0	LOCKINST_UNIQ_LOCKTYPE_MIN	The cumulative amount of time in a TOD clock format of all units of work that originated from this address space and were suspended on a different address space's local lock. This time represents the total time units of work from this address space were suspended for requesting the CML lock of another address space. If Wn represents the time each unit of work was suspended, this field contains: W1 + W2 + W3 + ... + Wn. Available with version LockInst_Uniq_CML_Vers ion_Number1 and above. Serialization: CS
56	(38)	X'5'	0	LOCKINST_UNIQ_LOCKTYPE_LOCAL	"5" Note the LockInst_Uniq_LockType_Min can change from release to release. LockInst_Uniq_LockType_Min is the lowest lock type supported for a given release.
56	(38)	X'5'	0	LOCKINST_UNIQ_LOCKTYPE_MAX	"5" Note the LockInst_Uniq_LockType_Max can change from release to release. LockInst_Uniq_LockType_Max is the largest lock type supported for a given release.
56	(38)	X'D2E4D5'	0	LOCKINST_UNIQ_CML_ACRONYM_CHARS	"C'LKUN"
56	(38)	X'1'	0	LOCKINST_UNIQ_CML_CURR_VERSION_NUMBER	"1"
56	(38)	X'1'	0	LOCKINST_UNIQ_CML_VERSION_NUMBER1	"1"
56	(38)	X'40'	0	LOCKINST_UNIQ_CML_LEN	**LockInst_Uniq_CML"

## IHALOCKI Cross Reference

Name	Hex Offset	Hex Value
LOCKINST_ASSB_CMS_OFFSET	20	2F4
LOCKINST_ASSB_ENQDEQ_OFFSET	20	2EC
LOCKINST_ASSB_LATCH_OFFSET	20	2F0
LOCKINST_ASSB_LOCAL_OFFSET	20	2F8
LOCKINST_ASSB_SMFCMS_OFFSET	20	2E8
LOCKINST_COMM	0	
LOCKINST_COMM_ACRONYM	0	
LOCKINST_COMM_ACRONYM_CHARS	20	D2C3D4
LOCKINST_COMM_ALREADY_SUSPENDED	18	
LOCKINST_COMM_CONT_TIME	20	
LOCKINST_COMM_CURR_VERSION_NUMBER	20	1
LOCKINST_COMM_LEN	20	28
LOCKINST_COMM_LENGTH	8	
LOCKINST_COMM_LOCKTYPE	A	
LOCKINST_COMM_SUSPENDS	10	
LOCKINST_COMM_UNIQUE_LOCK_DATA_ADDR	C	
LOCKINST_COMM_VERSION	4	
LOCKINST_COMM_VERSION_NUMBER1	20	1
LOCKINST_LOCKTYPE_CMS	20	4
LOCKINST_LOCKTYPE_ENQDEQCMS	20	2
LOCKINST_LOCKTYPE_LATCHCMS	20	3
LOCKINST_LOCKTYPE_LOCAL	20	5
LOCKINST_LOCKTYPE_MAX	20	5
LOCKINST_LOCKTYPE_MIN	20	1
LOCKINST_LOCKTYPE_SMFCMS	20	1
LOCKINST_UNIQ_CML	0	
LOCKINST_UNIQ_CML_ACRONYM	0	
LOCKINST_UNIQ_CML_ACRONYM_CHARS	38	D2E4D5
LOCKINST_UNIQ_CML_ALREADY_SUSPENDED	18	
LOCKINST_UNIQ_CML_ALREADY_SUSPENDED_SRC	30	
LOCKINST_UNIQ_CML_CONT_TIME	20	
LOCKINST_UNIQ_CML_CONT_TIME_SRC	38	
LOCKINST_UNIQ_CML_CURR_VERSION_NUMBER	38	1
LOCKINST_UNIQ_CML_LEN	38	40
LOCKINST_UNIQ_CML_LENGTH	8	
LOCKINST_UNIQ_CML_LOCKTYPE	A	

Name	Hex Offset	Hex Value
LOCKINST_UNIQ_CML_SUSPENDS	10	
LOCKINST_UNIQ_CML_SUSPENDS_SRC	28	
LOCKINST_UNIQ_CML_VERSION	4	
LOCKINST_UNIQ_CML_VERSION_NUMBER1	38	1
LOCKINST_UNIQ_LOCKTYPE_LOCAL	38	5
LOCKINST_UNIQ_LOCKTYPE_MAX	38	5
LOCKINST_UNIQ_LOCKTYPE_MIN	38	5



## IHALSTE Information

### IHALSTE Heading Information

**Common Name:** Linkage Second Table Entry  
**Macro ID:** IHALSTE  
**DSECT Name:** LSTE  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: 245  
 Key: 0  
 Residency: Above-16M  
**Size:** LSTE -- X'0008' bytes  
**Created by:** The Linkage Second Table is created by IEAVXMAS during initialization of the PC/AUTH address space. The entry table connect service creates linkage tables for non-system connections. Entry contents are changed by the entry table connect and disconnect service routines (IEAVXECO/IEAVXEDI).  
**Pointed to by:** The linkage second table is pointed to by the LFTELSTR field of IHALFTE (real address.)  
**Serialization:** Local lock of the PC/Auth address space  
**Function:** Describes an entry in the linkage second table. Each address space will be connected to a linkage second table in the PC/Auth LSQA. The linkage second table is always 32 entries on a 256-byte boundary.

### IHALSTE Map

### IHALSTE Constants

Len	Type	Value	Name	Description
4	HEX	7FFFFFF0	LSTEETR_MASK	
4	HEX	0000003F	LSTEETLEN_MASK	
4	DECIMAL	32	LSTESPERLST	
4	DECIMAL	256	LSTLEN	
4	HEX	80000000	LSTEINVALID_MASK	
4	DECIMAL	8	LSTBOUNDARY_LOG	
4	DECIMAL	256	LSTBOUNDARY	LST must be on a 2**8 (256) byte boundary LST must be on a 2**8 (256) byte boundary



# IHALTE Information

## IHALTE Heading Information

**Common Name:** LINKAGE TABLE ENTRY (LTE) DESCRIPTION  
**Macro ID:** IHALTE  
**DSECT Name:** LTE  
**Owning Component:** PC/AUTH (SCXMS)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: SYSTEM-DETERMINED  
 Key: 0  
 Residency: SYSTEM-DETERMINED  
**Size:** 4 BYTES  
**Created by:** THE SYSTEM LINKAGE TABLE IS CREATED BY IEAVXMAS DURING  
 INITIALIZATION OF THE PC/AUTH ADDRESS SPACE. THE ENTRY  
 TABLE CONNECT SERVICE CREATES LINKAGE TABLES FOR NON-SYSTEM  
 CONNECTIONS. ENTRY CONTENTS ARE CHANGED BY THE ENTRY TABLE  
 CONNECT AND DISCONNECT SERVICE ROUTINES (IEAVXECO/IEAVXEDI).  
**Pointed to by:** THE LINKAGE TABLE IS POINTED TO BY THE ASCB FIELD  
 ASCBLTOV (VIRTUAL ADDRESS) AND THE ASTE FIELD ASTELTD (REAL  
 ADDRESS). THE ASTELTD FIELD ALSO CONTAINS THE LENGTH OF  
 THE TABLE.  
**Serialization:** LOCAL LOCK OF THE PC /AUTH SERVICES ADDRESS SPACE.  
**Function:** DESCRIBES AN ENTRY IN THE LINKAGE TABLE. EACH ADDRESS  
 SPACE WILL BE CONNECTED TO A LINKAGE TABLE IN THE PC/AUTH  
 LSQA.

## IHALTE Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	4	LTE	LINKAGE TABLE ENTRY DESCRIPTION
0	(0)	UNSIGNED	4	LTEETR	REAL ADDRESS OF ENTRY TABLE. LENGTH IN LOW ORDER 6 BITS MUST BE ZEROED TO USE THIS AS AN ENTRY TABLE ADDRESS
0	(0)	BITSTRING 1... ..	1	LTEIBYTE LTEINV	FLAG CONTAINS INVALID FLAG INVALID ENTRY FLAG
1	(1)	CHARACTER	2	*	PART OF ET ADDRESS - NOT REFERENCABLE ALONE
3	(3)	BITSTRING	1	LTEETLEN	THE NUMBER IN THE LAST SIX BITS PLUS ONE MULTIPLIED BY FOUR GIVES THE NUMBER OF ENTRIES IN THE TABLE





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## IHAPPR Information

### IHAPPR Programming Interface information

Programming Interface information

**IHAPPR**

End of Programming Interface information

## IHAPPR Heading Information • IHAPPR Map

### IHAPPR Heading Information

**Common Name:** z/OS Program Parameter Register Mapping  
**Macro ID:** IHAPPR  
**DSECT Name:** PPR  
**Owning Component:** SUPERVISOR CONTROL (SC1C5)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** PPR -- X'0008' bytes  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** The CPU Measurement Sampling Facility produces architected sampling entries that contains a program parameter value, determined by the most recent setting of the Program Parameter Register (PPR). The format of the PPR is not architected, this maps the z/OS format for the PPR.

### IHAPPR Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PPR	
0	(0)	ADDRESS	4	PPR_WU_ADDR	Address of the work unit dispatched, depends on the type of work unit. If an SRB, WU@ is the address of a WEB. If a TCB, WU@ is the address of a TCB.
Comment					
Bit definitions:					
End of Comment					
		1... ..		PPR_IS_WAIT	"X'80" Set when the wait task is dispatched
4	(4)	SIGNED	2	PPR_HOME_ASID	The home ASID of the work unit
Comment					
Bit definitions:					
End of Comment					
		1... ..		PPR_IS_SRB	"X'80" Set when the work unit dispatched is an SRB.
6	(6)	SIGNED	2	PPR_TOKEN	A pseudo-unique identifier for this work unit.
6	(6)	X'8'	0	PPR_LEN	"*-PPR"

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## IHAPRD Information

### IHAPRD Programming Interface information

Programming Interface information

#### IHAPRD

The following fields are **NOT** programming interface information:

- PRDADSSO
- PRDTTCH

End of Programming Interface information

## IHAPRD Heading Information • IHAPRD Map

### IHAPRD Heading Information

**Common Name:** Dump Header mapping for SVC Dump  
**Macro ID:** IHAPRD  
**DSECT Name:** PRDINPUT  
**Owning Component:** SVC Dump (SCDMP)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Auxiliary Storage: One per dump dataset  
**Size:** 4160 bytes  
**Created by:** SVC Dump (IEAVTSDH, ADYPRED)  
 SADMP (AMDSADM2)  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** IHAPRD describes the contents of dump records created by SADMP, SVC Dump, SLIP invoked SVC Dump, and SYSMDUMP. The macro defines the dump header record and symptom area, CPU status records, and general storage records.

### IHAPRD Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRDINPUT	,
0	(0)	CHARACTER	8	PRDMODNM	NAME OF PGM REQUESTING DUMP
8	(8)	CHARACTER	8	PRDODV	CLOCK VALUE AT TIME OF DUMP
16	(10)	CHARACTER	8	PRDCPU (0)	PROCESSOR IDENTIFICATION
16	(10)	CHARACTER	1	PRDPVRSN	PROCESSOR VERSION CODE IN HEX
17	(11)	CHARACTER	3	PRDPSERL	PROCESSOR SERIAL NUMBER IN HEX
20	(14)	CHARACTER	2	PRDPMODL	PROCESSOR MODEL NUMBER IN HEX
22	(16)	CHARACTER	2	PRDPCPU@	PHYSICAL CPU ADDRESS IN HEX
24	(18)	CHARACTER	100	PRDTITLE	TITLE FROM DUMP
124	(7C)	CHARACTER	8	PRDDSPB	TIME SYSTEM SET NON-DISPATCHABLE
132	(84)	CHARACTER	8	PRDDSPB	TIME SYSTEM RESET DISPATCHABLE
140	(8C)	CHARACTER	8	PRDSNAME	SYSTEM NAME
148	(94)	CHARACTER	12		RESERVED - Aligns PRSDRSN
160	(A0)	CHARACTER	16	PRSDRSN	SVC Dump reason code (only for SVC dump captured dumps)
176	(B0)	SIGNED	4	PRDSDBLK	Number of blocks in a captured dump (est. for auto alloc)
180	(B4)	CHARACTER	16	PRDPRODN	Product name
196	(C4)	CHARACTER	2	PRDPRODV	Product version
198	(C6)	CHARACTER	2	PRDPRODR	Product release
200	(C8)	CHARACTER	2	PRDPRODM	Product modification
202	(CA)	CHARACTER	1	PRDPRODD	Product development level
203	(CB)	CHARACTER	55		RESERVED
258	(102)	SIGNED	2	PRDADSS0	Offset of ADSS
260	(104)	CHARACTER	16	PRDXMP16	16-byte analog of PRDXMPSW
276	(114)	CHARACTER	16	PRDPSW16	16-byte analog of PRDPSW
292	(124)	SIGNED	4	PRDSDFWD	POINTER USED FOR HEADER CHAIN

Comment

THE FOLLOWING FIELDS ARE OFFSETS TO OTHER SECTIONS OF THE HEADER ALONG WITH THE LENGTHS. IF THE OFFSET FIELD IS ZERO THEN THE CORRESPONDING SECTION DOES NOT EXIST

End of Comment

296	(128)	CHARACTER	16	PRDOFSET (0)	OFFSETS
296	(128)	SIGNED	2	PRSDMPO	OFFSET OF SDUMP/SYSMDUMP COMMON SECTION
298	(12A)	SIGNED	2	PRSDMPL	LENGTH OF COMMON SECTION
300	(12C)	SIGNED	2	PRDSLPO	OFFSET OF SLIP SECTION
302	(12E)	SIGNED	2	PRDSLPL	LENGTH OF SLIP SECTION
304	(130)	SIGNED	2	PRDSYSMO	OFFSET OF SYSMDUMP SECTION
306	(132)	SIGNED	2	PRDSYSML	LENGTH OF SYSMDUMP SECTION
308	(134)	SIGNED	2	PRSDWAO	OFFSET OF SDWA FOR THIS DUMP
310	(136)	SIGNED	2	PRSDWAL	LENGTH OF SDWA
312	(138)	CHARACTER	50	PRDCID	CALLER'S ID
362	(16A)	SIGNED	2	PRDINTKO	Offset of incident token If 0, no incident token exists

Offsets

Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRSDWA	, SDWA FOR THIS DUMP

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRDSDSM	,
0	(0)	CHARACTER	4	PRDCVT	VIRTUAL ADDRESS OF CVT
4	(4)	CHARACTER	1	PRDFLG1	Flag byte
		1... ....		PRDME	"BIT0" ESAME mode
		.1.. ....		PRDVGPRF	"BIT1" 64-bit SVC Dump regs on entry
		.1.. ....		PRDMESET	"BIT1" For SADMP, on if dump was taken by a level of SADMP which sets PRDME
		..1. ....		PRDLGPRF	"BIT2" 64-bit SLIP regs on entry
		...1 ....		PRDMGPRF	"BIT3" 64-bit SYSDUMP regs at error
5	(5)	CHARACTER	1		RESERVED
6	(6)	CHARACTER	10	PRDERRID	ERRORID ASSOCIATED WITH DUMP
16	(10)	CHARACTER	44	PRDDSNAM	DSN TO WHICH DUMP WAS TAKEN
60	(3C)	CHARACTER	18	PRDXM (0)	CROSS MEMORY STATUS INFO WHEN SDUMP WAS INVOKED
60	(3C)	CHARACTER	4	PRDCML	ASCB ADDRESS OF CML ASID
64	(40)	CHARACTER	8	PRDXMPSW	PSW WHEN SDUMP WAS INVOKED
72	(48)	SIGNED	2	PRDPASID	PRIMARY ASID
74	(4A)	SIGNED	2	PRDSASID	SECONDARY ASID
76	(4C)	SIGNED	2	PRDHASID	HOME ASID
78	(4E)	SIGNED	2	PRDWASID	SDWA OWNERS ASID
80	(50)	SIGNED	4	PRDSADDR	ADDRESS WHERE SDWA EXISTED
84	(54)	SIGNED	4	PRDTTCH (0)	POINTER TO TRACE TABLE CONTROL HDR
84	(54)	SIGNED	4	PRDPSAAD	If non-zero, the absolute address of an MVS PSA which SADMP used to locate other MVS control blocks.
88	(58)	SIGNED	2	PRSDPO	OFFSET OF SVC DUMP PARM LIST
90	(5A)	SIGNED	2	PRSDPL	LENGTH OF SVC DUMP PARM LIST
92	(5C)	SIGNED	2	PRSDOPO	OFFSET OF SDUMP OPTIONS LIST
94	(5E)	SIGNED	2	PRSDOPL	LENGTH OF SDUMP OPTIONS LIST
96	(60)	SIGNED	4	PRDTCB	POINTER TO TCB OF TASK WHICH REQUESTED THE DUMP
100	(64)	CHARACTER	3	PRDDIDCO	DUMP ID USED FOR MESSAGES AND TO IDENTIFY THE DUMP TO THE OPERATOR
103	(67)	CHARACTER	1		RESERVED
104	(68)	CHARACTER	428	PRDCPUST (0)	CPU STATUS SECTION
104	(68)	CHARACTER	428	PRDREGS (0)	REGISTERS
104	(68)	CHARACTER	32		Unused
136	(88)	CHARACTER	64	PRDGPR	GPR'S UPON ENTERING SDUMP
200	(C8)	CHARACTER	64	PRDCR	Used only in special IPCS code
264	(108)	CHARACTER	8	PRDPSW	CALLERS PSW BEFORE SDUMP
272	(110)	CHARACTER	64	PRDAR	ACCESS REGS UPON ENTERING SDUMP
336	(150)	CHARACTER	128	PRDFPR	FPR'S UPON ENTERING SDUMP
464	(1D0)	CHARACTER	4	PRDFPCR	FPCR
468	(1D4)	CHARACTER	4		RESERVED
472	(1D8)	SIGNED	4	(0)	
472	(1D8)	CHARACTER	64	PRDG64H	G64H UPON ENTERING SDUMP
536	(218)	CHARACTER	128	PRDC64S	ESAME CRs at SDUMP entry
664	(298)	SIGNED	4	PRDCSA	START OF COMMON STORAGE
668	(29C)	SIGNED	4	PRDEPVT	END OF COMMON STORAGE
672	(2A0)	CHARACTER	8	PRDHJOBN	PRDHASID JOBNAM
680	(2A8)	CHARACTER	8	PRDHVSS	START OF HIGH VIRTUAL SHARED AREA
688	(2B0)	CHARACTER	8	PRDHVHP	START OF HIGH VIRTUAL HIGH PRIVATE AREA
696	(2B8)	CHARACTER	8	PRDHVCO	High Virtual Common Origin
704	(2C0)	SIGNED	4	PRDTTCH2	Pointer to the trace table control header of the SNAPTRC which was issued by SDUMP when the system is reset to dispatchable prematurely

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRDSDPM	, SDUMP PARM LIST IN BITS

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRDSDOPS	, SDUMP OPTIONS IN BITS

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRDSLIP	,
0	(0)	CHARACTER	8	PRDSLPSW	PSW WHEN SLIP WAS ENTERED
8	(8)	CHARACTER	8		Was PRDSLPC3/C4
16	(10)	CHARACTER	64	PRDSLGP	GPR'S WHEN SLIP WAS ENTERED
80	(50)	CHARACTER	64	PRDSLAR	ACCESS REGISTERS WHEN SLIP WAS ENTERED

## IHAPRD Cross Reference

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
144	(90)	CHARACTER	64	(0)	Was PRDSLRCR
144	(90)	DBL WORD	8	PRDSLPC3	CONTROL REG 3
152	(98)	DBL WORD	8	PRDSLPC4	CONTROL REG 4
160	(A0)	CHARACTER	16	PRDSLP16	16-byte PSW
176	(B0)	CHARACTER	32		Reserved
208	(D0)	CHARACTER	64	PRDSL6H	High halves of GPRs when SLIP was entered
272	(110)	CHARACTER	128	PRDSLC64	ESAME CRs when SLIP WAS ENTERED

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRDSYSMD	,
0	(0)	CHARACTER	4	PRDSMABD	ABEND CODE FOR THE ERROR
4	(4)	CHARACTER	8	PRDSMP5W	PSW AT ENTRY TO ABEND
12	(C)	CHARACTER	8	PRDSMLMN	NAME OF ACTIVE LOAD MODULE AT TIME OF ERROR
20	(14)	SIGNED	4	PRDSMLMA	@ OF ACTIVE LOAD MODULE
24	(18)	SIGNED	4	PRDSMLMO	OFFSET INTO ACTIVE LOAD MODULE POINTED TO BY PSW
28	(1C)	CHARACTER	12	PRDSMPDA	DATA AT PSW @ (6+ 6-)
40	(28)	CHARACTER	64	PRDSMGPR	GPR'S AT TIME OF ERROR
104	(68)	CHARACTER	4	PRDSMR5N	REASON CODE FOR THE ERROR
108	(6C)	CHARACTER	64	PRDSMAR	AR'S AT TIME OF ERROR
172	(AC)	CHARACTER	48		Unused
220	(DC)	CHARACTER	16	PRDSMP5W16	PSW AT ENTRY TO ABEND
236	(EC)	CHARACTER	64	PRDSMG6H	High halves of GPRs at time of error
300	(12C)	CHARACTER	128	PRDSMC64	ESAME CRs

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PRDINTKD	,
0	(0)	CHARACTER	32	PRDINTKN	Incident token

## IHAPRD Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
PRDADSS0	102		PRDOFSET	128	
PRDAR	110		PRDPASID	48	
PRDCID	138		PRDPCPU@	16	
PRDCML	3C		PRDPMODL	14	
PRDCPU	10		PRDPRODD	CA	
PRDCPU5T	68		PRDPRODM	C8	
PRDCR	C8		PRDPRODN	B4	
PRDCSA	298		PRDPRODR	C6	
PRDCVT	0		PRDPRODV	C4	
PRDC64S	218		PRDPSAAD	54	
PRDDIDCO	64		PRDP5ERL	11	
PRDDSNAM	10		PRDPSW	108	
PRDDSPB	7C		PRDPSW16	114	
PRDDSPE	84		PRDPVRSN	10	
PRDEPVT	29C		PRDREGS	68	
PRDERRID	6		PRDSADDR	50	
PRDFLG1	4		PRDSASID	4A	
PRDFPCR	1D0		PRSD5BLK	B0	
PRDFPR	150		PRSD5FWD	124	
PRDGPR	88		PRSD5MPL	12A	
PRDG64H	1D8		PRSD5MPO	128	
PRDHASID	4C		PRSD5OPL	5E	
PRDHJOB5N	2A0		PRSD5OPO	5C	
PRDHVCO	2B8		PRSD5OPS	0	
PRDHVHP	2B0		PRSD5PL	5A	
PRDHV55	2A8		PRSD5PM	0	
PRDINPUT	0		PRSD5PO	58	
PRDINTKD	0		PRSD5RSN	A0	
PRDINTKN	0		PRSD5SM	0	
PRDINTKO	16A		PRSD5WA	0	
PRDLGPRF	4	20	PRSD5WAL	136	
PRDME	4	80	PRSD5WAO	134	
PRDME5ET	4	40	PRDSLAR	50	
PRDMGPRF	4	10	PRD5LC64	110	
PRDMODNM	0		PRDSL5GPR	10	

Name	Hex Offset	Hex Value
PRDSLG6H	D0	
PRDSLIP	0	
PRDSLIPL	12E	
PRDSLIPO	12C	
PRDSLPC3	90	
PRDSLPC4	98	
PRDSLPSW	0	
PRDPLP16	A0	
PRDSMABD	0	
PRDSMAR	6C	
PRDSMC64	12C	
PRDSMGPR	28	
PRDSMG6H	EC	
PRDSMLMA	14	
PRDSMLMN	C	
PRDSMLMO	18	
PRDSMPDA	1C	
PRDSMPSW	4	
PRDSMPSW16	DC	
PRDSMRSN	68	
PRDSNAME	8C	
PRDSYSMD	0	
PRDSYSML	132	
PRDSYSMO	130	
PRDTCB	60	
PRDTITLE	18	
PRDTODVL	8	
PRDTTCH	54	
PRDTTCH2	2C0	
PRDVGPRF	4	40
PRDWASID	4E	
PRDXM	3C	
PRDXMPSW	40	
PRDXMP16	104	





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## IHAPSAE Information

### IHAPSAE Programming Interface information

Programming Interface information

#### IHAPSAE

**ONLY** the following field is part of the programming interface information:

- FIceFacilitiesList

End of Programming Interface information

## IHAPSAE Heading Information • IHAPSAE Map

### IHAPSAE Heading Information

**Common Name:** PSA Extension (z/Architecture)  
**Macro ID:** IHAPSAE  
**DSECT Name:** FLCESAME  
**Owning Component:** SUPERVISOR CONTROL (SC1C5)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** FLCESAME -- X'0200' bytes  
**Created by:** IEAVFX00  
 IEAVNIPO  
 IEEVCPRA  
**Pointed to by:** The PSAE maps the storage that starts at location 0 for the related processor.  
**Serialization:** Disablement.  
 None needed for FlceFacilitiesList.  
**Function:** Maps the z/Architecture format of the first page of the PSA.  
  
 This macro is automatically included when IHAPSA is included.

### IHAPSAE Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FLCESAME	FLCE 0x: defined by architecture
0	(0)	CHARACTER	8	FLCEIPPSW	FLCE 0x: IPL PSW
8	(8)	CHARACTER	8	FLCEICCW1	FLCE 8x: IPL CCW1
16	(10)	CHARACTER	8	FLCEICCW2	FLCE 10x: IPL CCW1
24	(18)	CHARACTER	104	FLCER018	FLCE 18x: reserved
128	(80)	CHARACTER	4	FLCEEPARM	FLCE 80x: External interruption parameter
132	(84)	CHARACTER	2	FLCECPUAD	FLCE 84x: CPU address
134	(86)	CHARACTER	2	FLCEEICODE	FLCE 86x: External interruption code
136	(88)	CHARACTER	4	FLCESDATA	FLCE 88x: Additional SVC interruption data
136	(88)	CHARACTER	2	FLCESDATABYTE0	FLCE 88x:
136	(88)	CHARACTER	1		FLCE 88x: Reserved
137	(89)	BITSTRING	1	FLCESILC	FLCE 89x: SVC interruption length code

Comment

Bit definitions:

End of Comment

		.... .111		FLCESILCB	"X'07'" FLCE 89x: Significant bits in ILC. Last bit is always zero
138	(8A)	CHARACTER	2	FLCESICODE	FLCE 8Ax: SVC interruption code
140	(8C)	CHARACTER	4	FLCEPDATA	FLCE 8Cx: Additional Program interruption data
140	(8C)	CHARACTER	2	FLCEPDATABYTE0	FLCE 8Cx:
140	(8C)	CHARACTER	1		FLCE 8Cx: Reserved
141	(8D)	BITSTRING	1	FLCEPILC	FLCE 8Dx: Program interruption length code

Comment

Bit definitions:

End of Comment

		.... .111		FLCEPILCB	"X'07'" FLCE 8Dx: Significant bits in ILC. Last bit is always zero
142	(8E)	CHARACTER	2	FLCEPICODE	FLCE 8Ex: Program interruption code
142	(8E)	BITSTRING	1	FLCEPICODE0	FLCE 8Ex: Exception extension code
143	(8F)	BITSTRING	1	FLCEPICODE1	FLCE 8Fx: 8-bit interruption code

Comment

Bit definitions:

End of Comment

		1... ....		FLCEPIPER	"X'80'" FLCE 8Fx: PER interruption code
		.1.. ....		FLCEPIMC	"X'40'" FLCE 8Fx: Monitor Call interruption code
		..11 1111		FLCEPIPC	"X'3F'" FLCE 8Fx: An unsolicited program interruption has occurred if any of these bits are on
144	(90)	CHARACTER	4	FLCEPIINFORMATION	FLCE 90x:
144	(90)	CHARACTER	3		

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
147	(93)	BITSTRING	1	FLCEDXC	FLCE 93x: Data exception code for PI 7
148	(94)	CHARACTER	2	FLCEMCNUM	FLCE 94x: Monitor class number
150	(96)	CHARACTER	2	FLCEPERCODE	FLCE 96x: PER code
150	(96)	BITSTRING	1	FLCEPERCODE0	FLCE 96x: Byte 0
Comment					
Bit definitions:					
End of Comment					
		1... ....		FLCEPERSB	"X'80" FLCE 96x: PER successful branch event
		.1. ....		FLCEPERIF	"X'40" FLCE 96x: PER instruction fetch event
		..1. ....		FLCEPERSA	"X'20" FLCE 96x: PER storage alteration event
		.... 1...		FLCEPERSAR	"X'08" FLCE 96x: PER storage alteration using real event
		.... .1..		FLCEPERZAD	"X'04" FLCE 96x: PER zero address detection
		.... ..1.		FLCEPERTRANSACTIONEND	"X'02"
151	(97)	BITSTRING	1	FLCEPERATMID	FLCE 97x: PER addressing and translation mode ID
Comment					
Bit definitions:					
End of Comment					
		1... ....		FLCEPERPSW4	"X'80" FLCE 97x: PER PSW bit 4
		.1. ....		FLCEPERATMIDVALID	"X'40" FLCE 97x: When 1, the ATMID bits are valid
		..1. ....		FLCEPERPSW32	"X'20" FLCE 97x: PER PSW bit 32
		...1 ....		FLCEPERPSW5	"X'10" FLCE 97x: PER PSW bit 5
		.... 1...		FLCEPERPSW16	"X'08" FLCE 97x: PER PSW bit 16
		.... .1..		FLCEPERPSW17	"X'04" FLCE 97x: PER PSW bit 17
		.... ..11		FLCEPERASCEID	"X'03" FLCE 97x: PER ASCE identification. If a storage alteration event when DAT is on, identifies the ASCE used: '00' - primary ASCE '01' - AR-specified AR. '10' - secondary ASCE '11' - home ASCE
152	(98)	CHARACTER	8	FLCEPER	FLCE 98x: PER address
152	(98)	CHARACTER	4	FLCEPERW0	FLCE 98x: PER address word 0
156	(9C)	ADDRESS	4	FLCEPERW1	FLCE 9Cx: PER address word 1
160	(A0)	BITSTRING	1	FLCEEAID	FLCE A0x: Exception access ID (The AR number involved in the translation exception when bits 30-31 of the TEA=01'). On a PIC 2C when ALRF is installed, additional bits are set
Comment					
Bit definitions:					
End of Comment					
		1... ....		FLCEEAID0	"X'80" Bit 0 of EAID. Zero
		.1. ....		FLCEEAID1	"X'40" Bit 1 of EAID. Zero
		..1. ....		FLCEEAID2	"X'20" Bit 2 of EAID. Set only when PIC 2C for PTI or for PASN translation on PR
		...1 ....		FLCEEAID3	"X'10" Bit 3 of EAID. Set only when PIC 2C for SSAIR or for SASN translation on PR
		.... 1111		FLCEEAID_ARNUM	"X'0F" AR number. Zero when Bit 1 or Bit 2 is set
161	(A1)	BITSTRING	1	FLCEPERAID	FLCE A1x: PER access ID (the access register number involved in the PER storage alteration event)
162	(A2)	BITSTRING	1	FLCEOPACID	FLCE A2x:
163	(A3)	CHARACTER	1	FLCEAMDID	FLCE A3x: Architecture mode ID (See FLCARCH in IHAPSA)
Comment					
Bit definitions:					
End of Comment					
		.... ...1		FLCELOEME	"X'01" Logout is Z/Architecture
164	(A4)	ADDRESS	4	FLCEMPL	FLCE A4x: MPL address
168	(A8)	CHARACTER	8	FLCETEID	FLCE A8x: Translation exception identification
168	(A8)	CHARACTER	8	FLCETEA	FLCE A8x: Translation exception address
168	(A8)	CHARACTER	6	FLCETEA6	FLCE AEx: Byte 6 of FlceTEA
174	(AE)	BITSTRING	1	FLCETEA6	FLCE AEx: Byte 6 of FlceTEA

# IHAPSAE Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
Bit definitions:					
End of Comment					
		.... 11..		FLCEAEFSI	"X'0C" Access-exception Fetch/Store indicator: 00 -- not determined. 01 -- store. 10 -- fetch. 11 -- reserved
175	(AF)	BITSTRING	1	FLCETEA7	FLCE AFx: Byte 7 of FlceTEA
Comment					
Bit definitions:					
End of Comment					
		.... 1...		FLCEPEALC	"X'08" FLCE AFx: Protection exception due to access-list control
		.... .1..		FLCESOPI	"X'04" FLCE AFx: Suppress on protection indication
		.... ..11		FLCETEASTD	"X'03" FLCE AFx: Segment table designation for TEA: '00' - primary STD '01' - STD was AR-qualified '10' - secondary STD '11' - home STD
168	(A8)	CHARACTER	8	FLCETEASNINFO	FLCE A8x: ASN Info
168	(A8)	CHARACTER	6		
174	(AE)	SIGNED	2	FLCETEASN	FLCE AEx: ASN
168	(A8)	CHARACTER	8	FLCETEPCINFO	FLCE A8x: PC Info
168	(A8)	CHARACTER	4		
172	(AC)	SIGNED	4	FLCEPCNUM	FLCE ACx: PC#. Bits 0-10 are 0, bit 11 is 1, and the PC# is in bits 12-31
176	(B0)	CHARACTER	8	FLCEMONITORCODE	FLCE B0x: Monitor Code
184	(B8)	CHARACTER	4	FLCESSID	FLCE B8x: Subsystem ID word
188	(BC)	CHARACTER	4	FLCEIINTPARM	FLCE BCx: I/O interruption parameter
192	(C0)	CHARACTER	4	FLCEIINTID	FLCE C0x: I/O interruption ID
196	(C4)	CHARACTER	4	FLCER0C4	FLCE C4x: Reserved
200	(C8)	CHARACTER	16	FLCEFACILITIESLIST	FLCE C8x: Facilities list stored by STFLE. See macro IHAFACL for a more complete definition of the facilities list. If the facilities list exceeds 128 bits, only the area mapped by IHAFACL will contain those additional bits
200	(C8)	BITSTRING	1	FLCEFACILITIESLISTBYTE0	FLCE C8x
Comment					
Bit definitions:					
End of Comment					
		1... ....		FLCEZARCHN3	"X'80" Instructions marked "N3" in the instruction summary are available on the CPU in ESA/390 mode
		1... ....		FLCEESAMEN3	"X'80" Instructions marked "N3" in the instruction summary are available on the CPU in ESA/390 mode
		.1.. ....		FLCEZARCHINSTALLED	"X'40" The z/Architecture mode is installed on the CPU
		.1.. ....		FLCEESAMEINSTALLED	"X'40" The z/Architecture mode is installed on the CPU
		..1. ....		FLCEZARCH	"X'20" The z/Architecture mode is active on the CPU
		..1. ....		FLCEESAME	"X'20" The z/Architecture mode is active on the CPU
		...1 ....		FLCEIDTEINSTALLED	"X'10" IDTE is installed
		.... 1...		FLCEIDTECLEARINGCOMBINEDSEGMENT	"X'08" IDTE does clearing of combined entries upon segment-table entry invalidation
		.... .1..		FLCEIDTECLEARINGCOMBINEDREGION	"X'04" IDTE does clearing of combined entries upon region-table entry invalidation
		.... ..1.		FLCEASNANDLXREUSEINSTALLED	"X'02" The ASN and LX reuse facility is installed on the CPU
201	(C9)	.... ...1	1	FLCESTFLE	"X'01" STFLE instruction is available
				FLCEFACILITIESLISTBYTE1	FLCE C9x

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
Bit definitions:					
End of Comment					
		1... ....		FLCEEDATFEAT	"X'80" DAT features
		.1.. ....		FLCESENERUNNINGSTATUS	"X'40" sense-running-status facility
		..1. ....		FLCECONDSSKEINSTALLED	"X'20" The conditional SSKE instruction is installed
		...1 ....		FLCECONFIGURATIONTOPOLOGY	"X'10" STSI-enhancement for configuration topology
		.... 1..		FLCECQCIF	"X'08" 110524
		.... .1..		FLCEIPTERANGE	"X'04" IPTE-range facility is installed
		.... ..1.		FLCENONQKEYSETTING	"X'02" Nonquiescing key-setting facility is installed
202	(CA)	.... ...1	1	FLCEAPFT	"X'01" The APFT facility is installed / 091111
				FLCEFACILITIESLISTBYTE2	FLCE CAx
Comment					
Bit definitions:					
End of Comment					
		1... ....		FLCEETF2	"X'80" Extended translation facility 2 is present
		.1.. ....		FLCECRYPTOASSIST	"X'40" The cryptographic assist is present
		.1.. ....		FLCEMESSAGESECURITYASSIST	"X'40" The message security assist is present
		..1. ....		FLCELONGDISPLACEMENT	"X'20" The long displacement facility is installed in the z/Architecture mode
		...1 ....		FLCELONGDISPLACEMENTHP	"X'10" The long displacement facility has high performance. Bit FceLongDisplacement will also be on.
		.... 1..		FLCEHFPMAS	"X'08" The HFP Multiply add/subtract facility is installed
		.... .1..		FLCEEXTENDEDIMMEDIATE	"X'04" The extended immediate facility is installed in the z/Architecture mode
		.... ..1.		FLCEETF3	"X'02" The extended translation facility 3 is installed in the z/Architecture mode
		.... ...1		FLCEHFPUNNORMEXTENSION	"X'01" The HFP unnormalized extension facility is installed
203	(CB)		1	FLCEFACILITIESLISTBYTE3	FLCE CBx
Comment					
Bit definitions:					
End of Comment					
		1... ....		FLCEETF2E	"X'80" ETF2 enhancement is present 031215
		.1.. ....		FLCESTCKF	"X'40" STCKF enhancement is present
		..1. ....		FLCEPARSE	"X'20" Parsing enhancement facility is present
		.... 1..		FLCETCSF	"X'08" TOD clock steering facility
		.... ..1.		FLCEETF3E	"X'02" ETF3 enhancement is present 040512
		.... ...1		FLCEECTF	"X'01" Extract Cpu Time facility
204	(CC)		1	FLCEFACILITIESLISTBYTE4	FLCE CCx
Comment					
Bit definitions:					
End of Comment					
		1... ....		FLCECSSF	"X'80" Compare-and-swap-and-store facility
		.1.. ....		FLCECSSF2	"X'40" Compare-and-swap-and-store facility 2
		..1. ....		FLCEGENERALINSTEEXTENSION	"X'20" General-Instructions- Extension Facility
		.... 1..		FLCEENHANCEDMONITOR	"X'08" The Enhanced Monitor facility is supported.
		.... ...1		FLCEOBSOLETECPUMEASUREMENT	

# IHAPSAE Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
205	(CD)	BITSTRING	1	FLCEFACILITIESLISTBYTE5	"X'01" Obsolete. Meant CPU-measurement facility supported. Use FlceCpuMeasurementCounter & FlceCpuMeasurementSampling FLCE CDx
Comment					
Bit definitions:					
End of Comment					
		1... ....		FLCESETPROGRAMPARM	"X'80" Set-Program-Parameter facility is supported
		.1. ....		FLCEFPSEF	"X'40" Floating-point-support enhancement facility
		.1. ....		FLCEDFPF	"X'20" Decimal-floating-point facility
		...1 ....		FLCEDFPFHP	"X'10" Decimal-floating-point facility high performance
		.... 1...		FLCEPFPO	"X'08" PFPO instruction 070424
		.... .1..		FLCEDISTINCTOPERANDS	"X'04" z196 is the first machine with this facility bit on.
		.... .1..		FLCEHIGHWORD	"X'04"
		.... .1..		FLCELOADSTOREONCONDITION	"X'04"
		.... .1..		FLCEPOPULATIONCOUNT	"X'04"
206	(CE)	.... ...1	1	FLCECMPEF	"X'01" Possible future enhancement
		BITSTRING		FLCEFACILITIESLISTBYTE6	FLCE CEx
Comment					
Bit definitions:					
End of Comment					
		.1. ....		FLCEMISCINSTEXT	"X'40" Bit 49 - Miscellaneous instruction extensions facility.
		.1. ....		FLCEEXECUTIONHINT	"X'40" Bit 49 - Execution hint facility.
		.1. ....		FLCELOADANDTRAP	"X'40" Bit 49 - Load and trap facility.
		.1. ....		FLCECONSTRAINEDTX	"X'20" Bit 50 - Constrained Transactional execution facility
207	(CF)	BITSTRING	1	FLCEFACILITIESLISTBYTE7	FLCE CFx
208	(D0)	BITSTRING	1	FLCEFACILITIESLISTBYTE8	FLCE D0x bits 64-71
Comment					
Bit definitions:					
End of Comment					
		1... ....		FLCERI	"X'80" FlceRI
		.1. ....		FLCECRYPTOAPQAI	"X'40" Crypto AP-Queue adapter interruption
		...1 ....		FLCECPUMEASUREMENTCOUNTER	"X'10" CPU-measurement counter facility
		.... 1...		FLCECPUMEASUREMENTSAMPLING	"X'08" CPU-measurement sampling facility
		.... .1..		FLCESCLP	"X'04" Possible future enhancement
		.... .1..		FLCEAISI	"X'02" AISI facility, bit 70
		.... ...1		FLCEAEN	"X'01" AEN facility, bit 71
209	(D1)	BITSTRING	1	FLCEFACILITIESLISTBYTE9	FLCE D1x bits 72-79
Comment					
Bit definitions:					
End of Comment					
		1... ....		FLCEAIS	"X'80" AIS facility, bit 72
		.1. ....		FLCETRANSACTIONALEXECUTION	"X'40" Bit 73 - Transactional execution facility
		.... .1..		FLCEMSA4	"X'04" MSA4 facility, bit 77
		.... .1..		FLCEEDAT2	"X'02" Bit 78 - Enhanced Dat-2

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
210	(D2)	BITSTRING	1	FLCEFACILITIESLISTBYTEA	FLCE D2x
211	(D3)	BITSTRING	1	FLCEFACILITIESLISTBYTEB	FLCE D3x
212	(D4)	BITSTRING	1	FLCEFACILITIESLISTBYTEC	FLCE D4x
213	(D5)	BITSTRING	1	FLCEFACILITIESLISTBYTED	FLCE D5x
214	(D6)	BITSTRING	1	FLCEFACILITIESLISTBYTEE	FLCE D6x
215	(D7)	BITSTRING	1	FLCEFACILITIESLISTBYTEF	FLCE D7x
216	(D8)	CHARACTER	16	FLCER0D8	FLCE D8x: Reserved
232	(E8)	CHARACTER	8	FLCEMCIC	FLCE E8x: Machine check interruption code
240	(F0)	CHARACTER	4	FLCEMCICE	FLCE F0x: Machine check interruption code extension
244	(F4)	CHARACTER	4	FLCEEDCODE	FLCE F4x: External damage code
248	(F8)	CHARACTER	8	FLCEFSA	FLCE F8x: Failing storage address
256	(100)	ADDRESS	8	FLCEEMFCTRARRAYADDR	FLCE 100x: The enhanced monitor facility counter array origin
264	(108)	SIGNED	4	FLCEEMFCTRARRAYSIZE	FLCE 108x: The enhanced monitor facility counter array dimension
268	(10C)	SIGNED	4	FLCEEMFEXCEPTIONCNT	FLCE 10Cx: The enhanced monitor facility exception count
272	(110)	CHARACTER	8	FLCEBEA	FLCE 110x: Breaking event address
280	(118)	CHARACTER	8	FLCER118	FLCE 118x: Reserved
288	(120)	CHARACTER	16	FLCEROPSW	FLCE 120x: Restart old PSW
304	(130)	CHARACTER	16	FLCEEOPSW	FLCE 130x: External old PSW
320	(140)	CHARACTER	16	FLCESOPSW	FLCE 140x: SVC old PSW
336	(150)	CHARACTER	16	FLCEPOPSW	FLCE 150x: Program old PSW
352	(160)	CHARACTER	16	FLCEMOPSW	FLCE 160x: Machine check old PSW
368	(170)	CHARACTER	16	FLCEIOPSW	FLCE 170x: I/O old PSW
384	(180)	CHARACTER	32	FLCER180	FLCE 180x: reserved
416	(1A0)	CHARACTER	16	FLCERNPSW	FLCE 1A0x: Restart new PSW
432	(1B0)	CHARACTER	16	FLCEENPSW	FLCE 1B0x: External new PSW
448	(1C0)	CHARACTER	16	FLCESNPSW	FLCE 1C0x: SVC new PSW
464	(1D0)	CHARACTER	16	FLCEPNPSW	FLCE 1D0x: Program new PSW
480	(1E0)	CHARACTER	16	FLCEMNPSW	FLCE 1E0x: Machine check new PSW
496	(1F0)	CHARACTER	16	FLCEINPSW	FLCE 1F0x: I/O new PSW
496	(1F0)	X'200'	0	FLCESAME_LEN	**FLCESAME"

## IHAPSAE Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
FLCEAEFSI	AE	C	FLCEDFPFHP	CD	10
FLCEAEN	D0	1	FLCEDISTINCTOPERANDS	CD	4
FLCEAIS	D1	80	FLCEDXC	93	
FLCEAISI	D0	2	FLCEEAID	A0	
FLCEAMDID	A3		FLCEEAID_ARNUM		
FLCEAPFT	C9	1		A0	F
FLCEASNANDLXREUSEINSTALLED	C8	2	FLCEEAID0	A0	80
FLCEBEA	110		FLCEEAID1	A0	40
FLCECMPEF	CD	1	FLCEEAID2	A0	20
FLCECONDSSKEINSTALLED	C9	20	FLCEEAID3	A0	10
FLCECONFIGURATIONTOPOLOGY	C9	10	FLCEECTF	CB	1
FLCECONSTRAINEDTX	CE	20	FLCEEDATFEAT	C9	80
FLCECPUAD	84		FLCEEDAT2	D1	2
FLCECPUMEASUREMENTCOUNTER	D0	10	FLCEEDCODE	F4	
FLCECPUMEASUREMENTSAMPLING	D0	8	FLCEEICCODE	86	
FLCECQCIF	C9	8	FLCEEMFCTRARRAYADDR		100
FLCECRYPTOAPQAI	D0	40	FLCEEMFCTRARRAYSIZE		108
FLCECRYPTOASSIST	CA	40	FLCEEMFEXCEPTIONCNT		10C
FLCECSSF	CC	80	FLCEENHANCEDMONITOR		CC
FLCECSSF2	CC	40	FLCEENPSW	1B0	8
FLCEDFPF	CD	20	FLCEEOPSW	130	
			FLCEEPARM	80	
			FLCEESAME	C8	20
			FLCEESAMEINSTALLED		

# IHAPSAE Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
FLCEESAMEN3	C8	40	FLCELONGDISPLACEMENTHP	CA	20
FLCEETF2	CA	80		CA	10
FLCEETF2E	CB	80	FLCEMCIC	E8	
FLCEETF3	CA	2	FLCEMCICE	F0	
FLCEETF3E	CB	2	FLCEMCNUM	94	
FLCEEXECUTIONHINT			FLCEMESSAGESECURITYASSIST		
	CE	40		CA	40
FLCEEXTENDEDIMMEDIATE			FLCEMISCINTEXT		
	CA	4		CE	40
FLCEFACILITIESLIST			FLCEMNPSW	1E0	
	C8		FLCEMONITORCODE		
FLCEFACILITIESLISTBYTEA				B0	
	D2		FLCEMOPSW	160	
FLCEFACILITIESLISTBYTEB			FLCEMPL	A4	
	D3		FLCEMSA4	D1	4
FLCEFACILITIESLISTBYTEC			FLCENONQKEYSETTING		
	D4			C9	2
FLCEFACILITIESLISTBYTED			FLCEOBSOLETECPUMEASUREMENT		
	D5			CC	1
FLCEFACILITIESLISTBYTEE			FLCEOPACID	A2	
	D6		FLCEPARSE	CB	20
FLCEFACILITIESLISTBYTEF			FLCEPCNUM	AC	
	D7		FLCEPDATA	8C	
FLCEFACILITIESLISTBYTE0			FLCEPDATABYTE0		
	C8			8C	
FLCEFACILITIESLISTBYTE1			FLCEPEALC	AF	8
	C9		FLCEPER	98	
FLCEFACILITIESLISTBYTE2			FLCEPERAID	A1	
	CA		FLCEPERASCEID		
FLCEFACILITIESLISTBYTE3				97	3
	CB		FLCEPERATMID	97	
FLCEFACILITIESLISTBYTE4			FLCEPERATMIDVALID		
	CC			97	40
FLCEFACILITIESLISTBYTE5			FLCEPERCODE	96	
	CD		FLCEPERCODE0	96	
FLCEFACILITIESLISTBYTE6			FLCEPERIF	96	40
	CE		FLCEPERPSW16	97	8
FLCEFACILITIESLISTBYTE7			FLCEPERPSW17	97	4
	CF		FLCEPERPSW32	97	20
FLCEFACILITIESLISTBYTE8			FLCEPERPSW4	97	80
	D0		FLCEPERPSW5	97	10
FLCEFACILITIESLISTBYTE9			FLCEPERSA	96	20
	D1		FLCEPERSAR	96	8
FLCEFPSEF	CD	40	FLCEPERSB	96	80
FLCEFSA	F8		FLCEPERTRANSACTIONEND		
FLCEGENERALINTEXTENSION				96	2
	CC	20	FLCEPERW0	98	
FLCEHFPMAS	CA	8	FLCEPERW1	9C	
FLCEHFPUNNORMEXTENSION			FLCEPERZAD	96	4
	CA	1	FLCEPFPO	CD	8
FLCEHIGHWORD	CD	4	FLCEPICODE	8E	
FLCEICCW1	8		FLCEPICODE0	8E	
FLCEICCW2	10		FLCEPICODE1	8F	
FLCEIDTECLEARINGCOMBINEDREGION			FLCEPIINFORMATION		
	C8	4		90	
FLCEIDTECLEARINGCOMBINEDSEGMENT			FLCEPILC	8D	
	C8	8	FLCEPILCB	8D	7
FLCEIDTEINSTALLED			FLCEPIMC	8F	40
	C8	10	FLCEPIPC	8F	3F
FLCEINPSW	1F0		FLCEPIPER	8F	80
FLCEIOINTID	C0		FLCEPNPSW	1D0	
FLCEIOINTPARM			FLCEPOPSW	150	
	BC		FLCEPOPULATIONCOUNT		
FLCEIOPSW	170			CD	4
FLCEIPPSW	0		FLCERI	D0	80
FLCEIPTRANGE			FLCERNPSW	1A0	
	C9	4	FLCEROPSW	120	
FLCELOADANDTRAP			FLCER0C4	C4	
	CE	40	FLCER0D8	D8	
FLCELOADSTOREONCONDITION			FLCER018	18	
	CD	4	FLCER118	118	
FLCELOEME	A3	1	FLCER180	180	
FLCELONGDISPLACEMENT			FLCESAME	0	



Name	Hex Offset	Hex Value
FLCESAME_LEN	1F0	200
FLCESCLP	D0	4
FLCESDATA	88	
FLCESDATABYTE0		
	88	
FLCESENERUNNINGSTATUS		
	C9	40
FLCESETPROGRAMPARM		
	CD	80
FLCESICODE	8A	
FLCESILC	89	
FLCESILCB	89	7
FLCESNPSW	1C0	
FLCESOPI	AF	4
FLCESOPSW	140	
FLCESSID	B8	
FLCESTCKF	CB	40
FLCESTFLE	C8	1
FLCETCSF	CB	8
FLCETEA	A8	
FLCETEASN	AE	
FLCETEASNINFO		
	A8	
FLCETEASTD	AF	3
FLCETE6	AE	
FLCETE7	AF	
FLCETEID	A8	
FLCETEPCINFO	A8	
FLCETRANSACTIONALEXECUTION		
	D1	40
FLCEZARCH	C8	20
FLCEZARCHINSTALLED		
	C8	40
FLCEZARCHN3	C8	80



## IHAPSAX Information

### IHAPSAX Heading Information

**Common Name:** PSA Extension (ESAME)  
**Macro ID:** IHAPSAX  
**DSECT Name:** PSAX  
**Owning Component:** SUPERVISOR CONTROL (SC1C5)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
 Residency: N/A  
**Size:** PSAX -- X'1000' bytes  
**Created by:** USER  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** Maps the architected 2nd page of the PSA.

This macro is automatically included when IHAPSA is included.

### IHAPSAX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE IsA(PSAX)	4096	THEPSAX	
0	(0)	CHARACTER	1024	PSAXFLCX	
0	(0)	CHARACTER	432	FLCXR000	FLCX 0x: reserved
432	(1B0)	CHARACTER	16	FLCXR1B0	FLCX 1B0x: reserved
448	(1C0)	CHARACTER	64	FLCXR1C0	FLCX 1C0x: reserved for programming
512	(200)	CHARACTER	512	FLCXMCSA	FLCX 200x: machine check or Store Status save area
512	(200)	CHARACTER	128	FLCXMCSAFPRS	FLCX 200x: FPRs
512	(200)	CHARACTER	8	FLCXMCSAFPR (15:562126464)	FLCX 200x: FPRs 0-15
640	(280)	CHARACTER	128	FLCXMCSAGPRS	FLCX 280x: GPRs
640	(280)	CHARACTER	8	FLCXMCSAGPR (15:562126464)	FLCX 280x: GPRs 0-15
768	(300)	CHARACTER	16	FLCXMCSAFLA	FLCX 300x: Fixed logout
768	(300)	CHARACTER	16	FLCXMCSAPSW	FLCX 300x: Store Status PSW
784	(310)	CHARACTER	8	FLCXR310	FLCX 310x: unused
792	(318)	ADDRESS	4	FLCXMCSAPREFIX	FLCX 318x: Store Status prefix
796	(31C)	CHARACTER	4	FLCXMCSAFPC	FLCX 31Cx: floating point control reg
800	(320)	CHARACTER	4	FLCXR320	FLCX 320x: unused
804	(324)	CHARACTER	4	FLCXMCSATODPR	FLCX 324x: TOD programmable reg
808	(328)	CHARACTER	8	FLCXMCSACPUTIMER	FLCX 328x: CPU timer
816	(330)	CHARACTER	1	FLCXR330	FLCX 330x: unused
817	(331)	CHARACTER	7	FLCXMCSACLOCKCOMPARATOR	FLCX 331X: Clock comparator bits 0-55
824	(338)	CHARACTER	8	FLCXR338	FLCX 338x: reserved
832	(340)	CHARACTER	64	FLCXMCSAARS	FLCX 340x: ARs
832	(340)	CHARACTER	4	FLCXMCSAAR (15:562126464)	FLCX 340x: ARs 0-15
896	(380)	CHARACTER	128	FLCXMCSACRS	FLCX 380x: CRs
896	(380)	CHARACTER	8	FLCXMCSACR (15:562125288)	FLCX 380x: CRs 0-15
1024	(400)	CHARACTER	256	PSAX0400	PSAX 400X:
1280	(500)	CHARACTER	256	PSAX0500	PSAX 500X:
1536	(600)	CHARACTER	256	PSAX0600	PSAX 600X:
1792	(700)	CHARACTER	256	PSAX0700	PSAX 700X:
2048	(800)	CHARACTER	256	PSAX_PITDB	PSAX 800X: Program interrupt diagnostic block mapped by IHATDB
2304	(900)	CHARACTER	256	PSAX0900	PSAX 900X:
2560	(A00)	CHARACTER	256	PSAX0A00	PSAX A00X:
2816	(B00)	CHARACTER	256	PSAX0B00	PSAX B00X:
3072	(C00)	CHARACTER	256	PSAX0C00	PSAX C00X:
3328	(D00)	CHARACTER	256	PSAX0D00	PSAX D00X:
3584	(E00)	CHARACTER	128	PSAX0E00	PSAX E00X:
3584	(E00)	CHARACTER	64	PSAXDATLK	PSAX E00X: Area for 64-bit dat-off assist linkage code
3648	(E40)	ADDRESS	4	PSAXDATOF	PSAX E40x: Real storage address of the 64-bit dat-off linkage table which is initialized by NIP for 64-bit dat-on/dat-off linkage
3652	(E44)	SIGNED	4	PSAXDATLN	PSAX E44x: Length of the 64-bit dat-off linkage table

## IHAPSAX Constants • IHAPSAX Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
3656	(E48)	ADDRESS	4	PSAXZ1	PSAX E48x:
3660	(E4C)	CHARACTER	52	PSAXRE4C	PSAX E4Cx: reserved
3712	(E80)	CHARACTER	256	PSAXSLSA	PSAX E80x: analog of PSASLSA. Single level save area used by disabled routines with no dependency that the save area will remain intact across a call. This area is not maintained by restart processing that results in an abend of the interrupted routine.
3968	(F80)	CHARACTER	128	PSAXRF80	PSAX F80x: reserved

### IHAPSAX Constants

Len	Type	Value	Name	Description
4	DECIMAL	4096	PSAXPTR	
4	DECIMAL	0	PSAXDUMMYLEN1A	
4	DECIMAL	0	PSAXDUMMYLEN1B	

### IHAPSAX Cross Reference

Name	Hex Offset	Hex Value
FLCXMCSA	200	
FLCXMCSAAR	340	
FLCXMCSAARS	340	
FLCXMCSACLOCKCOMPARATOR	331	
FLCXMCSACPUTIMER	328	
FLCXMCSACR	380	
FLCXMCSACRS	380	
FLCXMCSAFLA	300	
FLCXMCSAFPC	31C	
FLCXMCSAFPR	200	
FLCXMCSAFPRS	200	
FLCXMCSAGPR	280	
FLCXMCSAGPRS	280	
FLCXMCSAPREFIX	318	
FLCXMCSAPSW	300	
FLCXMCSATODPR	324	
FLCXR000	0	
FLCXR1B0	1B0	
FLCXR1C0	1C0	
FLCXR310	310	
FLCXR320	320	
FLCXR330	330	
FLCXR338	338	
PSAX_PITDB	800	
PSAXDATLK	E00	
PSAXDATLN	E44	
PSAXDATOF	E40	
PSAXFLCX	0	
PSAXRE4C	E4C	
PSAXRF80	F80	
PSAXSLSA	E80	
PSAXZ1	E48	
PSAX0A00	A00	
PSAX0B00	B00	
PSAX0C00	C00	
PSAX0D00	D00	
PSAX0E00	E00	
PSAX0400	400	
PSAX0500	500	
PSAX0600	600	
PSAX0700	700	
PSAX0900	900	
THEPSAX	0	

## IHAPWVT Information

### IHAPWVT Heading Information

**Common Name:** Processor Work Unit Queue Vector Table  
**Macro ID:** IHAPWVT  
**DSECT Name:** PWVT  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** PWVT  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: 239 (Fixed, ESQA)  
 Key: 0  
 Residency: Above 16M line  
**Size:** 72 bytes  
**Created by:** IEAVINIT  
**Pointed to by:** ECVTPWVT field of the ECVT data area  
**Serialization:** Enqueue on the SYSZVARY.CPU resource.  
**Function:** Locates Processor WUQs (PWUQs)

### IHAPWVT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PWVT	
0	(0)	CHARACTER	4	PWVTPWVT	Acronym in EBCDIC- "PWVT ".
4	(4)	BITSTRING	64	PWVTPWUQ	Address of PWUQs for processors 0-15.
68	(44)	BITSTRING	4	PWVTR044	Reserved. SEE DEPENDENCY SECTION.
72	(48)	DBL WORD	8	PWVTEND (0)	End of the PWVT.



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## IHARBUP Information

### IHARBUP Programming Interface information

Programming Interface information

IHARBUP

End of Programming Interface information

## IHARBUP Heading Information • IHARBUP Cross Reference

### IHARBUP Heading Information

**Common Name:** RB updated Return Information  
**Macro ID:** IHARBUP  
**DSECT Name:** none  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: n/a  
 Key: n/a  
 Residency: n/a  
**Size:** n/a  
**Created by:** n/a  
**Pointed to by:** n/a  
**Serialization:** None required  
**Function:** Return Codes from IEARBUP service

### IHARBUP Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE .... .... .... 1...	0	IEARBUPRC_OK IEARBUPRC_INVPARM	"X'00000000" Meaning: learbup request successful. "X'00000008" Meaning: learbup request specifies invalid parameters. Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IEARBUPRSNBADVERSION	"X'00000801" Meaning: The version field in the parameter list is not valid. Action: Check for possible storage overlay.
0	(0)	BITSTRING	0	IEARBUPRSNBADAMODEFIELD	"X'00000802" Meaning: The amode field in the parameter list is not valid. Action: Check for possible storage overlay.
0	(0)	BITSTRING	0	IEARBUPRSNBADADDRESS	"X'00000803" Meaning: The address provided is not valid. Action: Only provide an instruction address that is less than X'80000000'.
0	(0)	BITSTRING .... 11..	0	IEARBUPRSNBADFUNCTION IEARBUPRC_ENV	"X'00000804" Meaning: The function field in the parameter list is not valid. Action: Check for possible storage overlay. "X'0000000C" Meaning: Environmental error Action: Refer to the action provided with the specific reason code.
0	(0)	BITSTRING	0	IEARBUPRSNPREVRBNOTFOUND	"X'00000C01" Meaning: RB=PREV was requested, but there is only one RB for the current task. Action: Use RB=CURRENT when there is only one RB.
0	(0)	BITSTRING	0	IEARBUPRSNBADAMODE	"X'00000C02" Meaning: AMODE=64 was specified but the architecture level is not ESAME. Action: Only request AMODE=64 when the architecture level is ESAME.

### IHARBUP Cross Reference

Name	Hex Offset	Hex Value
IEARBUPRC_ENV	0	C
IEARBUPRC_INVPARM	0	8
IEARBUPRC_OK	0	0
IEARBUPRSNBADADDRESS	0	803
IEARBUPRSNBADAMODE	0	C02
IEARBUPRSNBADAMODEFIELD	0	802
IEARBUPRSNBADFUNCTION	0	804
IEARBUPRSNBADVERSION	0	801
IEARBUPRSNPREVRBNOTFOUND	0	C01



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## IHASAVER Information

### IHASAVER Programming Interface information

Programming Interface information

**IHASAVER**

End of Programming Interface information

## IHASAVER Heading Information • IHASAVER Map

### IHASAVER Heading Information

**Common Name:** General Purpose Registers Save Area  
**Macro ID:** IHASAVER  
**DSECT Name:** SAVER SAVF4SA SAVF5SA SAVF7SA SAVF8SA  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: Caller-supplied except SAVF5SA/SAVF8SA where it is determined by called routine  
 Key: Caller-supplied except SAVF5SA/SAVF8SA where it is determined by called routine  
 Residency: Caller-supplied except SAVF5SA/SAVF8SA where it is determined by called routine  
**Size:** SAVER -- X'0048' bytes  
 SAVF4SA -- X'0090' bytes  
 SAVF5SA -- X'00D8' bytes  
 SAVF7SA -- X'00D8' bytes  
 SAVF8SA -- X'0120' bytes  
**Created by:** Caller except for SAVF5SA/SAVF8SA which is created by called routine  
**Pointed to by:** R13 on input to a called routine or getmained by called routine  
**Serialization:** None required  
**Function:** Maps the save area

### IHASAVER Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SAVER	
0	(0)	ADDRESS	4	SAVPLI	USED BY PL/I LANG. PRGM
4	(4)	ADDRESS	4	SAVPREV	ADDR OF PREVIOUS SAVEAREA
8	(8)	ADDRESS	4	SAVNEXT	ADDR OF NEXT SAVE AREA
12	(C)	ADDRESS	4	SAVGRS14	REGISTER 14
16	(10)	ADDRESS	4	SAVGRS15	REGISTER 15
20	(14)	ADDRESS	4	SAVGRS0	REGISTER 0
24	(18)	ADDRESS	4	SAVGRS1	REGISTER 1
28	(1C)	ADDRESS	4	SAVGRS2	REGISTER 2
32	(20)	ADDRESS	4	SAVGRS3	REGISTER 3
36	(24)	ADDRESS	4	SAVGRS4	REGISTER 4
40	(28)	ADDRESS	4	SAVGRS5	REGISTER 5
44	(2C)	ADDRESS	4	SAVGRS6	REGISTER 6
48	(30)	ADDRESS	4	SAVGRS7	REGISTER 7
52	(34)	ADDRESS	4	SAVGRS8	REGISTER 8
56	(38)	ADDRESS	4	SAVGRS9	REGISTER 9
60	(3C)	ADDRESS	4	SAVGRS10	REGISTER 10
64	(40)	ADDRESS	4	SAVGRS11	REGISTER 11
68	(44)	ADDRESS	4	SAVGRS12	REGISTER 12
68	(44)	X'48'	0	SAVER_LEN	**-SAVER"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SAVF4SA	
0	(0)	ADDRESS	4	SAVF4SALANG	USED BY LANGUAGES
4	(4)	CHARACTER	4	SAVF4SAID	'F4SA'
8	(8)	CHARACTER	8	SAVF4SAG64RS14	REGISTER 14
16	(10)	CHARACTER	8	SAVF4SAG64RS15	REGISTER 15
24	(18)	CHARACTER	8	SAVF4SAG64RS0	REGISTER 0
32	(20)	CHARACTER	8	SAVF4SAG64RS1	REGISTER 1
40	(28)	CHARACTER	8	SAVF4SAG64RS2	REGISTER 2
48	(30)	CHARACTER	8	SAVF4SAG64RS3	REGISTER 3
56	(38)	CHARACTER	8	SAVF4SAG64RS4	REGISTER 4
64	(40)	CHARACTER	8	SAVF4SAG64RS5	REGISTER 5
72	(48)	CHARACTER	8	SAVF4SAG64RS6	REGISTER 6
80	(50)	CHARACTER	8	SAVF4SAG64RS7	REGISTER 7
88	(58)	CHARACTER	8	SAVF4SAG64RS8	REGISTER 8

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
96	(60)	CHARACTER	8	SAVF4SAG64RS9	REGISTER 9
104	(68)	CHARACTER	8	SAVF4SAG64RS10	REGISTER 10
112	(70)	CHARACTER	8	SAVF4SAG64RS11	REGISTER 11
120	(78)	CHARACTER	8	SAVF4SAG64RS12	REGISTER 12
128	(80)	CHARACTER	8	SAVF4SAPREV	ADDR OF PREVIOUS SAVEAREA
136	(88)	CHARACTER	8	SAVF4SANEXT	ADDR OF NEXT SAVE AREA
136	(88)	X'F4E2C1'	0	SAVF4SAID_VALUE	"CF4SA"
136	(88)	X'90'	0	SAVF4SA_LEN	"*-SAVF4SA"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SAVF5SA	
0	(0)	ADDRESS	4	SAVF5SALANG	USED BY LANGUAGES
4	(4)	CHARACTER	4	SAVF5SAID	'F5SA'
8	(8)	CHARACTER	8	SAVF5SAG64RS14	REGISTER 14
16	(10)	CHARACTER	8	SAVF5SAG64RS15	REGISTER 15
24	(18)	CHARACTER	8	SAVF5SAG64RS0	REGISTER 0
32	(20)	CHARACTER	8	SAVF5SAG64RS1	REGISTER 1
40	(28)	CHARACTER	8	SAVF5SAG64RS2	REGISTER 2
48	(30)	CHARACTER	8	SAVF5SAG64RS3	REGISTER 3
56	(38)	CHARACTER	8	SAVF5SAG64RS4	REGISTER 4
64	(40)	CHARACTER	8	SAVF5SAG64RS5	REGISTER 5
72	(48)	CHARACTER	8	SAVF5SAG64RS6	REGISTER 6
80	(50)	CHARACTER	8	SAVF5SAG64RS7	REGISTER 7
88	(58)	CHARACTER	8	SAVF5SAG64RS8	REGISTER 8
96	(60)	CHARACTER	8	SAVF5SAG64RS9	REGISTER 9
104	(68)	CHARACTER	8	SAVF5SAG64RS10	REGISTER 10
112	(70)	CHARACTER	8	SAVF5SAG64RS11	REGISTER 11
120	(78)	CHARACTER	8	SAVF5SAG64RS12	REGISTER 12
128	(80)	CHARACTER	8	SAVF5SAPREV	ADDR OF PREVIOUS SAVEAREA
136	(88)	CHARACTER	8	SAVF5SANEXT	ADDR OF NEXT SAVE AREA
144	(90)	ADDRESS	4	SAVF5SAG64HS0	High half of caller's R0
148	(94)	ADDRESS	4	SAVF5SAG64HS1	High half of caller's R1
152	(98)	ADDRESS	4	SAVF5SAG64HS2	High half of caller's R2
156	(9C)	ADDRESS	4	SAVF5SAG64HS3	High half of caller's R3
160	(A0)	ADDRESS	4	SAVF5SAG64HS4	High half of caller's R4
164	(A4)	ADDRESS	4	SAVF5SAG64HS5	High half of caller's R5
168	(A8)	ADDRESS	4	SAVF5SAG64HS6	High half of caller's R6
172	(AC)	ADDRESS	4	SAVF5SAG64HS7	High half of caller's R7
176	(B0)	ADDRESS	4	SAVF5SAG64HS8	High half of caller's R8
180	(B4)	ADDRESS	4	SAVF5SAG64HS9	High half of caller's R9
184	(B8)	ADDRESS	4	SAVF5SAG64HS10	

# IHASAVER Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
188	(BC)	ADDRESS	4	SAVF5SAG64HS11	High half of caller's R10
192	(C0)	ADDRESS	4	SAVF5SAG64HS12	High half of caller's R11
196	(C4)	ADDRESS	4	SAVF5SAG64HS13	High half of caller's R12
200	(C8)	ADDRESS	4	SAVF5SAG64HS14	High half of caller's R13
204	(CC)	ADDRESS	4	SAVF5SAG64HS15	High half of caller's R14
208	(D0)	CHARACTER	8		High half of caller's R15
208	(D0)	X'F5E2C1'	0	SAVF5SAID_VALUE	Undefined
208	(D0)	X'D8'	0	SAVF5SA_LEN	"C'F5SA" "*-SAVF5SA"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SAVF7SA	
0	(0)	ADDRESS	4	SAVF7SALANG	USED BY LANGUAGES
4	(4)	CHARACTER	4	SAVF7SAID	'F7SA'
8	(8)	CHARACTER	8	SAVF7SAG64RS14	REGISTER 14
16	(10)	CHARACTER	8	SAVF7SAG64RS15	REGISTER 15
24	(18)	CHARACTER	8	SAVF7SAG64RS0	REGISTER 0
32	(20)	CHARACTER	8	SAVF7SAG64RS1	REGISTER 1
40	(28)	CHARACTER	8	SAVF7SAG64RS2	REGISTER 2
48	(30)	CHARACTER	8	SAVF7SAG64RS3	REGISTER 3
56	(38)	CHARACTER	8	SAVF7SAG64RS4	REGISTER 4
64	(40)	CHARACTER	8	SAVF7SAG64RS5	REGISTER 5
72	(48)	CHARACTER	8	SAVF7SAG64RS6	REGISTER 6
80	(50)	CHARACTER	8	SAVF7SAG64RS7	REGISTER 7
88	(58)	CHARACTER	8	SAVF7SAG64RS8	REGISTER 8
96	(60)	CHARACTER	8	SAVF7SAG64RS9	REGISTER 9
104	(68)	CHARACTER	8	SAVF7SAG64RS10	REGISTER 10
112	(70)	CHARACTER	8	SAVF7SAG64RS11	REGISTER 11
120	(78)	CHARACTER	8	SAVF7SAG64RS12	REGISTER 12
128	(80)	CHARACTER	8	SAVF7SAPREV	ADDR OF PREVIOUS SAVEAREA
136	(88)	CHARACTER	8	SAVF7SANEXT	ADDR OF NEXT SAVE AREA
144	(90)	SIGNED	4	SAVF7SAAR14	AR 14
148	(94)	SIGNED	4	SAVF7SAAR15	AR 15
152	(98)	SIGNED	4	SAVF7SAAR0	AR 0
156	(9C)	SIGNED	4	SAVF7SAAR1	AR 1
160	(A0)	SIGNED	4	SAVF7SAAR2	AR 2
164	(A4)	SIGNED	4	SAVF7SAAR3	AR 3
168	(A8)	SIGNED	4	SAVF7SAAR4	AR 4
172	(AC)	SIGNED	4	SAVF7SAAR5	AR 5
176	(B0)	SIGNED	4	SAVF7SAAR6	AR 6
180	(B4)	SIGNED	4	SAVF7SAAR7	AR 7
184	(B8)	SIGNED	4	SAVF7SAAR8	AR 8
188	(BC)	SIGNED	4	SAVF7SAAR9	AR 9
192	(C0)	SIGNED	4	SAVF7SAAR10	AR 10
196	(C4)	SIGNED	4	SAVF7SAAR11	AR 11
200	(C8)	SIGNED	4	SAVF7SAAR12	AR 12
204	(CC)	SIGNED	4	SAVF7SAAR13	ALET of previous save area or undefined
208	(D0)	SIGNED	4	SAVF7SAASC	ASC mode of caller
212	(D4)	CHARACTER	4		Undefined
212	(D4)	X'F7E2C1'	0	SAVF7SAID_VALUE	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
212	(D4)	'X'D8'	0	SAVF7SA_LEN	"CF7SA" "-SAVF7SA"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SAVF8SA	
0	(0)	ADDRESS	4	SAVF8SALANG	USED BY LANGUAGES
4	(4)	CHARACTER	4	SAVF8SAID	'F8SA'
8	(8)	CHARACTER	8	SAVF8SAG64RS14	REGISTER 14
16	(10)	CHARACTER	8	SAVF8SAG64RS15	REGISTER 15
24	(18)	CHARACTER	8	SAVF8SAG64RS0	REGISTER 0
32	(20)	CHARACTER	8	SAVF8SAG64RS1	REGISTER 1
40	(28)	CHARACTER	8	SAVF8SAG64RS2	REGISTER 2
48	(30)	CHARACTER	8	SAVF8SAG64RS3	REGISTER 3
56	(38)	CHARACTER	8	SAVF8SAG64RS4	REGISTER 4
64	(40)	CHARACTER	8	SAVF8SAG64RS5	REGISTER 5
72	(48)	CHARACTER	8	SAVF8SAG64RS6	REGISTER 6
80	(50)	CHARACTER	8	SAVF8SAG64RS7	REGISTER 7
88	(58)	CHARACTER	8	SAVF8SAG64RS8	REGISTER 8
96	(60)	CHARACTER	8	SAVF8SAG64RS9	REGISTER 9
104	(68)	CHARACTER	8	SAVF8SAG64RS10	REGISTER 10
112	(70)	CHARACTER	8	SAVF8SAG64RS11	REGISTER 11
120	(78)	CHARACTER	8	SAVF8SAG64RS12	REGISTER 12
128	(80)	CHARACTER	8	SAVF8SAPREV	ADDR OF PREVIOUS SAVEAREA
136	(88)	CHARACTER	8	SAVF8SANEXT	ADDR OF NEXT SAVE AREA
144	(90)	SIGNED	4	SAVF8SAAR14	AR 14
148	(94)	SIGNED	4	SAVF8SAAR15	AR 15
152	(98)	SIGNED	4	SAVF8SAAR0	AR 0
156	(9C)	SIGNED	4	SAVF8SAAR1	AR 1
160	(A0)	SIGNED	4	SAVF8SAAR2	AR 2
164	(A4)	SIGNED	4	SAVF8SAAR3	AR 3
168	(A8)	SIGNED	4	SAVF8SAAR4	AR 4
172	(AC)	SIGNED	4	SAVF8SAAR5	AR 5
176	(B0)	SIGNED	4	SAVF8SAAR6	AR 6
180	(B4)	SIGNED	4	SAVF8SAAR7	AR 7
184	(B8)	SIGNED	4	SAVF8SAAR8	AR 8
188	(BC)	SIGNED	4	SAVF8SAAR9	AR 9
192	(C0)	SIGNED	4	SAVF8SAAR10	AR 10
196	(C4)	SIGNED	4	SAVF8SAAR11	AR 11
200	(C8)	SIGNED	4	SAVF8SAAR12	AR 12
204	(CC)	SIGNED	4	SAVF8SAAR13	ALET of previous save area or undefined
208	(D0)	SIGNED	4	SAVF8SAASC	ASC mode of caller
212	(D4)	CHARACTER	4		Undefined
216	(D8)	ADDRESS	4	SAVF8SAG64HS0	High half of caller's R0
220	(DC)	ADDRESS	4	SAVF8SAG64HS1	High half of caller's R1
224	(E0)	ADDRESS	4	SAVF8SAG64HS2	High half of caller's R2
228	(E4)	ADDRESS	4	SAVF8SAG64HS3	High half of caller's R3
232	(E8)	ADDRESS	4	SAVF8SAG64HS4	High half of caller's R4
236	(EC)	ADDRESS	4	SAVF8SAG64HS5	High half of caller's R5
240	(F0)	ADDRESS	4	SAVF8SAG64HS6	High half of caller's R6

## IHASAVER Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
244	(F4)	ADDRESS	4	SAVF8SAG64HS7	High half of caller's R7
248	(F8)	ADDRESS	4	SAVF8SAG64HS8	High half of caller's R8
252	(FC)	ADDRESS	4	SAVF8SAG64HS9	High half of caller's R9
256	(100)	ADDRESS	4	SAVF8SAG64HS10	High half of caller's R10
260	(104)	ADDRESS	4	SAVF8SAG64HS11	High half of caller's R11
264	(108)	ADDRESS	4	SAVF8SAG64HS12	High half of caller's R12
268	(10C)	ADDRESS	4	SAVF8SAG64HS13	High half of caller's R13
272	(110)	ADDRESS	4	SAVF8SAG64HS14	High half of caller's R14
276	(114)	ADDRESS	4	SAVF8SAG64HS15	High half of caller's R15
280	(118)	CHARACTER	8		Undefined
280	(118)	X'F8E2C1'	0	SAVF8SAID_VALUE	"C'F8SA"
280	(118)	X'120'	0	SAVF8SA_LEN	"*-SAVF8SA"

## IHASAVER Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SAVER	0		SAVF5SAG64HS10	B8	
SAVER_LEN	44	48	SAVF5SAG64HS11	BC	
SAVF4SA	0		SAVF5SAG64HS12	C0	
SAVF4SA_LEN	88	90	SAVF5SAG64HS13	C4	
SAVF4SAG64RS0	18		SAVF5SAG64HS14	C8	
SAVF4SAG64RS1	20		SAVF5SAG64HS15	CC	
SAVF4SAG64RS10	68		SAVF5SAG64HS2	98	
SAVF4SAG64RS11	70		SAVF5SAG64HS3	9C	
SAVF4SAG64RS12	78		SAVF5SAG64HS4	A0	
SAVF4SAG64RS14	8		SAVF5SAG64HS5	A4	
SAVF4SAG64RS15	10		SAVF5SAG64HS6	A8	
SAVF4SAG64RS2	28		SAVF5SAG64HS7	AC	
SAVF4SAG64RS3	30		SAVF5SAG64HS8	B0	
SAVF4SAG64RS4	38		SAVF5SAG64HS9	B4	
SAVF4SAG64RS5	40		SAVF5SAG64RS0	18	
SAVF4SAG64RS6	48		SAVF5SAG64RS1	20	
SAVF4SAG64RS7	50		SAVF5SAG64RS10	68	
SAVF4SAG64RS8	58		SAVF5SAG64RS11	70	
SAVF4SAG64RS9	60		SAVF5SAG64RS12	78	
SAVF4SAID	4		SAVF5SAG64RS14	8	
SAVF4SAID_VALUE	88	F4E2C1	SAVF5SAG64RS15	10	
SAVF4SALANG	0		SAVF5SAG64RS2	28	
SAVF4SANEXT	88		SAVF5SAG64RS3	30	
SAVF4SAPREV	80				
SAVF5SA	0				
SAVF5SA_LEN	D0	D8			
SAVF5SAG64HS0	90				
SAVF5SAG64HS1	94				

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SAVF5SAG64RS4	38		SAVF8SA_LEN	118	120
SAVF5SAG64RS5	40		SAVF8SAAR0	98	
SAVF5SAG64RS6	48		SAVF8SAAR1	9C	
SAVF5SAG64RS7	50		SAVF8SAAR10	C0	
SAVF5SAG64RS8	58		SAVF8SAAR11	C4	
SAVF5SAG64RS9	60		SAVF8SAAR12	C8	
SAVF5SAID	4		SAVF8SAAR13	CC	
SAVF5SAID_VALUE	D0	F5E2C1	SAVF8SAAR14	90	
SAVF5SALANG	0		SAVF8SAAR15	94	
SAVF5SANEXT	88		SAVF8SAAR2	A0	
SAVF5SAPREV	80		SAVF8SAAR3	A4	
SAVF7SA	0		SAVF8SAAR4	A8	
SAVF7SA_LEN	D4	D8	SAVF8SAAR5	AC	
SAVF7SAAR0	98		SAVF8SAAR6	B0	
SAVF7SAAR1	9C		SAVF8SAAR7	B4	
SAVF7SAAR10	C0		SAVF8SAAR8	B8	
SAVF7SAAR11	C4		SAVF8SAAR9	BC	
SAVF7SAAR12	C8		SAVF8SAASC	D0	
SAVF7SAAR13	CC		SAVF8SAG64HS0		
SAVF7SAAR14	90		SAVF8SAG64HS1	D8	
SAVF7SAAR15	94		SAVF8SAG64HS10	DC	
SAVF7SAAR2	A0		SAVF8SAG64HS11	100	
SAVF7SAAR3	A4		SAVF8SAG64HS12	104	
SAVF7SAAR4	A8		SAVF8SAG64HS13	108	
SAVF7SAAR5	AC		SAVF8SAG64HS14	110	
SAVF7SAAR6	B0		SAVF8SAG64HS15	114	
SAVF7SAAR7	B4		SAVF8SAG64HS2	E0	
SAVF7SAAR8	B8		SAVF8SAG64HS3	E4	
SAVF7SAAR9	BC		SAVF8SAG64HS4	E8	
SAVF7SAASC	D0		SAVF8SAG64HS5	EC	
SAVF7SAG64RS0	18		SAVF8SAG64HS6	F0	
SAVF7SAG64RS1	20		SAVF8SAG64HS7	F4	
SAVF7SAG64RS10	68		SAVF8SAG64HS8	F8	
SAVF7SAG64RS11	70		SAVF8SAG64HS9	FC	
SAVF7SAG64RS12	78		SAVF8SAG64RS0	18	
SAVF7SAG64RS14	8		SAVF8SAG64RS1	20	
SAVF7SAG64RS15	10		SAVF8SAG64RS10	68	
SAVF7SAG64RS2	28		SAVF8SAG64RS11	70	
SAVF7SAG64RS3	30		SAVF8SAG64RS12	78	
SAVF7SAG64RS4	38		SAVF8SAG64RS14	8	
SAVF7SAG64RS5	40		SAVF8SAG64RS15	10	
SAVF7SAG64RS6	48		SAVF8SAG64RS2	28	
SAVF7SAG64RS7	50		SAVF8SAG64RS3	30	
SAVF7SAG64RS8	58		SAVF8SAG64RS4	38	
SAVF7SAG64RS9	60		SAVF8SAG64RS5	40	
SAVF7SAID	4		SAVF8SAG64RS6	48	
SAVF7SAID_VALUE	D4	F7E2C1			
SAVF7SALANG	0				
SAVF7SANEXT	88				
SAVF7SAPREV	80				
SAVF8SA	0				

## IHASAVER Cross Reference

Name	Hex Offset	Hex Value
SAVF8SAG64RS7	50	
SAVF8SAG64RS8	58	
SAVF8SAG64RS9	60	
SAVF8SAID	4	
SAVF8SAID_VALUE	118	F8E2C1
SAVF8SALANG	0	
SAVF8SANEXT	88	
SAVF8SAPREV	80	
SAVGRS0	14	
SAVGRS1	18	
SAVGRS10	3C	
SAVGRS11	40	
SAVGRS12	44	
SAVGRS14	C	
SAVGRS15	10	
SAVGRS2	1C	
SAVGRS3	20	
SAVGRS4	24	
SAVGRS5	28	
SAVGRS6	2C	
SAVGRS7	30	
SAVGRS8	34	
SAVGRS9	38	
SAVNEXT	8	
SAVPLI	0	
SAVPREV	4	



## IHASCBO Information

### IHASCBO Heading Information

**Common Name:** STAE Control Block Old (pre-z/OS R6)  
**Macro ID:** IHASCBO  
**DSECT Name:** SCBO, SCBOX  
**Owning Component:** Recovery Termination Manager (SCRTEM)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: 255  
 Key: 0  
**Size:** 48 bytes  
**Created by:** IEAVSTA0, IEAVSTA1  
**Pointed to by:** TCBSTABB field of the TCB data area  
 SCBOCHAIN field of the SCBO data area  
**Serialization:** Task Active  
**Function:** The SCBO is used to make STAE/ESTAE/ESTAEX recovery routines known to the system.

### IHASCBO Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	24	SCBO	
0	(0)	ADDRESS	4	SCBOCHAIN	POINTER TO NEXT SCB ON CHAIN
4	(4)	ADDRESS	4	SCBOEXIT	POINTER TO USER WRITTEN EXIT ROUTINE
8	(8)	ADDRESS	4	SCBOPARM	ADDRESS OF PARAMETER LIST FOR STA EXIT
8	(8)	CHARACTER	1	SCBOFLGS1	FIRST FLAG BYTE
		1.. ..		SCBOSTAI	STAI SCB
		.1. ....		SCBOASCM	ADDRESS SPACE CONTROL MODE FOR EXIT ROUTINE (0 = PRIMARY, 1 = AR MODE.
		..1. ....		SCBONCNL	NO CANCEL - ROUTINE RUNS PROTECTED FROM CANCELS AND DETACHES
		...1 ....		SCBOESTAE	ESTAE INDICATOR
		.... 1..		SCBOTOKEN	ESTAE ESTABLISHED WITH TOKEN
		.... .1..		SCBOASYNC	ALLOW ASYNCHRONOUS INTERRUPTS
		.... ..11		SCBOIOPRC	I/O PROCESSING OPTION, BITS 6 & 7 00 - QUIESCE I/O 01 - HALT I/O 10 - BYPASS I/O INTERVENTION 11 - (RESERVED)
		.... .1.		SCBONIOOP	BYPASS I/O INTERVENTION
		.... .11		SCBOHALT	HALT I/O
9	(9)	ADDRESS	3	SCBOPARMA	24 BIT USER PARAMETER LIST ADDRESS
		1.. ....		SCBOAM64	Extended AMODE - 64. Only valid when this is not a STAE/STAI and not a FESTA
12	(C)	ADDRESS	4	SCBOOWNR	TCB/RB ADDRESS CONTROLLING SCB
12	(C)	CHARACTER	1	SCBOFLGS2	SECOND FLAG BYTE
		1.. ....		SCBOAMODE	USER IN 31 BIT ADDRESSING MODE
		1.. ....		SCBOAM31	USER IN 31 BIT ADDRESSING MODE
		1.. ....		SCBOXCTL2	RETAIN THIS SCB ACROSS XCTL
		..1. ....		SCBOARRFL	THIS SCB WAS CREATED BY RTM2 TO MANAGE AN ASSOCIATED RECOVERY ROUTINE FROM THE LINKAGE STACK
		...1 ....		SCBOINUSE	THIS SCB IN USE
		.... 1..		SCBOLO31	SDWA is LOC 31
		.... .1..		SCBOPC	PC ESTAE TYPE SCB
		.... .1.		SCBOKEY0	USER IN KEY 0-7
		.... .11		SCBOSUPER	USER IN SUPERVISOR MODE
13	(D)	ADDRESS	3	SCBOOWNRA	RB ADDRESS IF STAE, TCB ADDRESS IF STAI.
16	(10)	ADDRESS	4	SCBODATA	FLAGS AND DATA FIELD
16	(10)	CHARACTER	1	SCBOFLGS3	OPTION FLAGS
		1.. ....		SCBOSTAUT	STAE REQUESTOR IS AUTHORIZED
		.1. ....		SCBOTERMI	AUTHORIZED FOR SPECIAL TERM PROCESSING
		..1. ....		SCBORECRD	ON INDICATES ERROR RECORD IS TO BE WRITTEN TO SYS1.LOGREC
		...1 ....		SCBODUMMY	DUMMY SCB - (WILL NOT BE SCHEDULED).
		.... 1..		SCBOPRNTNTR	SCB PREVIOUSLY ENTERED
		.... .1..		SCBOBRNTR	FESTA
		.... .1.		SCBORB	SAVED STATUS OF RBSCBO
		.... .11		SCBOUNSS	UNSTACK SUPPRESS STATUS OF THE LINKAGE STACK ENTRY THAT WAS CURRENT WHEN THIS SCB WAS CREATED 1 - UNSTACK SUPPRESS WAS ACTIVE 0 - UNSTACK SUPPRESS WAS INACTIVE
17	(11)	CHARACTER	1	SCBOPKEY	PROGRAM KEY
18	(12)	CHARACTER	1	SCBOID	SCB IDENTIFIER
19	(13)	BITSTRING	1	SCBOPCFLG	PC ESTAE USER FLAGS, VALID IF SCBOPC IS ON
		1.. ....		SCBOPTERM	Request for TERM ESTAE
		.1. ....		SCBOPREC	Request for RECORDing

## IHASCBO Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		..1. ....		SCBOPXCTL	Request for XCTL
		...1 ....		SCBOPNCNL	Request for CANCEL=NO
		.... 1...		*	TOKEN flag - not used
		.... .1..		SCBOPASYN	Request for ASYNCH
		.... ..11		SCBOPIO	I/O request bits 00 - QUIESCE I/O 01 - HALT I/O 10 - BYPASS I/O INTERVENTION 11 - (RESERVED)
		.... ..1.		SCBOPNOIO	Bypass I/O intervention
		.... ...1		SCBOPHALT	Halt I/O
20	(14)	ADDRESS	4	SCBOXPTR	POINTER TO SCB EXTENSION
		1... ....		SCBOFTIME	SCB WAS IN THE FIRST GETMAIN

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	24	SCBOX	SCB EXTENSION
0	(0)	CHARACTER	8	SCBOXCR34	CONTROL REGISTERS 3 AND 4
0	(0)	CHARACTER	2	SCBOXKMSK	KEYMASK
2	(2)	CHARACTER	6	SCBOXRSV	SECONDARY ASN, EXTENDED AUTH INDEX, AND PRIMARY ASN.
2	(2)	CHARACTER	2	SCBOXSASN	SECONDARY ASN
4	(4)	CHARACTER	2	SCBOXEAX	EXTENDED AUTH. INDEX
6	(6)	CHARACTER	2	SCBOXPASN	PRIMARY ASN
8	(8)	BITSTRING	4	SCBOXTOKN	ESTAE TOKEN VALUE
12	(C)	CHARACTER	8	SCBOXPRMS	FIELD NAME FOR IEAVSTA1
12	(C)	ADDRESS	4	SCBOXPARM	31 BIT USER PARAMETER LIST ADDRESS
16	(10)	ADDRESS	4	SCBOXALET	ALET ASSOCIATED WITH PARAM
20	(14)	ADDRESS	4	SCBOXLSEA	LINKAGE STACK ENTRY ADDR

## IHASCBO Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SCBO	0		SCBORB	10	02
SCBOAMODE	C	80	SCBORECRD	10	20
SCBOAM31	C	80	SCBOSTAI	8	80
SCBOAM64	9	80	SCBOSTAUT	10	80
SCBOARRFL	C	20	SCBOSUPER	C	01
SCBOASCM	8	40	SCBOTERMI	10	40
SCBOASYN	8	04	SCBOTOKEN	8	08
SCBOBRNTR	10	04	SCBOUNSS	10	01
SCBOCHAIN	0		SCBOX	0	
SCBODATA	10		SCBOXALET	10	
SCBODUMMY	10	10	SCBOXCR34	0	
SCBOESTAE	8	10	SCBOXCTL2	C	40
SCBOEXIT	4		SCBOXEAX	4	
SCBOFLGS1	8		SCBOXKMSK	0	
SCBOFLGS2	C		SCBOXLSEA	14	
SCBOFLGS3	10		SCBOXPARM	C	
SCBOFTIME	14	80	SCBOXPASN	6	
SCBOHALT	8	01	SCBOXPRMS	C	
SCBOID	12		SCBOXPTR	14	
SCBOINUSE	C	10	SCBOXRSV	2	
SCBOIOPRC	8	03	SCBOXSASN	2	
SCBOKEY0	C	02	SCBOXTOKN	8	
SCBOLO31	C	08			
SCBONCNL	8	20			
SCBONIOIP	8	02			
SCBOOWNR	C				
SCBOOWNRA	D				
SCBOPARM	8				
SCBOPARMA	9				
SCBOPASYN	13	04			
SCBOPC	C	04			
SCBOPCFLG	13				
SCBOPHALT	13	01			
SCBOPIO	13	03			
SCBOPKEY	11				
SCBOPNCNL	13	10			
SCBOPNOIO	13	02			
SCBOPREC	13	40			
SCBOPRNTR	10	08			
SCBOPTERM	13	80			
SCBOPXCTL	13	20			

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## IHASDEXI Information

### IHASDEXI Programming Interface information

Programming Interface information

IHASDEXI

End of Programming Interface information

# IHASDEXI Heading Information • IHASDEXI Map

## IHASDEXI Heading Information

**Common Name:** SDUMP Exit information  
**Macro ID:** IHASDEXI  
**DSECT Name:** SDEXI  
  
 SDEXIALST  
  
 SDEXIDRPX  
**Owning Component:** SDUMP (SCDMP)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: 231  
 Key: 0  
 Residency: Above 16M  
**Size:** SDEXIDRPX64 -- X'0040' bytes  
 SDEXI -- X'0068' bytes  
 SDEXIALST -- X'0004' bytes  
 SDEXIDRPX -- X'0040' bytes  
**Created by:** Created by SDUMP, passed to SDUMP local/global exit(s)  
**Pointed to by:** R1 on entry to SDUMP local/global exit(s)  
**Serialization:** None required  
**Function:** Maps the information needed by the SDUMP local/global exit(s)

## IHASDEXI Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDEXI	SVC Dump exit parameter list fields for use by, or to be filled in by, exit
0	(0)	CHARACTER	12		Contains no information for use by the exit.
12	(C)	ADDRESS	4	SDEXIBFAD	Address of data buffer. Set by SVC Dump. For use by exit.
16	(10)	SIGNED	4	SDEXIBFLN	Length of data buffer (4096 bytes). For use by exit.
20	(14)	ADDRESS	4	SDEXIORAD	Address of output routine. Set by SVC Dump. For use by exit. Interface to routine: AMODE=31. PASN=HASN=SASN Task mode. Enabled, no locks held, no EUT FRRs. Key 0, Supervisor State. R1 - address of SDEXI. R13 - address of 72-byte save area. R14 - return address. R15 - entry point address.
24	(18)	CHARACTER	2	SDEXIKEYS	Storage keys for moved data. Must be set by exit if bit SdexiDRPS is not set.
24	(18)	CHARACTER	1	SDEXIFKEY	Storage key of first 2K of data (Key must be in bits 0-3, not 4-7 of the byte)
25	(19)	CHARACTER	1	SDEXISKEY	Storage key of second 2K of data (Key must be in bits 0-3, not 4-7 of the byte)
26	(1A)	CHARACTER	2	SDEXIASID	ASID of data moved to buffer. Must be set by exit if bit SdexiDRPS is not set.
28	(1C)	CHARACTER	4		Contains no information for use by the exit.
32	(20)	ADDRESS	4	SDEXICDAD	Address of data in buffer. Must be set by exit if bit SdexiDRPS is not set. This address should be on a page boundary, and the buffer should contain 4096 bytes of data representing the contents of the entire page.
36	(24)	CHARACTER	8		Contains no information for use by the exit.
44	(2C)	ADDRESS	4	SDEXISVAD	Address of 72-byte save area. Set by SVC Dump. For use by exit.
48	(30)	CHARACTER	4		Contains no information for use by the exit.
52	(34)	ADDRESS	4	SDEXIWKAD	Address of work area. Set by SVC Dump. For use by exit. Length is in SdexiWKLN (AT LEAST 200 BYTES)
56	(38)	SIGNED	4	SDEXIWKLN	Length of work area pointed to by SdexiWKAD
60	(3C)	ADDRESS	4	SDEXIDRPA	Address of dump record prefix to be filled in by exit

Comment

Bit definitions:

End of Comment

		1... ..		SDEXIDRPS	"X'80" If on, then the dump record prefix was filled in by the exit. This bit is set by the exit, and checked by SVC Dump. It is initially off
64	(40)	ADDRESS	4	SDEXIALP	Pointer to the ASID list - Set by SVC Dump. For use by exit.
68	(44)	CHARACTER	8	SDEXISDAO	SDATA OPTIONS
68	(44)	CHARACTER	2	SDEXISDTA	SDATA OPTION FLAGS
68	(44)	CHARACTER	1	SDEXISDT1	1ST BYTE OF OPTIONS

Comment

Bit definitions:

End of Comment

		1... ..		SDEXIAPSA	"X'80" DUMP ALL PSA'S
		.1. ....		SDEXIPSA	"X'40" DUMP CURRENT PSA
		..1. ....		SDEXINUC	"X'20" DUMP THE NUCLEUS
		...1 ....		SDEXISQA	"X'10" DUMP SQA
		.... 1...		SDEXILSQA	"X'08" DUMP LSQA
		.... .1.		SDEXIRGN	"X'04" DUMP RGN-PRIVATE AREA
		.... ..1.		SDEXILPA	"X'02" DUMP LPA MOD. FOR RGN

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
69	(45)	.... ..1 CHARACTER	1	SDEXITRT SDEXISDT2	"X'01" DUMP TRACE DATA SECOND BYTE SDATA FLGS
Comment					
Bit definitions:					
End of Comment					
		1... .... .1. .... ..1. .... ...1 .... .... 1..		SDEXICSA SDEXISWA SDEXISMDM SDEXINSMD SDEXINAPS	"X'80" DUMP CSA "X'40" DUMP SWA "X'20" DUMP SUMMARY DUMP DATA "X'10" DON'T DUMP SUMMARY DUMP "X'08" DO NOT DUMP ALL PSA
		.... ..1 .... ..1 .... ..1 .... ..1		SDEXINASQ SDEXIANUC SDEXIDEFS	"X'04" DO NOT DUMP SQA "X'02" DUMP ALL NUCLEUS "X'01" DEFAULTS
70	(46)	CHARACTER	4	SDEXISDA2	EXTENDED SDATA OPTIONS
70	(46)	BITSTRING	1	SDEXIEXIT1	SDATA OPTIONS EXIT ROUTINES
Comment					
Bit definitions:					
End of Comment					
		1... .... ...1 .... .... 1..		SDEXIGRSQ SDEXICOUPLE SDEXIXESDATA	"X'80" SDATA=GRSQ "X'10" SDATA=COUPLE "X'08" SDATA=XESDATA
		.... ..1		SDEXIWLMDATA	"X'02" SDATA=WLMDATA
71	(47)	BITSTRING	1	SDEXIEXIT2	SDATA OPTIONS EXIT ROUTINES
Comment					
Bit definitions:					
End of Comment					
		..1. ....		SDEXISERVERS	"X'20" SDATA=SERVERS
72	(48)	BITSTRING	1	SDEXISDT3	SDATA OPTIONS
Comment					
Bit definitions:					
End of Comment					
		1... .... .1. ....		SDEXINDEF SDEXIIO	"X'80" NODEFAULTS "X'40" DO I/O AREAS
73	(49)	BITSTRING	1	SDEXISDT4	SDATA OPTIONS
74	(4A)	CHARACTER	2		Reserved
76	(4C)	BITSTRING	1	SDEXIFLAGS	
Comment					
Bit definitions:					
End of Comment					
		1... ....		SDEXIADDRESSRANGE	

# IHASDEXI Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
					"X'80" An address range has been provided, instead of placing the data into the provided buffer. The data must be in the current primary space or be addressable by an ALET that is currently on the DU-AL or the PASN AL. This may only be used if bit SdexiDRPS is off or (if it is on) if creating an address space or data space record. When SdexiDRPS is off, the storage range must represent the primary address space, with start address in SdexiCDAD and end address in SdexiRangeEnd. When SdexiDRPS is on for address space storage, the start address is in SdexiDrpxLAD, the end address in SdexiRangeEnd, and the ALET is in SdexiRangeALET. Use an ALET of 0 for the primary address space. When SdexiDRPS is on for data space storage, the start address is in SdexiDrpxLAD, the end address in SdexiRangeEnd, and the ALET is in SdexiRangeALET. In all cases, the start address will be rounded down to the nearest page boundary. The end address will be rounded up to the last byte of the page containing the input end address. For 64bit ranges, set the start address in SdexiDrpx64LAD or SdexiCDAD64 following the above rules. Then, instead of providing an end address in SdexiRangeEnd (which can only hold a 31bit address), set the SdexiRangeLengthInPages bit, then provide a count of the number of pages to capture in SdexiRangePageCount. Keep in mind that the starting address will be rounded down to a page boundary if it is not supplied on a page boundary - this may have an adverse affect on your page range. There is a hard 8T limit on the exit buffer, so the page count cannot be bigger than 7FFFFFFF.
		.1.. ....		SDEXIADDRESS64	
		..1. ....		SDEXIRANGELENGTHINPAGES	"X'40" A 64-bit address has been provided in SdexiCDAD64.
		...1 ....		SDEXIFLAG3	"X'20" If set and processing an address range, the SdexiRangePageCount field will be used as the number of pages to capture instead of SdexiRangeEnd
		.... 1..		SDEXIFLAG4	"X'10" Reserved
		.... .1.		SDEXIFLAG5	"X'08" Reserved
		.... ..1		SDEXIFLAG6	"X'04" Reserved
		.... ...1		SDEXIREMOTE	"X'02" Reserved
77	(4D)	CHARACTER	3		"X'01" This remote dump resulted from a Remote dump request
80	(50)	ADDRESS	4	SDEXIRANGEEND	RESERVED
80	(50)	SIGNED	4	SDEXIRANGEPAGECOUNT	The entire page containing this byte will be dumped.
84	(54)	SIGNED	4	SDEXIRANGEALET	The number of pages to capture
88	(58)	ADDRESS	4	SDEXIPROBDESC@	
92	(5C)	ADDRESS	4	SDEXIINTOKEN@	Address of ProbDesc area for dump. 0 if no such area exists.
96	(60)	CHARACTER	8	SDEXICDAD64	Address of 32-byte incident token for dump.
96	(60)	X'68'	0	SDEXI_LEN	64-bit address of data in buffer. Must be set by exit if bit SdexiDRP2 is set. This address should be on a page boundary, and the buffer should contain 4096 bytes of data representing the contents of the entire page.

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDEXIALST	LIST OF ASID WHICH ARE INCLUDED IN THE DUMP. IT IS BUILT BY SDUMP AND USED BY THE EXITS
0	(0)	SIGNED	2	SDEXIALST#	NUMBER OF ENTRIES
2	(2)	CHARACTER	2	SDEXIALST_ARRAY	An array of ASIDs, the number of which is indicated by SdexiALST#
2	(2)	SIGNED	2	SDEXIALST_ENTRY	An ASID within the array.
2	(2)	X'40'	0	SDEXIMAXA	"64" MAXIMUM NUMBER OF ENTRIES IN THE ASID LIST
2	(2)	X'4'	0	SDEXIALST_LEN	**SDEXIALST"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDEXIDRPX	Dump record prefix to be filled in by the exit
0	(0)	CHARACTER	3	SDEXIDRPXID	Set by SDUMP. Exit should not change.
0	(0)	CHARACTER	2		DRPX identifier
2	(2)	CHARACTER	1	SDEXIDRPXIDV	DRPX version
3	(3)	BITSTRING	1	SDEXIDRPXLEN	Set by SDUMP. Exit should not change.
4	(4)	CHARACTER	16	SDEXIDRPXAS	ASCB information
4	(4)	CHARACTER	2	SDEXIDRPXAST	Address space type code. See Constants SdexiDrpxAST_XXX
6	(6)	SIGNED	2	SDEXIDRPXASH	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
8	(8)	SIGNED	4	SDEXIDRPXAS1	
12	(C)	CHARACTER	8	SDEXIDRPXASC	Qualifier 2
12	(C)	SIGNED	4	SDEXIDRPXAS2	
16	(10)	SIGNED	4	SDEXIDRPXAS3	
20	(14)	ADDRESS	4	SDEXIDRPXLAD	Logical address. This should be on a page boundary.
24	(18)	SIGNED	4	SDEXIDRPXSEQ	Set by SDUMP. Exit should not change.
28	(1C)	CHARACTER	8		Set by SDUMP. Exit should not change.
36	(24)	CHARACTER	28	SDEXIDRPXTYPD	
					Record type specific data.
36	(24)	X'40'	0	SDEXIDRPX_LEN	
					**_SDEXIDRPX"
36	(24)	BITSTRING	1	SDEXIDRPXTYPD_CV	
				(0)	
36	(24)	BITSTRING	1	SDEXIDRPXTYPD_CV_KEY	
					Key should be in bits 0-3 of the field, not bits 4-7
36	(24)	X'1'	0	SDEXIDRPXTYPD_CV_LEN	
					**_SDEXIDRPXTYPD_CV"
36	(24)	BITSTRING	1	SDEXIDRPXTYPD_DS	
				(0)	
36	(24)	BITSTRING	1	SDEXIDRPXTYPD_DS_KEY	
					Key should be in bits 0-3 of the field, not bits 4-7
37	(25)	CHARACTER	5		Reserved
42	(2A)	CHARACTER	2		Reserved
44	(2C)	ADDRESS	4	SDEXIDRPXTYPD_DS_ASTE	
					Set by SDUMP. Exit should not change.
48	(30)	CHARACTER	8	SDEXIDRPXTYPD_DS_STOKEN	
					STOKEN
48	(30)	X'14'	0	SDEXIDRPXTYPD_DS_LEN	
					**_SDEXIDRPXTYPD_DS"
36	(24)	BITSTRING	1	SDEXIDRPXTYPD_SC	
				(0)	
36	(24)	BITSTRING	1	SDEXIDRPXTYPD_SC_KEY	
					Key should be in bits 0-3 of the field, not bits 4-7
37	(25)	CHARACTER	5		Reserved
42	(2A)	BITSTRING	1	SDEXIDRPXTYPD_SC_STYP	
					Storage Type

Comment

Bit definitions:

End of Comment

		1... ....		SDEXIDRPXTYPD_SC_COMM	
					"X'80" Storage is in common
		.1.. ....		SDEXIDRPXTYPD_SC_AAFLAG	
					"X'40" Absolute address supplied in SdexiDrpxTypd_SC_AAPtr
43	(2B)	CHARACTER	1		Reserved
44	(2C)	ADDRESS	4	SDEXIDRPXTYPD_SC_AAPTR	
					Absolute address
44	(2C)	X'C'	0	SDEXIDRPXTYPD_SC_LEN	
					**_SDEXIDRPXTYPD_SC"

Offsets

Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDEXIDRPX64	Dump record prefix v2 to be filled in by the exit
0	(0)	CHARACTER	20		
20	(14)	CHARACTER	8	SDEXIDRPX64LAD	
					Logical address. This should be on a page boundary.
20	(14)	ADDRESS	4	SDEXIDRPX64LADHI	
					High-order word of LAD
24	(18)	ADDRESS	4	SDEXIDRPX64LADLO	
					Low-order word of LAD
28	(1C)	CHARACTER	32		
28	(1C)	X'C3E5'	0	SDEXIDRPXAST_ADDRSPAC	
					"C'CV" Address space
28	(1C)	X'C4E2'	0	SDEXIDRPXAST_DATASPC	
					"C'DS" Data space
28	(1C)	X'E2C3'	0	SDEXIDRPXAST_COMPDATA	
					"C'SC" Component data
64	(40)	X'40'	0	SDEXIDRPX64_LEN	
					**_SDEXIDRPX64"

## IHASDEXI Cross Reference

### IHASDEXI Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SDEXI	0		SDEXIDRPXTYPD_SC_COMM	2A	80
SDEXI_LEN	60	68	SDEXIDRPXTYPD_SC_KEY	24	
SDEXIADDRESSRANGE	4C	80	SDEXIDRPXTYPD_SC_LEN	2C	C
SDEXIADDRESS64	4C	40	SDEXIDRPXTYPD_SC_STYP	2A	
SDEXIALP	40		SDEXIDRPX64	0	
SDEXIALST	0		SDEXIDRPX64_LEN	40	40
SDEXIALST_ARRAY	2		SDEXIDRPX64LAD	14	
SDEXIALST_ENTRY	2		SDEXIDRPX64LADHI	14	
SDEXIALST_LEN	2	4	SDEXIDRPX64LADLO	18	
SDEXIALST#	0		SDEXIEXIT1	46	
SDEXIANUC	45	2	SDEXIEXIT2	47	
SDEXIAPSA	44	80	SDEXIFKEY	18	
SDEXIASID	1A		SDEXIFLAGS	4C	
SDEXIBFAD	C		SDEXIFLAG3	4C	10
SDEXIBFLN	10		SDEXIFLAG4	4C	8
SDEXICDAD	20		SDEXIFLAG5	4C	4
SDEXICDAD64	60		SDEXIFLAG6	4C	2
SDEXICOUPLE	46	10	SDEXIGRSQ	46	80
SDEXICSA	45	80	SDEXIINTOKEN@	5C	
SDEXIDEFS	45	1	SDEXIIO	48	40
SDEXIDRPA	3C		SDEXIKEYS	18	
SDEXIDRPS	3C	80	SDEXILPA	44	2
SDEXIDRPX	0		SDEXILSQA	44	8
SDEXIDRPX_LEN	24	40	SDEXIMAXA	2	40
SDEXIDRPXAS	4		SDEXINAPS	45	8
SDEXIDRPXASC	C		SDEXINASQ	45	4
SDEXIDRPXASH	6		SDEXINDEF	48	80
SDEXIDRPXAST	4		SDEXINSMD	45	10
SDEXIDRPXAST_ADDRSPAC	1C	C3E5	SDEXINUC	44	20
SDEXIDRPXAST_COMPDATA	1C	E2C3	SDEXIORAD	14	
SDEXIDRPXAST_DATASPC	1C	C4E2	SDEXIPROBDESC@	58	
SDEXIDRPXAS1	8		SDEXIPSA	44	40
SDEXIDRPXAS2	C		SDEXIRANGEALET	54	
SDEXIDRPXAS3	10		SDEXIRANGEEND	50	
SDEXIDRPXID	0		SDEXIRANGELENGTHINPAGES	4C	20
SDEXIDRPXIDV	2		SDEXIRANGEPAGECOUNT	50	
SDEXIDRPXLAD	14		SDEXIREMOTE	4C	1
SDEXIDRPXLEN	3		SDEXIRGN	44	4
SDEXIDRPXSEQ	18		SDEXISDAO	44	
SDEXIDRPXTYPD	24		SDEXISDA2	46	
SDEXIDRPXTYPD_CV	24		SDEXISDTA	44	
SDEXIDRPXTYPD_CV_KEY	24		SDEXISDT1	44	
SDEXIDRPXTYPD_CV_LEN	24	1	SDEXISDT2	45	
SDEXIDRPXTYPD_DS	24		SDEXISDT3	48	
SDEXIDRPXTYPD_DS_AST	2C		SDEXISDT4	49	
SDEXIDRPXTYPD_DS_KEY	24		SDEXISERVERS	47	20
SDEXIDRPXTYPD_DS_LEN	30	14	SDEXISKEY	19	
SDEXIDRPXTYPD_DS_STOKEN	30		SDEXISMMD	45	20
SDEXIDRPXTYPD_SC	24		SDEXISQA	44	10
SDEXIDRPXTYPD_SC_AAFLAG	2A	40	SDEXISVAD	2C	
SDEXIDRPXTYPD_SC_AAPTR	2C		SDEXISWA	45	40
			SDEXITRT	44	1
			SDEXIWKAD	34	
			SDEXIWKLN	38	
			SDEXIWLMDATA	46	2
			SDEXIXESDATA	46	8



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## IHASDMSE Information

### IHASDMSE Programming Interface information

Programming Interface information

IHASDMSE

End of Programming Interface information

## IHASDMSE Heading Information • IHASDMSE Map

### IHASDMSE Heading Information

**Common Name:** SDUMPX Multisystem SDUMP Exit parameter area  
**Macro ID:** IHASDMSE  
**DSECT Name:** SDMSE

SDMSE\_MODEL  
 SDMSE\_ASIDLST  
 SDMSE\_STORAGE  
 SDMSE\_STORAGE64  
 SDMSE\_JOBLIST  
 SDMSE\_DSPLIST  
 SDMSE\_SUBPLST  
 SDMSE\_KEYLIST

**Owning Component:** SDUMP (SCDMP)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: 252  
 Key: 0  
 Residency: Above 16M

**Size:** SDMSE -- X'0060' bytes  
 SDMSE\_MODEL -- X'0008' bytes  
 SDMSE\_ASIDLST -- X'0006' bytes  
 + X'0002' bytes for each entry  
 after the first  
 SDMSE\_STORAGE -- X'0014' bytes  
 + X'0010' bytes for each entry  
 after the first  
 SDMSE\_STORAGE64 -- X'001C' bytes  
 + X'0018' bytes for each entry  
 after the first  
 SDMSE\_JOBLIST -- X'000C' bytes  
 + X'0010' bytes for each entry  
 after the first  
 SDMSE\_DSPLIST -- X'0014' bytes  
 + X'0018' bytes for each entry  
 after the first  
 SDMSE\_SUBPLST -- X'0008' bytes  
 + X'0004' bytes for each entry  
 after the first  
 SDMSE\_KEYLIST -- X'0005' bytes  
 + X'0001' bytes for each entry  
 after the first

**Created by:** Created by SDUMP and passed via R1 to multisystem Sdump exit  
**Pointed to by:** R1 on entry to multisystem SDUMP exit  
**Serialization:** None required  
**Function:** Maps the parameter information passed to the multisystem Sdump exit.

### IHASDMSE Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	SDMSE	
0	(0)	BITSTRING	1	SDMSE_VERSION	Initial version is 0. This can be used by the exit to tell just how the parameter area is mapped.
1	(1)	CHARACTER	3		Unused
4	(4)	ADDRESS	4	SDMSE_INPUT_PROBDESC_ADDR	Address of problem description information provided via PROBDESC keyword when the SDUMP was initiated on a remote system. If this pointer is 0, no such information was provided. Otherwise, the area is in the format described for that keyword.
8	(8)	ADDRESS	4	SDMSE_INPUT_WORKAREA_ADDR	Address of 4096-byte workarea that the exit can use to build information for use by SDUMP. This field is an input value for the exit.
12	(C)	ADDRESS	4	SDMSE_OUTPUT_WORKAREA_ADDR	

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
16	(10)	ADDRESS	4	SDMSE_OUTPUT_WORKAREA_LENGTH	Address of workarea that the exit provided via GETMAIN or STORAGE OBTAIN when the input workarea was not large enough. This field is to be set by the exit when storage is so obtained. SDUMP will FREEMAIN this storage. The length and subpool and key must also be provided.
20	(14)	BITSTRING	1	SDMSE_OUTPUT_WORKAREA_SUBPOOL	Length of workarea pointed to by the output workarea. SDUMP will FREEMAIN this area. This field is to be set by the exit when storage is so obtained.
21	(15)	BITSTRING	1	SDMSE_OUTPUT_WORKAREA_KEY	Subpool of output workarea. This field is to be set by the exit when storage is so obtained.
22	(16)	CHARACTER	2		Key of output workarea (must be in range 0-X'F0'). This field is to be set by the exit when storage is so obtained.
24	(18)	ADDRESS	4	SDMSE_OUTPUT_ASIDLST_ADDR	Reserved
28	(1C)	ADDRESS	4	SDMSE_OUTPUT_STORAGE_ADDR	This field should be set if the exit has indicated ASID(s) to be incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_ASIDLST
32	(20)	ADDRESS	4	SDMSE_OUTPUT_JOBLIST_ADDR	This field should be set if the exit has indicated Storage Ranges to be incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_STORAGE or DSECT Sdmse_Storage64
36	(24)	ADDRESS	4	SDMSE_OUTPUT_DSPLIST_ADDR	This field should be set if the exit has indicated a list of jobnames to be incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_JOBLIST
40	(28)	ADDRESS	4	SDMSE_OUTPUT_SUBPLST_ADDR	This field should be set if the exit has indicated a list of data space names by which data spaces are to be incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_DSPLIST
44	(2C)	ADDRESS	4	SDMSE_OUTPUT_KEYLIST_ADDR	This field should be set if the exit has indicated a list of subpools to be incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_SUBPLST
48	(30)	CHARACTER	8		This field should be set if the exit has indicated a list of keys to be incorporated in the dump. This is ignored unless SDMSE_SUBPLST_ADDR is also specified.
56	(38)	CHARACTER	8	SDMSE_SDATA_OPTIONS	The area pointed to by this field is mapped by DSECT SDMSE_KEYLIST
56	(38)	BITSTRING	1	SDMSE_SDATA_BYTE0	Reserved
					These are mapped in the same order as they appear in the SDUMP parameter list. The desired subfields should be set if the exit has indicated SDATA options for the dump.
					This field should be set if the exit has indicated SDATA options for the dump.

Comment

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Bit definitions:

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End of Comment

1...	....	SDMSE_SDATA_ALLPSA	"X'80" Corresponds to SDUMPX SDATA option ALLPSA		
.1.	....	SDMSE_SDATA_PSA	"X'40" Corresponds to SDUMPX SDATA option PSA		
..1.	....	SDMSE_SDATA_NUC	"X'20" Corresponds to SDUMPX SDATA option NUC		
...1	....	SDMSE_SDATA_SQA	"X'10" Corresponds to SDUMPX SDATA option SQA		
....	1..	SDMSE_SDATA_LSQA	"X'08" Corresponds to SDUMPX SDATA option LSQA		
....	.1.	SDMSE_SDATA_RGN	"X'04" Corresponds to SDUMPX SDATA option RGN		
....	..1.	SDMSE_SDATA_LPA	"X'02" Corresponds to SDUMPX SDATA option LPA		
....	...1	SDMSE_SDATA_TRT	"X'01" Corresponds to SDUMPX SDATA option TRT		
57	(39)	BITSTRING	1	SDMSE_SDATA_BYTE1	This field should be set if the exit has indicated SDATA options for the dump.

## IHASDMSE Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
Bit definitions:					
End of Comment					
		1... ....		SDMSE_SDATA_CSA	"X'80" Corresponds to SDUMPX SDATA option CSA
		.1. ....		SDMSE_SDATA_SWA	"X'40" Corresponds to SDUMPX SDATA option SWA
		..1. ....		SDMSE_SDATA_SUM	"X'20" Corresponds to SDUMPX SDATA option SUM
		.... ..1.		SDMSE_SDATA_ALLNUC	"X'02" Corresponds to SDUMPX SDATA option ALLNUC
		.... ...1		SDMSE_SDATA_DEFS	"X'01" Corresponds to SDUMPX SDATA option DEFS
58	(3A)	BITSTRING	1	SDMSE_SDATA_BYTE2	This field should be set if the exit has indicated SDATA options for the dump.
Comment					
Bit definitions:					
End of Comment					
		1... ....		SDMSE_SDATA_GRSQ	"X'80" Corresponds to SDUMPX SDATA option GRSQ
		...1 ....		SDMSE_SDATA_COUPLE	"X'10" Corresponds to SDUMPX SDATA option COUPLE
		.... 1...		SDMSE_SDATA_XESDATA	"X'08" Corresponds to SDUMPX SDATA option XESDATA
		.... ..1.		SDMSE_SDATA_WLM	"X'02" Corresponds to SDUMPX SDATA option XESDATA
59	(3B)	BITSTRING	1	SDMSE_SDATA_BYTE3	Sdata Byte 3
Comment					
Bit definitions:					
End of Comment					
		..1. ....		SDMSE_SDATA_SERVERS	"X'20" Corresponds to SDUMPX SDATA option SERVERS
60	(3C)	BITSTRING	1	SDMSE_SDATA_BYTE4	Sdata Byte 4
Comment					
Bit definitions:					
End of Comment					
		.1. ....		SDMSE_SDATA_IO	"X'40" Corresponds to SDUMPX SDATA option IO
61	(3D)	BITSTRING	1	SDMSE_SDATA_BYTE5	Sdata Byte 5 - Reserved, must be 0
62	(3E)	CHARACTER	2	SDMSE_SDATA_RSVD	Reserved, must be 0
64	(40)	ADDRESS	4	SDMSE_INPUT_ASIDLST_ADDR	This field indicates the ASID(s) incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_ASIDLST
68	(44)	ADDRESS	4	SDMSE_INPUT_STORAGE_ADDR	This field indicates the Storage Ranges incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_STORAGE. (Note: when SDUMP LIST64 parameter options are in effect then this field is set to zero and the SDMSE_INPUT_STORAGE64_ADDR field is set instead. @L2A-
72	(48)	ADDRESS	4	SDMSE_INPUT_SUBPLST_ADDR	This field indicates the list of subpools incorporated in the dump. The area pointed to by this field is mapped by DSECT SDMSE_SUBPLST
76	(4C)	ADDRESS	4	SDMSE_INPUT_KEYLIST_ADDR	This field indicates the list of keys incorporated in the dump. This will only be specified if SDMSE_SUBPLST_ADDR is also specified. The area pointed to by this field is mapped by DSECT SDMSE_KEYLIST
80	(50)	ADDRESS	4	SDMSE_INPUT_STORAGE64_ADDR	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
					This field indicates the Storage Ranges incorporated in the dump when SDUMP LIST64 parameter options are in effect. The area pointed to by this field is mapped by DSECT SDMSE_STORAGE64
84	(54)	CHARACTER	4	SDMSE_FLAGS	Exit parm list flags
84	(54)	BITSTRING	1	SDMSE_FLAGS1	Flags byte 1

Comment

Bit definitions:

End of Comment

		1... ..		SDMSE_OUTPUT_STORAGE_TYPE64	"X'80" Indicates that a non-zero value in SDMSE_OUTPUT_STORAGE_ADDR addresses a range list with format SDMSE_STORAGE64 rather than an SDMSE_STORAGE format
85	(55)	CHARACTER	3	SDMSE_FLAGS_RSVD	Reserved - must be zero
88	(58)	CHARACTER	8		Unused @L2A-
88	(58)	X'0'	0	SDMSE_VERSION_CURRENT	"0"
88	(58)	X'0'	0	SDMSE_VERSION_0	"0"
88	(58)	X'60'	0	SDMSE_LEN	"*-SDMSE"

#### Offsets

Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_MODEL	Model entry
0	(0)	CHARACTER	4	SDMSE_MODEL_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_MODEL_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	SIGNED	4	SDMSE_MODEL_ENTRY	An entry
4	(4)	X'8'	0	SDMSE_MODEL_LEN	"*-SDMSE_MODEL"

#### Offsets

Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_ASIDLST	
0	(0)	CHARACTER	4	SDMSE_ASIDLST_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_ASIDLST_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	2	SDMSE_ASIDLST_ENTRY	This represents an array of ASIDs
4	(4)	SIGNED	2	SDMSE_ASIDLST_ASID	The ASID
4	(4)	X'6'	0	SDMSE_ASIDLST_LEN	"*-SDMSE_ASIDLST"

#### Offsets

Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_STORAGE	
0	(0)	CHARACTER	4	SDMSE_STORAGE_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_STORAGE_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	16	SDMSE_STORAGE_ENTRY	This represents an array of start/end address pairs
4	(4)	CHARACTER	8	SDMSE_STORAGE_STOKEN	STOKEN of storage
12	(C)	ADDRESS	4	SDMSE_STORAGE_START	Start of range
16	(10)	ADDRESS	4	SDMSE_STORAGE_END	End of range

## IHASDMSE Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
16	(10)	X'14'	0	SDMSE_STORAGE_LEN	**-SDMSE_STORAGE"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_STORAGE64	
0	(0)	CHARACTER	4	SDMSE_STORAGE64_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_STORAGE64_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	24	SDMSE_STORAGE64_ENTRY	This represents an array of start/end 64-bit address pairs
4	(4)	CHARACTER	8	SDMSE_STORAGE64_STOKEN	STOKEN of storage
12	(C)	CHARACTER	8	SDMSE_STORAGE64_START	Start of range
20	(14)	CHARACTER	8	SDMSE_STORAGE64_END	End of range
20	(14)	X'1C'	0	SDMSE_STORAGE64_LEN	**-SDMSE_STORAGE64"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_JOBLIST	
0	(0)	CHARACTER	4	SDMSE_JOBLIST_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_JOBLIST_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	8	SDMSE_JOBLIST_ENTRY	This represents an array of job names
4	(4)	CHARACTER	8	SDMSE_JOBLIST_NAME	The jobname
4	(4)	X'C'	0	SDMSE_JOBLIST_LEN	**-SDMSE_JOBLIST"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_DSPLIST	
0	(0)	CHARACTER	4	SDMSE_DSPLIST_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_DSPLIST_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	16	SDMSE_DSPLIST_ENTRY	This represents an array of data space owners and names
4	(4)	CHARACTER	8	SDMSE_DSPLIST_OWNER	The owner of the data space: this can be by jobname or by ASID
4	(4)	CHARACTER	8	SDMSE_DSPLIST_OWNER_JOBNAME	Fill this in, left-justified, padded with blanks, if specifying a jobname as the owner.
4	(4)	CHARACTER	6	SDMSE_DSPLIST_OWNER_ZEROES	Make sure this is zeroes if specifying an ASID as the owner.
10	(A)	SIGNED	2	SDMSE_DSPLIST_OWNER_ASID	Fill this in, zeroing the previous field too, if specifying an ASID as the owner.
12	(C)	CHARACTER	8	SDMSE_DSPLIST_NAME	The data space name
12	(C)	X'14'	0	SDMSE_DSPLIST_LEN	**-SDMSE_DSPLIST"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_SUBPLST	
0	(0)	CHARACTER	4	SDMSE_SUBPLST_HEADER	Header area

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	SIGNED	2	SDMSE_SUBPLST_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	4	SDMSE_SUBPLST_ENTRY	This represents an array of ASID/Subpool pairs
4	(4)	SIGNED	2	SDMSE_SUBPLST_ASID	The ASID to which the subpool applies
6	(6)	SIGNED	2	SDMSE_SUBPLST_SUBPOOL	The subpool
6	(6)	X'8'	0	SDMSE_SUBPLST_LEN	**SDMSE_SUBPLST"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDMSE_KEYLIST	
0	(0)	CHARACTER	4	SDMSE_KEYLIST_HEADER	Header area
0	(0)	SIGNED	2	SDMSE_KEYLIST_LENGTH	Total length of area including the header area
2	(2)	CHARACTER	2		Reserved
4	(4)	CHARACTER	1	SDMSE_KEYLIST_ENTRY	This represents an array of KEYS which are applied to the provided subpools
4	(4)	BITSTRING	1	SDMSE_KEYLIST_KEY	The key (must be X'00'-X'F0', not 0-15)
4	(4)	X'5'	0	SDMSE_KEYLIST_LEN	**SDMSE_KEYLIST"

**IHASDMSE Cross Reference**

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SDMSE	0			4C	
SDMSE_ASIDLST			SDMSE_INPUT_PROBDESC_ADDR	4	
SDMSE_ASIDLST_ASID	4		SDMSE_INPUT_STORAGE_ADDR	44	
SDMSE_ASIDLST_ENTRY	4		SDMSE_INPUT_STORAGE64_ADDR	50	
SDMSE_ASIDLST_HEADER	0		SDMSE_INPUT_SUBPLST_ADDR	48	
SDMSE_ASIDLST_LEN	4	6	SDMSE_INPUT_WORKAREA_ADDR	8	
SDMSE_ASIDLST_LENGTH	0		SDMSE_JOBLIST	0	
SDMSE_DSPLIST	0		SDMSE_JOBLIST_ENTRY	4	
SDMSE_DSPLIST_ENTRY	4		SDMSE_JOBLIST_HEADER	0	
SDMSE_DSPLIST_HEADER	0		SDMSE_JOBLIST_LEN	4	C
SDMSE_DSPLIST_LEN	C	14	SDMSE_JOBLIST_LENGTH	0	
SDMSE_DSPLIST_LENGTH	0		SDMSE_JOBLIST_NAME	4	
SDMSE_DSPLIST_NAME	C		SDMSE_KEYLIST	0	
SDMSE_DSPLIST_OWNER	4		SDMSE_KEYLIST_ENTRY	4	
SDMSE_DSPLIST_OWNER_ASID	A		SDMSE_KEYLIST_HEADER	0	
SDMSE_DSPLIST_OWNER_JOBNAME	4		SDMSE_KEYLIST_KEY	4	
SDMSE_DSPLIST_OWNER_ZEROES	4		SDMSE_KEYLIST_LEN	4	5
SDMSE_FLAGS	54		SDMSE_KEYLIST_LENGTH	0	
SDMSE_FLAGS_RSVD	55		SDMSE_LEN	58	60
SDMSE_FLAGS1	54		SDMSE_MODEL	0	
SDMSE_INPUT_ASIDLST_ADDR	40		SDMSE_MODEL_ENTRY	4	
SDMSE_INPUT_KEYLIST_ADDR			SDMSE_MODEL_HEADER		

## IHASDMSE Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SDMSE_MODEL_LEN	0		SDMSE_SDATA_TRT	39	40
SDMSE_MODEL_LENGTH	4	8	SDMSE_SDATA_WLM	38	1
SDMSE_OUTPUT_ASIDLST_ADDR	0		SDMSE_SDATA_XESDATA	3A	2
SDMSE_OUTPUT_DSPLST_ADDR	18		SDMSE_STORAGE	3A	8
SDMSE_OUTPUT_JOBLIST_ADDR	24		SDMSE_STORAGE_END	0	
SDMSE_OUTPUT_KEYLIST_ADDR	20		SDMSE_STORAGE_ENTRY	10	
SDMSE_OUTPUT_STORAGE_ADDR	2C		SDMSE_STORAGE_HEADER	4	
SDMSE_OUTPUT_STORAGE_TYPE64	1C		SDMSE_STORAGE_HEADER	0	
SDMSE_OUTPUT_SUBPLST_ADDR	54	80	SDMSE_STORAGE_LEN	10	14
SDMSE_OUTPUT_WORKAREA_ADDR	28		SDMSE_STORAGE_LENGTH	0	
SDMSE_OUTPUT_WORKAREA_KEY	C		SDMSE_STORAGE_START	C	
SDMSE_OUTPUT_WORKAREA_LENGTH	15		SDMSE_STORAGE_STOKEN	4	
SDMSE_OUTPUT_WORKAREA_SUBPOOL	10		SDMSE_STORAGE64	0	
SDMSE_SDATA_ALLNUC	14		SDMSE_STORAGE64_END	14	
SDMSE_SDATA_ALLPSA	39	2	SDMSE_STORAGE64_ENTRY	4	
SDMSE_SDATA_BYTE0	38	80	SDMSE_STORAGE64_HEADER	0	
SDMSE_SDATA_BYTE1	38		SDMSE_STORAGE64_LEN	14	1C
SDMSE_SDATA_BYTE2	39		SDMSE_STORAGE64_LENGTH	0	
SDMSE_SDATA_BYTE3	3A		SDMSE_STORAGE64_START	C	
SDMSE_SDATA_BYTE4	3B		SDMSE_STORAGE64_STOKEN	4	
SDMSE_SDATA_BYTE5	3C		SDMSE_SUBPLST	0	
SDMSE_SDATA_COUPLE	3D		SDMSE_SUBPLST_ASID	4	
SDMSE_SDATA_CSA	3A	10	SDMSE_SUBPLST_ENTRY	4	
SDMSE_SDATA_DEFS	39	80	SDMSE_SUBPLST_HEADER	0	
SDMSE_SDATA_GRSQ	39	1	SDMSE_SUBPLST_LEN	6	8
SDMSE_SDATA_IO	3A	80	SDMSE_SUBPLST_LENGTH	0	
SDMSE_SDATA_LPA	3C	40	SDMSE_SUBPLST_SUBPOOL	6	
SDMSE_SDATA_LQA	38	2	SDMSE_VERSION	0	
SDMSE_SDATA_NUC	38	8	SDMSE_VERSION_CURRENT	58	0
SDMSE_SDATA_OPTIONS	38	20	SDMSE_VERSION_0	58	0
SDMSE_SDATA_PSA	38	40			
SDMSE_SDATA_RGN	38	4			
SDMSE_SDATA_RSVD	3E				
SDMSE_SDATA_SERVERS	3B	20			
SDMSE_SDATA_SQA	38	10			
SDMSE_SDATA_SUM	39	20			
SDMSE_SDATA_SWA					



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## IHASDPD Information

### IHASDPD Programming Interface information

Programming Interface information

#### IHASDPD

End of Programming Interface information

## IHASDPD Heading Information • IHASDPD Cross Reference

### IHASDPD Heading Information

**Common Name:** SDUMPX ProbDesc area mapping  
**Macro ID:** IHASDPD  
**DSECT Name:** SDPD  
**Owning Component:** SDUMP (SCDMP)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: caller-supplied  
 Key: caller-supplied  
 Residency: caller-supplied  
**Size:** SDPD -- X'0004' bytes  
 + variable data  
 SDPD\_KLD -- X'000A' bytes  
 + variable data  
**Created by:** Created by SDUMP issuer, passed via PROBDISC keyword  
**Pointed to by:** PROBDISC address field of SDUMP parameter list  
**Serialization:** None required  
**Function:** Maps the PROBDISC parameter information

### IHASDPD Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDPD	,
0	(0)	CHARACTER	4	SDPD_HEADER	
0	(0)	SIGNED	4	SDPD_LENGTH	Total length of area, including this length field
4	(4)	CHARACTER	1	SDPD_DATA (0)	Entries in Key-length-data format. The SDPD_LENGTH field is used to determine how many entries there are. See SDPD_KLD.
4	(4)	X'4'	0	SDPD_LEN	"*-SDPD"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDPD_KLD	, Key-length-data entry
0	(0)	CHARACTER	10	SDPD_KLD_HEADER	
0	(0)	CHARACTER	8	SDPD_KLD_KEY	Header The 8-byte key. Keys beginning with "A" through "I" or with "SYS" are reserved for IBM use.
0	(0)	CHARACTER	3	SDPD_KLD_KEY_COMPMPREFIX	Component identifier. IBM products should use their 3-character module prefix.
3	(3)	CHARACTER	5	SDPD_KLD_KEY_COMPINFO	Component information identifier. This is up to the component to decide how to use. It can be used to differentiate between different problem description information entries for the given component. A possible use is: 2 bytes to indicate the subcomponent followed by a 3-byte number to indicate what kind of information this is.
8	(8)	SIGNED	2	SDPD_KLD_LENGTH	Length of data that follows. It does not include the length of this field itself or of the key field.
10	(A)	CHARACTER	1	SDPD_KLD_DATA (0)	Data, in whatever format the component chooses.
10	(A)	X'A'	0	SDPD_KLD_LEN	"*-SDPD_KLD"

### IHASDPD Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SDPD	0			8	
SDPD_DATA	4		SDPD_LEN	4	4
SDPD_HEADER	0		SDPD_LENGTH	0	
SDPD_KLD	0				
SDPD_KLD_DATA	A				
SDPD_KLD_HEADER	0				
SDPD_KLD_KEY	0				
SDPD_KLD_KEY_COMPINFO	3				
SDPD_KLD_KEY_COMPMPREFIX	0				
SDPD_KLD_LEN	A	A			
SDPD_KLD_LENGTH					

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## IHASDRMT Information

### IHASDRMT Programming Interface information

Programming Interface information

IHASDRMT

End of Programming Interface information

## IHASDRMT Heading Information • IHASDRMT Map

### IHASDRMT Heading Information

**Common Name:** SDUMPX REMOTE keyword information area  
**Macro ID:** IHASDRMT  
**DSECT Name:** SDRMT SDRMT\_MODEL SDRMT\_SYSLIST SDRMT\_GRPLIST SDRMT\_SDATA SDRMT\_ASIDLST SDRMT\_STORAGE SDRMT\_LIST64 SDRMT\_JOBLIST SDRMT\_DSPLIST SDRMT\_SUBPLST SDRMT\_KEYLIST SDRMT\_COPY  
**Owning Component:** SDUMP (SCDMP)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: Caller-supplied  
 Key: Caller-supplied  
 Residency: Caller-supplied  
**Size:** Variable  
 SDRMT -- X'0004' bytes  
 SDRMT\_MODEL -- X'0004' bytes  
 SDRMT\_SYSLIST -- X'0014' bytes  
 + X'0018' bytes for each entry  
 after the first  
 SDRMT\_GRPLIST -- X'001C' bytes  
 + X'0018' bytes for each entry  
 after the first  
 SDRMT\_SDATA -- X'000C' bytes  
 SDRMT\_ASIDLST -- X'0008' bytes  
 + X'0004' bytes for each entry  
 after the first  
 SDRMT\_STORAGE -- X'0014' bytes  
 + X'0010' bytes for each entry  
 after the first  
 SDRMT\_LIST64 -- X'001C' bytes  
 + X'0018' bytes for each entry  
 after the first  
 SDRMT\_JOBLIST -- X'000C' bytes  
 + X'0010' bytes for each entry  
 after the first  
 SDRMT\_DSPLIST -- X'0014' bytes  
 + X'0018' bytes for each entry  
 after the first  
 SDRMT\_SUBPLST -- X'0008' bytes  
 + X'0004' bytes for each entry  
 after the first  
 SDRMT\_KEYLIST -- X'0008' bytes  
 + X'0004' bytes for each entry  
 after the first  
 SDRMT\_COPY -- X'0004' bytes  
**Created by:** Created by Caller and passed as parameter on REMOTE keyword on SDUMPX  
**Pointed to by:** SDUMPX parameter list  
**Serialization:** None required  
**Function:** Maps the data passed by the REMOTE keyword.

### IHASDRMT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT	
0	(0)	SIGNED	4	SDRMT_LENGTH	Total length for REMOTE info. Data begins at SDRMT_DATA with entries contiguously defined from that point.
4	(4)	CHARACTER	1	SDRMT_DATA (0)	Start of remote data
Comment					
Constants to identify the DSECT. Note that the constants ending with "_COPY" should use the SDRMT_COPY DSECT.					
End of Comment					
4	(4)	X'4'	0	SDRMT_IDCON_SYSLIST	"4"
4	(4)	X'8'	0	SDRMT_IDCON_GRPLIST	"8"
4	(4)	X'C'	0	SDRMT_IDCON_SDATA	"12"
4	(4)	X'D'	0	SDRMT_IDCON_SDATA_COPY	"13"
4	(4)	X'10'	0	SDRMT_IDCON_ASIDLST	"16"
4	(4)	X'11'	0	SDRMT_IDCON_ASIDLST_COPY	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
4	(4)	X'14'	0	SDRMT_IDCON_STORAGE	"17" Indicates to copy the ASIDLST used for this dump. "20"
4	(4)	X'15'	0	SDRMT_IDCON_STORAGE_COPY	"21" Indicates to copy the input LISTD specification
4	(4)	X'18'	0	SDRMT_IDCON_JOBLIST	"24"
4	(4)	X'19'	0	SDRMT_IDCON_JOBLIST_COPY	"25"
4	(4)	X'1C'	0	SDRMT_IDCON_DSPLIST	"28"
4	(4)	X'1D'	0	SDRMT_IDCON_DSPLIST_COPY	"29"
4	(4)	X'20'	0	SDRMT_IDCON_SUBPLST	"32"
4	(4)	X'21'	0	SDRMT_IDCON_SUBPLST_COPY	"33"
4	(4)	X'24'	0	SDRMT_IDCON_KEYLIST	"36"
4	(4)	X'25'	0	SDRMT_IDCON_KEYLIST_COPY	"37"
4	(4)	X'28'	0	SDRMT_IDCON_LIST64	"40"
4	(4)	X'29'	0	SDRMT_IDCON_LIST64_COPY	"41" Indicates to copy the input LIST64 specification
4	(4)	X'4'	0	SDRMT_LEN	"*-SDRMT"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_MODEL	
0	(0)	CHARACTER	4	SDRMT_MODEL_HEADER	
0	(0)	SIGNED	2	SDRMT_MODEL_ID	Contains the ID of the entry
2	(2)	SIGNED	2	SDRMT_MODEL_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	1	SDRMT_MODEL_ENTRY (0)	Start of data for the entry
4	(4)	X'4'	0	SDRMT_MODEL_LEN	"*-SDRMT_MODEL"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_SYSLIST	
0	(0)	CHARACTER	4	SDRMT_SYSLIST_HEADER	
0	(0)	SIGNED	2	SDRMT_SYSLIST_ID	Use SDRMT_IDCON_SYSLIST to initialize
2	(2)	SIGNED	2	SDRMT_SYSLIST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	16	SDRMT_SYSLIST_ENTRY	This represents an array of sysname/jobname or sysname/ASID pairs
4	(4)	CHARACTER	8	SDRMT_SYSLIST_SYSNAME	The system name
12	(C)	CHARACTER	8	SDRMT_SYSLIST_JOBNAME_ASID	Area that contains either all 0s (no jobname/ASID), JOBNAME/ID, or ZEROES&ASID
12	(C)	CHARACTER	8	SDRMT_SYSLIST_JOBNAME	Fill this in, left-justified, padded with blanks, if specifying a jobname. The entire field should be 0s if neither jobname nor ASID is wanted.
12	(C)	CHARACTER	6	SDRMT_SYSLIST_ZEROES	Make sure this is zeroes if specifying an ASID.
18	(12)	SIGNED	2	SDRMT_SYSLIST_ASID	Fill this in, zeroing the previous field too, if specifying an ASID.
18	(12)	X'14'	0	SDRMT_SYSLIST_LEN	"*-SDRMT_SYSLIST"

## IHASDRMT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_GRPLIST	
0	(0)	CHARACTER	4	SDRMT_GRPLIST_HEADER	
0	(0)	SIGNED	2	SDRMT_GRPLIST_ID	
2	(2)	SIGNED	2	SDRMT_GRPLIST_LENGTH	Use SDRMT_IDCON_GRPLIST to initialize
4	(4)	CHARACTER	24	SDRMT_GRPLIST_ENTRY	Total length of area including this length field and the ID field
4	(4)	CHARACTER	8	SDRMT_GRPLIST_GRPNAME	This represents an array of group/member pairs. If all members of the group are wanted, use a member name of "***".
12	(C)	CHARACTER	16	SDRMT_GRPLIST_MEMNAME	The group name
12	(C)	X'1C'	0	SDRMT_GRPLIST_LEN	The member name
					**--SDRMT_GRPLIST"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_SDATA	This field should be set if the caller has indicated SDATA options for the dump.
0	(0)	CHARACTER	4	SDRMT_SDATA_HEADER	
0	(0)	SIGNED	2	SDRMT_SDATA_ID	
2	(2)	SIGNED	2	SDRMT_SDATA_LENGTH	Use SDRMT_IDCON_SDATA to initialize
4	(4)	CHARACTER	8	SDRMT_SDATA_OPTIONS	Total length of area including this length field and the ID field
4	(4)	BITSTRING	1	SDRMT_SDATA_BYTE0	These are mapped in the same order as they appear in the SDUMP parameter list
		1... ....		SDRMT_SDATA_ALLPSA	This field should be set if the caller has indicated SDATA options for the dump.
		.1.. ....		SDRMT_SDATA_PSA	"X'80" Corresponds to SDUMPX SDATA option ALLPSA
		..1. ....		SDRMT_SDATA_NUC	"X'40" Corresponds to SDUMPX SDATA option PSA
		...1 ....		SDRMT_SDATA_SQA	"X'20" Corresponds to SDUMPX SDATA option NUC
		.... 1...		SDRMT_SDATA_LSQA	"X'10" Corresponds to SDUMPX SDATA option SQA
		.... .1..		SDRMT_SDATA_RGN	"X'08" Corresponds to SDUMPX SDATA option LSQA
		.... ..1.		SDRMT_SDATA_LPA	"X'04" Corresponds to SDUMPX SDATA option RGN
		.... ...1		SDRMT_SDATA_TRT	"X'02" Corresponds to SDUMPX SDATA option LPA
5	(5)	BITSTRING	1	SDRMT_SDATA_BYTE1	"X'01" Corresponds to SDUMPX SDATA option TRT
		1... ....		SDRMT_SDATA_CSA	This field should be set if the caller has indicated SDATA options for the dump.
		.1.. ....		SDRMT_SDATA_SWA	"X'80" Corresponds to SDUMPX SDATA option CSA
		..1. ....		SDRMT_SDATA_SUM	"X'40" Corresponds to SDUMPX SDATA option SWA
		.... 1...		SDRMT_SDATA_NOALLPSA	"X'20" Corresponds to SDUMPX SDATA option SUM
		.... .1..		SDRMT_SDATA_NOSQA	"X'08" Corresponds to SDUMPX SDATA option NOALLPSA
		.... ..1.		SDRMT_SDATA_ALLNUC	"X'04" Corresponds to SDUMPX SDATA option NOSQA
		.... ...1		SDRMT_SDATA_DEFS	"X'02" Corresponds to SDUMPX SDATA option ALLNUC
6	(6)	BITSTRING	1	SDRMT_SDATA_BYTE2	"X'01" Corresponds to SDUMPX SDATA option DEFS
		1... ....		SDRMT_SDATA_GRSQ	This field should be set if the caller has indicated SDATA options for the dump.
		...1 ....		SDRMT_SDATA_COUPLE	"X'80" Corresponds to SDUMPX SDATA option GRSQ
		.... 1...		SDRMT_SDATA_XESDATA	"X'10" Corresponds to SDUMPX SDATA option COUPLE
		.... ..1.		SDRMT_SDATA_WLM	"X'08" Corresponds to SDUMPX SDATA option XESDATA
					"X'02" Corresponds to SDUMPX SDATA option WLM
7	(7)	BITSTRING	1	SDRMT_SDATA_BYTE3	

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
		..1. ....		SDRMT_SDATA_SERVERS	Sdata Byte 3	
8	(8)	BITSTRING	1	SDRMT_SDATA_BYTE4	"X'20" Corresponds to SDUMPX SDATA option SERVERS	
		1... ....		SDRMT_SDATA_NODEFS	Sdata Byte 4	
		..1. ....		SDRMT_SDATA_IO	"X'80" Corresponds to SDUMPX SDATA option NODEFS	
9	(9)	BITSTRING	1	SDRMT_SDATA_BYTE5	"X'40" Corresponds to SDUMPX SDATA option IO	
10	(A)	CHARACTER	2	SDRMT_SDATA_RSVD	Sdata Byte 5 - Reserved, must be 0	
10	(A)	X'C'	0	SDRMT_SDATA_LEN	Reserved, must be 0	
					**SDRMT_SDATA"	

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
0	(0)	STRUCTURE	0	SDRMT_ASIDLST		
0	(0)	CHARACTER	4	SDRMT_ASIDLST_HEADER		
0	(0)	SIGNED	2	SDRMT_ASIDLST_ID		
2	(2)	SIGNED	2	SDRMT_ASIDLST_LENGTH	Use SDRMT_IDCON_ASIDLST to initialize	
4	(4)	CHARACTER	4	SDRMT_ASIDLST_ENTRY	Total length of area including this length field and the ID field	
4	(4)	SIGNED	4	SDRMT_ASIDLST_ASID	This represents an array of ASIDs	
4	(4)	X'8'	0	SDRMT_ASIDLST_LEN	The ASID	
					**SDRMT_ASIDLST"	

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
0	(0)	STRUCTURE	0	SDRMT_STORAGE		
0	(0)	CHARACTER	4	SDRMT_STORAGE_HEADER		
0	(0)	SIGNED	2	SDRMT_STORAGE_ID		
2	(2)	SIGNED	2	SDRMT_STORAGE_LENGTH	Use SDRMT_IDCON_STORAGE to initialize	
4	(4)	CHARACTER	16	SDRMT_STORAGE_ENTRY	Total length of area including this length field and the ID field	
4	(4)	CHARACTER	8	SDRMT_STORAGE_STOKEN	This represents an array of begin/end address pairs	
12	(C)	ADDRESS	4	SDRMT_STORAGE_BEGIN@	STOKEN of storage	
16	(10)	ADDRESS	4	SDRMT_STORAGE_END@	Beginning address of range	
16	(10)	X'14'	0	SDRMT_STORAGE_LEN	Ending address of range	
					**SDRMT_STORAGE"	

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
0	(0)	STRUCTURE	0	SDRMT_LIST64		
0	(0)	CHARACTER	4	SDRMT_LIST64_HEADER		
0	(0)	SIGNED	2	SDRMT_LIST64_ID		
2	(2)	SIGNED	2	SDRMT_LIST64_LENGTH	Use SDRMT_Idcon_List64 to initialize	
4	(4)	CHARACTER	24	SDRMT_LIST64_ENTRY	Total length of area including this length field and the ID field	
4	(4)	CHARACTER	8	SDRMT_LIST64_STOKEN	This represents an array of begin/end address pairs	
12	(C)	CHARACTER	8	SDRMT_LIST64_BEGIN64@	STOKEN of storage	
20	(14)	CHARACTER	8	SDRMT_LIST64_END64@	Beginning address of range	
20	(14)	X'1C'	0	SDRMT_LIST64_LEN	Ending address of range	
					**SDRMT_LIST64"	

## IHASDRMT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_JOBLIST	
0	(0)	CHARACTER	4	SDRMT_JOBLIST_HEADER	
0	(0)	SIGNED	2	SDRMT_JOBLIST_ID	Use SDRMT_IDCON_JOBLIST to initialize
2	(2)	SIGNED	2	SDRMT_JOBLIST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	8	SDRMT_JOBLIST_ENTRY	This represents an array of job names
4	(4)	CHARACTER	8	SDRMT_JOBLIST_NAME	The jobname. Left-justified, padded with blanks as needed.
4	(4)	X'C'	0	SDRMT_JOBLIST_LEN	**-SDRMT_JOBLIST"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_DSPLIST	
0	(0)	CHARACTER	4	SDRMT_DSPLIST_HEADER	
0	(0)	SIGNED	2	SDRMT_DSPLIST_ID	Use SDRMT_IDCON_DSPLIST to initialize
2	(2)	SIGNED	2	SDRMT_DSPLIST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	16	SDRMT_DSPLIST_ENTRY	This represents an array of job names
4	(4)	CHARACTER	8	SDRMT_DSPLIST_OWNER	The owner of the data space: this can be by jobname or by ASID
4	(4)	CHARACTER	8	SDRMT_DSPLIST_OWNER_JOBNAME	Fill this in, left-justified, padded with blanks, if specifying a jobname as the owner.
4	(4)	CHARACTER	6	SDRMT_DSPLIST_OWNER_ZEROES	Make sure this is zeroes if specifying an ASID as the owner.
10	(A)	SIGNED	2	SDRMT_DSPLIST_OWNER_ASID	Fill this in, zeroing the previous field too, if specifying an ASID as the owner.
12	(C)	CHARACTER	8	SDRMT_DSPLIST_NAME	The data space name
12	(C)	X'14'	0	SDRMT_DSPLIST_LEN	**-SDRMT_DSPLIST"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_SUBPLST	
0	(0)	CHARACTER	4	SDRMT_SUBPLST_HEADER	
0	(0)	SIGNED	2	SDRMT_SUBPLST_ID	Use SDRMT_IDCON_SUBPLST to initialize
2	(2)	SIGNED	2	SDRMT_SUBPLST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	4	SDRMT_SUBPLST_ENTRY	This represents an array of ASID/Subpool pairs
4	(4)	SIGNED	2	SDRMT_SUBPLST_ASID	The ASID to which the subpool applies
6	(6)	SIGNED	2	SDRMT_SUBPLST_SUBPOOL	The subpool
6	(6)	X'8'	0	SDRMT_SUBPLST_LEN	**-SDRMT_SUBPLST"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SDRMT_KEYLIST	
0	(0)	CHARACTER	4	SDRMT_KEYLIST_HEADER	
0	(0)	SIGNED	2	SDRMT_KEYLIST_ID	Use SDRMT_IDCON_KEYLIST to initialize
2	(2)	SIGNED	2	SDRMT_KEYLIST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	4	SDRMT_KEYLIST_ENTRY	This represents an array of KEYS which are applied to the provided subpools
4	(4)	SIGNED	4	SDRMT_KEYLIST_KEY	The key (must be X'00'-X'F0', not 0-15)
4	(4)	X'8'	0	SDRMT_KEYLIST_LEN	**-SDRMT_KEYLIST"



Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	SDRMT_COPY	
0	(0)	CHARACTER	4	SDRMT_COPY_HEADER	
0	(0)	SIGNED	2	SDRMT_COPY_ID	
2	(2)	SIGNED	2	SDRMT_COPY_LENGTH	Use SDRMT_xxxxx_COPY to initialize
2	(2)	X'4'	0	SDRMT_COPY_LEN	Total length of area including this length field and the ID field
					**SDRMT_COPY"

## IHASDRMT Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SDRMT	0			2	
SDRMT_ASIDLST			SDRMT_GRPLIST_MEMNAME	C	
SDRMT_ASIDLST_ASID	0		SDRMT_IDCON_ASIDLST	4	10
SDRMT_ASIDLST_ENTRY	4		SDRMT_IDCON_ASIDLST_COPY	4	11
SDRMT_ASIDLST_HEADER	4		SDRMT_IDCON_DSPLIST	4	1C
SDRMT_ASIDLST_ID	0		SDRMT_IDCON_DSPLIST_COPY	4	1D
SDRMT_ASIDLST_LEN	0		SDRMT_IDCON_GRPLIST	4	8
SDRMT_ASIDLST_LENGTH	4	8	SDRMT_IDCON_JOBLIST	4	18
SDRMT_COPY	2		SDRMT_IDCON_JOBLIST_COPY	4	19
SDRMT_COPY_HEADER	0		SDRMT_IDCON_KEYLIST	4	24
SDRMT_COPY_ID	0		SDRMT_IDCON_KEYLIST_COPY	4	25
SDRMT_COPY_LEN	0		SDRMT_IDCON_LIST64	4	28
SDRMT_COPY_LENGTH	2		SDRMT_IDCON_LIST64_COPY	4	29
SDRMT_DATA	4		SDRMT_IDCON_SDATA	4	C
SDRMT_DSPLIST	0		SDRMT_IDCON_SDATA_COPY	4	D
SDRMT_DSPLIST_ENTRY	4		SDRMT_IDCON_STORAGE	4	14
SDRMT_DSPLIST_HEADER	0		SDRMT_IDCON_STORAGE_COPY	4	15
SDRMT_DSPLIST_ID	0		SDRMT_IDCON_SUBPLST	4	20
SDRMT_DSPLIST_LEN	C	14	SDRMT_IDCON_SUBPLST_COPY	4	21
SDRMT_DSPLIST_LENGTH	2		SDRMT_IDCON_SYSLIST	4	4
SDRMT_DSPLIST_NAME	C		SDRMT_JOBLIST	0	
SDRMT_DSPLIST_OWNER	4		SDRMT_JOBLIST_ENTRY	4	
SDRMT_DSPLIST_OWNER_ASID	A		SDRMT_JOBLIST_HEADER	0	
SDRMT_DSPLIST_OWNER_JOBNAME	4		SDRMT_JOBLIST_ID	0	
SDRMT_DSPLIST_OWNER_ZEROES	4		SDRMT_JOBLIST_LEN	4	C
SDRMT_GRPLIST	0		SDRMT_JOBLIST_LENGTH	2	
SDRMT_GRPLIST_ENTRY	4		SDRMT_JOBLIST_NAME	4	
SDRMT_GRPLIST_GRPNAME	4		SDRMT_KEYLIST	0	
SDRMT_GRPLIST_HEADER	0		SDRMT_KEYLIST_ENTRY	4	
SDRMT_GRPLIST_ID	0		SDRMT_KEYLIST_HEADER	0	
SDRMT_GRPLIST_LEN	C	1C	SDRMT_KEYLIST_ID		
SDRMT_GRPLIST_LENGTH					

## IHASDRMT Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SDRMT_KEYLIST_KEY	0		SDRMT_SDATA_LSQA		
	4		SDRMT_SDATA_NOALLPSA	4	8
SDRMT_KEYLIST_LEN				5	8
	4	8	SDRMT_SDATA_NODEFS	8	80
SDRMT_KEYLIST_LENGTH	2		SDRMT_SDATA_NOSQA	5	4
SDRMT_LEN	4	4	SDRMT_SDATA_NUC	4	20
SDRMT_LENGTH	0		SDRMT_SDATA_OPTIONS	4	
SDRMT_LIST64	0		SDRMT_SDATA_PSA	4	40
SDRMT_LIST64_BEGIN64@	C		SDRMT_SDATA_RGN	4	4
SDRMT_LIST64_END64@	14		SDRMT_SDATA_RSVD	A	
SDRMT_LIST64_ENTRY	4		SDRMT_SDATA_SERVERS	7	20
SDRMT_LIST64_HEADER	0		SDRMT_SDATA_SQA	4	10
SDRMT_LIST64_ID	0		SDRMT_SDATA_SUM	5	20
SDRMT_LIST64_LEN	14	1C	SDRMT_SDATA_SWA	5	40
SDRMT_LIST64_LENGTH	2		SDRMT_SDATA_TRT	4	1
SDRMT_LIST64_STOKEN	4		SDRMT_SDATA_WLM	6	2
SDRMT_MODEL	0		SDRMT_SDATA_XESDATA	6	8
SDRMT_MODEL_ENTRY	4		SDRMT_STORAGE	0	
SDRMT_MODEL_HEADER	0		SDRMT_STORAGE_BEGIN@	C	
SDRMT_MODEL_ID	0		SDRMT_STORAGE_END@	10	
SDRMT_MODEL_LEN	4	4	SDRMT_STORAGE_ENTRY	4	
SDRMT_MODEL_LENGTH	2		SDRMT_STORAGE_HEADER	0	
SDRMT_SDATA	0		SDRMT_STORAGE_ID	0	
SDRMT_SDATA_ALLNUC	5	2	SDRMT_STORAGE_LEN	10	14
SDRMT_SDATA_ALLPSA	4	80	SDRMT_STORAGE_LENGTH	2	
SDRMT_SDATA_BYTE0	4		SDRMT_STORAGE_STOKEN	4	
SDRMT_SDATA_BYTE1	5		SDRMT_SUBPLST	0	
SDRMT_SDATA_BYTE2	6		SDRMT_SUBPLST_ASID	4	
SDRMT_SDATA_BYTE3	7		SDRMT_SUBPLST_ENTRY	4	
SDRMT_SDATA_BYTE4	8		SDRMT_SUBPLST_HEADER	0	
SDRMT_SDATA_BYTE5	9		SDRMT_SUBPLST_ID	0	
SDRMT_SDATA_COUPLE	6	10	SDRMT_SUBPLST_LEN	6	8
SDRMT_SDATA_CSA	5	80	SDRMT_SUBPLST_LENGTH	2	
SDRMT_SDATA_DEFS	5	1	SDRMT_SUBPLST_SUBPOOL	6	
SDRMT_SDATA_GRSQ	6	80	SDRMT_SYSLIST	0	
SDRMT_SDATA_HEADER	0		SDRMT_SYSLIST_ASID	12	
SDRMT_SDATA_ID	0		SDRMT_SYSLIST_ENTRY	4	
SDRMT_SDATA_IO	8	40	SDRMT_SYSLIST_HEADER	0	
SDRMT_SDATA_LEN	A	C			
SDRMT_SDATA_LENGTH	2				
SDRMT_SDATA_LPA	4	2			

Name	Hex Offset	Hex Value
SDRMT_SYSLIST_ID	0	
SDRMT_SYSLIST_JOBNAME	C	
SDRMT_SYSLIST_JOBNAME_ASID	C	
SDRMT_SYSLIST_LEN	12	14
SDRMT_SYSLIST_LENGTH	2	
SDRMT_SYSLIST_SYSNAME	4	
SDRMT_SYSLIST_ZEROES	C	



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## IHSDSTR Information

### IHSDSTR Programming Interface information

Programming Interface information

IHSDSTR

End of Programming Interface information

## IHASDSTR Heading Information • IHASDSTR Map

### IHASDSTR Heading Information

**Common Name:** SDUMPX STRLIST Parameter List Mappings  
**Macro ID:** IHASDSTR  
**DSECT Name:** SDSTR\_HEADER\_MAP - STRLIST Header Mapping SDSTR\_LENGTH\_MAP - STRLIST Length Mapping SDSTR\_WORK\_AREAS - IHABLDP Work Area Mapping SDSTR\_STRUCTURE - STRLIST Structure Entry Mapping SDSTR\_RANGE - STRLIST Range/Option Entry Mapping  
**Owning Component:** SVC Dump (SCDMP)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: User Defined  
 Key: User Defined  
 Residency: User Defined  
**Size:** Variable  
**Created by:** User  
**Pointed to by:** User  
**Serialization:** None required  
**Function:** Maps the STRLIST parameter list entries that will be constructed by the IHABLDP macro and will be provided as input to the STRLIST parameter on the SDUMPX macro.

### IHASDSTR Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	X'0'	0	SDSTR_HEADER_MAP	"0" STRLIST Header for IHABLDP
0	(0)	X'0'	0	SDSTR_WORK_VAR_PTR	"0" Pointer to IHABLDP work areas
0	(0)	X'4'	0	SDSTR_VERSION	"4" Version Number
0	(0)	X'8'	0	SDSTR_HEADER_LENGTH	"8" Length of STRLIST header
Comment					
STRLIST Length mapping - 8 bytes					
End of Comment					
0	(0)	X'0'	0	SDSTR_LENGTH_MAP	"0" STRLIST Header for storing the length
0	(0)	X'0'	0	SDSTR_LENGTH	"0" Total length of the STRLIST parameter list
Comment					
IHABLDP work areas - 16 bytes					
End of Comment					
0	(0)	X'0'	0	SDSTR_WORK_AREA	"0" IHABLDP Work areas
0	(0)	X'0'	0	SDSTR_NEXT_SPACE	"0" Next available space pointer
0	(0)	X'4'	0	SDSTR_CUR_STR_PTR	"4" Current structure entry pointer
0	(0)	X'10'	0	SDSTR_WORK_LENGTH	"16" Length of IHABLDP work areas
Comment					
STRLIST structure entry - 48 bytes					
End of Comment					
0	(0)	X'0'	0	SDSTR_STRUCTURE	"0" STRLIST structure entry
0	(0)	X'0'	0	SDSTR_STRUCTURE_NAME	"0" Structure name
0	(0)	X'10'	0	SDSTR_CONTOKEN	"16" Provide a CONTOKEN to include user registry information that relates to that user. This should only be used for a cache structure
0	(0)	X'10'	0	SDSTR_CONNAME	"16" Provide a CONNAME to include user registry information that relates to that user. This should only be used for a cache structure EQU 32 Reserved for IBM use EQU 36 Reserved for IBM use EQU 38 Reserved for IBM use EQU 40 Reserved for IBM use EQU 42 Reserved for IBM use EQU 43 Reserved
0	(0)	X'2C'	0	SDSTR_RANGE_CNTR	

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	X'2E'	0	SDSTR_STRUCTURE_FLAGS	"44" Counter of how many range and option entries follow this structure entry
		1... ....		SDSTR_ACCTIME_NOLIMIT	"46" Structure level flag byte
		...1 ....		SDSTR_CONNAME_ENTRY	"X'80" Indicates that the time limit specified on the IXLCONN macro will be ignored to insure that the entry data is dumped serialized EQU X'40' Reserved for IBM use EQU X'20' Reserved for IBM use
0	(0)	X'30'	0	SDSTR_STRUCTURE_LENGTH	"X'10" Indicates that the value in the CONTOKEN/CONNAME field is a CONNAME EQU X'08' Reserved EQU X'04' Reserved EQU X'02' Reserved EQU X'01' Reserved EQU 33 Reserved
					"48" Length of STRLIST structure entry
Comment					
STRLIST range and option entry - 12 bytes					
End of Comment					
0	(0)	X'0'	0	SDSTR_RANGE	"0" STRLIST structure range and option entry
0	(0)	X'0'	0	SDSTR_RANGE_FLAG1	"0" Range level flag byte 1
		1... ....		SDSTR_ADJUNCT_CAPTURE	"X'80" Indicates that the adjunct data will be captured with control data
		.1.. ....		SDSTR_SUMMARY	"X'40" Indicates summary of the range be dumped. Control elements will be excluded from the dump EQU X'20' Reserved EQU X'10' Reserved EQU X'08' Reserved EQU X'04' Reserved EQU X'02' Reserved EQU X'01' Reserved
0	(0)	X'1'	0	SDSTR_RANGE_FLAG2	"1" Range level flag byte 2
		1... ....		SDSTR_EDATA_SERIALIZE	"X'80" Indicates that entry data for each element in the range should be included in the dump and be dumped serialized
		.1.. ....		SDSTR_EDATA_UNSERIALIZE	"X'40" Indicates that entry data for each element in the range should be included in the dump and be dumped unserialized
		..1. ....		SDSTR_ADJUNCT_DIRECTIO	"X'20" Indicates that the adjunct data should be retrieved with the entry data which is not captured EQU X'10' Reserved EQU X'08' Reserved EQU X'04' Reserved EQU X'02' Reserved EQU X'01' Reserved
0	(0)	X'2'	0	SDSTR_RANGE_FLAG3	"2" Range level flag byte 3
		1... ....		SDSTR_OBJECT_COCLASS	"X'80" Indicates that the range represents a range of cast-out classes
		.1.. ....		SDSTR_OBJECT_STGCLASS	"X'40" Indicates that the range represents a range of storage classes
		..1. ....		SDSTR_OBJECT_LISTNUM	"X'20" Indicates that the range represents a range of list numbers
		...1 ....		SDSTR_DUMP_ALL	"X'10" Indicates that all elements of a requested object will be dumped. If bit on, the fields SDSTR_START_VALUE and SDSTR_END_VALUE will be ignored
		.... 1..		SDSTR_LOCKENTRIES	"X'08" Indicates that lock table entries should be included in the dump. This is only valid for list structures.
		.... .1..		SDSTR_USERCNTLS	"X'04" Indicates that the user attached controls should be included in the dump
		.... ..1.		SDSTR_EVENTQS	"X'02" Indicates that the user event queues should be included in the dump
		.... ...1		SDSTR_OBJECT_EMCONTROLS	"X'01" Indicates that the range represents a range of event monitoring controls EQU 3 Reserved
0	(0)	X'4'	0	SDSTR_START_VALUE	"4" Starting value for range
0	(0)	X'8'	0	SDSTR_END_VALUE	"8" Ending value for range
0	(0)	X'C'	0	SDSTR_RANGE_LENGTH	"12" Length of STRLIST structure range and option entry
Comment					
Constants					
End of Comment					

## IHASDSTR Cross Reference

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	X'1'	0	INIT_VERSION	"1" Initial Version number
Comment					
Return codes for IHABLDP					
End of Comment					
0	(0)	X'0'	0	SUCCESS	"0" Successful completion
0	(0)	X'8'	0	FAIL	"8" IHABLDP failed
Comment					
Reason codes for IHABLDP					
End of Comment					
0	(0)	X'0'	0	NO_REASON	"0" No reason code
0	(0)	X'4'	0	INSUFFICIENT_SPACE	"4" Insufficient space in the dump parameter list to add the requested entry
0	(0)	X'8'	0	INVALID_RANGE	"8" Range entry was not added to the dump parameter list because the starting range value was greater than the ending range value.

## IHASDSTR Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
FAIL	0	8	SDSTR_OBJECT_STGCLASS	0	20
INIT_VERSION	0	1	SDSTR_RANGE	0	40
INSUFFICIENT_SPACE	0	4	SDSTR_RANGE_CNTR	0	0
INVALID_RANGE	0	8	SDSTR_RANGE_FLAG1	0	2C
NO_REASON	0	0	SDSTR_RANGE_FLAG2	0	0
SDSTR_ACCTIME_NOLIMIT	0	80	SDSTR_RANGE_FLAG3	0	1
SDSTR_ADJUNCT_CAPTURE	0	80	SDSTR_RANGE_LENGTH	0	2
SDSTR_ADJUNCT_DIRECTIO	0	20	SDSTR_RANGE_PTR	0	C
SDSTR_CONNAME	0	10	SDSTR_START_VALUE	0	4
SDSTR_CONNAME_ENTRY	0	10	SDSTR_STRUCTURE	0	0
SDSTR_CONTOKEN	0	10	SDSTR_STRUCTURE_FLAGS	0	2E
SDSTR_CUR_STR_PTR	0	4	SDSTR_STRUCTURE_LENGTH	0	30
SDSTR_DUMP_ALL	0	10	SDSTR_STRUCTURE_NAME	0	0
SDSTR_EDATA_SERIALIZE	0	80	SDSTR_SUMMARY	0	40
SDSTR_EDATA_UNSERIALIZE	0	40	SDSTR_USERCNTLS	0	4
SDSTR_END_VALUE	0	8	SDSTR_VERSION	0	4
SDSTR_EVENTQS	0	2	SDSTR_WORK_AREA	0	0
SDSTR_HEADER_LENGTH	0	8	SDSTR_WORK_LENGTH	0	10
SDSTR_HEADER_MAP	0	0	SDSTR_WORK_VAR_PTR	0	0
SDSTR_LENGTH	0	0	SUCCESS	0	0
SDSTR_LENGTH_MAP	0	0			
SDSTR_LOCKENTRIES	0	8			
SDSTR_NEXT_SPACE	0	0			
SDSTR_OBJECT_COCLASS	0	80			
SDSTR_OBJECT_EMCONTROLS	0	1			
SDSTR_OBJECT_LISTNUM					



## IHASLMSG Information

### IHASLMSG Heading Information

**Common Name:** WTO slip interface mapping  
**Macro ID:** IHASLMSG  
**DSECT Name:** VTMSG  
**Owning Component:** SLIP (SCSLP)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Virtual Storage: Yes  
 Subpool: N/A (See Residency)  
 Key: 0  
 Residency: Private or common area storage  
 See compiled listing  
**Size:**  
**Created by:** IEAVBWTO or IEAVMWTO  
**Pointed to by:** On entry to the SLIP action processor:  
 GPR 2 will point to SIMsg and GPR 3 will point to  
 SLMsgText for a single or major line. GPR 4 will  
 point to SLMsg and GPR 5 will point to SLMsgText for  
 a minor line.  
**Serialization:** None  
**Function:** Represents a parameter to SLIP

### IHASLMSG Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	SLMSG	
0	(0)	CHARACTER	8	SLMSGRELATEDFIELDS	
0	(0)	UNSIGNED	2	SLMSGTEXTLENGTH	
					Length of the text
2	(2)	BITSTRING	2	SLMSGFLAGS	Related flags
4	(4)	SIGNED	4	*	Unused
8	(8)	CHARACTER	*	SLMSGTEXT	Message text



## IHASSRX Information

### IHASSRX Heading Information

**Common Name:** Suspended SRB Extension  
**Macro ID:** IHASSRX  
**DSECT Name:** SSRX  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** SSRX  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Key: 0  
 Residency: Above 2G, fixed common  
**Size:** SSRX -- X'0700' bytes  
**Created by:** IEAVESPM  
**Pointed to by:** SsrSsrAddr  
**Serialization:** Owner-serialized.  
**Function:** In conjunction with an XSB and an SSRB, the SSRX is used to save status for any type SRB.  
 The data formerly in the SSRB is divided into two pieces:  
 - The SSRB resides below 2G.  
 - The SSRX resides above 2G.

### IHASSRX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	1792	SSRX	
0	(0)	CHARACTER	4	SSRXSSRX	Acronym in EBCDIC.
4	(4)	ADDRESS	4	SSRXSSRBADDR	Address of the associated SSRB.
8	(8)	CHARACTER	32	SSRXFPRS	FLOATING POINT REG SAVE AREA
8	(8)	CHARACTER	8	SSRXFPR0	FLOATING POINT REG 0
16	(10)	CHARACTER	8	SSRXFPR2	FLOATING POINT REG 2
24	(18)	CHARACTER	8	SSRXFPR4	FLOATING POINT REG 4
32	(20)	CHARACTER	8	SSRXFPR6	FLOATING POINT REG 6
40	(28)	ADDRESS	4	SSRXTRAN	PAGE FAULT ADDR(FLIH)
44	(2C)	BITSTRING	2	SSRXSAFN	SAVED AFFINITY
46	(2E)	CHARACTER	2	SSRXR02E	RESERVED.
48	(30)	ADDRESS	4	SSRXORMT	OLD SRB RMTR VALUE
		1... ..		SSRXSSTD	SRB SUSPEND WITH TOKEN and Pause DISABLE summary BIT
		.1.. ..		SSRXSSTA	SRB SUSPEND WITH TOKEN and Pause DISABLED BECAUSE SRB WAS ABENDED DURING PURGEDQ PROCESSING.
		..1. ....		SSRXSSTE	SRB SUSPEND WITH TOKEN and Pause DISABLED BECAUSE THIS SRB IS A SUSPEND EXIT.
52	(34)	ADDRESS	4	SSRXLSA1	SAVEAREA FOR LCCACLSLSD.
56	(38)	ADDRESS	4	SSRXLSDP	VIRTUAL ADDRESS OF THE CURRENT LSED. IF SSRXLSDP IS 0 1. THE SRB DID NOT USE THE LINKAGE STACK, . . . . 2. SSRXLSA1 IS UNPREDICTABLE, AND . . . . 3. THE SSRX WILL BE DISPATCHED WITH AN EMPTY LINKAGE STACK.
60	(3C)	ADDRESS	4	SSRXALOV	DISPATCHABLE UNIT ACCESS LIST VIRTUAL ADDRESS.
64	(40)	CHARACTER	64	SSRXARS	ACCESS REGISTER SAVEAREA.
128	(80)	CHARACTER	64	SSRXDUCT	DUCT SAVEAREA.
192	(C0)	CHARACTER	72	SSRXAREATOCLEAR	Area which must be cleared before the SSRX is reused.
192	(C0)	ADDRESS	4	SSRXLAA	Address of LE area
196	(C4)	CHARACTER	1	SSRXR0C4	Reserved.
197	(C5)	BITSTRING	1	SSRXESSFL	Extended saving flags
197	(C5)	BITSTRING	1	SSRXFPFL	FP Flags
		1... ..		SSRXBFP	Extended FP saving
		.1.. ..		*	unused
		..1. ....		SSRXZ1	IHAZONEO
198	(C6)	CHARACTER	2	SSRXOPASID	Original Purge ASID. Similar to SSRXORMT.
200	(C8)	ADDRESS	4	SSRXOPTCB	Original Purge TCB. Similar to SSRXORMT.
204	(CC)	ADDRESS	4	SSRXSUPFRR	Address of the Supervisor FRR Wrapper routine that is set for SYNCH(YES) SSRBs.
208	(D0)	CHARACTER	4	SSRXR0D0	Reserved.
212	(D4)	CHARACTER	28	SSRXSUSPINFO	This area is used to save information about the suspended workunit.
212	(D4)	UNSIGNED	1	SSRXSUSPWUTYPE	Type (same as WEBTYPE) of workunit suspended waiting for this SRB to complete.
213	(D5)	CHARACTER	3	SSRXR0D5	Reserved.
216	(D8)	CHARACTER	16	SSRXSUSPTOKEN	

# IHASSRX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
216	(D8)	CHARACTER	8	SSRXSUSPSTOKEN	TOKEN of the TCB to resume when this SRB completes. ONLY valid when SSRXSuspWuType represents a "TCB".
224	(E0)	CHARACTER	8	SSRXSUSPSTOKEN	STOKEN portion of TTOKEN of the TCB to resume when this SRB completes. Valid for all SSRXSuspWuType types.
224	(E0)	CHARACTER	4	*	SPTOKEN of the SRB to resume when this SRB completes. ONLY valid when SSRXSuspWuType represents an "SSRB".
228	(E4)	ADDRESS	4	SSRXSUSPTOKENTCB@	First part of SpTOKEN
232	(E8)	ADDRESS	4	SSRXSUSPRBADDR	TCB address
236	(EC)	CHARACTER	4	SSRXSUSPRBRESUMETOKEN	Address of the RB that was suspended when the SYNCH(YES) caller was suspended. ONLY valid when SSRXSuspWuType represents a "TCB".
240	(F0)	CHARACTER	24	SSRXSYNCHINFO	RB Token for which to resume the suspended task. ONLY valid when SSRXSuspWuType represents a "TCB".
240	(F0)	SIGNED	4	SSRXSYNCHCOMP	This area is used to save the completion information about this SRB for the workunit that is to be resumed. This area is used for the backend processing of IEAMSCHD SYNCH(YES) processing by IEAVSCHD to indicate to its caller the completion info of this SRB.
244	(F4)	ADDRESS	4	SSRXSYNCHCOMPADDR	Indicates the completion type for this SRB.
248	(F8)	SIGNED	4	SSRXSYNCHCODE	Address of the storage to update with the completion type.
252	(FC)	ADDRESS	4	SSRXSYNCHCODEADDR	Indicates the code associated with the completion type for this SRB.
256	(100)	SIGNED	4	SSRXSYNCHRSN	Address of the storage to update with the associated code.
260	(104)	ADDRESS	4	SSRXSYNCHRSNADDR	Indicates the reason associated with the completion type for this SRB.
264	(108)	CHARACTER	8	SSRXSUSPT6RBOPSW	Address of the storage to update with the associated reason.
272	(110)	BITSTRING	4	SSRXSUSPT6FLAGS	RBOPSW from T6 SVC so that we can resume in IEAVSCHD and then later get back to the T6 SVC issuer.
272	(110)	BITSTRING	2	SSRXSUSPT6FLAGSBIT0	Flags serialized by CS. We need to know when it's safe to free the SSRB. The "last guy out wins" is the rule, from among IEAVSYNR and IEAVSCHD. Each sets his bit, and in doing so checks the other guy's bit. If both bits are on when your bit gets set, it's your responsibility to clean up.
274	(112)	SIGNED	2	SSRXSUSPT6HOMEASID	Do not use this bit. It causes a compiler problem if either of the next two bits is bit 0 in this word.
276	(114)	ADDRESS	4	SSRXSUSPT6TASKWEB@	Home ASID
280	(118)	CHARACTER	16	SSRXSUSPT6XSBOPSW16	Address of suspended task's WEB
296	(128)	CHARACTER	100	SSRXAFPR	XSBOPSW16 from T6 SVC so that we can resume in IEAVSCHD and then later get back to the T6 SVC issuer.
296	(128)	CHARACTER	96	*	FPRs 1,3,5,7-15,FPCR
392	(188)	CHARACTER	4	SSRXFPCR	FPRs 1,3,5,7-15
396	(18C)	CHARACTER	4	SSRXZ2	FPCR
400	(190)	CHARACTER	64	SSRXG64H	IHAZONEO
464	(1D0)	CHARACTER	8	SSRXTRNE	High Halves of GPRs
472	(1D8)	CHARACTER	8	SSRXBEA	ESAME page fault address
480	(1E0)	CHARACTER	8	SSRX_HIS_AREA	Breaking Event Address
480	(1E0)	ADDRESS	4	SSRX_HIS_WEB@	Data used by HIS
484	(1E4)	UNSIGNED	2	SSRX_HIS_HOMEASID	Address of the WEB which corresponds to the SSRB.
486	(1E6)	UNSIGNED	2	SSRX_HIS_PARTIAL_WEB@	Home ASID where the SRB was scheduled to run
488	(1E8)	BITSTRING	8	SSRXSRBIDSEQ#	This bit is on when the HIS data is for an SRB
					Bytes 2 and 3 of SSRX_HIS_WEB@.
					This sequence number, which comes from SvtSrbIdSeq#, is compared along with SRBWEB to an SrbIdToken in order to fully identify a preemptable SRB

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
496	(1F0)	BITSTRING	4	SSRXFLAGSCC	When WebSrbTerm is on, this field contains the flags and completion code from a CALLRTM TYPE=SRBTERM
500	(1F4)	BITSTRING	4	SSRXSRBTERMREASON	When WebSrbTerm is on, this field contains the reason code from a CALLRTM TYPE=SRBTERM. Note that the reason code is only valid when the x'04' bit is on in the first byte of SSRXFlagsCC
504	(1F8)	CHARACTER	8	SSRXR1F8	Reserved.
512	(200)	CHARACTER	1280	SSRXFRRS	FRR STACK SAVEAREA.
1792	(700)	CHARACTER	0	*	End of mapping

**IHASSRX Constants**

Len	Type	Value	Name	Description
4	DECIMAL		SSRXLEN	
4	CHARACTER	SSRX	SSRXIDCHARS	

**IHASSRX Cross Reference**

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SSRX	0		SSRXSUSPINFO	D4	
SSRX_HIS_AREA			SSRXSUSPRBADDR	E8	
SSRX_HIS_HOMEASID	1E0		SSRXSUSPRBRESUMETOKEN	EC	
SSRX_HIS_IS_SRB	1E4		SSRXSUSPSPTOKEN	E0	
SSRX_HIS_PARTIAL_WEB@	1E4	80	SSRXSUSPSTOKEN	D8	
SSRX_HIS_WEB@	1E6		SSRXSUSPTOKEN	D8	
SSRXAFPR	1E0		SSRXSUSPTOKENTCB@	E4	
SSRXALOV	128		SSRXSUSPT6FLAGS	110	
SSRXAREATOCLEAR	3C		SSRXSUSPT6FLAGSBYTES0_1	110	
SSRXARS	C0		SSRXSUSPT6HOMEASID	112	
SSRXBEA	40		SSRXSUSPT6IEAVSCHDRAN	110	40
SSRXBFP	1D8	80	SSRXSUSPT6IEAVSYNRRAN	110	20
SSRXBFP	C5		SSRXSUSPT6INEFFECT	110	10
SSRXDUCT	80		SSRXSUSPT6RBOPSW	108	
SSRXESSFL	C5		SSRXSUSPT6TASKWEB@	114	
SSRXFLAGSCC	1F0		SSRXSUSPT6XSBOPSW16	118	
SSRXFPCR	188		SSRXSUSPWUTYPE	D4	
SSRXFPFL	C5		SSRXSYNCHCODE	F8	
SSRXFPRS	8		SSRXSYNCHCODEADDR	FC	
SSRXFPR0	8		SSRXSYNCHCOMP	F0	
SSRXFPR2	10		SSRXSYNCHCOMPADDR	F4	
SSRXFPR4	18		SSRXSYNCHINFO	F0	
SSRXFPR6	20		SSRXSYNCHRSN	100	
SSRXFRRS	200		SSRXSYNCHRSNADDR	104	
SSRXG64H	190		SSRXTRAN	28	
SSRXLAA	C0		SSRXTRNE	1D0	
SSRXLSA1	34		SSRXZ1	C5	20
SSRXLSDP	38		SSRXZ2	18C	
SSRXOPASID	C6				
SSRXOPTCB	C8				
SSRXORMT	30				
SSRXR0C4	C4				
SSRXR0D0	D0				
SSRXR0D5	D5				
SSRXR02E	2E				
SSRXR1F8	1F8				
SSRXSAFN	2C				
SSRXSRBIDSEQ#					
SSRXSRBTERMREASON	1E8				
SSRXSSRBADDR	1F4				
SSRXSSRX	4				
SSRXSSTA	0				
SSRXSSTD	30	40			
SSRXSSTE	30	80			
SSRXSUPFRR	30	20			
	CC				



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## IHASVTX Information

### IHASVTX Programming Interface information

Programming Interface information

#### IHASVTX

**ONLY** the following fields are part of the programming interface information:

- SvtxRealSpaceALET
- SvtxRealSpaceEAX

End of Programming Interface information

## IHAVTX Heading Information • IHAVTX Map

### IHAVTX Heading Information

**Common Name:** Extended SVT  
**Macro ID:** IHAVTX  
**DSECT Name:** SVTX  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** SVTX  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: Extended Nucleus  
 Key: 0  
 Residency: Above 16M line  
**Size:** Offset of SVTXEND minus offset of SVTX  
**Created by:** IEAVSVTX  
**Pointed to by:** PSASVTX  
**Serialization:** See individual field descriptions.  
**Function:** Contains service routine addresses and control blocks used by Supervisor Control. Resides above 16M.

### IHAVTX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SVTX	
0	(0)	BITSTRING	4	SVTXSVTX	Acronym in EBCDIC- "SVTX".
4	(4)	ADDRESS	4	SVTXWUQP	Address of IEAVWUQP SERIALIZATION: None
8	(8)	ADDRESS	4	SVTXWEEEL	Address of the last element on the WEB Extent Element Pool. SERIALIZATION: Disablement during NIP and Global Recovery Protocol thereafter.
12	(C)	ADDRESS	4	SVTXWPM	Address of Web Pool Manager. SERIALIZATION: None.
16	(10)	ADDRESS	4	SVTXWBCH	Address of Web Chap Service Routine. SERIALIZATION: None.
20	(14)	ADDRESS	4	SVTXWUQ1	Address of WUQADD Service Routine entry point IEAVWUQ1. SERIALIZATION: None.
24	(18)	ADDRESS	4	SVTXWUQ2	Address of WUQADD Service Routine entry point IEAVWUQ2. SERIALIZATION: None.
28	(1C)	ADDRESS	4	SVTXWUQ3	Address of WUQADD Service Routine entry point IEAVWUQ3. SERIALIZATION: None.
32	(20)	ADDRESS	4	SVTXWUQ4	Address of WUQADD Service Routine entry point IEAVWUQ4. SERIALIZATION: None.
36	(24)	ADDRESS	4	SVTXWUQD	Address of WUQDEL Service Routine. SERIALIZATION: None.
40	(28)	ADDRESS	4	SVTXESP	Address of SPINLOOP Service Routine. SERIALIZATION: None.
44	(2C)	ADDRESS	4	SVTXWEBS	Address of WEBSWTCH Service Routine. SERIALIZATION: None.
48	(30)	DBL WORD	8	SVTXFWP (0)	Free WEB pool header and synchronous count. SERIALIZATION: CDS OWNERSHIP: Supervisor Control
48	(30)	ADDRESS	4	SVTXFWPP	Address of first available WEB in the free pool. SERIALIZATION: CDS on SVTXFWP for free pool adds, CS on SVTXFWPP for free pool deletes. OWNERSHIP: Supervisor Control
52	(34)	ADDRESS	4	SVTXFWPC	Synchronous count field for CDS of SVTXFWP. WUQ Global Rec. SERIALIZATION: CDS on SVTXFWP for free pool adds. This field is only updated for free pool deletes, not updated for free pool adds. OWNERSHIP: Supervisor Control
56	(38)	ADDRESS	4	SVXTESQ	Address of IEAVTESQ SERIALIZATION: none OWNERSHIP: RTM
60	(3C)	SIGNED	2	SVTXXMPOSTNOLLOCKTRIGGER	The number of suspended SRBs in the target space before XMPOST to that space gets scheduled without the local lock so that it can look for ECB already posted
62	(3E)	SIGNED	2	SVTXWIAD	WLM Interrupted ID. SERIALIZATION: None OWNERSHIP: Supervisor Control
64	(40)	BITSTRING	8	SVTXEGR_TIMESTAMP	Timestamp of the last time IEAVEGR ran. SERIALIZATION: Global Recovery Protocol. OWNERSHIP: Supervisor Control
72	(48)	ADDRESS	4	SVTXCWTM	Address of IEAVCWTM SERIALIZATION: None. OWNERSHIP: Supervisor Control
76	(4C)	ADDRESS	4	SVTXTR2P	Address of IEAVTR2P SERIALIZATION: None. OWNERSHIP: RTM
80	(50)	DBL WORD	8	SVTXFCP (0)	Free CNTX pool header and synchronous count. SERIALIZATION: CDS OWNERSHIP: Context Services
80	(50)	ADDRESS	4	SVTXFCPP	Address of first available CNTX in the free pool. SERIALIZATION: CDS on SVTXFCP for free pool adds, CS on SVTXFCPP for free pool deletes. OWNERSHIP: Context Services
84	(54)	ADDRESS	4	SVTXFCPC	Synchronous count field for CDS of SVTXFCP. SERIALIZATION: CDS on SVTXFCP for free pool adds. This field is only updated for free pool deletes, not updated for free pool adds. OWNERSHIP: Context Services
88	(58)	DBL WORD	8	SVTXFCIP (0)	Free CIE pool header and synchronous count. SERIALIZATION: CDS OWNERSHIP: Context Services
88	(58)	ADDRESS	4	SVTXFCIPP	Address of first available CIE in the free pool. SERIALIZATION: CDS on SVTXFCIP for free pool adds, CS on SVTXFCIPP for free pool deletes. OWNERSHIP: Context Services



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
92	(5C)	ADDRESS	4	SVTXFCIPC	Synchronous count field for CDS of SVTXFCIPC. SERIALIZATION: CDS on SVTXFCIPC for free pool adds. This field is only updated for free pool deletes, not updated for free pool adds. OWNERSHIP: Context Services
96	(60)	ADDRESS	4	SVTXCEEQ	Address of first extent of CNTXes SERIALIZATION: CS OWNERSHIP: Context Services
100	(64)	ADDRESS	4	SVTXDPSN	Next DU-AL Pool sequence number SERIALIZATION: CS OWNERSHIP: Supervisor Control
104	(68)	SIGNED	4	SVTXCADALET	System Common Area Data space ALET. SERIALIZATION: None, initialized during NIP.
108	(6C)	ADDRESS	4	SVTXCADFSPTR	System Common Area Data space free space pointer. SERIALIZATION: CS
112	(70)	SIGNED	4	SVTXSRBSDATD	Size of IEAVSRBS dynamic area CPOOL cell. SERIALIZATION: None, constant. OWNERSHIP: Supervisor Control
116	(74)	SIGNED	4	SVTXSRBSCPID	CPOOL ID of IEAVSRBS dynamic area CPOOL. SERIALIZATION: None, initialized during NIP. OWNERSHIP: Supervisor Control
120	(78)	CHARACTER	1	(0)	Fields used to maintain the pool of mini linkage stack sections, including an LSSD. OWNERSHIP: Supervisor Control
120	(78)	DBL WORD	8	SVTXMLSPPOOL (0)	Doubleword for SvtxMLSSynch and SvtxMLSPtr. SERIALIZATION: CDS
120	(78)	SIGNED	4	SVTXMLSSYNCH	Synchronization counter used in conjunction with SvtxMLSPtr.
124	(7C)	ADDRESS	4	SVTXMLSPTR	Pointer to the next LSSD/LSS in the pool of mini linkage stack sections.
128	(80)	SIGNED	4	SVTXMLSCOUNT	Number of mini linkage stack sections available in the pool. Used for pool compression only. SERIALIZATION: CS
132	(84)	SIGNED	2	SVTXMLSMAX	Number of mini linkage stack sections in the pool which triggers pool contraction. SERIALIZATION: None, constant.
134	(86)	SIGNED	2	SVTXMLSMIN	Number of mini linkage stack sections which remain in the pool after pool contraction. SERIALIZATION: None, constant.
136	(88)	CHARACTER	1	(0)	Fields used to maintain the pool of full size linkage stack sections, including an LSSD. OWNERSHIP: Supervisor Control
136	(88)	DBL WORD	8	SVTXFLSPPOOL (0)	Doubleword for SvtxFLSSynch and SvtxFLSPtr. SERIALIZATION: CDS
136	(88)	SIGNED	4	SVTXFLSSYNCH	Synchronization counter used in conjunction with SvtxFLSPtr.
140	(8C)	ADDRESS	4	SVTXFLSPTR	Pointer to the next LSS in in the pool of full linkage stack sections.
144	(90)	SIGNED	4	SVTXFLSCOUNT	Number of full linkage stack sections available in the pool. Used for pool compression only. SERIALIZATION: CS
148	(94)	SIGNED	2	SVTXFLSMAX	Number of full linkage stack sections in the pool which triggers pool contraction. SERIALIZATION: None, constant.
150	(96)	SIGNED	2	SVTXFLSMIN	Number of full linkage stack sections which remain in the pool after pool contraction. SERIALIZATION: None, constant.
152	(98)	CHARACTER	1	(0)	Fields used to maintain the pool of SSRBs and XSBs used for SUSPEND with token. OWNERSHIP: Supervisor Control
152	(98)	BITSTRING	16	SVTXR098 (0)	reserved
152	(98)	DBL WORD	8	SVTXTOKENPOOL_MOVED	moved SVTXTOKENPOOL
160	(A0)	SIGNED	4	SVTXTOKENCOUNT_MOVED	moved SVTXTOKENCOUNT
164	(A4)	SIGNED	2	SVTXTOKENMAX_MOVED	moved SVTXTOKENMAX
166	(A6)	SIGNED	2	SVTXTOKENMIN_MOVED	moved SVTXTOKENMIN
168	(A8)	ADDRESS	4	SVTXSPMA	Address of IEAVSPMA. SERIALIZATION: None, constant. OWNERSHIP: Supervisor Control
172	(AC)	SIGNED	4	SVTXESSX	Address of IEAVESSX
176	(B0)	CHARACTER	8	SVTXCADSTOKEN	System Common Area Data space STOKEN. SERIALIZATION: None, initialized during NIP.
184	(B8)	SIGNED	4	SVTXSDEID	CPOOL ID for small Context data elements
188	(BC)	SIGNED	4	SVTXMDEID	CPOOL ID for medium Context data elements
192	(C0)	BITSTRING	16	SVTXR0C0 (0)	reserved
192	(C0)	DBL WORD	8	SVTXSSRBPOOL_MOVED	moved SVTXSSRBPOOL
200	(C8)	SIGNED	4	SVTXSSRBCOUNT_MOVED	moved SVTXSSRBCOUNT
204	(CC)	SIGNED	2	SVTXSSRBMAX_MOVED	moved SVTXSSRBMAX
206	(CE)	SIGNED	2	SVTXSSRBMIN_MOVED	moved SVTXSSRBMIN
208	(D0)	SIGNED	4	SVTXREALSPACEALET	ALET for accessing real space. The EAX must be set to the value in SvtxRealSpaceEAX in order to use this ALET.
212	(D4)	SIGNED	2	SVTXREALSPACEEAX	

# IHASVTX Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
					EAX for accessing real space. Use the ESEA instruction to set the EAX while saving the current one. You must make sure that unauthorized code does not get control with this EAX value. You must restore the saved EAX in all circumstances after you are done using the real space. This includes recovery cases.
214	(D6)	BITSTRING	2	SVTXR0D6	Reserved
216	(D8)	ADDRESS	4	SVTXCIEEQ	Address of first extent of CIEs SERIALIZATION: CS OWNERSHIP: Context Services
220	(DC)	SIGNED	4	SVTX_ISN012E_DOMID	DomID for ISN012E
224	(E0)	DBL WORD	8	SVTXLXSTAT (0)	LX Usage Statistics
224	(E0)	SIGNED	2	SVTXLXSYSDEFINED	Count of system LXs that were defined for allocation (this does not include LXs allocated for SFT usage)
226	(E2)	SIGNED	2	SVTXLXSYSINUSE	Count of system LXs currently in use
228	(E4)	SIGNED	2	SVTXLXNSYSDEFINED	Count of non-system LXs that may be defined
230	(E6)	SIGNED	2	SVTXLXNSYSINUSE	Count of non-system LXs that are in use
232	(E8)	CHARACTER	12	SVTXSPDE3 (0)	When nonzero, Global Recovery is in progress. SERIALIZATION: Global Recovery Protocol. OWNERSHIP: Supervisor Control
232	(E8)	BITSTRING	8		Was SVTXSPDE3_SEEN
240	(F0)	BITSTRING	4	SVTXSPDE3_CPU	CPU with Global Recovery in Progress SERIALIZATION: Global Recovery Protocol. OWNERSHIP: Supervisor Control
244	(F4)	ADDRESS	4	SVTXSPDE3_SEEN_ADDR	Address to bitmask of CPUs that have seen SVTXSPDE3 was set. Each bit indicates whether the corresponding CPU was seen that SVTXSPDE3 was set. This mask is ECVTMaxMPNumBytesInMask bytes long where the first (CVTMAXMP+1) bits are valid. SERIALIZATION: Global Recovery Protocol. OWNERSHIP: Supervisor Control
248	(F8)	DBL WORD	8	SVTXBLXSTAT (0)	Big LX Usage Statistics
248	(F8)	SIGNED	4	SVTXBLXSYSDEFINED	Count of system Big LXs that were defined for allocation (this does not include Big LXs allocated for SFT usage)
252	(FC)	SIGNED	4	SVTXBLXSYSINUSE	Count of system Big LXs currently in use
256	(100)	SIGNED	4	SVTXBLXNSYSDEFINED	Count of non-system Big LXs that may be defined
260	(104)	SIGNED	4	SVTXBLXNSYSINUSE	Count of non-system Big LXs that are in use
264	(108)	BITSTRING	4	SVTXNSBLX	Number system "Big LXs"
268	(10C)	ADDRESS	4	SVTXSRBPROMOTIONTABLEADDR	Address of table used to record SRB promotion being initiated
272	(110)	BITSTRING	8	SVTX_SPIN_TRACE_START_TRIGGER	Time duration. After spinning this long, cut the spin-start trace record
280	(118)	BITSTRING	8	SVTXEGR_TIMESTAMP_RECONFIG	Copy of SVTXEGR_TIMESTAMP before IEEVCPRA zeroed LCCAT00P SERIALIZATION: ENQ on SYSZVARY.CPU. OWNERSHIP: Supervisor Control
288	(120)	DBL WORD	8	SVTX_FREEWUQH_AREA (0)	Free WWUQ pool header and synchronous count. SERIALIZATION: CDS OWNERSHIP: Supervisor Control
288	(120)	ADDRESS	4	SVTX_FREEWUQH_PTR	Address of first available WUQ in the free pool. SERIALIZATION: CDS on SVTX_FreeWUQH_Area for free pool adds, CS on SVTX_FreeWUQHPtr for free pool deletes. OWNERSHIP: Supervisor Control
292	(124)	BITSTRING	4	SVTX_FREEWUQH_COUNT	Synchronous count field for CDS of SVTX_FreeWUQHPtr. WUQ Global Recovery. SERIALIZATION: CDS on SVTX_FreeWUQH_Area for free pool deletes, not updated for free pool adds. OWNERSHIP: Supervisor Control
296	(128)	ADDRESS	4	SVTX_WUQH_WEE_TRAILER	Last WEE in WUQH WEE pool. Used for verifying the queue in global recovery.
300	(12C)	SIGNED	4	SVTXEDSRRETRYCOUNT	Serialized by CS.
304	(130)	BITSTRING	32	SVTXDIAG	IBM use only
336	(150)	ADDRESS	4	SVTXLSCL	IBM use only - Caller must be AMODE 31, key 0, supervisor state, enabled for I/O and external interrupts, holding no locks. - Task mode. - Primary ASC mode. - P=S=H memory mode. - Load this address into GPR 15, - Issue BASR 14,15. - All registers are preserved as routine uses BAKR-PR. - No input registers are needed. - On exit, GPR 15 contains the return code: 0 = Routine successfully completed. 4 = Routine invoked in incorrect environment. 8 = Routine had an unexpected error. - Potential Abend Codes:

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
AC7 REASON-CODE 00450001: Routine was not executed because it was not in the proper environment.					
End of Comment					
340	(154)	ADDRESS	4	SVTXSPGW	Address of IEAVSPGW. SERIALIZATION: None, constant. OWNERSHIP: Supervisor Control
344	(158)	ADDRESS	4	SVTXSPFW	Address of IEAVSPFW. SERIALIZATION: None, constant. OWNERSHIP: Supervisor Control
348	(15C)	ADDRESS	4	SVTXEGRDIAGNOSTICAREAOFFSET	Offset of EGR diagnostic area SERIALIZATION: None, constant. OWNERSHIP: Supervisor Control
352	(160)	CHARACTER	4	SVTXMACHTYPE	The EBCDIC machine type at IPL
356	(164)	CHARACTER	4	SVTXR164	Reserved
360	(168)	SIGNED	2	SVTXEGR_TIMESTAMP_CPUID	CPU id that last invoked global recovery at time in SVTXEGR_Timestamp. SERIALIZATION: Global Recovery Protocol. OWNERSHIP: Supervisor Control
362	(16A)	SIGNED	2	SVTXEGR_TIMESTAMP_CPUID_RECONFIG	CPU id that last invoked global recovery at time in SVTXEGR_Timestamp_Reconfig. SERIALIZATION: ENQ on SYSZVARY.CPU. OWNERSHIP: Supervisor Control
364	(16C)	BITSTRING	6	SVTXDIAG2	IBM use only
370	(172)	BITSTRING	1	SVTXR172	Reserved
Comment					
-----					
End of Comment					
512	(200)	CHARACTER	1	(0)	Fields used to maintain the pool of SSRBs and XSBs used for the normal SSRB pool. OWNERSHIP: Supervisor Control
512	(200)	DBL WORD	8	SVTXSSRBPOOL (0)	Doubleword for SvtxSSRBSynch and SvtxSSRBPtr. SERIALIZATION: CDS
512	(200)	SIGNED	4	SVTXSSRBSYNCH	Synchronization counter used in conjunction with SvtxSSRBPtr.
516	(204)	ADDRESS	4	SVTXSSRBPTR	Pointer to the next SSRB/XSB in the normal SSRB pool.
520	(208)	SIGNED	4	SVTXSSRBCOUNT	Number of SSRB/XSBs in the normal SSRB pool which are available. Used for pool compression only. SERIALIZATION: CS
524	(20C)	SIGNED	2	SVTXSSRBMAX	Number of SSRB/XSBs in the normal SSRB pool which triggers pool contraction. SERIALIZATION: None, constant.
526	(20E)	SIGNED	2	SVTXSSRBMIN	Number of SSRB/XSBs which remain in the normal SSRB pool after pool contraction. SERIALIZATION: None, constant.
528	(210)	SIGNED	4	SVTXTYPE5PCTG	Type 5 Percentage
532	(214)	BITSTRING	1	SVTXR214	
Comment					
-----					
The cache line at X'300' was created to isolate a hot field so should not be used for other things unless there is reason...					
End of Comment					
768	(300)	DBL WORD	8	SVXTOKENPOOL (0)	Doubleword for SvtxTokenSynch and SvtxTokenPtr. SERIALIZATION: CDS
768	(300)	SIGNED	4	SVXTOKENSYNCH	Synchronization counter used in conjunction with SvtxTokenPtr.
772	(304)	ADDRESS	4	SVXTOKENPTR	Pointer to the next SSRB/XSB in the pool used for SUSPEND with token.
776	(308)	SIGNED	4	SVXTOKENCOUNT	Number of SSRB/XSBs in the SUSPEND with token pool which are available. Used for pool compression only. SERIALIZATION: CS
780	(30C)	SIGNED	2	SVXTOKENMAX	Number of SSRB/XSBs in the SUSPEND with token pool which triggers pool contraction. SERIALIZATION: None, constant.
782	(30E)	SIGNED	2	SVXTOKENMIN	Number of SSRB/XSBs which remain in the SUSPEND with token pool after pool contraction. SERIALIZATION: None, constant.
784	(310)	BITSTRING	1	SVTXR310	

## IHASVTX Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
-----					
Comment					
-----					
The cache line at X'400' was created to isolate a hot field so should not be used for other things unless there is reason...					
-----					
End of Comment					
1024	(400)	DBL WORD	8	SVTXWORKKAREAPOOL (0)	Doubleword for SvtxWORKKAREASynch and SvtxWORKKAREAPtr. SERIALIZATION: CDS
1024	(400)	SIGNED	4	SVTXWORKKAREASYNCH	Synchronization counter used in conjunction with SvtxWORKKAREAPtr.
1028	(404)	ADDRESS	4	SVTXWORKKAREAPTR	Pointer to the next SSRB/XSB in the pool used for WORKAREA
1032	(408)	SIGNED	4	SVTXWORKKAREACOUNT	Number of SSRB/XSBs in the WORKAREA pool which are available. Used for pool compression only. SERIALIZATION: CS
1036	(40C)	SIGNED	2	SVTXWORKKAREAMAX	Number of SSRB/XSBs in the WORKAREA pool which triggers pool contraction. SERIALIZATION: None, constant.
1038	(40E)	SIGNED	2	SVTXWORKKAREAMIN	Number of SSRB/XSBs which remain in the WORKAREA pool after pool contraction. SERIALIZATION: None, constant.
1040	(410)	BITSTRING	240	SVTXR410	
1280	(500)	DBL WORD	8	SVTXEND (0)	End of the SVTX.

## IHASVTX Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SVTX	0			118	
SVTX_FREEWUQH_AREA	120		SVTXEGRDIAGNOSTICAREAOFFSET	15C	
SVTX_FREEWUQH_COUNT	124		SVTXEND	500	
SVTX_FREEWUQH_PTR	120		SVTXESPN	28	
SVTX_ISN012E_DOMID	DC		SVTXESSX	AC	
SVTX_SPIN_TRACE_START_TRIGGER	110		SVTXFCIP	58	
SVTX_WUQH_WEE_TRAILER	128		SVTXFCIPC	5C	
SVTXBLXNSYSDEFINED	100		SVTXFCIPP	58	
SVTXBLXNSYSINUSE	104		SVTXFCP	50	
SVTXBLXSTAT	F8		SVTXFCPC	54	
SVTXBLXSYSDEFINED	F8		SVTXFCPP	50	
SVTXBLXSYSINUSE	FC		SVTXFLSCOUNT	90	
SVTXCADALET	68		SVTXFLSMAX	94	
SVTXCADFSPTR	6C		SVTXFLSMIN	96	
SVTXCADSTOKEN	B0		SVTXFLSPOOL	88	
SVTXCEEQ	60		SVTXFLSPTR	8C	
SVTXCIEEQ	D8		SVTXFLSSYNCH	88	
SVTXCWTM	48		SVTXFWP	30	
SVTXDIAG	130		SVTXFWPC	34	
SVTXDIAG2	16C		SVTXFWPP	30	
SVTXDPSN	64		SVTXLACL	150	
SVTXEDSRRETRYCOUNT	12C		SVTXLNNSYSDEFINED	E4	
SVTXEGR_TIMESTAMP	40		SVTXLNNSYSINUSE	E6	
SVTXEGR_TIMESTAMP_CPUID	168		SVTXLXSTAT	E0	
SVTXEGR_TIMESTAMP_CPUID_RECONFIG	16A		SVTXLXSYSDEFINED	E0	
SVTXEGR_TIMESTAMP_RECONFIG			SVTXLXSYSINUSE	E2	
			SVTXMACHTYPE	160	
			SVTXMDEID	BC	
			SVTXMLSCOUNT	80	
			SVTXMLSMAX	84	
			SVTXMLSMIN	86	
			SVTXMLSPOOL	78	
			SVTXMLSPTR	7C	
			SVTXMLSSYNCH	78	
			SVTXNSBLX	108	
			SVTXREALSPACEALET		

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
	D0		SVTXWORKAREAPTR	404	
SVTXREALSPACEAX			SVTXWORKAREASYNCH	400	
	D4		SVTXWPM	C	
SVTXR0C0	C0		SVTXWUQD	24	
SVTXR0D6	D6		SVTXWUQP	4	
SVTXR098	98		SVTXWUQ1	14	
SVTXR164	164		SVTXWUQ2	18	
SVTXR172	172		SVTXWUQ3	1C	
SVTXR214	214		SVTXWUQ4	20	
SVTXR310	310		SVTXXMPOSTNOLLOCKTRIGGER	3C	
SVTXR410	410				
SVTXSDEID	B8				
SVTXSPDE3	E8				
SVTXSPDE3_CPU					
	F0				
SVTXSPDE3_SEEN_ADDR					
	F4				
SVTXSPFW	158				
SVTXSPGW	154				
SVTXSPMA	A8				
SVTXSRBPROMOTIONTABLEADDR					
	10C				
SVTXSRBSCPID	74				
SVTXSRBSDATD	70				
SVTXSSRBCount					
	208				
SVTXSSRBCount_MOVED					
	C8				
SVTXSSRBMAX	20C				
SVTXSSRBMAX_MOVED					
	CC				
SVTXSSRBMIN	20E				
SVTXSSRBMIN_MOVED					
	CE				
SVTXSSRBPOOL	200				
SVTXSSRBPOOL_MOVED					
	C0				
SVTXSSRBPTR	204				
SVTXSSRBSYNCH					
	200				
SVTXSVTX	0				
SVTXTESQ	38				
SVXTOKENCOUNT					
	308				
SVXTOKENCOUNT_MOVED					
	A0				
SVXTOKENMAX	30C				
SVXTOKENMAX_MOVED					
	A4				
SVXTOKENMIN	30E				
SVXTOKENMIN_MOVED					
	A6				
SVXTOKENPOOL					
	300				
SVXTOKENPOOL_MOVED					
	98				
SVXTOKENPTR	304				
SVXTOKENSYNCH					
	300				
SVXTR2P	4C				
SVXTYPE5PCTG					
	210				
SVXWBCH	10				
SVXWEBS	2C				
SVXWEEL	8				
SVXWIAD	3E				
SVTXWORKAREACOUNT					
	408				
SVTXWORKAREAMAX					
	40C				
SVTXWORKAREAMIN					
	40E				
SVTXWORKAREAPOL					
	400				



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## IHATDB Information

### IHATDB Programming Interface information

Programming Interface information

IHATDB

End of Programming Interface information

## IHATDB Heading Information • IHATDB Map

### IHATDB Heading Information

**Common Name:** Transaction Diagnostic Block  
**Macro ID:** IHATDB  
**DSECT Name:** TDB  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: Caller-supplied  
 Key: Caller-supplied  
 Residency: Caller-supplied  
**Size:** TDB -- X'0100' bytes  
**Created by:** - The machine, and placed into low storage field PsaxPITDB for a program interruption that occurs while the CPU is in the transactional-execution mode. This is the PITDB.  
 - The user of TBEGIN/TBEGINC, and set by the machine on a transaction abort. This is the user TDB.  
**Pointed to by:** None  
**Serialization:** None required  
**Function:** Maps the Transaction Diagnostic Block. This is an architected area. For complete information, refer to the Principles of Operation.

### IHATDB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDB	
0	(0)	BITSTRING	1	TDB_FORMAT	Byte 0: Refer to the equates with names beginning TDB_Format_ for information about each possible value and its meaning
1	(1)	BITSTRING	1	TDB_FLAGS	Byte 1: Flags
Comment					
Bit definitions:					
End of Comment					
		1... ....		TDB_FLAGS_CTV	"X'80" Conflict Token Validity
		.1.. ....		TDB_FLAGS_CTI	"X'40" Constrained-Transaction Indication
2	(2)	CHARACTER	4	TDB_R002	Bytes 2-5: Reserved
6	(6)	SIGNED	2	TDB_TND	Bytes 6-7: Transaction Nesting Depth when the transaction was aborted
8	(8)	BITSTRING	8	TDB_TAC	Bytes 8-F: Transaction Abort Code. If programmatically examining this code, your program must be able to accept codes not currently defined
16	(10)	ADDRESS	8	TDB_CONFLICTTOKEN	Bytes 10-17: For transactions aborted due to fetch or store conflict (abort codes 9 and 10), this is the logical address at which the conflict was detected. Meaningful only when the CTV bit is on.
24	(18)	ADDRESS	8	TDB_ABORTEDTRANIA	Bytes 18-1F: Normally contains the address of the instruction that would have been executed next had the transaction not been aborted.
32	(20)	BITSTRING	1	TDB_EAD	Byte 20: Exception Access ID in user TDB. Reserved in PITDB
33	(21)	BITSTRING	1	TDB_DXC	Byte 21: Data Exception Code in user TDB. Reserved in PITDB
34	(22)	CHARACTER	2	TDB_R022	Bytes 22-23: Reserved
36	(24)	CHARACTER	4	TDB_PIID	Bytes 24-27: Program Interruption Identification in user TDB. Reserved in PITDB
40	(28)	CHARACTER	8	TDB_TEID	Bytes 28-2F: Translation Exception Identification in user TDB. Reserved in PITDB
48	(30)	CHARACTER	8	TDB_BEA	Bytes 30-37: Breaking Event Address in user TDB. Reserved in PITDB
56	(38)	CHARACTER	56	TDB_R038	Bytes 38-6F: Reserved
112	(70)	CHARACTER	16	TDB_MDDI	Bytes 70-7F: Model-dependent diagnostic info
128	(80)	CHARACTER	128	TDB_GRS	Bytes 80-FF: 64-bit GPRs 0-15
128	(80)	X'0'	0	TDB_FORMAT_UNPREDICTABLE	"0" The remaining fields are unpredictable
128	(80)	X'1'	0	TDB_FORMAT_1	"1" This is a format-1 TDB
128	(80)	X'100'	0	TDB_LEN	"*-TDB"



## IHATDB Cross Reference

Name	Hex Offset	Hex Value
TDB	0	
TDB_ABORTEDTRANIA		
	18	
TDB_BEA	30	
TDB_CONFLICTTOKEN		
	10	
TDB_DXC	21	
TDB_EAD	20	
TDB_FLAGS	1	
TDB_FLAGS_CTI		
	1	40
TDB_FLAGS_CTV		
	1	80
TDB_FORMAT	0	
TDB_FORMAT_UNPREDICTABLE		
	80	0
TDB_FORMAT_1	80	1
TDB_GRS	80	
TDB_LEN	80	100
TDB_MDDI	70	
TDB_PIID	24	
TDB_R002	2	
TDB_R022	22	
TDB_R038	38	
TDB_TAC	8	
TDB_TEID	28	
TDB_TND	6	



**IHATDRMT Information**

**IHATDRMT Programming Interface information**

Programming Interface information

**IHATDRMT**

End of Programming Interface information

## IHATDRMT Heading Information • IHATDRMT Map

### IHATDRMT Heading Information

**Common Name:** Transaction dump REMOTE information area  
**Macro ID:** IHATDRMT  
**DSECT Name:** TDRMT TDRMT\_MODEL TDRMT\_SYSLIST TDRMT\_GRPLIST TDRMT\_SDATA TDRMT\_SUBPLST TDRMT\_COPY  
**Owning Component:** SDUMP (SCDMP)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: Caller-supplied  
 Key: Caller-supplied  
 Residency: Caller-supplied  
**Size:** Variable  
 TDRMT -- X'0004' bytes  
 TDRMT\_MODEL -- X'0004' bytes  
 TDRMT\_SYSLIST -- X'0014' bytes  
 + X'0018' bytes for each entry  
 after the first  
 TDRMT\_GRPLIST -- X'001C' bytes  
 + X'0018' bytes for each entry  
 after the first  
 TDRMT\_SDATA -- X'0008' bytes  
 TDRMT\_SUBPLST -- X'0006' bytes  
 + X'0004' bytes for each entry  
 after the first  
 TDRMT\_COPY -- X'0004' bytes  
**Created by:** Created by Caller and passed as parameter on REMOTE keyword  
 on IEATDUMP  
**Pointed to by:** IEATDUMP parameter list  
**Serialization:** None required  
**Function:** Maps the data passed by the REMOTE keyword.

### IHATDRMT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT	
0	(0)	SIGNED	4	TDRMT_LENGTH	Total length for REMOTE info. Data begins at TDRMT_DATA with entries contiguously defined from that point.
4	(4)	CHARACTER	1	TDRMT_DATA (0)	Start of remote data

Comment

Constants to identify the DSECT. Note that the constants ending with "\_COPY" should use the TDRMT\_COPY DSECT.

End of Comment

4	(4)	X'4'	0	TDRMT_IDCON_SYSLIST	"4"
4	(4)	X'8'	0	TDRMT_IDCON_GRPLIST	"8"
4	(4)	X'C'	0	TDRMT_IDCON_SDATA	"12"
4	(4)	X'D'	0	TDRMT_IDCON_SDATA_COPY	"13"
4	(4)	X'20'	0	TDRMT_IDCON_SUBPLST	"32"
4	(4)	X'4'	0	TDRMT_LEN	"*-TDRMT"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT_MODEL	
0	(0)	CHARACTER	4	TDRMT_MODEL_HEADER	(0)
0	(0)	SIGNED	2	TDRMT_MODEL_ID	Contains the ID of the entry
2	(2)	SIGNED	2	TDRMT_MODEL_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	1	TDRMT_MODEL_ENTRY	(0)
4	(4)	X'4'	0	TDRMT_MODEL_LEN	Start of data for the entry "*-TDRMT_MODEL"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT_SYSLIST	
0	(0)	CHARACTER	4	TDRMT_SYSLIST_HEADER (0)	
0	(0)	SIGNED	2	TDRMT_SYSLIST_ID	Use TDRMT_IDCON_SYSLIST to initialize
2	(2)	SIGNED	2	TDRMT_SYSLIST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	16	TDRMT_SYSLIST_ENTRY (0)	This represents an array of sysname/jobname or sysname/ASID pairs
4	(4)	CHARACTER	8	TDRMT_SYSLIST_SYSNAME	The system name
12	(C)	CHARACTER	8	TDRMT_SYSLIST_JOBNAME_ASID (0)	Area that contains either all 0s (no jobname/ASID), JOBNAME/ID, or ZEROES&ASID
12	(C)	CHARACTER	8	TDRMT_SYSLIST_JOBNAME (0)	Fill this in, left-justified, padded with blanks, if specifying a jobname. The entire field should be 0s if neither jobname nor ASID is wanted.
12	(C)	CHARACTER	6	TDRMT_SYSLIST_ZEROES	Make sure this is zeroes if specifying an ASID.
18	(12)	SIGNED	2	TDRMT_SYSLIST_ASID	Fill this in, zeroing the previous field too, if specifying an ASID.
18	(12)	X'14'	0	TDRMT_SYSLIST_LEN	**~TDRMT_SYSLIST"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT_GRPLIST	
0	(0)	CHARACTER	4	TDRMT_GRPLIST_HEADER (0)	
0	(0)	SIGNED	2	TDRMT_GRPLIST_ID	Use TDRMT_IDCON_GRPLIST to initialize
2	(2)	SIGNED	2	TDRMT_GRPLIST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	24	TDRMT_GRPLIST_ENTRY (0)	This represents an array of group/member pairs. If all members of the group are wanted, use a member name of "".
4	(4)	CHARACTER	8	TDRMT_GRPLIST_GRPNAME	The group name
12	(C)	CHARACTER	16	TDRMT_GRPLIST_MEMNAME	The member name
12	(C)	X'1C'	0	TDRMT_GRPLIST_LEN	**~TDRMT_GRPLIST"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT_SDATA	This field should be set if the caller has indicated SDATA options for the dump.
0	(0)	CHARACTER	4	TDRMT_SDATA_HEADER (0)	
0	(0)	SIGNED	2	TDRMT_SDATA_ID	Use TDRMT_IDCON_SDATA to initialize
2	(2)	SIGNED	2	TDRMT_SDATA_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	4	TDRMT_SDATA_OPTIONS (0)	These are mapped in the same order as they appear in the IEATDUMP parameter list
4	(4)	BITSTRING	1	TDRMT_SDATA_BYTE1 (0)	
		1... ..		TDRMT_SDATA_DEFS	"X'80" Corresponds to SDATA=DEF on IEATDUMP
		.1.. ..		TDRMT_SDATA_ALLNUC	"X'40" Corresponds to SDATA=ALLNUC on IEATDUMP
		..1. ....		TDRMT_SDATA_CSA	"X'20" Corresponds to SDATA=CSA on IEATDUMP
		...1 ....		TDRMT_SDATA_GRSQ	"X'10" Corresponds to SDATA=GRSQ on IEATDUMP

## IHATDRMT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.... 1...		TDRMT_SDATA_LPA	"X'08" Corresponds to SDATA=LPA on IEATDUMP
		.... .1..		TDRMT_SDATA_LSQA	"X'04" Corresponds to SDATA=LSQA on IEATDUMP
		.... ..1.		TDRMT_SDATA_NUC	"X'02" Corresponds to SDATA=NUC on IEATDUMP
		.... ...1		TDRMT_SDATA_RGN	"X'01" Corresponds to SDATA=RGN on IEATDUMP
5	(5)	BITSTRING	1	TDRMT_SDATA_BYTE2 (0)	
		1... ....		TDRMT_SDATA_SQA	"X'80" Corresponds to SDATA=SQA on IEATDUMP
		.1.. ....		TDRMT_SDATA_SUM	"X'40" Corresponds to SDATA=SUM on IEATDUMP
		..1. ....		TDRMT_SDATA_SWA	"X'20" Corresponds to SDATA=SWA on IEATDUMP
		...1 ....		TDRMT_SDATA_TRT	"X'10" Corresponds to SDATA=TRT on IEATDUMP
		.... 1...		TDRMT_SDATA_PSA	"X'08" Corresponds to SDATA=PSA on IEATDUMP
6	(6)	CHARACTER	2	TDRMT_SDATA_RSVD	Reserved, must be 0
6	(6)	X'8'	0	TDRMT_SDATA_LEN	**~TDRMT_SDATA"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT_SUBPLST	
0	(0)	CHARACTER	4	TDRMT_SUBPLST_HEADER (0)	
0	(0)	SIGNED	2	TDRMT_SUBPLST_ID	Use TDRMT_IDCON_SUBPLST to initialize
2	(2)	SIGNED	2	TDRMT_SUBPLST_LENGTH	Total length of area including this length field and the ID field
4	(4)	CHARACTER	2	TDRMT_SUBPLST_ENTRY (0)	This represents an array of Subpools
4	(4)	SIGNED	2	TDRMT_SUBPLST_SUBPOOL	The subpool
4	(4)	X'6'	0	TDRMT_SUBPLST_LEN	**~TDRMT_SUBPLST"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDRMT_COPY	
0	(0)	CHARACTER	4	TDRMT_COPY_HEADER (0)	
0	(0)	SIGNED	2	TDRMT_COPY_ID	Use TDRMT_XXXXX_COPY to initialize
2	(2)	SIGNED	2	TDRMT_COPY_LENGTH	Total length of area including this length field and the ID field
2	(2)	X'4'	0	TDRMT_COPY_LEN	**~TDRMT_COPY"

## IHATDRMT Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
TDRMT	0		TDRMT_SDATA_LSQA	4	8
TDRMT_COPY	0		TDRMT_SDATA_NUC	4	4
TDRMT_COPY_HEADER	0		TDRMT_SDATA_OPTIONS	4	2
TDRMT_COPY_ID	0		TDRMT_SDATA_PSA	4	
TDRMT_COPY_LEN	2	4	TDRMT_SDATA_PSA	5	8
TDRMT_COPY_LENGTH	2		TDRMT_SDATA_RGN	4	1
TDRMT_DATA	4		TDRMT_SDATA_RSVD	6	
TDRMT_GRPLIST	0		TDRMT_SDATA_SQA	5	80
TDRMT_GRPLIST_ENTRY	4		TDRMT_SDATA_SUM	5	40
TDRMT_GRPLIST_GRPNAME	4		TDRMT_SDATA_SWA	5	20
TDRMT_GRPLIST_HEADER	0		TDRMT_SDATA_TRT	5	10
TDRMT_GRPLIST_ID	0		TDRMT_SUBPLST	0	
TDRMT_GRPLIST_LEN	C	1C	TDRMT_SUBPLST_ENTRY	4	
TDRMT_GRPLIST_LENGTH	2		TDRMT_SUBPLST_HEADER	0	
TDRMT_GRPLIST_MEMNAME	C		TDRMT_SUBPLST_ID	0	
TDRMT_IDCON_GRPLIST	4	8	TDRMT_SUBPLST_LEN	4	6
TDRMT_IDCON_SDATA	4	C	TDRMT_SUBPLST_LENGTH	2	
TDRMT_IDCON_SDATA_COPY	4	D	TDRMT_SUBPLST_SUBPOOL	4	
TDRMT_IDCON_SUBPLST	4	20	TDRMT_SYSLIST	0	
TDRMT_IDCON_SYSLIST	4	4	TDRMT_SYSLIST_ASID	12	
TDRMT_LEN	4	4	TDRMT_SYSLIST_ENTRY	4	
TDRMT_LENGTH	0		TDRMT_SYSLIST_HEADER	0	
TDRMT_MODEL	0		TDRMT_SYSLIST_ID	0	
TDRMT_MODEL_ENTRY	4		TDRMT_SYSLIST_JOBNAME	C	
TDRMT_MODEL_HEADER	0		TDRMT_SYSLIST_JOBNAME_ASID	C	
TDRMT_MODEL_ID	0		TDRMT_SYSLIST_LEN	12	14
TDRMT_MODEL_LEN	4	4	TDRMT_SYSLIST_LENGTH	2	
TDRMT_MODEL_LENGTH	2		TDRMT_SYSLIST_SYSNAME	4	
TDRMT_SDATA	0		TDRMT_SYSLIST_ZEROES	C	
TDRMT_SDATA_ALLNUC	4	40			
TDRMT_SDATA_BYTE1	4				
TDRMT_SDATA_BYTE2	5				
TDRMT_SDATA_CSA	4	20			
TDRMT_SDATA_DEFS	4	80			
TDRMT_SDATA_GRSQ	4	10			
TDRMT_SDATA_HEADER	0				
TDRMT_SDATA_ID	0				
TDRMT_SDATA_LEN	6	8			
TDRMT_SDATA_LENGTH	2				
TDRMT_SDATA_LPA					





## IHATDUMP Information

### IHATDUMP Heading Information

**Common Name:** Transaction Dump parameter list  
**Macro ID:** IHATDUMP  
**DSECT Name:** TDUMP  
**Owning Component:** SVC Dump (SCDMP)  
**Eye-Catcher ID:** TDMP  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Main Storage: One per dump request  
 Subpool: Any  
 Key: Any  
 Residency: Any  
**Size:** 108 bytes  
**Created by:** Transaction dump requestor  
**Pointed to by:** Reg 1 on entry to SVC 33  
**Serialization:** NONE  
**Function:** This is the mapping macro for the transaction dump parameter list as produced by the IEATDUMP macro.

### IHATDUMP Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TDUMP	?IEATDUMP parameter list
0	(0)	CHARACTER	4	TDMPID	Parameter list name
4	(4)	SIGNED	2	TDMPLEN	Parameter list length
6	(6)	BITSTRING	1	TDMPVERSION	Parameter list version
7	(7)	CHARACTER	1		Reserved
8	(8)	CHARACTER	2	TDMPSDATA (0)	SDATA options
8	(8)	BITSTRING	1	TDMPSDATA1 (0)	First byte of SDATA options
		1... ..		TDMPDEFS	"X'80" SDATA=DEFS specified
		.1. ....		TDMPALLNUC	"X'40" SDATA=ALLNUC
		..1. ....		TDMPCSA	"X'20" SDATA=CSA specified
		...1 ....		TDMPGRSQ	"X'10" SDATA=GRSQ specified
		.... 1..		TDMPPLPA	"X'08" SDATA=LPA specified
		.... .1.		TDMPLSQA	"X'04" SDATA=LSQA specified
		.... ..1.		TDMPNUC	"X'02" SDATA=NUC specified
		.... ...1		TDMPRGN	"X'01" SDATA=RGN specified
9	(9)	BITSTRING	1	TDMPSDATA2 (0)	Second byte of SDATA options
		1... ..		TDMPDQA	"X'80" SDATA=DQA specified
		.1. ....		TDMPDQSUM	"X'40" SDATA=DQSUM specified
		..1. ....		TDMPDQSWA	"X'20" SDATA=DQSWA specified
		...1 ....		TDMPDQTRT	"X'10" SDATA=DQTRT specified
		.... 1..		TDMPDQPSA	"X'08" SDATA=DQPSA specified
10	(A)	BITSTRING	1	TDMPFLAGS1 (0)	First byte of flags
		1... ..		TDMPASYNC	"X'80" ASYNC=YES specified
		.... ..1.		TDMPASYNC@TARGET	"X'02" Async dump target
		.... ...1		TDMPREMOTE	"X'01" Remote dump
11	(B)	CHARACTER	1		Reserved
12	(C)	CHARACTER	8	TDMPDQSPSTOKEN	Capture dataspace STOKEN
20	(14)	ADDRESS	4	TDMPDQSPORIGIN	Capture dataspace origin
24	(18)	ADDRESS	4	TDMPDQSPRECORDS@	Capture dataspace records address
28	(1C)	CHARACTER	8	TDMPDDNAME (0)	DDName
28	(1C)	ADDRESS	4	TDMPDCB@	DCB address
32	(20)	SIGNED	4	TDMPDCBALET	DCB alet
36	(24)	ADDRESS	4	TDMPDSN@	Data set name address
40	(28)	SIGNED	4	TDMPDSNALET	Data set name alet
44	(2C)	ADDRESS	4	TDMPHDR@	Header address
48	(30)	SIGNED	4	TDMPHDRALET	Header alet
52	(34)	ADDRESS	4	TDMPIDX@	Dump index data set address
56	(38)	SIGNED	4	TDMPIDXALET	Dump index data set alet
60	(3C)	ADDRESS	4	TDMPSYMREC@	Symptom record address
64	(40)	SIGNED	4	TDMPSYMRECALET	Symptom record alet

# IHATDUMP Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
68	(44)	ADDRESS	4	TDMPINTOKEN@	Incident token address
72	(48)	SIGNED	4	TDMPINTOKENALET	Incident token alet
76	(4C)	ADDRESS	4	TDMPREMOTE@	Remote area address
80	(50)	SIGNED	4	TDMPREMOTEALET	Remote area alet
84	(54)	ADDRESS	4	TDMPPROBDESC@	Problem description address
88	(58)	SIGNED	4	TDMPPROBDESCALET	Problem description alet
92	(5C)	ADDRESS	4	TDMPLIST@	List address
96	(60)	SIGNED	4	TDMPLISTALET	List alet
100	(64)	ADDRESS	4	TDMPSUBPLST@	Subplst address
104	(68)	SIGNED	4	TDMPSUBPLSTALET	Subplst alet
108	(6C)	ADDRESS	4	TDMPDSPLIST@	Dsplst address
112	(70)	SIGNED	4	TDMPDSPLISTALET	Dsplst alet
116	(74)	ADDRESS	4	TDMPECB@	Ecb address
120	(78)	SIGNED	4	TDMPECBALET	Ecb alet

Comment

Transaction dump return codes

End of Comment

120	(78)	X'0'	0	TDMPRC_OK	"0" A complete transaction dump was taken
120	(78)	X'4'	0	TDMPRC_PARTIAL_DUMP	"4" A partial transaction dump was taken
120	(78)	X'8'	0	TDMPRC_NO_DUMP	"8" No transaction dump was taken
120	(78)	X'C'	0	TDMPRC_INTERNAL_ERROR	"12" No transaction dump was taken due to an internal error
120	(78)	X'10'	0	TDMPRC_BADAD00RETURNCODE	"16" IEAVTDMP received an unknown return code from IEAVAD00

Comment

Transaction dump reason codes for return code = 0

End of Comment

120	(78)	X'0'	0	TDMPRSN_OK	"0" A complete transaction dump was taken
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Comment

Transaction dump reason codes for return code = 4

End of Comment

120	(78)	X'1'	0	TDMPRSN_DATASETTOOSMALL	"1" The data set was too small to contain the complete dump
120	(78)	X'2'	0	TDMPRSN_CONTENTIONDETECTED	"2" Contention was detected
120	(78)	X'3'	0	TDMPRSN_INVALIDDSNAME	"3" Couldn't build valid DSName for next dump dataset, or DSN too long
120	(78)	X'4'	0	TDMPRSN_ALLOCFAILED	"4" Couldn't allocate the next dump dataset
120	(78)	X'5'	0	TDMPRSN_OPENDCBFAILED	"5" Couldn't open the dump dataset
120	(78)	X'6'	0	TDMPRSN_TOOMANYSECTIONS	"6" Too many dump sections created
120	(78)	X'7'	0	TDMPRSN_RANGETABLEFULL	"7" A range table in SDUMP is full
120	(78)	X'8'	0	TDMPRSN_TDUMPTOOBIG	"8" Automatically allocated TDUMP, without the &DS symbol in the DSN template, exceeds the maximum size of 2 gigabytes

Comment

Transaction dump reason codes for return code = 8

End of Comment

120	(78)	X'1'	0	TDMPRSN_PARMADDRZERO	"1" The address of the transaction dump parameter list was zero
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Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
120	(78)	X'2'	0	TDMPRSN_CHNGDUMPNODUMP	"2" The dump was suppressed by CHNGDUMP
120	(78)	X'3'	0	TDMPRSN_SUPPRESSEDYSLIP	"3" The dump was suppressed by SLIP
120	(78)	X'4'	0	TDMPRSN_BADPARMALET	"4" The transaction dump parmlist ALET was not valid
120	(78)	X'5'	0	TDMPRSN_BADPARAMADDR	"5" The transaction dump parmlist was not addressable
120	(78)	X'6'	0	TDMPRSN_BADPARAMVERSION	"6" The transaction dump version was not valid
120	(78)	X'7'	0	TDMPRSN_BADPARMLENGTH	"7" The transaction dump length was not valid for the version specified
120	(78)	X'8'	0	TDMPRSN_NODEST	"8" No dump destination was specified in the transaction dump parmlist
120	(78)	X'9'	0	TDMPRSN_MORETHAN1DEST	"9" More than one dump destination was specified in the transaction dump parmlist
120	(78)	X'A'	0	TDMPRSN_BADDCBALET	"10" The ALET specified for the DCB in the transaction dump parmlist was not valid
120	(78)	X'B'	0	TDMPRSN_BADDCBADDR	"11" The DCB in the transaction dump parmlist was not addressable
120	(78)	X'C'	0	TDMPRSN_BADDSNALET	"12" The ALET specified for the DSN in the transaction dump parmlist was not valid
120	(78)	X'D'	0	TDMPRSN_BADDSNADDR	"13" The DSN in the transaction dump parmlist was not addressable
120	(78)	X'E'	0	TDMPRSN_NOHEADER	"14" No header was specified in the transaction dump parmlist
120	(78)	X'F'	0	TDMPRSN_BADHDRALET	"15" The ALET specified for the HDR in the transaction dump parmlist was not valid
120	(78)	X'10'	0	TDMPRSN_BADHDRADDR	"16" The HDR in the transaction dump parmlist was not addressable
120	(78)	X'11'	0	TDMPRSN_HDRTOOBIG	"17" The specified header was longer than 100 characters
120	(78)	X'12'	0	TDMPRSN_BADIDXALET	"18" The ALET specified for the IDX in the transaction dump parmlist was not valid
120	(78)	X'13'	0	TDMPRSN_BADIDXADDR	"19" The IDX in the transaction dump parmlist was not addressable
120	(78)	X'14'	0	TDMPRSN_IDXNOTVALID	"20" The specified dump index data set name was too long or not valid
120	(78)	X'15'	0	TDMPRSN_BADSYMRECALET	"21" The ALET specified for the SYMREC in the transaction dump parmlist was not valid
120	(78)	X'16'	0	TDMPRSN_BADSYMRECADDR	"22" The SYMREC in the transaction dump parmlist was not addressable
120	(78)	X'17'	0	TDMPRSN_SYMRECNOTVALID	"23" The SYMREC in the transaction dump parmlist was not valid
120	(78)	X'18'	0	TDMPRSN_BADINTOKENALET	"24" The ALET specified for the INTOKEN in the transaction dump parmlist was not valid
120	(78)	X'19'	0	TDMPRSN_BADINTOKENADDR	"25" The INTOKEN in the transaction dump parmlist was not addressable
120	(78)	X'1A'	0	TDMPRSN_BADREMOTEALET	"26" The ALET specified for the REMOTE in the transaction dump parmlist was not valid
120	(78)	X'1B'	0	TDMPRSN_BADREMOTEADDR	"27" The REMOTE in the transaction dump parmlist was not addressable
120	(78)	X'1C'	0	TDMPRSN_REMOTENOTVALID	"28" The remote area in the transaction dump parmlist was not valid
120	(78)	X'1D'	0	TDMPRSN_BADLISTALET	"29" The ALET specified for the storage list in the transaction dump parmlist was not valid
120	(78)	X'1E'	0	TDMPRSN_BADLISTADDR	"30" The storage list in the transaction dump parmlist was not addressable
120	(78)	X'1F'	0	TDMPRSN_BADLISTRANGE	"31" A range in the storage list was not valid
120	(78)	X'20'	0	TDMPRSN_CALLERNOTAUTH	"32" The caller requested functions for which he was not authorized
120	(78)	X'21'	0	TDMPRSN_DSNAMEINVALID	"33" The specified data set name was not valid
120	(78)	X'22'	0	TDMPRSN_DSNAMETOOLONG	

# IHATDUMP Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
120	(78)	X'23'	0	TDMPRSN_DSNAMEBADSYMBOL	"34" The specified data set name was too long
120	(78)	X'24'	0	TDMPRSN_DSPSERVFAILED	"35" The specified data set name contained bad symbols
120	(78)	X'25'	0	TDMPRSN_ALESERVFAILED	"36" Unable to create the transaction dump dataspace
120	(78)	X'26'	0	TDMPRSN_ALLOCATFAILED	"37" Unable to access the transaction dump dataspace
120	(78)	X'27'	0	TDMPRSN_SUPPRESSEDYDAE	"38" Unable to allocate the transaction dump data set
120	(78)	X'2A'	0	TDMPRSN_BADECB	"39" The dump was suppressed by DAE
120	(78)	X'34'	0	TDMPRSN_IOERROR	"42" The ECB was not accessible
120	(78)	X'35'	0	TDMPRSN_OPENFAILED	"52" An I/O error occurred writing to the data set
120	(78)	X'36'	0	TDMPRSN_INVALIDBLOCKSIZE	"53" OPEN failed for the dump data set
120	(78)	X'37'	0	TDMPRSN_BADDSP_RECORDS@	"54" Dump data set has invalid block size
120	(78)	X'38'	0	TDMPRSN_DCBNOTSUPP	"55" The DSP_RECORDS@ field was not accessible
120	(78)	X'39'	0	TDMPRSN_ASYNCYESNOTSUPP	"56" The DCB option is not supported
120	(78)	X'3A'	0	TDMPRSN_DSNOTATEND	"57" The ASYNC=YES option is not supported
120	(78)	X'3B'	0	TDMPRSN_TDUMPINPROGRESS	"58" DS SYMBOL FOUND IN MIDDLE OF DUMP DNS PATTERN
120	(78)	X'3B'	0	TDMPRSN_RC8_REASONCOUNT	"59" There is another TDUMP in progress
120	(78)	X'0'	0	TDMPRSN_LASTREASONHOLDER	"59" Used to define reason related array dimension - should follow last new code
					"0" ++Placeholder++

Comment

Transaction dump reason codes for return code = 12

End of Comment

120	(78)	X'1'	0	TDMPRSN_NOSAVEAREA	"1" IEAVTDMP was unable to obtain storage for IEAVTDMP's save and dynamic areas
120	(78)	X'2'	0	TDMPRSN_NORECOVERY	"2" IEAVTDMP was unable to establish a recovery environment
120	(78)	X'3'	0	TDMPRSN_NOSDDATSTOR	"3" IEAVTDMP was unable to obtain storage for the SDDAT, SDDXATBL, and DSPD
120	(78)	X'4'	0	TDMPRSN_NOVSMTABLE	"4" IEAVTDMP was unable to obtain storage for the VSM table
120	(78)	X'5'	0	TDMPRSN_NODSTABLE	"5" IEAVTDMP was unable to obtain storage for the SDUMP data space range table
120	(78)	X'6'	0	TDMPRSN_NOSMWKSTOR	"6" IEAVTDMP was unable to obtain storage for the SMWK
120	(78)	X'7'	0	TDMPRSN_NOESDSTOR	"7" IEAVTDMP was unable to obtain storage for the ESD
120	(78)	X'8'	0	TDMPRSN_NOUSERSTOR	"8" IEAVTDMP was unable to obtain user storage for the CKSTOKEN routine
120	(78)	X'9'	0	TDMPRSN_NOOBUFSTOR	"9" IEAVTDMP was unable to obtain storage for the output buffer
120	(78)	X'A'	0	TDMPRSN_NODECBSTOR	"10" IEAVTDMP was unable to obtain storage for the DECB
120	(78)	X'B'	0	TDMPRSN_NOA253STOR	"11" IEAVTDMP was unable to obtain storage Area253
120	(78)	X'FF'	0	TDMPRSN_RECOVERYRECEIVEDCONTROL	"255" IEAVTDMP's recovery received control unexpectedly
120	(78)	X'7C'	0	TDUMP_LEN	**_TDUMP"

## IHATDUMP Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
TDMPALLNUC	8	40		78	C
TDMPASYN	A	80	TDMPRSN_BADDSP_RECORDS@	78	37
TDMPASYNCTARGET			TDMPRSN_BADECB	78	2A
	A	2	TDMPRSN_BADHDRADDR	78	10
TDMPCSA	8	20	TDMPRSN_BADHDRALET	78	F
TDMPDCB@	1C		TDMPRSN_BADIDXADDR	78	13
TDMPDCBALET	20		TDMPRSN_BADIDXALET	78	12
TDMPDDNAME	1C		TDMPRSN_BADINTOKENADDR	78	19
TDMPDEFS	8	80	TDMPRSN_BADINTOKENALET	78	18
TDMPDSN@	24		TDMPRSN_BADLISTADDR	78	1E
TDMPDSNALET	28		TDMPRSN_BADLISTALET	78	1D
TDMPDSPLIST@	6C		TDMPRSN_BADLISTRANGE	78	1F
TDMPDSPLISTALET			TDMPRSN_BADPARAMADDR	78	5
	70		TDMPRSN_BADPARMALET	78	4
TDMPDSPORIGIN			TDMPRSN_BADPARMLENGTH	78	7
	14		TDMPRSN_BADPARAMVERSION	78	6
TDMPDSPRECORDS@			TDMPRSN_BADREMOTEADDR	78	1B
	18		TDMPRSN_BADREMOEALET	78	1A
TDMPDSPSTOKEN			TDMPRSN_BADSYMRECADDR	78	16
	C		TDMPRSN_BADSYMRECALET	78	15
TDMP ECB@	74		TDMPRSN_CALLERNOTAUTH	78	20
TDMP ECB ALET	78		TDMPRSN_CHNGDUMPNODUMP	78	2
TDMPFLAGS1	A		TDMPRSN_CONTENTIONDETECTED	78	2
TDMPGRSQ	8	10	TDMPRSN_DATASETTOOSMALL	78	1
TDMPHDR@	2C		TDMPRSN_DCBNOTSUPP	78	38
TDMPHDRALET	30		TDMPRSN_DSNAMEBADSYMBOL	78	23
TDMPID	0		TDMPRSN_DSNAMEINVALID	78	21
TDMPIDX@	34		TDMPRSN_DSNAMETOOLONG	78	22
TDMPIDXALET	38		TDMPRSN_DSNOTATEND	78	3A
TDMPINTOKEN@	44		TDMPRSN_DSPSERVFAILED	78	24
TDMPINTOKENALET			TDMPRSN_HDRTOOBIG	78	11
	48		TDMPRSN_IDXNOTVALID	78	14
TDMPLEN	4		TDMPRSN_INVALIDBLOCKSIZE	78	36
TDMP LIST@	5C		TDMPRSN_INVALIDDSNAME	78	3
TDMP LIST ALET	60		TDMPRSN_IOERROR	78	34
TDMP LPA	8	8	TDMPRSN_LASTREASONHOLDER	78	0
TDMP LQA	8	4	TDMPRSN_MORETHAN1DEST		
TDMP NUC	8	2			
TDMP PROBDESC@					
	54				
TDMP PROBDESC ALET					
	58				
TDMP PSA	9	8			
TDMP RC_BADAD00RETURN CODE					
	78	10			
TDMP RC_INTERNAL_ERROR					
	78	C			
TDMP RC_NO_DUMP					
	78	8			
TDMP RC_OK					
	78	0			
TDMP RC_PARTIAL_DUMP					
	78	4			
TDMP REMOTE	A	1			
TDMP REMOTE@	4C				
TDMP REMOTE ALET					
	50				
TDMP RGN	8	1			
TDMP RSN_ALESERVFAILED					
	78	25			
TDMP RSN_ALLOCATFAILED					
	78	26			
TDMP RSN_ALLOCFAILED					
	78	4			
TDMP RSN_ASYNCYESNOTSUPP					
	78	39			
TDMP RSN_BADDCBADDR					
	78	B			
TDMP RSN_BADDCBALET					
	78	A			
TDMP RSN_BADDSNADDR					
	78	D			
TDMP RSN_BADDSNALET					

## IHATDUMP Cross Reference

Name	Hex Offset	Hex Value
	78	9
TDMPRSN_NOA253STOR		
	78	B
TDMPRSN_NODECBSTOR		
	78	A
TDMPRSN_NODEST		
	78	8
TDMPRSN_NODSTABLE		
	78	5
TDMPRSN_NOESDSTOR		
	78	7
TDMPRSN_NOHEADER		
	78	E
TDMPRSN_NOBUFSTOR		
	78	9
TDMPRSN_NORECOVERY		
	78	2
TDMPRSN_NOSAVEAREA		
	78	1
TDMPRSN_NOSDDATSTOR		
	78	3
TDMPRSN_NOSMWKSTOR		
	78	6
TDMPRSN_NOUSERSTOR		
	78	8
TDMPRSN_NOVSMTABLE		
	78	4
TDMPRSN_OK	78	0
TDMPRSN_OPENDCBFAILED		
	78	5
TDMPRSN_OPENFAILED		
	78	35
TDMPRSN_PARMADDRZERO		
	78	1
TDMPRSN_RANGETABLEFULL		
	78	7
TDMPRSN_RC8_REASONCOUNT		
	78	3B
TDMPRSN_RECOVERYRECEIVEDCONTROL		
	78	FF
TDMPRSN_REMOTENOTVALID		
	78	1C
TDMPRSN_SUPPRESSEDYDAE		
	78	27
TDMPRSN_SUPPRESSEDYSLIP		
	78	3
TDMPRSN_SYMRECNOTVALID		
	78	17
TDMPRSN_TDUMPINPROGRESS		
	78	3B
TDMPRSN_TDUMPTOOBIG		
	78	8
TDMPRSN_TOOMANYSECTIONS		
	78	6
TDMPSDATA	8	
TDMPSDATA1	8	
TDMPSDATA2	9	
TDMPSSQA	9	80
TDMPSUBPLST@	64	
TDMPSUBPLSTALET		
	68	
TDMPSUM	9	40
TDMPSWA	9	20
TDMPSYMREC@	3C	
TDMPSYMRECALET		
	40	
TDMPTRT	9	10
TDMPVERSION	6	
TDUMP	0	
TDUMP_LEN	78	7C

# IHAWEB Information

## IHAWEB Heading Information

**Common Name:** Work Element Block  
**Macro ID:** IHAWEB  
**DSECT Name:** WEB  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** WEB  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: 245  
 Key: 0  
 Residency: Above 16M line  
**Size:** WEB -- X'0080' bytes  
**Created by:** IEAVWPM  
**Pointed to by:** ASCBCMLW field of the ASCB data area  
 ASCBLLWQ field of the ASCB data area  
 ASCBLSWQ field of the ASCB data area  
 ASCBSAWQ field of the ASCB data area  
 ASSBCAPQ field of the ASSB data area  
 ASSBRCTW field of the ASSB data area  
 ASSBTAWQ field of the ASSB data area  
 ASSBWCML field of the ASSB data area  
 ASSBWSSS field of the ASSB data area  
 ASSBWS3S field of the ASSB data area  
 LCCACWEB field of the LCCA data area  
 LCCAFWPP field of the LCCA data area  
 LCCANWEB field of the LCCA data area  
 LCCAPRMW field of the LCCA data area  
 LCCAPWEB field of the LCCA data area  
 LCCAWUQM field of the LCCA data area  
 PWVTPWUQ field of the PWVT data area  
 RRRRAWEB field of the RRRR data area  
 STCBWEB field of the STCB data area  
 SRBWEB field of the SRB data area  
 SVTSWUQ field of the SVT data area  
 SVTXFWPP field of the SVTX data area  
 WEBSUSPQ  
 WEBPOOL  
 WEBUNEXT  
 WEBUPREV  
 WEBWUQP  
 WEBEnclaveNextWEB  
 WEBEnclavePrevWEB  
 WEBClientNextWEB  
 WEBClientPrevWEB  
**Serialization:** Dependent on the specific field  
**Function:** Each dispatchable workunit is represented by a WEB. The WEB is used to locate work to be dispatched.

## IHAWEB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WEB	
0	(0)	CHARACTER	4	WEBWEB	Acronym in EBCDIC- "WEB ".
4	(4)	CHARACTER	4	WEBTPEWORD	WEB type word. Serialization: Locking the WEB.
4	(4)	CHARACTER	2	WEBFLAG1	WEB Flag bytes.
4	(4)	BITSTRING	1	WEBMISCFLGS	Miscellaneous flag byte.

Comment

Bit definitions:

End of Comment

1... ....	WEBFLGSUM	"X'80" Summary bit. This bit must be on when any bits are on in WEBFLAG1.
.1. ....	WEBSRBACTIV	"X'40" (S)SRB has been dispatched. It may have been stopped and not yet reset.
..1. ....	WEBCMLABEND	"X'20" The Dispatcher must ABEND this workunit. It holds the CML lock of a terminating address space.
...1 ....	WEBSRBRETURNED	"X'10" This is an SRB-returned WEB which needs to be removed from the WUQ

# IHAWEB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.... 1111		WEBMISCFGLGRSVD	
5	(5)	BITSTRING	1	WEBNDFLGS	"X'0F" Reserved. Checked by IEAVEGR. Nondispatchability flags. All of the flags in this byte indicate some form of nondispatchability.
Comment					
Bit definitions:					
End of Comment					
		1... ....		WEBLCLND	"X'80" Suspended waiting for a Local lock.
		.1. ....		WEBCMLND	"X'40" Suspended waiting for a CML lock.
		..1. ....		WEBCMSND	"X'20" Suspended waiting for a CMS lock.
		...1 ....		WEBSWAP	"X'10" Workunit is nondispatchable due to swapout processing
		.... 1...		WEBPAUSED	"X'08" Workunit is paused. Used only for task WEBS.
		.... .111		WEBNDFLGRSVD	
6	(6)	BITSTRING	1	WEBFLAG2	"X'07" Reserved. Checked by IEAVEGR.
Comment					
Bit definitions:					
End of Comment					
		1... ....		WEBIFA	"X'80" Work unit for IFA
		.1. ....		WEBONASWUQ	"X'40" WEB is on IFA SWUQ
		..1. ....		WEBZIIP100	"X'20" zIP at 100%
		...1 ....		WEBSUP	"X'10" Work unit for SUP
		.... 1...		WEBISFORSRB	"X'08" This WEB is for some sort of SRB or SSRB.
		.... .1..		WEBGLOBALSRBFIRSTDISPATCH	
		.... ..1.		WEBFLAG2RSVD	"X'04" When on, this WEB represents a global SRB on its 1st dispatch where the global SRB had WEBCMAJOR_Flag WEBCGRB on.
		.... ...1		WEBFLAG2RSV2	"X'02" Checked in IEAVECBV
7	(7)	BITSTRING	1	WEBTYPE	"X'01" Reserved, do not use Workunit type. Serialized by the WEBLOCK. However, may be fetched by disabled routines running under the WEB without the WEBLOCK being held. Routines that fetch WEBTYPE without the WEBLOCK being held must be able to tolerate the WEBTYPE changing from WEBTCR or WEBTESRB to WEBTPSRB or from any preemptable-class SRB into a nonpreemptable-class SRB due to PurgeDQ processing. A client or enclave SRB is transformed into a preemptable SRB when the respective client or enclave terminates. Note: Obtaining the associated client or enclave WEB Q Lock is an effective way to ensure that WEBTCR or WEBTESRB respectively, will not change to WEBPSRB. The same holds true for WEBTETCB changing to WEBTTCB.
8	(8)	CHARACTER	8	WEBLOCKDWORD	WEB Lock Doubleword. Serialization: WUQ protocol.
8	(8)	CHARACTER	4	WEBLOCK	WEB Lockword. Serialization: Compare and Swap.
8	(8)	CHARACTER	1	WEBLOCKWORD_BYTE_1	First byte of WEB Lockword. Serialization: Compare and Swap. NOTE: All nonused bits must be zero.
Comment					
Bit definitions:					
End of Comment					
		1... ....		WEBON_FREE_Q	"X'80" Indicates whether or not this WEB is on the WEB Free Queue. When 1, this WEB is on the WEB Free Queue. Serialization: Compare and Swap.
9	(9)	CHARACTER	1	WEBR009	Reserved. Must be zero.
10	(A)	BITSTRING	2	WEBLOCK_CPUID	Logical CPU ID of the processor which has locked this WEB. When lock is not held, this halfword is zero. Serialization: Compare and Swap.
12	(C)	ADDRESS	4	WEBWUQP	WUQ pointer. Serialization: WUQ protocol.
Comment					
Bit definitions:					
End of Comment					
		1... ....		WEBOFFQ	"X'80" Indicates whether or not this WEB is off a WUQ. When 1, this WEB is off a WUQ. Serialization: Compare and Swap.



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
Note, when adding / changing dispatch priority bits, verify the non-RQM and RQM work unit priority bitmask (in WEBCPRTYB_RQMOff and WEBCPRTYB_RQMOn) and the RQM constants for dispatch priorities are still correct with the updates.					
End of Comment					
16	(10)	SIGNED	4	WEBCPRTY	Workunit priority. Serialization: locking the WEB and ensuring it is not on a WUQ. It is F(31) so that a PL/X compare will be signed and show the header priority as negative.
16	(10)	CHARACTER	4	WEBCPRTY_UNION	
16	(10)	CHARACTER	4	WEBCPRTYC	Workunit priority (char)
16	(10)	CHARACTER	2	WEBCMAJOR_BYTES	Major priority halfword.
16	(10)	BITSTRING	1	WEBCMAJFLG	Major priority flags.
Comment					
Bit definitions:					
End of Comment					
		1... ..		WEBCHDR	"X'80" WUQ Header priority (-1).
		.1. ....		WEBCGSRB	"X'40" Global SRB priority.
		..1. ....		WEBCMAJFLGRSVD	
		...1 ....		WEBCMAST	"X'20" Reserved. Checked by IEAVEGR.
		.... 11..		WEBCMAJFLGRSVD2	"X'10" Master address space priority.
		.... ..1.		WEBCLOGICALSWAPINPROMOTION	"X'0C" Reserved. Checked by IEAVEGR.
		.... ...1		WEBCMAJFLGRSVD3	"X'02" SRM thought RCT might be starved for CPU during logical swap in. Promotion lasts only until next dispatch.
17	(11)	BITSTRING	1	WEBCMAJOR	"X'01" Reserved. Checked by IEAVEGR.
18	(12)	CHARACTER	2	WEBCMINOR_BYTES	ASCB (Major) priority.
18	(12)	BITSTRING	1	WEBCMINFLG	Minor priority halfword. Minor Priority flags.
Comment					
Bit definitions:					
End of Comment					
		1... ..		WEBCLSRB	"X'80" Default local SRB Priority. Note this bit is also set for a global SRB.
		.1. ....		WEBCLLOCK	"X'40" Locally locked priority.
		..1. ....		WEBCMINFLGRSVD	
		...1 ....		WEBCCMPLP	"X'20" Reserved. Checked by IEAVEGR.
		.... 1...		WEBCEXIT	"X'10" CML lock promotion priority.
		.... .1..		WEBCRCT	"X'08" Async exit priority.
		.... ..1.		WEBCMINOR_NONRQM_WEBCMINOR	"X'04" RCT priority.
		.... ...1		WEBCMINOR_MINORTSORNOTS	"X'02" When RQM is active, all WEBS that received a minor dispatch priority outside the system through TCB CHAP or on IEAMSCHD are ineligible for RQM. These units of work have a higher priority than the 'rest' of the RQMed work and possibly relative to other minor dispatch priorities. The system cannot know the intentions of external minor dispatch priorities being assigned, so the system always runs the non-RQM work at a higher priority than the RQMed work by turning this WEBCMINOR priority flag bit on. This bit is off when RQM is inactive.
19	(13)	BITSTRING	1	WEBCMINOR	"X'01" Workunit was interrupted in during a minor task time slice in HD=YES or for a non-time slice reason in any HD state.
20	(14)	ADDRESS	4	WEBHASCB	TCB (Minor) priority. Home ASCB address. Serialization: only set during WEB initialization. Can only be referenced when running under the WEB or with the WEB locked.
20	(14)	ADDRESS	4	WEBPOOL	WEB Free Pool pointer. Serialization: locking the WEB (except during WEB initialization.)
24	(18)	ADDRESS	4	WEBUPTR	Work unit address TCB or (S)SRB address. Serialization: only set during initialization. Can only be referenced when running under the WEB or with the WEB locked.
24	(18)	SIGNED	2	WEBUHIGH	High order byte of WEBUPTR. Must be zero for WUQ header WEBS.

# IHAWEB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
26	(1A)	SIGNED	2	WEBLOGICAL_CPUID	Logical CPU id of CPU for which this WEB is the WUQ WUQ header. Only valid if WEBTYPE=WEBTWUQH. Serialization: Only set during initialization.
28	(1C)	ADDRESS	4	WEBUNEXT	Address space queue forward pointer. Header: ASCBSAWQ or ASSBTAWQ. Serialization: ASCBWQLK.
32	(20)	ADDRESS	4	WEBUPREV	Address space queue backward pointer. Header: ASCBSAWQ or ASSBTAWQ. Serialization: ASCBWQLK.

Comment

Bit definitions:

End of Comment

		1... ....		WEBOFF_AWQ	"X'80" Indicates to global recovery that this WEB does not belong on an address space related queue.
36	(24)	ADDRESS	4	WEBSUSPQ	Suspend queue pointer. The address of the next WEB on a lock suspend queue. Serialization: functional - Either executing under the workunit or local lock is held.
36	(24)	BITSTRING	1	WEBSUSPQ_BYTE_1	First byte of suspend queue pointer. Used to manipulate high order bit of suspend queue forward link.

Comment

Bit definitions:

End of Comment

		1... ....		WEBSUSPQ_HIGH_BIT	"X'80" Used to manipulate high order bit of suspend queue forward link.
37	(25)	CHARACTER	3	WEBSUSPQ	
40	(28)	ADDRESS	4	WEBSUSPQ	Address of CMS lock (valid only when WEBCMSND is set) OR address of ASCB whose CML lock is being requested (valid only when WEBCMLND is set.) Serialization: Locking the WEB.
44	(2C)	ADDRESS	4	WEBCAPQ	Capped WEB forward pointer. The address of the next WEB on the home address space cap queue. Serialization: Dispatcher active and compare and swap to enqueue. Global intersect to dequeue. Global Recovery, which is serialized by a SIGP to all processors, may also dequeue.

Comment

Bit definitions:

End of Comment

		1... ....		WEBONCAPQ	"X'80" When this bit is on, the WEB is on a cap queue. Serialization: For SRBs, global intersect. For tasks, the WEB lock.
48	(30)	SIGNED	4	WEBMISCWORD	Word containing MISCFLAGS
48	(30)	CHARACTER	1	WEBR030	Reserved
49	(31)	BITSTRING	1	WEBMISCFLAGS	Miscellaneous indicators byte. Serialization is the WEB lock.

Comment

Bit definitions:

End of Comment

		1... ....		WEBENCRDYCOUNT	"X'80" Indicates that the current work unit is included in the home address space's enclave ready count (ASCBTCBE).
		.1.. ....		WEBENCLLSUSQCOUNT	"X'40" Indicates that the current work unit is included in the home address space's enclave local lock suspend queue count (ASCBSLQE)
		..1. ....		WEBSYNCH	"X'20" Indicates that there is some other process suspended waiting for the SRB to complete, and that the SSRB that for this workunit is being used as a workarea for IEAVSCHED.
		...1 ....		WEBRESUMETASKONSUSPEND	"X'10" Only on when WEBSynch is on too. Indicates that the suspended process waiting for this SRB must be resumed if the SRB is suspended.

Comment

Note, the WEBQUEUEDAHEA values are only used when the RQM is off.

End of Comment

		.... .1..		WEBQUEUEDAHEA4	
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Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		.... ..1.		WEBQUEUEDAHEA2	"X'04" A WEB of higher priority for this address space has been added in from of this one
		.... ..1		WEBQUEUEDAHEAD	"X'02" A WEB of higher priority for this address space has been added in from of this one
50	(32)	SIGNED	2	WEBPRIORITYID	"X'01" A WEB of higher priority for this address space has been added in from of this one AscbASID or EncbPseudoID for the appropriate ASCB/ENCB

Comment

Bit definitions:

End of Comment

		1... ....		WEBPRIORITYIDISFORENCLAVE	"X'80" If on, EncbPseudoID
52	(34)	CHARACTER	12	WEBUNION	
52	(34)	CHARACTER	12	WEBACCOUNTINGBLOCKINFO	These are the names used in the IPCS model. They are "common" to the other names in the union.
52	(34)	ADDRESS	4	WEBACCTBLKADDR	Address of the accounting block
56	(38)	ADDRESS	4	WEBACCTBLKNEXTWEB	Address of the next WEB on this chain
60	(3C)	ADDRESS	4	WEBACCTBLKPREVWEB	Address of the prev WEB on this chain
52	(34)	CHARACTER	12	WEBENCLAVEINFO	
52	(34)	ADDRESS	4	WEBENCLAVEADDR	Address of this workunit's ENCB, or 0. This value can only be used as an enclave address if the WEBTYPE is WEBTESRB or WEBTETCB. Serialization: WEB lock.
56	(38)	ADDRESS	4	WEBENCLAVENEXTWEB	Enclave queue pointer. The address of the next WEB associated with this enclave, or zero. This value can only be used if the WEBTYPE is WEBTESRB. Serialization: Enclave WEBQ lock.
60	(3C)	ADDRESS	4	WEBENCLAVEPREVWEB	Enclave queue pointer. The address of the previous WEB associated with this enclave, or zero. This value can only be used if the WEBTYPE is WEBTESRB. Serialization: Enclave WEBQ lock.

Comment

Bit definitions:

End of Comment

		1... ....		WEBOFF_EWQ	"X'80" Indicates to global recovery that this WEB does not belong on an enclave related queue. Serialization: Enclave WEBQ lock.
52	(34)	CHARACTER	12	WEBCLIENTINFO	
52	(34)	ADDRESS	4	WEBCLIENTASCBADDR	Address of the ASCB from which this workunit's priority is derived and which is charged for the CPU time consumed. This can only be used if the WEBTYPE is WEBTCSR. Serialization: ASCB WEBQ lock.
56	(38)	ADDRESS	4	WEBCLIENTNEXTWEB	Client queue pointer. The address of the next Client WEB associated with the ASCB whose address is in WebClientAscbAddr or zero. This can only be used if the WEBTYPE is WEBTCSR. Serialization: ASCB WEBQ lock.
60	(3C)	ADDRESS	4	WEBCLIENTPREVWEB	Client queue pointer. The address of the prev Client WEB associated with the ASCB whose address is in WebClientAscbAddr or zero. This can only be used if the WEBTYPE is WEBTCSR. Serialization: ASCB WEBQ lock.

Comment

Bit definitions:

End of Comment

		1... ....		WEBOFF_CWQ	"X'80" Indicates to global recovery that this WEB does not belong on a client ASCB related queue.
64	(40)	ADDRESS	4	WEBNATIVECONTEXTPTR	Address of this work unit's Native Context. Serialization:
68	(44)	ADDRESS	4	WEBPRIVATECONTEXTPTR	

# IHAWEB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
72	(48)	ADDRESS	4	WEB_CP_AFFINITY_NODE	Address of this work unit's Private Context Serialization: Node to use for CP queuing
Comment					
Bit definitions:					
End of Comment					
		1... ..		WEB_ENTITLE_NOMINEE	"X'80" Entitle nominee
76	(4C)	ADDRESS	4	WEB_IFA_AFFINITY_NODE	Node to use for IFA queuing
80	(50)	ADDRESS	4	WEBCURRENT_WUQ	WUQ address, when queued
84	(54)	SIGNED	2	WEBDIAG1	ASID to use with temporary promotion
86	(56)	SIGNED	2	WEBPROMOTION_TEMPASID	Used to perform CS when updating WebCIFlags
88	(58)	SIGNED	4	WEBCSWORD1	Diagnostic
88	(58)	CHARACTER	2	WEBDIAG3	Diagnostic
90	(5A)	BITSTRING	1	WEBCLFLAGS	These flags are cleared when a WEB is allocated and are serialized by CS because some modules which set/reset them lock the WEB and others are running under the unit of work
Comment					
Bit definitions:					
End of Comment					
		1... ..		WEBSRBTERM	"X'80" This preemptable SRB was the target of a CALLRTM TYPE=SRBTERM and is to be terminated at the next opportunity
		.1.. ....		WEBSRBTERMINPROGRESS	"X'40" WebSrbTerm has been honored and termination of this preemptable SRB has been initiated. This bit is turned off by RTM when it processes an abending SRB
		..1. ....		WEBFRINCONTROL	"X'20" Turned on by RTM1 while an FRR is in control for an SRB, used to protect FRRs from SRBTERMs. The name does not have 'SRB' in it in case we ever want to also use this indicator for tasks
91	(5B)	BITSTRING	1	WEB_RQM_WEBCMAJOR_DP_SEQNUM	The subdivided RQM WEBCMAJOR dispatch priority sequence number. When RQM is active, all WEBS have this sequence number set.
92	(5C)	BITSTRING	1	WEB_NONRQM_WEBCMINOR_DP	The non-RQMed minor dispatch priority set from a TCB / WEB CHAP, an SRB scheduled with a minor dispatch priority, or some other reason besides RQM.
93	(5D)	BITSTRING	1	WEB_SHORTMINHDYESLOCKPROMOTE	In HD=YES, number of short minors remaining which lock promote can occur for. This field is only meaningful when WebPromotion_HDYesLockPromote is on
94	(5E)	CHARACTER	2	WEBTSC	WEB's timeslice counts
94	(5E)	BITSTRING	1	WEBCTSM	Current timeslice multiplier
95	(5F)	BITSTRING	1	WEBCTSC	Current timeslice count
Comment					
Bit definitions:					
End of Comment					
		1... ..		WEBFDSP	"X'80" Indicates first dispatch, this bit is on from dispatch until first minor
96	(60)	CHARACTER	2	WEBR060	Reserved
98	(62)	BITSTRING	1	WEBHELP_WEIGHT	Weight to use for this element during needs help processing
99	(63)	BITSTRING	1	WEBPROMOTION_SRBSPRIORITY	When WebPromotion_SRBsActive or WebPromotion_Lock are/is 1, the major priority to be used for this WEB. Serialization: WEB lock
100	(64)	ADDRESS	4	WEB_SUP_AFFINITY_NODE	Node to use for SUP queuing
104	(68)	BITSTRING	4	WEBPROMOTION_CONTROL	When non-0 the highest of the active promotion priorities will be used when queuing the WEB to the WUQ if it is higher then the major priority that would normally be used
104	(68)	BITSTRING	1	WEBPROMOTION_FLAGS	WEB promotion flags in addition to those in WebPromotion_Misc. Serialization: Locking the WEB.

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
Bit definitions:					
End of Comment					
		1111 1..		WEBPROMOTIONRSVD1	"XF8" Reserved, checked in IEAVECBV
		.... .1..		WEBPROMOTION_HDYESLOCKPROMOTE	"X04" 1 when a WEB was promoted in HD=YES for holding a local lock, 0 otherwise. When this bit is on, it overrides types of promotion because this bit results in the work unit getting the highest possible promotion priority (FFx).
		.... ..1.		WEBPROMOTION_LOCK	"X02" 1 when this workunit holds a local lock and an SRB which requested the lock had been given too many SRBs promotion. NOTE: This flag is not used when a promoted SRB suspends for a CMS lock. in that situation, the promoted priority is used by standard CMS Promotion processing.
		.... ...1		WEBPROMOTION_SRBSACTIVE	"X01" 1 when this WEB has been promoted to alleviate a flood of SRBs (too many SRBs).
105	(69)	CHARACTER	3	WEBPROMOTION_SLICECOUNT	Priority override minor timeslice counts.
105	(69)	BITSTRING	1	WEBPROMOTION_TEMPCOUNT	Count of timeslices for temporary promotion to be active
106	(6A)	BITSTRING	1	WEBPROMOTION_MISC	Miscellaneous
Comment					
Bit definitions:					
End of Comment					
		1111 11..		WEBPROMOTION_MISC_RSVD	"XFC" Reserved, checked for 0 by IEAVECBV
		.... ..1.		WEBPROMOTION_DEFERSWITCHFROM	"X02" 1 when deferred switch from zAAP in effect, 0 otherwise. Mutually exclusive with TrickleActive so not a problem to reset without CS
		.... ...1		WEBPROMOTION_TRICKLEACTIVE	"X01" 1 when trickle promotion is active, 0 otherwise. Mutually exclusive with DeferSwitchFrom so not a problem to reset without CS
107	(6B)	BITSTRING	1	WEBPROMOTIONRSVD2	Reserved, checked in IEAVECBV
108	(6C)	SIGNED	4	WEB_REMAINING_TRICKLE_TIME	Remaining time for trickle or deferred switch from zAAP
112	(70)	CHARACTER	8	WEB_TOD	A TOD associated with the WEB
112	(70)	CHARACTER	8	WEB_TOD_LASTTIMEWUQADDED	When not suspended, the last time this WEB was WUQ added. Serialization: WEB lock.
112	(70)	SIGNED	4	WEB_TOD_LASTTIMEWUQADDEDH	
116	(74)	SIGNED	4	WEB_TOD_LASTTIMEWUQADDEDL	
112	(70)	CHARACTER	8	WEB_TOD_SUSPENDED_FOR_LOCK	The TOD when a WEB was suspended for a local/CML/CMS lock. Serialization: WEB lock.
112	(70)	CHARACTER	7		
119	(77)	CHARACTER	1	WEB_TOD_SUSPENDED_FOR_LOCK_LOW_BYTE	
Comment					
Bit definitions:					
End of Comment					
		.... ...1		WEB_OTHER_WEB_ALREADY_SUSPENDED	"X01" Indicator whether a different WEB was already suspended for the same lock.
120	(78)	CHARACTER	8	WEBR078	Reserved
128	(80)	CHARACTER	1	WEBEND (0)	End of WEB.
Comment					
RQM Dispatch Priority Mask Constants.					
End of Comment					
128	(80)	BITSTRING	0	WEBCMINOR_MASK_RQM_DPS_HW	

## IHAWEB Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
128	(80)	BITSTRING	0	WEBCMINOR_MASK_NONRQM_DPS_HW	"X'03FF" Mask of WEBCMINOR half word dispatch priorities managed by RQM when RQM is active. The following WEBCMINOR fields are managed by RQM when it is active: WEBCMinor_NonRQM_WEBCMINOR, WebCMinor_MinorTSOrNoTS, WEBCMINOR
128	(80)	X'3FF'	0	WEBCMINOR_CONST_RQM_DPS_HW	"X'FC00" Mask of WEBCMINOR half word dispatch priorities not managed by RQM when RQM is active.
128	(80)	X'FFFC00'	0	WEBCMINOR_CONST_NONRQM_DPS_HW	"1023" Constant analog for assembler
128	(80)	X'4'	0	WEBTSRB	"1024" Constant analog for assembler
128	(80)	X'8'	0	WEBTMSRB	"4" WEB represents an SRB.
128	(80)	X'C'	0	WEBTSSRB	"8" WEB represents a managed SRB (Global or Local created by IEAMSCHD). If also FULLXM, type FSRB is used instead of MSRB.
128	(80)	X'10'	0	WEBTESRB	"12" WEB represents an SSRB.
128	(80)	X'14'	0	WEBTPSRB	"16" WEB represents an Enclave SRB. The WEB's priority is derived from the Enclave. All enclave SRBs are preemptable-class.
128	(80)	X'18'	0	WEBTFSRB	"20" WEB represents a Preemptable SRB. All Preemptable SRBs are of the preemptable-class.
128	(80)	X'1C'	0	WEBTTCB	"24" WEB represents an SRB scheduled with the FULLXM keyword. If also Preemptable, enclaved, or client, that type is used instead of FSRB.
128	(80)	X'20'	0	WEBTEXTIT	"28" WEB represents a TCB.
128	(80)	X'24'	0	WEBTCMLP	"32" WEB represents an Async Exit.
128	(80)	X'28'	0	WEBTWUQH	"36" WEB represents a CML Promotion.
128	(80)	X'2C'	0	WEBTFREE	"40" WEB represents a WUQ header.
128	(80)	X'30'	0	WEBTRSRB	"44" WEB is free.
128	(80)	X'34'	0	WEBTCSRB	"48" WEB represents a previously executing SRB which has been suspended by SUSPEND with token or by PAUSE or TRANSFER.
128	(80)	X'38'	0	WEBTETCB	"52" WEB represents a client SRB. The workunit's priority is derived from an address space different from its home address space. All Client SRBs are preemptable-class.
128	(80)	X'3C'	0	WEBTCMSP	"56" WEB represents an enclave TCB. The WEB's priority is derived from the enclave.
128	(80)	X'0'	0	WEBTERROR	"60" WEB represents a CMS Promotion.
128	(80)	X'80'	0	WEBENCRDYCOUNTBITCONST	"0" WEB is in error
128	(80)	X'40'	0	WEBENCLLSUSQCOUNTBITCONST	"128" Bit constant for bit position WEBEncRdyCount. Used by assembler macro generated in PL/X code.
128	(80)	X'80'	0	WEBLCLNDBITCONST	"64" Bit constant for bit position WEBEnLLSusQCount. Used by assembler macro generated in PL/X code.
128	(80)	X'40'	0	WEBCMLNDBITCONST	"128" Bit constant for bit position WEBLCLND. Used by assembler macro generated in PL/X code.
128	(80)	X'C5C240'	0	WEBWEBCHARS	"64" Bit constant for bit position WEBCMLND. Used by assembler macro generated in PL/X code.
128	(80)	X'E6C5C2'	0	ERRORWEBWEBCHARS	"C'WEB "' Acronym
128	(80)	X'80'	0	WEB_LEN	"C'EWEB"' Acronym "-WEB"

## IHAWEB Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
ERRORWEBWEBCHARS			WEB_SHORTMINHDYESLOCKPROMOTE	5B	
WEB	80	E6C5C2	WEB_SUP_AFFINITY_NODE	5D	
WEB_CP_AFFINITY_NODE	0		WEB_TOD	64	
WEB_ENTITLE_NOMINEE	48	80	WEB_TOD_LASTTIMEWUQADDED	70	
WEB_IFA_AFFINITY_NODE	48	80	WEB_TOD_LASTTIMEWUQADDEDH	70	
WEB_LEN	80	80	WEB_TOD_LASTTIMEWUQADDEDL	74	
WEB_NONRQM_WEBCMINOR_DP	5C		WEB_TOD_SUSPENDED_FOR_LOCK	70	
WEB_OTHER_WEB_ALREADY_SUSPENDED	77	1	WEB_TOD_SUSPENDED_FOR_LOCK_LOW_BYTE	77	
WEB_REMAINING_TRICKLE_TIME	6C		WEBACCOUNTINGBLOCKINFO		
WEB_RQM_WEBCMAJOR_DP_SEQNUM					

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
WEBACCTBLKADDR	34		WEBENCLAVENEXTWEB	34	
WEBACCTBLKNEXTWEB	34		WEBENCLAVEPREVWEB	38	
WEBACCTBLKPREVWEB	38		WEBENCLLSUSQCOUNT	3C	
WEBCAPQ	3C		WEBENCLLSUSQCOUNTBITCONST	31	40
WEBCMLP	2C		WEBENCLLSUSQCOUNTBITCONST	80	40
WEBCEXIT	12	10	WEBENCRDYCOUNT	31	80
WEBCGSRB	12	8	WEBENCRDYCOUNTBITCONST	80	80
WEBCGSRB	10	40	WEBEND	80	
WEBCHDR	10	80	WEBFDSF	5F	80
WEBCLFLAGS	5A		WEBFLAG1	4	
WEBCLIENTASCBADDR	34		WEBFLAG2	6	
WEBCLIENTINFO	34		WEBFLAG2RSVD	6	2
WEBCLIENTNEXTWEB	38		WEBFLAG2RSV2	6	1
WEBCLIENTPREVWEB	38		WEBFLGSUM	4	80
WEBCLLOCK	3C		WEBFRINCONTROL	5A	20
WEBCLLOCK	12	40	WEBGLOBALSRBFIRSTDISPATCH	6	4
WEBLOGICALSWAPINPROMOTION	10	2	WEBHASCB	14	
WEBCLSRB	12	80	WEBHELP_WEIGHT	62	
WEBMAJFLG	10		WEBIFA	6	80
WEBMAJFLGRSVD	10	20	WEBISFORSRB	6	8
WEBMAJFLGRSVD2	10	C	WEBLCLND	5	80
WEBMAJFLGRSVD3	10	1	WEBLCLNDBITCONST	80	80
WEBMAJOR	11		WEBLOCK	8	
WEBMAJOR_BYTES	10		WEBLOCK_CPUID	A	
WEBMAST	10	10	WEBLOCKDWORD	8	
WEBMINFLG	12		WEBLOCKWORD_BYTE_1	8	
WEBMINFLGRSVD	12	20	WEBLOGICAL_CPUID	1A	
WEBCMINOR	13		WEBLSQP	28	
WEBCMINOR_BYTES	12		WEBMISCFLAGS	31	
WEBCMINOR_CONST_NONRQM_DPS_HW	80	FFFC00	WEBMISCFLGS	4	
WEBCMINOR_CONST_RQM_DPS_HW	80	3FF	WEBMISCFLGRSVD	4	F
WEBCMINOR_MASK_NONRQM_DPS_HW	80	FC00	WEBMISCWORD	30	
WEBCMINOR_MASK_RQM_DPS_HW	80	3FF	WEBNATIVECONTEXTPTR	40	
WEBCMINOR_MINORTSORNOTS	12	1	WEBNDFLGS	5	
WEBCMINOR_NONRQM_WEBCMINOR	12	2	WEBNDFLGRSVD	5	7
WEBCLABEND	4	20	WEBOFF_AWQ	20	80
WEBCLND	5	40	WEBOFF_CWQ	3C	80
WEBCLNDBITCONST	80	40	WEBOFF_EWQ	3C	80
WEBCMSND	5	20	WEBOFFQ	C	80
WEBCPRTY	10		WEBON_FREE_Q	8	80
WEBCPRTY_UNION	10		WEBONASWUQ	6	40
WEBCPRTYC	10		WEBONCAPQ	2C	80
WEBCRCT	12	4	WEBPAUSED	5	8
WEBCSWORD1	58		WEBPOOL	14	
WEBCTSC	5F		WEBPRIORITYID	32	
WEBCTSM	5E		WEBPRIORITYIDISFORENCLAVE	32	80
WEBCURRENT_WUQ	50		WEBPRIVATECONTEXTPTR	44	
WEBDIAG1	54		WEBPROMOTION_CONTROL	68	
WEBDIAG3	58		WEBPROMOTION_DEFERSWITCHFROM	6A	2
WEBENCLAVEADDR	34		WEBPROMOTION_FLAGS	68	
WEBENCLAVEINFO	34		WEBPROMOTION_HDYESLOCKPROMOTE	68	4

## IHAWEB Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
WEBPROMOTION_LOCK	68	2	WEBWUQP	C	
WEBPROMOTION_MISC	6A		WEBZIIP100	6	20
WEBPROMOTION_MISC_RSVD	6A	FC			
WEBPROMOTION_SLICECOUNT	69				
WEBPROMOTION_SRBSACTIVE	68	1			
WEBPROMOTION_SRBSPRIORITY	63				
WEBPROMOTION_TEMPASID	56				
WEBPROMOTION_TEMPCount	69				
WEBPROMOTION_TRICKLEACTIVE	6A	1			
WEBPROMOTIONRSVD1	68	F8			
WEBPROMOTIONRSVD2	6B				
WEBQUEUEDAHEAD	31	1			
WEBQUEUEDAHEA2	31	2			
WEBQUEUEDAHEA4	31	4			
WEBRESUMETASKONSUSPEND	31	10			
WEBR009	9				
WEBR030	30				
WEBR060	60				
WEBR078	78				
WEBSRBACTIV	4	40			
WEBSRBRETURNED	4	10			
WEBSRBTERM	5A	80			
WEBSRBTERMINPROGRESS	5A	40			
WEBSUP	6	10			
WEBSUSPQ	24				
WEBSUSPQ_BYTE_1	24				
WEBSUSPQ_HIGH_BIT	24	80			
WEBSWAP	5	10			
WEBSYNCH	31	20			
WEBTCMLP	80	24			
WEBTCMSP	80	3C			
WEBTCSRB	80	34			
WEBTERROR	80	0			
WEBTESRB	80	10			
WEBTETCB	80	38			
WEBTEXTIT	80	20			
WEBTFREE	80	2C			
WEBTFSRB	80	18			
WEBTMSRB	80	8			
WEBTPSRB	80	14			
WEBTRSRB	80	30			
WEBTSC	5E				
WEBTSRB	80	4			
WEBTSSRB	80	C			
WEBTTCB	80	1C			
WEBTWUQH	80	28			
WEBTYPE	7				
WEBTYPEWORD	4				
WEBUHIGH	18				
WEBUNEXT	1C				
WEBUNION	34				
WEBUPREV	20				
WEBUPTR	18				
WEBWEB	0				
WEBWEBCHARS	80	C5C240			



## IHAWEE Information

### IHAWEE Heading Information

**Common Name:** WEB Extent Element  
**Macro ID:** IHAWEE  
**DSECT Name:** WEE  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** WEE  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: 245, fixed ESQA  
 Key: 0  
 Residency: Above 16M line  
**Size:** WEEWEBSIZE bytes  
**Created by:** IEAVWPM  
**Pointed to by:** SVTWEEF field of the SVT data area  
 SVTXWEEL field of the SVTX data area  
 SVT\_WUQH\_WEE\_Header field of the SVTX data area  
 SVTX\_WUQH\_WEE\_Trailer field of the SVTX data area  
 WEENEXT  
 WEEPREV  
**Serialization:** Global Recovery Protocol  
**Function:** The WEE is a new control block which is used to keep track of storage allocated for WEBS.

### IHAWEE Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	WEE	
0	(0)	CHARACTER	4	WEEWEE	Acronym in EBCDIC- "WEE ".
4	(4)	SIGNED	4	WEECOUNT	Number of WEBS in the Extent.
8	(8)	ADDRESS	4	WEENEXT	Address of the next WEE on the WEB Extent Element Queue.
12	(C)	ADDRESS	4	WEEPREV	Address of the previous WEE on the WEB Extent Element Queue.
16	(10)	SIGNED	2	WEEWEBSIZE	The size of WEBS in this WEE
18	(12)	BITSTRING	110	WEER012	Reserved.
128	(80)	DBL WORD	8	WEEEND (0)	- End of WEE. Is at least 128 bytes 128 bytes long
128	(80)	DBL WORD	8	WEEWEBS (0)	The WEBS in this Extent.
128	(80)	DBL WORD	8	WEEWUQHWEBS (0)	The WEBS in this extent, if it is for a WUQ

### IHAWEE Cross Reference

Name	Hex Offset	Hex Value
WEE	0	
WEECOUNT	4	
WEEEND	80	
WEENEXT	8	
WEEPREV	C	
WEER012	12	
WEEWEBS	80	
WEEWEBSIZE	10	
WEEWEE	0	
WEEWUQHWEBS	80	



# IHAWUQ Information

## IHAWUQ Heading Information

**Common Name:** Work Unit Queue Header  
**Macro ID:** IHAWUQ  
**DSECT Name:** WUQ  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** WEB  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: 245  
 Key: 0  
 Residency: Above 16M line  
**Size:** WUQ -- X'0200' bytes  
**Created by:** IEAVWPM  
**Pointed to by:** AWUQ\_WUQ\_Address field of the AWUQ data area  
 LCCAWUQM field of the LCCA data area  
 PWVTPWUQ field of the PWVT data area  
 SVTSWUQ field of the SVT data area  
 SVTASWUQ field of the SVT data area  
 WEBWUQP  
**Serialization:** Dependent on the specific field  
**Function:** Each work queue is represented by a WUQ WEB. The WUQ is used to locate work to be dispatched and to contain statistics unique to the work queue.

## IHAWUQ Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	512	WUQ	
0	(0)	CHARACTER	16	WUQHEADER_DATA	
0	(0)	CHARACTER	4	WUQWEB	Acronym in EBCDIC- "WEB ". */
4	(4)	CHARACTER	4	WUQTYPEWORD	WEB type word. Serialization: Locking the WUQ.
4	(4)	CHARACTER	2	WUQFLAG1	WUQ Flag bytes. Not used.
6	(6)	CHARACTER	1	WUQFLAG2	WUQ Flag bytes.
6	(6)	BITSTRING	1	WUQFLAG2RSVD	Reserved bits, checked by IEAVECBV
7	(7)	UNSIGNED	1	WUQTYPE	Work unit queue type. Never changed once a WUQ is created
8	(8)	CHARACTER	8	WUQLOCKDWORD	WUQ Lock Doubleword. Serialization: WUQ protocol.
8	(8)	CHARACTER	4	WUQLOCK	WUQ Lockword. Serialization: Compare and Swap.
8	(8)	BITSTRING	2	WUQLOCKWORD_FLAGS	First two bytes of WUQ Lockword. Serialization: Compare and Swap. NOTE: All nonused bits must be zero.
		1... ..		WUQ_INACTIVE	Indicates whether or not this WUQ is active. When 1, this WUQ is not in use and new work may not be queued to it. Serialization: Compare and Swap.
10	(A)	BITSTRING	2	WUQLOCK_CPUID	Logical CPU ID of the processor which has locked this WUQ. When lock is not held, this halfword is zero. Serialization: Compare and Swap.
12	(C)	ADDRESS	4	WUQWUQP	WUQ pointer. Serialization: WUQ protocol.
		1... ..		WUQOFFQ	WUQ is not queued
16	(10)	SIGNED	4	WUQCPRTY	Workunit priority. Serialization: locking the WUQ and ensuring it is not on a WUQ. It is F(31) so that a PL/X compare will be signed and show the header priority as negative.
		1... ..		WUQCHDR	WUQ Header priority (-1).
20	(14)	ADDRESS	4	WUQAWUQ	AWUQ entry address if WUQLOGICAL_CPUID is 0. Serialization: only set during WEB initialization.
24	(18)	CHARACTER	488	WUQDATA	Area cleared when the WUQ is allocated
24	(18)	SIGNED	2	WUQAWUQ_INDEX	Index into the AWUQ if WUQLOGICAL_CPUID is 0. Serialization: Only set during initialization.
26	(1A)	UNSIGNED	2	WUQLOGICAL_CPUID	Logical CPU id of CPU for which this WEB is the WUQ PWUQ header. Serialization: Only set during initialization.
28	(1C)	SIGNED	2	WUQHELP_LIMIT	WUQ queue depth limit. When the number of queued WEBs is greater than this value multiplied by the number of non-waiting CPUs in the WUQ node help will be requested. Serialization: SRM lock.
30	(1E)	UNSIGNED	2	WUQLAST_SIGP	Last CPU in the WUQ node that was signalled out of a wait. Serialization: None.
32	(20)	CHARACTER	4	WUQR020	Reserved, was WUQWP_SIGP_COUNT
36	(24)	CHARACTER	4	WUQR024	Reserved, WUQCPU_Count moved into WUQCPU_Mask_IsA
40	(28)	CHARACTER	8	WUQR028	Reserved

# IHAWUQ Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
48	(30)	UNSIGNED	4	WUQWTSS	Short wait time for this WUQ. Serialization: SRM lock.
52	(34)	UNSIGNED	4	WUQCPU_ACTIVE_TIME	Last time a processor entered wait or was signalled awake.
56	(38)	UNSIGNED	8	WUQFOREIGN_CPU_TIME (4294967300:562124488)	CPU time by priority bucket for work executed on processor not assigned to this WUQ. Serialization: Compare and swap.
88	(58)	UNSIGNED	2	WUQHELP_FLAGS	Need help flags Ownership: Supervisor Serialization: None
88	(58)	BITSTRING	1	WUQHELP_FLAG1	first set of flags
		1... ..		WUQHELP_NEEDED	This WUQ needs help
89	(59)	BITSTRING	1	WUQHELP_FLAG2	second set of flags
90	(5A)	UNSIGNED	1	WUQ_BOOK_CROSSING_INDEX	The index into the help node array for this affinity node, when book crossing occurred. What this means is that every helper nodes before this index belong to the same book. Every helper nodes including and after this index are in a different book from the current affinity node. The valid values for this field are 0 to 64. The value 0 indicates that there is no book crossing, i.e. all helper nodes are in the same book.
91	(5B)	UNSIGNED	1	WUQ_NEEDHELP_PRIORITY_LEVEL	The priority level at which this node is overloaded with cumulative work. Another meaning of this field is the priority level at which this node should be helped. The priority levels are listed in the AWUQ
92	(5C)	UNSIGNED	1	WUQCLASSPRIORITY	WUQ class priority SWUQ has the highest priority SSWUQ has the next highest priority. ASWUQ has the lowest priority. Refer to equates beginning WUQClassPriority_
93	(5D)	UNSIGNED	1	WUQR05D	Reserved. Was WUQ_NeedHelp_Dispatch_Priority
94	(5E)	UNSIGNED	2	WUQPROCCLASS	Indicates the class of processor of this WUQ. It corresponds to an offset into the WUQ array. Possible values are defined by equates in IHAPSA beginning with PsaProcClass_
94	(5E)	UNSIGNED	2	WUQ_BYLPAR_PROCCLASS	
94	(5E)	UNSIGNED	1	WUQPROCCLASS_BYTE0	
94	(5E)	UNSIGNED	1	WUQ_BYLPAR_PROCCLASS_BYTE0	
95	(5F)	UNSIGNED	1	WUQPROCCLASS_BYTE1	
95	(5F)	UNSIGNED	1	WUQ_BYLPAR_PROCCLASS_BYTE1	
96	(60)	ADDRESS	4	WUQSPECIFIC_HELP_LIST	Address of list of affinity nodes that this affinity node may request specific help from. Disablement is required when referencing the list. AWUQ_Help_Nodes defines the format of this list.
100	(64)	ADDRESS	4	WUQGENERIC_HELP_LIST	Address of list of affinity nodes that this affinity node may request specific help from. Disablement is required when referencing the list. AWUQ_Help_Nodes defines the format of this list.
104	(68)	CHARACTER	8	WUQR068	Reserved
112	(70)	UNSIGNED	4	WUQLAST_RECALC_TIME	Last time recalc was done for this node This field contains the TOD time when last need help recalculation was done. Because the recalculation is done many times within a second, this field only needs to be 4 bytes long. The purpose of this field is to prevent multiple CPUs wasting cycles doing recalculation at the same time. However, this does not mean the code is serialized by this field, because hipervisor CPU preemption could cause multiple CPUs to be in the recalculation logic at the same time. Ownership: Supervisor Serialization: Compare and Swap
116	(74)	UNSIGNED	1	WUQRESET_NEEDHELP_COUNTDOWN	This value determines how soon job step timing will reset the need help state. This value is how many times the WUQ does not need help, before the need help state is reset. When this value reaches 0, the need help state is reset.
117	(75)	CHARACTER	11	WUQR075	Reserved
128	(80)	CHARACTER	76	WUQ_MASK	To protect from CPUDMaxNumCPUs growing too large without noticing, should never be referenced
128	(80)	BITSTRING	64	WUQCPU_MASK	Mask of online CPUs assigned to this WUQ Serialization: Dispatcher Lock
128	(80)	STRUCTURE	76	WUQCPU_MASK_ISA IsA(CPUDMASKWITHATTRIBUTES)	Mask of online CPUs assigned to this WUQ, with extra attributes Serialization: Dispatcher Lock
128	(80)	BITSTRING	64	CPUD_MWA_BMASK	The mask defined as a bit. The mask must be defined first, as most parts only care about the mask
128	(80)	CHARACTER	64	CPUD_MWA_CMASK	The mask defined as a char

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
192	(C0)	CHARACTER	12	CPUD_MWA_ATTRIBUTES	
192	(C0)	CHARACTER	2	CPUD_MWA_FLAGS	
		1... ..		CPUD_MWA_SCATTERED	When on, CPUD_MWA_BMask has CPUs scattered across multiple 8 byte blocks of the mask. This is an indicator for when the entire mask must be checked. When off, the CPUs are contained within a single CPU block pointed to by BlockOffset
194	(C2)	UNSIGNED	2	CPUD_MWA_BLOCKOFFSETFIRST	When Scattered is off, CPUD_MWA_BlockOffsetFirst equals CPUD_MWA_BlockOffsetLast and all CPUs are within that 64-bit CPU block. If scattered is on, CPUD_MWA_BlockOffsetFirst has the first CPU block offset with a bit on in CPUD_MWA_BMask and CPUD_MWA_BlockOffsetLast contains the last CPU block offset with a bit on in CPUD_MWA_BMask. When scattered is on, all CPUs on in CPUD_MWA_BMask are between offset CPUD_MWA_BlockOffsetFirst and CPUD_MWA_BlockOffsetLast inclusive.
196	(C4)	UNSIGNED	2	CPUD_MWA_BLOCKOFFSETLAST	The last 64-bit block with a bit on in CPUD_MWA_BMask. See comments in CPUD_MWA_BlockOffsetFirst regarding the contents of this field when scattered is on and when scattered is off.
198	(C6)	UNSIGNED	2	CPUD_MWA_COUNT	The number of bits that are on in CPUD_MWA_BMask
200	(C8)	CHARACTER	4	*	Reserved
204	(CC)	CHARACTER	52	WUQR0CC	Reserved
256	(100)	UNSIGNED	1	WUQ_RQM_WEBCMAJOR_DP_SEQNUM (755914244351:562124488)	When RQM is active, this is WEBCMAJOR dispatch priority sequence number for this affinity node. There is a 1-byte sequence number for every possible WEBCMAJOR DP that could be RQMed (1 per dispatch priority). All WEBS that get added use their WEBCMAJOR dispatch priority to extract the appropriate sequence number from the WUQ_RQM_WEBCMAJOR_DP_SeqNum and plug it into WEB_RQM_WEBCMAJOR_DP_SeqNum. This sequence number is used to create a logical group of RQM affected WEBS on a per WEBCMAJOR dispatch priority that have an equal priority non-RQM dispatch priority (see WEBBCPRTY_Mask_nonRQM_DPs_FW). This logical group of WEBS is in priority order. If RQM activities result in some work near the end of the queue getting delayed for too long, the RQM sequence number for the appropriate WEBCMAJOR dispatch priority will be incremented to start a new equal priority non-RQM dispatch group for this WEBCMAJOR dispatch priority. At that point, the system will stop adding WEBS into the old priority group (the ones that had the old priority group will be deleted, dispatched, and pick up the new sequence number on their next WUQ-added) and start to add new WEBS at the appropriate point in the new priority group. If the new priority group isn't found, it gets added at the end of the equal priority non_RQM dispatch priority.
336	(150)	UNSIGNED	4	WUQ_RQM_WEBS_REWUQADDED_SDP (4294967304:562124488)	Number of RQMed WEBS that were already subdivided and reWUQadded at the same subdivided dispatch priority. Serialization: CS
368	(170)	UNSIGNED	4	WUQ_SUBDIVIDED_ENCLAVES_RQM	Number of enclaves that were subdivided for Ready QueueManagement (RQM) Serialization: CS
372	(174)	UNSIGNED	4	WUQ_NONRQM_WEBS_WDI_OUTOFORDER	Number of WEBS IEAVEWDI found that were out of order due to their non-RQM dispatch priority.
376	(178)	UNSIGNED	4	WUQ_RQM_WEBS_WDI_OUTOFORDER	Number of WEBS IEAVEWDI found that were out of order due to their RQM dispatch priority.
380	(17C)	UNSIGNED	4	WUQ_RESUBDIVIDED_ENCLAVES_RQM	Number of enclaves that were resubdivided for Ready Queue Management (RQM) that had already been subdivided. WUQ_Subdivided_Enclaves_RQM - WUQ_ReSubdivided_Enclaves_RQM is the number of new enclaves subdivided.
384	(180)	CHARACTER	128	WUQR180	Reserved
512	(200)	CHARACTER	0	WUQEND	End of WUQ.

## IHAWUQ Constants

### IHAWUQ Constants

Len	Type	Value	Name	Description
Comment				
Constant for WUQAllow_Diff_Book_Countdown field. A constant of 4 has been chosen based on IMS performance runs.				
End of Comment				
1	DECIMAL	4	WUQALLOW_DIFF_BOOK_HELP_COUNTDOWN_VALUE	
Comment				
Enclave SRB RQM constants.				
End of Comment				
4	DECIMAL	8	WUQ_NUM_DPS_FOR_RQM	How many dispatch priorities RQM should be done across. RQM will use priorities 1 through WUQ_Num_DPs_For_RQM. The algorithm depends on this constant being a 2-n value.
4	DECIMAL	7	WUQ_DPS_FOR_RQM_MASK	This mask is used to determine the RQM dispatch priority to use. This mask is ANDed with WUQ_Subdivided_Enclaves_RQM and 1 added to the result to get a RQM minor priority of 1 through WUQ_Num_DPs_For_RQM.
1	NUMB HEX	FF	WEBCMAJOR_HIGHEST_DP	The highest dispatch priority WLM can award is 'X'FF'.
1	NUMB HEX	B0	WEBCMAJOR_LOWEST_DP	The lowest dispatch priority WLM can award is 'X'B0', we're going to round down to support a WEBCMAJOR down to 'x'B0' so it is easier to work with when debugging.
Comment				
Constants for WUQClassPriority field. The lower the value, the higher the priority.				
End of Comment				
1	DECIMAL	128	WUQCLASSPRIORITY_CP	WUQ priority for CP
1	DECIMAL	124	WUQCLASSPRIORITY_SUP	WUQ priority for SUP
1	DECIMAL	120	WUQCLASSPRIORITY_ZAAP	WUQ priority for ZAAP
4	DECIMAL	1	ECPX_PARKCPU	
4	DECIMAL	2	ECPX_UNPARKCPU	
4	DECIMAL	3	ECPX_REMOVECPU	
4	DECIMAL	4	ECPX_REMOVELCCA	
4	DECIMAL	5	ECPX_PARKCPU_GOING_OFFLINE	
4	DECIMAL	6	ECPX_UNPARKCPU_STAYING_ONLINE	
4	DECIMAL	6	ECPX_MAX_FUNCTION_CODE	
4	DECIMAL	0	ECPX_REQUESTCOMPLETE	
4	DECIMAL	4	ECPX_PARKPENDING	
4	DECIMAL	8	ECPX_ALREADYPARKED	
4	DECIMAL	12	ECPX_INVALIDREQUEST	
4	DECIMAL	16	ECPX_PROCESSINGERROR	

## IHAWUQ Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
CPUD_MWA_ATTRIBUTES	C0		WUQHELP_NEEDED	58	80
CPUD_MWA_BLOCKOFFSETFIRST	C2		WUQLAST_RECALC_TIME	70	
CPUD_MWA_BLOCKOFFSETLAST	C4		WUQLAST_SIGP	1E	
CPUD_MWA_BMASK	80		WUQLOCK	8	
CPUD_MWA_CMASK	80		WUQLOCK_CPUID	A	
CPUD_MWA_COUNT	C6		WUQLOCKDWORD	8	
CPUD_MWA_FLAGS	C0		WUQLOCKWORD_FLAGS	8	
CPUD_MWA_SCATTERED	C0	80	WUQLOGICAL_CPUID	1A	
WUQ	0		WUQOFFQ	C	80
WUQ_BOOK_CROSSING_INDEX	5A		WUQPROCCLASS	5E	
WUQ_BYLPAR_PROCCLASS	5E		WUQPROCCLASS_BYTE0	5E	
WUQ_BYLPAR_PROCCLASS_BYTE0	5E		WUQPROCCLASS_BYTE1	5F	
WUQ_BYLPAR_PROCCLASS_BYTE1	5F		WUQRESET_NEEDHELP_COUNTDOWN	74	
WUQ_INACTIVE	8	80	WUQR0CC	CC	
WUQ_MASK	80		WUQR020	20	
WUQ_NEEDHELP_PRIORITY_LEVEL	5B		WUQR024	24	
WUQ_NONRQM_WEBS_WDI_OUTOFORDER	174		WUQR028	28	
WUQ_RESUBDIVIDED_ENCLAVES_RQM	17C		WUQR05D	5D	
WUQ_RQM_WEBCMAJOR_DP_SEQNUM	100		WUQR068	68	
WUQ_RQM_WEBS_REWUQADDED_SDP	150		WUQR075	75	
WUQ_RQM_WEBS_WDI_OUTOFORDER	178		WUQR180	180	
WUQ_SUBDIVIDED_ENCLAVES_RQM	170		WUQSPECIFIC_HELP_LIST	60	
WUQAWUQ	14		WUQTYPE	7	
WUQAWUQ_INDEX	18		WUQTYPEWORD	4	
WUQCHDR	10	80	WUQWEB	0	
WUQCLASSPRIORITY	5C		WUQWTSS	30	
WUQCPRTY	10		WUQWUQP	C	
WUQCPU_ACTIVE_TIME	34				
WUQCPU_MASK	80				
WUQCPU_MASK_ISA	80				
WUQDATA	18				
WUQEND	200				
WUQFLAG1	4				
WUQFLAG2	6				
WUQFLAG2RSVD	6				
WUQFOREIGN_CPU_TIME	38				
WUQGENERIC_HELP_LIST	64				
WUQHEADER_DATA	0				
WUQHELP_FLAGS	58				
WUQHELP_FLAG1	58				
WUQHELP_FLAG2	59				
WUQHELP_LIMIT	1C				





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## **IHAXCVT Information**

### **IHAXCVT Programming Interface information**

Programming Interface information

**IHAXCVT**

End of Programming Interface information

## IHAXCVT Heading Information • IHAXCVT Cross Reference

### IHAXCVT Heading Information

**Common Name:** eXtended CVT (potentially above 2G)  
**Macro ID:** IHAXCVT  
**DSECT Name:** XCVT  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** XCVT  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: nucleus  
 Key: 0  
 Residency: Above 2G, if supported  
**Size:** XCVT -- X'0038' bytes  
**Created by:** IEAVXCVT  
**Pointed to by:** PSAXCVT  
**Serialization:** Dependent on the specific field  
**Function:** The XCVT is a logical extension of the CVT.  
 It must be accessed only in AMODE 64

### IHAXCVT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	XCVT	
0	(0)	CHARACTER	4	XCVTXCVT	Acronym in EBCDIC- "XCVT"
4	(4)	CHARACTER	4	XCVTR004	Reserved
8	(8)	ADDRESS	8	XCVT_IARCP64_GET_ADDR	
16	(10)	ADDRESS	8	XCVT_IARCP64_FREE_ADDR	
24	(18)	ADDRESS	8	XCVT_IARST64_GET_ADDR	
32	(20)	ADDRESS	8	XCVT_IARST64_FREE_ADDR	
40	(28)	CHARACTER	8	XCVTR028	
48	(30)	CHARACTER	8	XCVTR030	
48	(30)	X'38'	0	XCVT_LEN	""-XCVT"

### IHAXCVT Cross Reference

Name	Hex Offset	Hex Value
XCVT	0	
XCVT_IARCP64_FREE_ADDR	10	
XCVT_IARCP64_GET_ADDR	8	
XCVT_IARST64_FREE_ADDR	20	
XCVT_IARST64_GET_ADDR	18	
XCVT_LEN	30	38
XCVTR004	4	
XCVTR028	28	
XCVTR030	30	
XCVTXCVT	0	

## IHAXSBO Information

### IHAXSBO Heading Information

**Common Name:** EXTENDED STATUS BLOCK OLD -- PRE Z/OS R6  
**Macro ID:** IHAXSBO  
**DSECT Name:** XSBO  
**Owning Component:** SUPERVISOR CONTROL (SC1C5)  
**Eye-Catcher ID:** XSB  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: 255 (ELSQA) OR 238 (COMMON)  
 Key: 0  
 Residency: ABOVE 16 MB LINE  
**Size:** 128 BYTES  
**Created by:** IEAVEXPM  
 IEAVESVC  
 IEAVEMIN  
 IEAMSWCB  
 IEAVESPM  
**Pointed to by:** IHSAXSB FOR XSBO OF IHSA  
 SSRBXSXB FOR XSBO OF SSRB  
 RBXSXB FOR XSBO OF IRB,PRB,SIRB,SVRB  
 TCBXSXB CURRENT XSBO OF TASK  
**Serialization:** XSBO OF IHSA - LOCAL LOCK  
 XSBO OF SSRB - N/A  
 XSBO OF IRB,PRB,SIRB,SVRB - TCBACTIV  
**Function:** CONTAINS ADDITIONAL INFORMATION REQUIRED FOR DISPATCH OR  
 REDISPATCH OF WORK UNIT.

### IHAXSBO Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	200	XSBO	EXTENDED STATUS BLOCK
0	(0)	CHARACTER	0	XSBOBEGIN	BEGINNING OF XSBO.
0	(0)	CHARACTER	4	XSBOXSBO	XSBO ACRONYM = 'XSB'
4	(4)	ADDRESS	4	XSBO LINK	LINK TO NEXT AVAILABLE XSBO IN POOL. SET BY EXIT, IEAVEOR, WHEN PUTTING XSBO IN POOL. CLEARED BY STAGE 3, IEAVEEE0, WHEN ASSIGNING XSBO TO AN IRB.
4	(4)	BITSTRING	4	XSBOFLGS	XSBO FLAGS.
8	(8)	CHARACTER	8	XSBOXMCR3	XM CONTROL REGS
8	(8)	UNSIGNED	4	XSBOXMCR3	CONTROL REG 3.
8	(8)	UNSIGNED	2	XSBO KM	KEY MASK.
10	(A)	UNSIGNED	2	XSBO SASID	SECONDARY ASID.
12	(C)	UNSIGNED	4	XSBOXMCR4	CONTROL REG 4.
12	(C)	UNSIGNED	2	XSBO AX	AUTHORIZATION INDEX.
14	(E)	UNSIGNED	2	XSBO PASID	PRIMARY ASID.
16	(10)	CHARACTER	8	XSBO CML	CML LOCK STATUS ELEMENT.
16	(10)	ADDRESS	4	XSBOXLIDR	DATA FOR IDENTIFICATION OF CML REQUESTOR. ASID ASSOCIATED WITH SRB MODE CML LOCK REQUESTOR (IN XSBO OF SSRB).
20	(14)	ADDRESS	4	XSBOXLAS	ASCB ADDRESS OF CML LOCK REQUESTED/OWNED.
24	(18)	CHARACTER	8	XSBO STKE	CURRENT PCLINK STACK INFORMATION
24	(18)	UNSIGNED	2	XSBO TKN	CURRENT STACK TOKEN.
26	(1A)	UNSIGNED	2	XSBO ASD	CURRENT STACK ADDRESS SPACE DESIGNATOR.
28	(1C)	ADDRESS	4	XSBO SEL	CURRENT STACK ELEMENT ADDRESS.
32	(20)	UNSIGNED	4	XSBO SRSN	SUSPEND/RESUME SEQUENCE # OWNERSHIP: SUPERVISOR CONTROL SERIALIZATION: TCBACTIV AND DISABLEMENT
36	(24)	UNSIGNED	4	XSBO EAXW	EAX VALUE WORD.
36	(24)	UNSIGNED	2	XSBO EAX	EAX VALUE.
38	(26)	UNSIGNED	2	*	LOWER HALF OF FULLWORD USED TO HOLD EAX VALUE - PROVIDED SO THAT STCTL CAN BE USED TO STORE CONTROL REGISTER 8 INTO XSBOEAXW. THE CONTENTS OF THIS HALFWORD ARE UNPREDICTABLE.
40	(28)	ADDRESS	4	XSBOALOV	DISPATCHABLE UNIT ACCESS LIST VIRTUAL ADDRESS.
44	(2C)	ADDRESS	4	XSBOALD	DISPATCHABLE UNIT ACCESS LIST REAL ADDRESS.
48	(30)	CHARACTER	64	XSBOARS	ACCESS REGISTER SAVEAREA.
48	(30)	UNSIGNED	4	XSBOAR0	ACCESS REGISTER 0.
52	(34)	UNSIGNED	4	XSBOAR1	ACCESS REGISTER 1.
56	(38)	UNSIGNED	4	XSBOAR2	ACCESS REGISTER 2.
60	(3C)	UNSIGNED	4	XSBOAR3	ACCESS REGISTER 3.
64	(40)	UNSIGNED	4	XSBOAR4	ACCESS REGISTER 4.
68	(44)	UNSIGNED	4	XSBOAR5	ACCESS REGISTER 5.
72	(48)	UNSIGNED	4	XSBOAR6	ACCESS REGISTER 6.

## IHAXSBO Constants • IHAXSBO Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
76	(4C)	UNSIGNED	4	XSBOAR7	ACCESS REGISTER 7.
80	(50)	UNSIGNED	4	XSBOAR8	ACCESS REGISTER 8.
84	(54)	UNSIGNED	4	XSBOAR9	ACCESS REGISTER 9.
88	(58)	UNSIGNED	4	XSBOARA	ACCESS REGISTER 10.
92	(5C)	UNSIGNED	4	XSBOARB	ACCESS REGISTER 11.
96	(60)	UNSIGNED	4	XSBOARC	ACCESS REGISTER 12.
100	(64)	UNSIGNED	4	XSBOARD	ACCESS REGISTER 13.
104	(68)	UNSIGNED	4	XSBOARE	ACCESS REGISTER 14.
108	(6C)	UNSIGNED	4	XSBOARF	ACCESS REGISTER 15.
112	(70)	BITSTRING	1	XSBOFLAG2	FLAG BYTE.
		1... ....		XSBOLESUB	LINKAGE STACK UNSTACK SUPPRESSION BIT.
		.1. ....		XSBOLESRST	IF ONE, EXIT & EXIT PROLOG WILL NOT ENFORCE THE LINKAGE STACK CHECKPOINT, JUST RESTORE THE LINKAGE STACK. . . . . SET IN THE EXITING RB.
		..1. ....		XSBOLESEB	LINKAGE STACK EXTRACT/MODIFY SUPPRESSION BIT. '20'X
		...1 1111		*	RESERVED.
113	(71)	CHARACTER	3	XSBOR071	RESERVED.
116	(74)	ADDRESS	4	XSBOLESCP	LINKAGE STACK CHECKPOINT ADDRESS.
120	(78)	ADDRESS	4	XSBOXSBO	POINTER TO THE XSXBO.
124	(7C)	CHARACTER	4	XSBOR07C	RESERVED.
128	(80)	CHARACTER	64	XSBOG64H	64-BIT GPR HIGH HALVES
128	(80)	CHARACTER	4	XSBOG64H0	64-BIT GPR 0 BITS 0-31
132	(84)	CHARACTER	4	XSBOG64H1	64-BIT GPR 1 BITS 0-31
136	(88)	CHARACTER	4	XSBOG64H2	64-BIT GPR 2 BITS 0-31
140	(8C)	CHARACTER	4	XSBOG64H3	64-BIT GPR 3 BITS 0-31
144	(90)	CHARACTER	4	XSBOG64H4	64-BIT GPR 4 BITS 0-31
148	(94)	CHARACTER	4	XSBOG64H5	64-BIT GPR 5 BITS 0-31
152	(98)	CHARACTER	4	XSBOG64H6	64-BIT GPR 6 BITS 0-31
156	(9C)	CHARACTER	4	XSBOG64H7	64-BIT GPR 7 BITS 0-31
160	(A0)	CHARACTER	4	XSBOG64H8	64-BIT GPR 8 BITS 0-31
164	(A4)	CHARACTER	4	XSBOG64H9	64-BIT GPR 9 BITS 0-31
168	(A8)	CHARACTER	4	XSBOG64HA	64-BIT GPR 10 BITS 0-31
172	(AC)	CHARACTER	4	XSBOG64HB	64-BIT GPR 11 BITS 0-31
176	(B0)	CHARACTER	4	XSBOG64HC	64-BIT GPR 12 BITS 0-31
180	(B4)	CHARACTER	4	XSBOG64HD	64-BIT GPR 13 BITS 0-31
184	(B8)	CHARACTER	4	XSBOG64HE	64-BIT GPR 14 BITS 0-31
188	(BC)	CHARACTER	4	XSBOG64HF	64-BIT GPR 15 BITS 0-31
192	(C0)	CHARACTER	8	XSBOINTRNE	ESAME VIRTUAL ADDRESS CAUSING TRANSLATION EXCEPTION IF PROGRAM INTERRUPT X'10', X'11', X'39', X'3A'
200	(C8)	CHARACTER	0	XSBOEND	END OF XSBO.

## IHAXSBO Constants

Len	Type	Value	Name	Description
2	DECIMAL	10	XSBOPCNT	XSBO POOL COUNT.
2	DECIMAL	10	XSBOXCNT	XSBO POOL EXTENT COUNT.

## IHAXSBO Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
XSBO	0		XSBOAX	C	
XSBOALD	2C		XSBOBEGIN	0	
XSBOALOV	28		XSBOCMLE	10	
XSBOARA	58		XSBOEAX	24	
XSBOARB	5C		XSBOEAXW	24	
XSBOARC	60		XSBOEND	C8	
XSBOARD	64		XSBOFLAG2	70	
XSBOARE	68		XSBOFLGS	4	
XSBOARF	6C		XSBOG64H	80	
XSBOARS	30		XSBOG64HA	A8	
XSBOAR0	30		XSBOG64HB	AC	
XSBOAR1	34		XSBOG64HC	B0	
XSBOAR2	38		XSBOG64HD	B4	
XSBOAR3	3C		XSBOG64HE	B8	
XSBOAR4	40		XSBOG64HF	BC	
XSBOAR5	44		XSBOG64H0	80	
XSBOAR6	48		XSBOG64H1	84	
XSBOAR7	4C		XSBOG64H2	88	
XSBOAR8	50		XSBOG64H3	8C	
XSBOAR9	54		XSBOG64H4	90	
XSBOASD	1A		XSBOG64H5	94	

Name	Hex Offset	Hex Value
XSBOG64H6	98	
XSBOG64H7	9C	
XSBOG64H8	A0	
XSBOG64H9	A4	
XSBOKM	8	
XS BOLINK	4	
XS BOLSCP	74	
XS BOLSESB	70	20
XS BOLSRST	70	40
XS BOLSUB	70	80
XS BOPASID	E	
XS BORTRNE	C0	
XS BOR07C	7C	
XS BOR071	71	
XS BOSASID	A	
XS BOSEL	1C	
XS BOSRSN	20	
XS BOSTKE	18	
XS BOSXSBO	78	
XS BOTKN	18	
XS BOXLAS	14	
XS BOXLIDR	10	
XS BOXMCRS	8	
XS BOXMCR3	8	
XS BOXMCR4	C	
XS BOXSBO	0	



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## IHLMGTRC Information

### IHLMGTRC Programming Interface information

Programming Interface information

IHLMGTRC

End of Programming Interface information

## IHLMGTRC Heading Information • IHLMGTRC Map

### IHLMGTRC Heading Information

**Common Name:** GTF Event Identifier Constants  
**Macro ID:** IHLMGTRC  
**DSECT Name:** None  
**Owning Component:** Generalized Trace Facility (SC111)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
**Size:** N/A  
 FREQUENCY: N/A  
**Created by:** N/A  
 INITIALIZED BY: N/A  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** Map event values associated with IBM system and subsystem events. The macro is designed to be used by IBM-supplied format appendages and user-supplied exit modules.  
 This mapping provides documentation of the IDs assigned to IBM system and subsystem events.

### IHLMGTRC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	BITSTRING	0	IHLMDMA1	"X'FFF" 4095
0	(0)	BITSTRING	0	IGGSP169	"X'FFE" 4094 Y02014
0	(0)	BITSTRING	0	IGGSP451	"X'FFD" 4093 Y02014
0	(0)	BITSTRING	0	IGGSP251	"X'FFC" 4092 Y02014
0	(0)	BITSTRING	0	IGGSP145	"X'FFB" 4091 Y02014
0	(0)	BITSTRING	0	IGGSP239	"X'FFA" 4090 Y02014
0	(0)	BITSTRING	0	IGGSP235	"X'FF9" 4089 Y02014
0	(0)	BITSTRING	0	IGGSP119	"X'FF8" 4088 Y02014
0	(0)	BITSTRING	0	IGGSP215	"X'FF7" 4087 Y02014
0	(0)	BITSTRING	0	IGGSP112	"X'FF6" 4086 Y02014
0	(0)	BITSTRING	0	IDAAM01	"X'FF5" 4085
0	(0)	BITSTRING	0	IGGSP008	"X'FF4" 4084 Y02014
0	(0)	BITSTRING	0	IGGSP002	"X'FF3" 4083 Y02014
0	(0)	BITSTRING	0	ISTLNEID	"X'FF2" 4082
0	(0)	BITSTRING	0	ISTCLEID	"X'FF1" 4081
0	(0)	BITSTRING	0	ISTRPEID	"X'FF0" 4080
0	(0)	BITSTRING	0	ISTTPEID	"X'FEF" 4079
0	(0)	BITSTRING	0	ISTVIEID	"X'FE1" 4065 VTAM INTERNAL TRACE
0	(0)	BITSTRING	0	ISTTHEID	"X'FE2" 4066 VTAM INTERNAL TRACE
0	(0)	BITSTRING	0	ISTTREID	"X'FE3" 4067 VTAM INTERNAL TRACE
0	(0)	BITSTRING	0	ISTTDEID	"X'FE4" 4068 VTAM INTERNAL TRACE
0	(0)	BITSTRING	0	IMDGPD50	"X'FE0" 4064
0	(0)	BITSTRING	0	IMDGPD49	"X'FD" 4063
0	(0)	BITSTRING	0	IMDGPD48	"X'FDE" 4062
0	(0)	BITSTRING	0	IMDGPD47	"X'FDD" 4061
0	(0)	BITSTRING	0	IMDGPD46	"X'FDC" 4060
0	(0)	BITSTRING	0	IMDGPD45	"X'FDB" 4059
0	(0)	BITSTRING	0	IMDGPD44	"X'FDA" 4058
0	(0)	BITSTRING	0	IMDGPD43	"X'FD9" 4057
0	(0)	BITSTRING	0	IMDGPD42	"X'FD8" 4056
0	(0)	BITSTRING	0	IMDGPD41	"X'FD7" 4055
0	(0)	BITSTRING	0	IMDGPD40	"X'FD6" 4054
0	(0)	BITSTRING	0	IMDGPD39	"X'FD5" 4053
0	(0)	BITSTRING	0	IMDGPD38	"X'FD4" 4052
0	(0)	BITSTRING	0	IMDGPD37	"X'FD3" 4051
0	(0)	BITSTRING	0	IMDGPD36	"X'FD2" 4050
0	(0)	BITSTRING	0	IMDGPD35	"X'FD1" 4049
0	(0)	BITSTRING	0	IMDGPD34	"X'FD0" 4048
0	(0)	BITSTRING	0	IMDGPD33	"X'FCF" 4047
0	(0)	BITSTRING	0	IMDGPD32	"X'FCE" 4046
0	(0)	BITSTRING	0	IMDGPD31	"X'FCD" 4045
0	(0)	BITSTRING	0	IMDGPD30	"X'FCC" 4044
0	(0)	BITSTRING	0	IMDGPD29	"X'FCB" 4043
0	(0)	BITSTRING	0	IMDGPD28	"X'FCA" 4042
0	(0)	BITSTRING	0	IMDGPD27	"X'FC9" 4041
0	(0)	BITSTRING	0	IMDGPD26	"X'FC8" 4040
0	(0)	BITSTRING	0	IMDGPD25	"X'FC7" 4039
0	(0)	BITSTRING	0	IMDGPD24	"X'FC6" 4038
0	(0)	BITSTRING	0	IMDGPD23	"X'FC5" 4037



Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	BITSTRING	0	IMDGPD22	"X'FC4" 4036
0	(0)	BITSTRING	0	IMDGPD21	"X'FC3" 4035
0	(0)	BITSTRING	0	IMDGPD20	"X'FC2" 4034
0	(0)	BITSTRING	0	IMDGPD19	"X'FC1" 4033
0	(0)	BITSTRING	0	IMDGPD18	"X'FC0" 4032
0	(0)	BITSTRING	0	IMDGPD17	"X'FBF" 4031
0	(0)	BITSTRING	0	IMDGPD16	"X'FBE" 4030
0	(0)	BITSTRING	0	IMDGPD15	"X'FBD" 4029
0	(0)	BITSTRING	0	IMDGPD14	"X'FBC" 4028
0	(0)	BITSTRING	0	IMDGPD13	"X'FBB" 4027
0	(0)	BITSTRING	0	IMDGPD12	"X'FBA" 4026
0	(0)	BITSTRING	0	IMDGPD11	"X'FB9" 4025
0	(0)	BITSTRING	0	IMDGPD10	"X'FB8" 4024
0	(0)	BITSTRING	0	IMDGPD09	"X'FB7" 4023
0	(0)	BITSTRING	0	IMDGPD08	"X'FB6" 4022
0	(0)	BITSTRING	0	IMDGPD07	"X'FB5" 4021
0	(0)	BITSTRING	0	IMDGPD06	"X'FB4" 4020
0	(0)	BITSTRING	0	IMDGPD05	"X'FB3" 4019
0	(0)	BITSTRING	0	IMDGPD04	"X'FB2" 4018
0	(0)	BITSTRING	0	IMDGPD03	"X'FB1" 4017
0	(0)	BITSTRING	0	IMDGPD02	"X'FB0" 4016
0	(0)	BITSTRING	0	IMDGPD01	"X'FAF" 4015
0	(0)	BITSTRING	0	IMDGPD00	"X'FAC" 4012 NetSpool
0	(0)	BITSTRING	0	IMDNFS01	"X'FAB" 4011 NFS
0	(0)	BITSTRING	0	IMDTCAM9	"X'FA9" 4009 TCAM
0	(0)	BITSTRING	0	IMDTCAM8	"X'FA8" 4008 TCAM
0	(0)	BITSTRING	0	IMDTCAM7	"X'FA7" 4007 TCAM
0	(0)	BITSTRING	0	IMDTCAM6	"X'FA6" 4006 TCAM
0	(0)	BITSTRING	0	IMDTCAM5	"X'FA5" 4005 TCAM
0	(0)	BITSTRING	0	IMDTCAM4	"X'FA4" 4004 TCAM
0	(0)	BITSTRING	0	IMDTCAM3	"X'FA3" 4003 TCAM
0	(0)	BITSTRING	0	IMDTCAM2	"X'FA2" 4002 TCAM
0	(0)	BITSTRING	0	IMDTCAM1	"X'FA1" 4001 TCAM
0	(0)	BITSTRING	0	IMDTCAM0	"X'FA0" 4000 TCAM
0	(0)	BITSTRING	0	IMDCICS	"X'F6C" 3948 CICS
0	(0)	BITSTRING	0	IMDVSM	"X'F65" 3941 VIRTUAL STORAGE MANAGER
0	(0)	BITSTRING	0	IMDDB2VT	"X'F5F" 3935 DB2/VSAM TRANSPARENCY
0	(0)	BITSTRING	0	IMDFSITD	"X'F5D" 3933 FSI TRACE
0	(0)	BITSTRING	0	IMDFSITC	"X'F5C" 3932 FSI TRACE
0	(0)	BITSTRING	0	IMDFSITB	"X'F5B" 3931 FSI TRACE
0	(0)	BITSTRING	0	IMDFSITA	"X'F5A" 3930 FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT9	"X'F59" 3929 FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT8	"X'F58" 3928 FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT7	"X'F57" 3927 FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT6	"X'F56" 3926 FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT5	"X'F55" 3925 FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT4	"X'F54" 3924 FSI TRACE
0	(0)	BITSTRING	0	IMDOSIC	"X'F53" 3923 OPEN SYSTEMS INTERCONN
0	(0)	BITSTRING	0	IMDLANRW	"X'F3F" LANRES
0	(0)	BITSTRING	0	IMDLANRV	"X'F3E" LANRES
0	(0)	BITSTRING	0	IMDLANRU	"X'F3D" LANRES
0	(0)	BITSTRING	0	IMDLANRT	"X'F3C" LANRES
0	(0)	BITSTRING	0	IMDLANRS	"X'F3B" LANRES
0	(0)	BITSTRING	0	IMDLANRR	"X'F3A" LANRES
0	(0)	BITSTRING	0	IMDLANRQ	"X'F39" LANRES
0	(0)	BITSTRING	0	IMDLANRP	"X'F38" LANRES
0	(0)	BITSTRING	0	IMDLANRO	"X'F37" LANRES
0	(0)	BITSTRING	0	IMDLANRN	"X'F36" LANRES
0	(0)	BITSTRING	0	IMDLANRM	"X'F35" LANRES
0	(0)	BITSTRING	0	IMDLANRL	"X'F34" LANRES
0	(0)	BITSTRING	0	IMDLANRK	"X'F33" LANRES
0	(0)	BITSTRING	0	IMDLANRJ	"X'F32" LANRES
0	(0)	BITSTRING	0	IMDLANRI	"X'F31" LANRES
0	(0)	BITSTRING	0	IMDLANRH	"X'F30" LANRES
0	(0)	BITSTRING	0	IMDLANRG	"X'F2F" LANRES
0	(0)	BITSTRING	0	IMDLANRF	"X'F2E" LANRES
0	(0)	BITSTRING	0	IMDLANRE	"X'F2D" LANRES
0	(0)	BITSTRING	0	IMDLANRD	"X'F2C" LANRES
0	(0)	BITSTRING	0	IMDLANRC	"X'F2B" LANRES
0	(0)	BITSTRING	0	IMDLANRB	"X'F2A" LANRES
0	(0)	BITSTRING	0	IMDLANRA	"X'F29" LANRES
0	(0)	BITSTRING	0	IMDLANR9	"X'F28" LANRES
0	(0)	BITSTRING	0	IMDLANR8	"X'F27" LANRES
0	(0)	BITSTRING	0	IMDLANR7	"X'F26" LANRES

## IHLMGTRC Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	BITSTRING	0	IMDLANR6	"XF25" LANRES
0	(0)	BITSTRING	0	IMDLANR5	"XF24" LANRES
0	(0)	BITSTRING	0	IMDLANR4	"XF23" LANRES
0	(0)	BITSTRING	0	IMDLANR3	"XF22" LANRES
0	(0)	BITSTRING	0	IMDLANR2	"XF21" LANRES
0	(0)	BITSTRING	0	IMDLANR1	"XF20" LANRES
0	(0)	BITSTRING	0	IEFDB400A	"XF1F" DYNALLOC
0	(0)	BITSTRING	0	IEFDB400B	"XF1E" DYNALLOC
0	(0)	BITSTRING	0	IEFDB400C	"XF1D" DYNALLOC

## IHLMGTRC Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
IDAAM01	0	FF5	IMDGPD31	0	FCD
IEFDB400A	0	F1F	IMDGPD32	0	FCE
IEFDB400B	0	F1E	IMDGPD33	0	FCF
IEFDB400C	0	F1D	IMDGPD34	0	FD0
IGGSP002	0	FF3	IMDGPD35	0	FD1
IGGSP008	0	FF4	IMDGPD36	0	FD2
IGGSP112	0	FF6	IMDGPD37	0	FD3
IGGSP119	0	FF8	IMDGPD38	0	FD4
IGGSP145	0	FFB	IMDGPD39	0	FD5
IGGSP169	0	FFE	IMDGPD40	0	FD6
IGGSP215	0	FF7	IMDGPD41	0	FD7
IGGSP235	0	FF9	IMDGPD42	0	FD8
IGGSP239	0	FFA	IMDGPD43	0	FD9
IGGSP251	0	FFC	IMDGPD44	0	FDA
IGGSP451	0	FFD	IMDGPD45	0	FDB
IHLMDMA1	0	FFF	IMDGPD46	0	FDC
IMDCICS	0	F6C	IMDGPD47	0	FDD
IMDDB2VT	0	F5F	IMDGPD48	0	FDE
IMDFSITA	0	F5A	IMDGPD49	0	PDF
IMDFSITB	0	F5B	IMDGPD50	0	FE0
IMDFSITC	0	F5C	IMDLANRA	0	F29
IMDFSITD	0	F5D	IMDLANRB	0	F2A
IMDFSIT4	0	F54	IMDLANRC	0	F2B
IMDFSIT5	0	F55	IMDLANRD	0	F2C
IMDFSIT6	0	F56	IMDLANRE	0	F2D
IMDFSIT7	0	F57	IMDLANRF	0	F2E
IMDFSIT8	0	F58	IMDLANRG	0	F2F
IMDFSIT9	0	F59	IMDLANRH	0	F30
IMDGPD00	0	FAC	IMDLANRI	0	F31
IMDGPD01	0	FAF	IMDLANRJ	0	F32
IMDGPD02	0	FB0	IMDLANRK	0	F33
IMDGPD03	0	FB1	IMDLANRL	0	F34
IMDGPD04	0	FB2	IMDLANRM	0	F35
IMDGPD05	0	FB3	IMDLANRN	0	F36
IMDGPD06	0	FB4	IMDLANRO	0	F37
IMDGPD07	0	FB5	IMDLANRP	0	F38
IMDGPD08	0	FB6	IMDLANRQ	0	F39
IMDGPD09	0	FB7	IMDLANRR	0	F3A
IMDGPD10	0	FB8	IMDLANRS	0	F3B
IMDGPD11	0	FB9	IMDLANRT	0	F3C
IMDGPD12	0	FBA	IMDLANRU	0	F3D
IMDGPD13	0	FBB	IMDLANRV	0	F3E
IMDGPD14	0	FBC	IMDLANRW	0	F3F
IMDGPD15	0	FBD	IMDLANR1	0	F20
IMDGPD16	0	FBE	IMDLANR2	0	F21
IMDGPD17	0	FBF	IMDLANR3	0	F22
IMDGPD18	0	FC0	IMDLANR4	0	F23
IMDGPD19	0	FC1	IMDLANR5	0	F24
IMDGPD20	0	FC2	IMDLANR6	0	F25
IMDGPD21	0	FC3	IMDLANR7	0	F26
IMDGPD22	0	FC4	IMDLANR8	0	F27
IMDGPD23	0	FC5	IMDLANR9	0	F28
IMDGPD24	0	FC6	IMDNFS01	0	FAB
IMDGPD25	0	FC7	IMDOSIC	0	F53
IMDGPD26	0	FC8	IMDTCAM0	0	FA0
IMDGPD27	0	FC9	IMDTCAM1	0	FA1
IMDGPD28	0	FCA	IMDTCAM2	0	FA2
IMDGPD29	0	FCB	IMDTCAM3	0	FA3
IMDGPD30	0	FCC	IMDTCAM4	0	FA4

Name	Hex Offset	Hex Value
IMDTCAM5	0	FA5
IMDTCAM6	0	FA6
IMDTCAM7	0	FA7
IMDTCAM8	0	FA8
IMDTCAM9	0	FA9
IMDVSM	0	F65
ISTCLEID	0	FF1
ISTLNEID	0	FF2
ISTRPEID	0	FF0
ISTTDEID	0	FE4
ISTTHEID	0	FE2
ISTTPEID	0	FEF
ISTTREID	0	FE3
ISTVIEID	0	FE1



# IHSA Information

## IHSA Heading Information

**Common Name:** INTERRUPT HANDLER SAVE AREA  
**Macro ID:** IHAIHSA  
**DSECT Name:** IHSA  
**Owning Component:** SUPERVISOR CONTROL (SC1C5)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: 255  
 Key: 0  
 Residency: Below 16M  
**Size:** Offset of IHSAEND minus the offset of IHSA  
**Created by:** IEAVEMIN  
**Pointed to by:** ASXBIHSA  
**Serialization:** THE LOCAL LOCK  
**Function:** Provides a save area for the status of an interrupted task holding the local or CML lock.

Fields beyond IHSAFRRS are at a different offset in z/OS 1.6 than prior to that release.

## IHSA Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	1672	IHSA	
0	(0)	CHARACTER	8	IHSACPUT	VALUE OF CPU TIMER
8	(8)	SIGNED	4	IHSANTCB	VALUE OF PSATNEW
12	(C)	SIGNED	4	IHSAOTCB	VALUE OF PSATOLD
16	(10)	CHARACTER	8	IHSACPSW	VALUE OF CURRENT PSW
24	(18)	CHARACTER	32	IHSAFPFR	FLOATING POINT REG SAVE AREA
24	(18)	CHARACTER	8	IHSAFPFR0	FLOATING POINT REG 0
32	(20)	CHARACTER	8	IHSAFPFR2	FLOATING POINT REG 2
40	(28)	CHARACTER	8	IHSAFPFR4	FLOATING POINT REG 4
48	(30)	CHARACTER	8	IHSAFPFR6	FLOATING POINT REG 6
56	(38)	CHARACTER	64	IHSAGPRS	GENERAL REGISTER SAVE AREA
120	(78)	CHARACTER	8	IHSAR078	RESERVED
128	(80)	ADDRESS	4	IHSAXSB	ADDRESS OF EXTENDED STATUS BLOCK (XSB)
132	(84)	BITSTRING	1	IHS AFLGS	IHSA FLAGS
		1... ..		IHSANSS	ONE OR MORE FRRS ESTABLISHED WITH EUT=YES
133	(85)	CHARACTER	3	IHSAR085	RESERVED
136	(88)	CHARACTER	64	IHSAARS	ACCESS REGISTER SAVE AREA.
136	(88)	UNSIGNED	4	IHSAAR0	ACCESS REGISTER 0 SAVE AREA.
140	(8C)	UNSIGNED	4	IHSAAR1	ACCESS REGISTER 1 SAVE AREA.
144	(90)	UNSIGNED	4	IHSAAR2	ACCESS REGISTER 2 SAVE AREA.
148	(94)	UNSIGNED	4	IHSAAR3	ACCESS REGISTER 3 SAVE AREA.
152	(98)	UNSIGNED	4	IHSAAR4	ACCESS REGISTER 4 SAVE AREA.
156	(9C)	UNSIGNED	4	IHSAAR5	ACCESS REGISTER 5 SAVE AREA.
160	(A0)	UNSIGNED	4	IHSAAR6	ACCESS REGISTER 6 SAVE AREA.
164	(A4)	UNSIGNED	4	IHSAAR7	ACCESS REGISTER 7 SAVE AREA.
168	(A8)	UNSIGNED	4	IHSAAR8	ACCESS REGISTER 8 SAVE AREA.
172	(AC)	UNSIGNED	4	IHSAAR9	ACCESS REGISTER 9 SAVE AREA.
176	(B0)	UNSIGNED	4	IHSAAR10	ACCESS REGISTER 10 SAVE AREA.
180	(B4)	UNSIGNED	4	IHSAAR11	ACCESS REGISTER 11 SAVE AREA.
184	(B8)	UNSIGNED	4	IHSAAR12	ACCESS REGISTER 12 SAVE AREA.
188	(BC)	UNSIGNED	4	IHSAAR13	ACCESS REGISTER 13 SAVE AREA.
192	(C0)	UNSIGNED	4	IHSAAR14	ACCESS REGISTER 14 SAVE AREA.
196	(C4)	UNSIGNED	4	IHSAAR15	ACCESS REGISTER 15 SAVE AREA.
200	(C8)	ADDRESS	4	IHSALSDP	LINKAGE STACK ENTRY DESCRIPTOR (LSED) POINTER.
204	(CC)	CHARACTER	1280	IHSAFPFRS	FRR STACK SAVEAREA
1484	(5CC)	CHARACTER	4	IHSAR5CC	RESERVED
1488	(5D0)	CHARACTER	100	IHSAAFPFR	FPRS 1,3,5,7-15,FPCR
1488	(5D0)	CHARACTER	96	*	FPRS 1,3,5,7-15
1584	(630)	CHARACTER	4	IHSAFPFR	FPCR
1588	(634)	ADDRESS	4	IHSAESSA@	Address of IHSA's ESSA
1592	(638)	CHARACTER	64	IHSAG64H	HIGH ORDER HALVES OF 64-BIT GPRS
1656	(678)	CHARACTER	16	IHSACPSW16	VALUE OF CURRENT PSW
1672	(688)	CHARACTER	0	IHSAEND	DOUBLE WORD ALIGN

## IHSA Cross Reference

### IHSA Cross Reference

Name	Hex Offset	Hex Value
IHSA	0	
IHSAAFPR	5D0	
IHSAARS	88	
IHSAAR0	88	
IHSAAR1	8C	
IHSAAR10	B0	
IHSAAR11	B4	
IHSAAR12	B8	
IHSAAR13	BC	
IHSAAR14	C0	
IHSAAR15	C4	
IHSAAR2	90	
IHSAAR3	94	
IHSAAR4	98	
IHSAAR5	9C	
IHSAAR6	A0	
IHSAAR7	A4	
IHSAAR8	A8	
IHSAAR9	AC	
IHSACPSW	10	
IHSACPSW16	678	
IHSACPUT	0	
IHSAEND	688	
IHSAESSA@	634	
IHSAFLGS	84	
IHSAFPCR	630	
IHSAFPRS	18	
IHSAFPR0	18	
IHSAFPR2	20	
IHSAFPR4	28	
IHSAFPR6	30	
IHSAFRRS	CC	
IHSAGPRS	38	
IHSAG64H	638	
IHSALSDP	C8	
IHSANSS	84	80
IHSANTCB	8	
IHSAOTCB	C	
IHSAR078	78	
IHSAR085	85	
IHSAR5CC	5CC	
IHSAXSB	80	

## IIT Information

### IIT Heading Information

**Common Name:** IPL Information Table (IIT)  
**Macro ID:** IOSDIIT  
**DSECT Name:** IIT, IITMLTNL, IITDDTNL, IITTERPNL  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** IIT  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: During MVSCP execution: Subpool 2. During IPL: IPL work space  
 Key: During MVSCP execution user's key. During IPL: IPL work space  
**Size:** Variable length  
**Created by:** IPL Information Table (IIT) Build Routine  
**Pointed to by:** IVTIITP field of the IVT (during IPL)  
**Serialization:** None  
**Function:** The IPL Information Table contains the MLT Name List, DDT Name List, and Resident ERP Name List.

### IIT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	72	IIT	IPL Information Table (IIT)
0	(0)	CHARACTER	4	IITID	IIT identifier ('IIT')
4	(4)	CHARACTER	8	IITDATE	Date of MVSCP execution
12	(C)	CHARACTER	5	IITTIME	Time of MVSCP execution
17	(11)	CHARACTER	3	*	Reserved, must be zero
20	(14)	ADDRESS	4	IITMLTLP	Pointer to the Module Lists Table (MLT) Name List
24	(18)	SIGNED	4	IITMLTCT	Number of MLT names in list
28	(1C)	ADDRESS	4	IITDDTLP	Pointer to the Device Descriptor Table (DDT) Name List
32	(20)	SIGNED	4	IITDDTCT	Number of DDT names in list
36	(24)	ADDRESS	4	IITERPLP	Pointer to the Resident ERP Name List
40	(28)	SIGNED	4	IITERPCT	Number of Resident ERP names in list
44	(2C)	CHARACTER	10	IITVERS	MVSCP version
54	(36)	CHARACTER	1	IITCMPT	Compatibility byte (used to detect if the level of MVS is compatible with the I/O configuration data built by the MVSCP)
55	(37)	CHARACTER	1	*	Reserved, must be zero
56	(38)	CHARACTER	16	*	Reserved, must be zero

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	12	IITMLTNL (*)	MLT Name List
0	(0)	CHARACTER	8	IITMLTNM	MLT name
8	(8)	BITSTRING	1	IITMLTFL	Flags
		1... ..		IITMLTOP	MLT contains module names associated with a product that provides optional support for a device
		.111 1111		*	Reserved, must be zero
9	(9)	CHARACTER	3	*	Reserved, must be zero

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	12	IITDDTNL (*)	DDT Name List
0	(0)	CHARACTER	8	IITDDTNM	DDT name
8	(8)	ADDRESS	4	IITDDTLP	DDT address (set by IEAIPL03)

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	12	IITERPNL (*)	Resident ERP Name List
0	(0)	CHARACTER	8	IITERPNM	Resident ERP entry point name
8	(8)	SIGNED	4	IITERPIN	Resident ERP Table index

## IIT Constants • IIT Cross Reference

### IIT Constants

Len	Type	Value	Name	Description
Comment				
The following constant is used to place an identifier in the IIT (field IITID).				
End of Comment				
4	CHARACTER	IIT	IITCBID	IIT identifier

### IIT Cross Reference

Name	Hex Offset	Hex Value
IIT	0	
IITCMPT	36	
IITDATE	4	
IITDDTCT	20	
IITDDTLP	1C	
IITDDTNL	0	
IITDDTNM	0	
IITDDTTP	8	
IITERPCT	28	
IITERPIN	8	
IITERPLP	24	
IITERPNL	0	
IITERPNM	0	
IITID	0	
IITMLTCT	18	
IITMLTFL	8	
IITMLTLP	14	
IITMLTNL	0	
IITMLTNM	0	
IITMLTOP	8	80
IITTIME	C	
IITVERS	2C	



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## IKJTAIE Information

### IKJTAIE Programming Interface information

Programming Interface information

IKJTAIE

End of Programming Interface information

## IKJTAIE Heading Information • IKJTAIE Cross Reference

### IKJTAIE Heading Information

**Common Name:** TSO Terminal Attention Interrupt Element  
**Macro ID:** IKJTAIE  
**DSECT Name:** TAIE  
**Owning Component:** Region Control Task (SC1CU)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: User  
 Key: User  
 Residency: below 16M  
**Size:** 48 bytes  
**Created by:** IEAVAR05  
**Pointed to by:** TAXETAIE field of the TAXE data area.  
**Serialization:** None  
**Function:** This is the interface containing data for the user's attention exit.

### IKJTAIE Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TAIE	
0	(0)	CHARACTER	2	TAIEMSGL	. MESSAGE LENGTH
2	(2)	CHARACTER	1	TAIETGET	. RET CODE FROM TGET ISSUED BY ATTN PROL LOG TO BE CHECKED BY USER ATTN RTN
3	(3)	CHARACTER	1	TAIEATTN	. TO BE USED BY THE TMP
4	(4)	SIGNED	4	TAIEIAD	. RIGHT HALF OF INTERRUPT PSW
4	(4)	BITSTRING	3		BYTES 0-2
7	(7)	BITSTRING	1	TAIEIAD3	BYTE 3 OF TAIEIAD
		.... ...1		TAIEIA64	"X'01" WHEN ON, AMODE 64
8	(8)	CHARACTER	64	TAIERSAV	. REGS. STORED HERE WHEN AN INTERRUPT TO MAINLINE OR ATTN. EXIT OCCURS
8	(8)	X'48'	0	TAIELNGT	"*-TAIE" LENGTH OF TAIE

### IKJTAIE Cross Reference

Name	Hex Offset	Hex Value
TAIE	0	
TAIEATTN	3	
TAIEIAD	4	
TAIEIAD3	7	
TAIEIA64	7	1
TAIELNGT	8	48
TAIEMSGL	0	
TAIERSAV	8	
TAIETGET	2	

## IMCB Information

### IMCB Heading Information

**Common Name:** SYSTEM RESOURCES MANAGER USER I/O MEASUREMENT CONTROL BLOCK  
**Macro ID:** IRAIMCB  
**DSECT Name:** IMCB  
**Owning Component:** SYSTEMS RESOURCE MANAGER (SC1CX)  
**Eye-Catcher ID:** IMCB  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: 245  
 Key: 0  
 Residency: ABOVE 16M LINE  
**Size:** 240 BYTES, INCLUDING USER LCH USAGE TABLE ENTRIES  
**Created by:** IRARMIOM  
**Pointed to by:** N/A  
**Serialization:** SRM LOCK  
**Function:** THE IMCB CONTAINS THE I/O MEASUREMENT STATISTICS THAT THE SYSTEM RESOURCES MANAGERS MAINTAINS FOR USE IN I/O LOAD BALANCING

### IMCB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	*	IMCB	
0	(0)	CHARACTER	4	IMCBNAME	ACRONYM 'IMCB'
4	(4)	ADDRESS	4	IMCBFRST	ADDR OF FIRST ENTRY IN IMCB LPB TABLE
8	(8)	ADDRESS	4	IMCBLAST	ADDR OF LAST ENTRY IN IMCB LPB TABLE
12	(C)	BITSTRING	1	IMCBFLGS	IMCB FLAGS
		1... ....		IMCBINIT	IMCB LPB TABLE INITIALIZED
		.1.. ....		IMCBSLPU	SIGNIFICANT USER OF ONE OR MORE OUT-OF-BALANCE LPB'S
		..1. ....		IMCBOVLP	USER ACTIVE ON OVERUTIL LPB
		...1 ....		IMCBUNLP	USER ACTIVE ON UNDERUTIL LPB
		.... 1111		IMCBRSV2	RESERVED
13	(D)	CHARACTER	3	IMCBRSV	RESERVED
16	(10)	CHARACTER	8	IMCBNTRY (*)	ARRAY OF ENTRIES FOR LPB'S

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	8	IMBENTY	
0	(0)	UNSIGNED	4	IMBCONN	CONNECT TIME BASE IN 128 MICRO SECONDS
4	(4)	SIGNED	2	IMBCONN	PERCENT CONNECT TIME IN PERCENT TIMES 100
6	(6)	SIGNED	2	IMBLPBO	OFFSET TO LOGICAL PATH BLOCK

### IMCB Cross Reference

Name	Hex Offset	Hex Value
IMBCONN	0	
IMBCONN	4	
IMBENTY	0	
IMBLPBO	6	
IMCB	0	
IMCBFLGS	C	
IMCBFRST	4	
IMCBINIT	C	80
IMCBLAST	8	
IMCBNAME	0	
IMCBNTRY	10	
IMCBOVLP	C	20
IMCBRSV	D	
IMCBRSV2	C	0F
IMCBSLPU	C	40
IMCBUNLP	C	10



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## IMDMEDIT Information

### IMDMEDIT Programming Interface information

Programming Interface information

IMDMEDIT

End of Programming Interface information

## IMDMEDIT Heading Information • IMDMEDIT Map

### IMDMEDIT Heading Information

**Common Name:** GTF Event Identifier Constants  
**Macro ID:** IMDMEDIT  
**DSECT Name:** None  
**Owning Component:** Generalized Trace Facility (SC118)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: N/A  
 Key: N/A  
**Size:** N/A  
 FREQUENCY: N/A  
**Created by:** N/A  
 INITIALIZED BY: N/A  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** Map the Event Identifier (EID) values associated with IBM system and subsystem events. The macro is designed to be used by IBM-supplied format appendages and user-supplied exit modules.  
 This mapping provides documentation of the EIDs assigned to IBM system and subsystem events.

### IMDMEDIT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		
0	(0)	X'0'	0	IMDMSSM	"0" OS SSM FOR COMPATIBILITY
0	(0)	X'0'	0	IMDMSSM1	"0" SSM INTERRUPT
0	(0)	X'0'	0	IMDMPIPG	"0" PAGE FAULT PROGRAM INTERRUPT
		.... ..1		IMDMDSP1	"X'0001" DISPATCHER
0	(0)	X'1'	0	IEADISP1	"IMDMDSP1" DISPATCHER
		.... ..1.		IMDMDSP2	"X'0002" DISPATCHER
0	(0)	X'2'	0	IEADISP2	"IMDMDSP2" DISPATCHER
		.... ..11		IMDMDSP	"X'0003" DISPATCHER
		.... ..11		IMDMDSP3	"X'0003" DISPATCHER
0	(0)	X'3'	0	IEADISP3	"IMDMDSP3" DISPATCHER
0	(0)	BITSTRING	0	IMDMDSP4	"X'1004" SVC EXIT PROLOG DISPATCH
0	(0)	X'1004'	0	IEADISP4	"IMDMDSP4" EXIT PROLOG DISPATCH
0	(0)	BITSTRING	0	IMDMSVC	"X'1000" SVC INTERRUPT
0	(0)	X'1000'	0	IEASVCH	"IMDMSVC" SVC INTERRUPT
0	(0)	BITSTRING	0	IMDMPCI	"X'2100" PCI I/O INTERRUPT
0	(0)	X'2100'	0	IECPCI	"IMDMPCI" PCI I/O INTERRUPT
0	(0)	BITSTRING	0	IMDMPCIX	"X'2101" PCI I/O INTERRUPT SUMMARY RCD
0	(0)	X'2101'	0	IECPCIX	"IMDMPCIX" PCI I/O INTERRUPT SUMMARY RCD
0	(0)	BITSTRING	0	IMDMSRM	"X'4001" SRM
0	(0)	X'4001'	0	IRASRM	"IMDMSRM" SRM
0	(0)	BITSTRING	0	IMDMSTAE	"X'4002" RTM
0	(0)	X'4002'	0	IEASTAE	"IMDMSTAE" RTM
0	(0)	BITSTRING	0	IMDMFRR	"X'4003" RTM
0	(0)	X'4003'	0	IEAFRR	"IMDMFRR" RTM
0	(0)	BITSTRING	0	IMDMSLSD	"X'4004" RTM/SLIP STANDARD RECORD
0	(0)	X'4004'	0	IEAVSLSD	"IMDMSLSD" RTM/SLIP STANDARD RECORD
0	(0)	BITSTRING	0	IMDMSLSU	"X'4005" RTM/SLIP STANDARD+USER RECORD
0	(0)	X'4005'	0	IEAVLSU	"IMDMLSU" RTM/SLIP STANDARD+USER RECORD
0	(0)	BITSTRING	0	IMDMSLUR	"X'4006" RTM/SLIP USER RECORD
0	(0)	X'4006'	0	IEAVSLUR	"IMDMSLUR" RTM/SLIP USER RECORD
0	(0)	BITSTRING	0	IMDMSIO	"X'5100" SIO OPERATION
0	(0)	X'5100'	0	IECSIO	"IMDMSIO" SIO OPERATION
0	(0)	BITSTRING	0	IMDMEOS	"X'5101" IOS
0	(0)	X'5101'	0	IECEOS	"IMDMEOS" IOS
0	(0)	BITSTRING	0	IMDMCSCH	"X'5102" CLEAR SUBCHANNEL GTF RECORD
0	(0)	X'5102'	0	IECCSCH	"IMDMCSCH" CLEAR SUBCHANNEL GTF RECORD
0	(0)	BITSTRING	0	IMDMHSCH	"X'5103" HALT SUBCHANNEL GTF RECORD
0	(0)	X'5103'	0	IECHSCH	"IMDMHSCH" HALT SUBCHANNEL GTF RECORD
0	(0)	BITSTRING	0	IMDMMSCH	"X'5104" MODIFY SUBCHANNEL GTF RECORD
0	(0)	X'5104'	0	IECMSCH	"IMDMMSCH" MODIFY SUBCHANNEL GTF RECORD
0	(0)	BITSTRING	0	IMDMSSCH	"X'5105" START SUBCHANNEL GTF RECORD
0	(0)	X'5105'	0	IECSSCH	"IMDMSSCH" START SUBCHANNEL GTF RECORD
0	(0)	BITSTRING	0	IMDMRSCH	"X'5106" RESUME SUBCHANNEL GTF RECORD
0	(0)	X'5106'	0	IECRSCH	"IMDMRSCH" RESUME SUBCHANNEL GTF RECORD
0	(0)	BITSTRING	0	IMDMEOSX	"X'5107" EOS SUMMARY RECORD
0	(0)	X'5107'	0	IECEOSX	"IMDMEOSX" EOS SUMMARY RECORD
0	(0)	BITSTRING	0	IMDMXSCH	"X'5108" CANCEL SUBCHANNEL GTF RECORD
0	(0)	X'5108'	0	IECXSCH	"IMDMXSCH" CANCEL SUBCHANNEL GTF RECORD

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	BITSTRING	0	IMDMINTG	"X'5109" Interrogate GTF Record
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0	(0)	BITSTRING	0	IMDMIO2	"X'5200" I/O INTERRUPT
0	(0)	X'5200'	0	IECIO2	"IMDMIO2" I/O INTERRUPT
0	(0)	BITSTRING	0	IMDMIO1	"X'5201" I/O Inter w/concurrent sense
0	(0)	X'5201'	0	IECIO1	"IMDMIO1" I/O Inter w/concurrent sense
0	(0)	BITSTRING	0	IMDMIO1X	"X'5202" I/O INTERRUPT SUMMARY RECORD
0	(0)	X'5202'	0	IECIO1X	"IMDMIO1X" I/O INTERRUPT SUMMARY RECORD
0	(0)	BITSTRING	0	IMDMCS1X	"X'5203" CS INTERRUPT SUMMARY RECORD
0	(0)	X'5203'	0	IECCS1X	"IMDMCS1X" CS INTERRUPT SUMMARY RECORD
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0	(0)	X'6101'	0	IEAPINT	"IMDMPI" PROGRAM INTERRUPT
0	(0)	BITSTRING	0	IMDMTINT	"X'6200" PFLIH
0	(0)	X'6200'	0	IEATINT	"IMDMTINT" PFLIH
0	(0)	BITSTRING	0	IMDMEXT	"X'6201" EXTERNAL INTERRUPT
0	(0)	X'6201'	0	IEAEINT	"IMDMEXT" EXTERNAL INTERRUPT
0	(0)	BITSTRING	0	IMDMTP1	"X'8100" TPIOS
0	(0)	X'8100'	0	ISPTPIO1	"IMDMTP1" TPIOS
0	(0)	BITSTRING	0	IMDMTP2	"X'8200" TPIOS
0	(0)	X'8200'	0	ISPTPIO2	"IMDMTP2" TPIOS
0	(0)	BITSTRING	0	IMDE5E2	"X'E5E2" Netview
0	(0)	BITSTRING	0	IMDE5E4	"X'E5E4" TCP/IP for MVS
0	(0)	BITSTRING	0	IMDE5E5	"X'E5E5" VTAM SAW and PD PIU
0	(0)	BITSTRING	0	IMDE5E6	"X'E5E6" Netview
0	(0)	BITSTRING	0	IMDE5E7	"X'E5E7" Netview
0	(0)	BITSTRING	0	IMDE5E8	"X'E5E8" Netview
0	(0)	BITSTRING	0	IMDE5E9	"X'E5E9" MQ Series
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0	(0)	BITSTRING	0	IMDE5ED	"X'E5ED" MQ Series
0	(0)	BITSTRING	0	IMDE5EE	"X'E5EE" MQ Series
0	(0)	BITSTRING	0	IMDE5EF	"X'E5EF" Netview PPI
0	(0)	BITSTRING	0	IMDE5F0	"X'E5F0" Host Command Facilities
0	(0)	BITSTRING	0	IMDE5F1	"X'E5F1" VM Group Control Subsystem
0	(0)	BITSTRING	0	IMDE5F4	"X'E5F4" Netview Session Monitor
0	(0)	BITSTRING	0	IMDE5F5	"X'E5F5" Netview Session Monitor
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0	(0)	BITSTRING	0	IEFDB400EB	"X'EF1E" DYNALLOC
0	(0)	BITSTRING	0	IEFDB400EA	"X'EF1F" DYNALLOC
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0	(0)	BITSTRING	0	IMDLANR6	"X'EF25" LANRES
0	(0)	BITSTRING	0	IMDLANR7	"X'EF26" LANRES
0	(0)	BITSTRING	0	IMDLANR8	"X'EF27" LANRES
0	(0)	BITSTRING	0	IMDLANR9	"X'EF28" LANRES
0	(0)	BITSTRING	0	IMDLANRA	"X'EF29" LANRES
0	(0)	BITSTRING	0	IMDLANRB	"X'EF2A" LANRES
0	(0)	BITSTRING	0	IMDLANRC	"X'EF2B" LANRES
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0	(0)	BITSTRING	0	IMDLANRH	"X'EF30" LANRES
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0	(0)	BITSTRING	0	IMDLANRM	"X'EF35" LANRES
0	(0)	BITSTRING	0	IMDLANRN	"X'EF36" LANRES
0	(0)	BITSTRING	0	IMDLANRO	"X'EF37" LANRES
0	(0)	BITSTRING	0	IMDLANRP	"X'EF38" LANRES
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# IMDMEDIT Map

Offsets		Type/Value	Len	Name (Dim)	Description
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0	(0)	BITSTRING	0	IMDEF43	"X'EF43" MVS System Logger
0	(0)	BITSTRING	0	IMDEF44	"X'EF44" RACF
0	(0)	BITSTRING	0	IMDEF45	"X'EF45" RACF
0	(0)	BITSTRING	0	IMDEF47	"X'EF47" Open Systems Interconnection File Service
0	(0)	BITSTRING	0	IMDEF48	"X'EF48" MVS IOS
0	(0)	BITSTRING	0	IMDEF49	"X'EF49" Bulk Data Transfer
0	(0)	BITSTRING	0	IMDEF52	"X'EF52" Netview Distribution Manager
0	(0)	BITSTRING	0	IMDOSIC	"X'EF53" Open Systems Interconnection Communications Subsystem
0	(0)	BITSTRING	0	IMDFSIT4	"X'EF54" FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT5	"X'EF55" FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT6	"X'EF56" FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT7	"X'EF57" FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT8	"X'EF58" FSI TRACE
0	(0)	BITSTRING	0	IMDFSIT9	"X'EF59" FSI TRACE
0	(0)	BITSTRING	0	IMDFSITA	"X'EF5A" FSI TRACE
0	(0)	BITSTRING	0	IMDFSITB	"X'EF5B" FSI TRACE
0	(0)	BITSTRING	0	IMDFSITC	"X'EF5C" FSI TRACE
0	(0)	BITSTRING	0	IMDFSITD	"X'EF5D" FSI TRACE
0	(0)	BITSTRING	0	IMDDB2VT	"X'EF5F" DB2/VSAM TRANSPARENCY
0	(0)	BITSTRING	0	IMDEF60	"X'EF60" JES 3
0	(0)	BITSTRING	0	IMDEF62	"X'EF62" Dynamic Output SVC installation exit
0	(0)	BITSTRING	0	IMDEF63	"X'EF63" Converter/Interpreter installation exit
0	(0)	BITSTRING	0	IMDVSM	"X'EF65" VIRTUAL STORAGE MANAGER
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0	(0)	BITSTRING	0	IMDTCAM7	"X'EFA7" TCAM
0	(0)	BITSTRING	0	IMDTCAM8	"X'EFA8" TCAM
0	(0)	BITSTRING	0	IMDTCAM9	"X'EFA9" TCAM
0	(0)	BITSTRING	0	IMDGPD00	"X'EFAC" NetSpool
0	(0)	BITSTRING	0	IMDEFAD	"X'EFAD" VM Group Control Subsystem
0	(0)	BITSTRING	0	IMDEFAE	"X'EFAE" VM Group Control Subsystem RSCS
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0	(0)	BITSTRING	0	IMDGPD02	"X'EFB0" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD03	"X'EFB1" RESERVED FOR GPD



Offsets		Type/Value	Len	Name (Dim)	Description
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0	(0)	BITSTRING	0	IMDGPD07	"X'EFB5" RESERVED FOR GPD
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0	(0)	BITSTRING	0	IMDGPD13	"X'EFBB" RESERVED FOR GPD
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0	(0)	BITSTRING	0	IMDGPD24	"X'EF C6" RESERVED FOR GPD
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0	(0)	BITSTRING	0	IMDGPD30	"X'EF CC" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD31	"X'EF CD" RESERVED FOR GPD
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0	(0)	BITSTRING	0	IMDGPD44	"X'EF DA" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD45	"X'EF DB" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD46	"X'EF DC" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD47	"X'EF DD" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD48	"X'EF DE" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD49	"X'EF DF" RESERVED FOR GPD
0	(0)	BITSTRING	0	IMDGPD50	"X'EF E0" RESERVED FOR GPD
0	(0)	BITSTRING	0	ISTVIED	"X'EF E1" ACF/VTAM INTERNAL TRACE
0	(0)	BITSTRING	0	ISTTHEID	"X'EF E2" TSO/VTAM TGET/TPUT TRACE
0	(0)	BITSTRING	0	ISTTREID	"X'EF E3" VTAM RESERVED
0	(0)	BITSTRING	0	ISTTDEID	"X'EF E4" ACF/VTAM NCP LINE TYPE TRACE
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0	(0)	BITSTRING	0	IGGSP112	"X'EF F6" SAM/PAM/DAM
0	(0)	BITSTRING	0	IGGSP215	"X'EF F7" SAM/PAM/DAM
0	(0)	BITSTRING	0	IGGSP119	"X'EF F8" SAM/PAM/DAM
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0	(0)	BITSTRING	0	IGGSP239	"X'EF FA" SAM/PAM/DAM
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## IMDMEDIT Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
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0	(0)	BITSTRING	0	IGGSP169	"X'EF FE" SAM/PAM/DAM
0	(0)	BITSTRING	0	IMDMDMA1	"X'EFF F" OPEN/CLOSE/EOV
0	(0)	BITSTRING	0	IECPCLD	"X'F101" PCIE LOAD
0	(0)	BITSTRING	0	IEPCPST	"X'F201" PCIE STORE
0	(0)	BITSTRING	0	IEPCPCIN	"X'F301" PCIE INT
0	(0)	BITSTRING	0	IEPCPCDM	"X'F401" PCIE DEMUX

## IMDMEDIT Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
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IEADISP2	0	2	IMDEF42	0	EF42
IEADISP3	0	3	IMDEF43	0	EF43
IEADISP4	0	1004	IMDEF44	0	EF44
IEAEINT	0	6201	IMDEF45	0	EF45
IEAFRR	0	4003	IMDEF47	0	EF47
IEAPINT	0	6101	IMDEF48	0	EF48
IEASTAE	0	4002	IMDEF49	0	EF49
IEASVCH	0	1000	IMDEF52	0	EF52
IEATINT	0	6200	IMDEF6D	0	EF6D
IEAVSLSD	0	4004	IMDEF6E	0	EF6E
IEAVSLSU	0	4005	IMDEF6F	0	EF6F
IEAVSLUR	0	4006	IMDEF60	0	EF60
IECCSCH	0	5102	IMDEF62	0	EF62
IECCS1X	0	5203	IMDEF63	0	EF63
IECEOS	0	5101	IMDEF7A	0	EF7A
IECEOSX	0	5107	IMDEF7B	0	EF7B
IECHSCH	0	5103	IMDEF7C	0	EF7C
IECINTG	0	5109	IMDEF7D	0	EF7D
IECIO1	0	5201	IMDEF7E	0	EF7E
IECIO1X	0	5202	IMDEF7F	0	EF7F
IECIO2	0	5200	IMDEF70	0	EF70
IECMSCH	0	5104	IMDEF71	0	EF71
IEPCPCDM	0	F401	IMDEF72	0	EF72
IEPCPC	0	2100	IMDEF73	0	EF73
IEPCPCIN	0	F301	IMDEF74	0	EF74
IEPCPCIX	0	2101	IMDEF75	0	EF75
IECPCLD	0	F101	IMDEF76	0	EF76
IEPCPST	0	F201	IMDEF77	0	EF77
IECRSCH	0	5106	IMDEF78	0	EF78
IECSIO	0	5100	IMDEF79	0	EF79
IECSSCH	0	5105	IMDEF8A	0	EF8A
IEXSCH	0	5108	IMDEF8B	0	EF8B
IEFDB400EA	0	EF1F	IMDEF8C	0	EF8C
IEFDB400EB	0	EF1E	IMDEF80	0	EF80
IEFDB400EC	0	EF1D	IMDEF81	0	EF81
IGGSP002	0	EFF3	IMDEF82	0	EF82
IGGSP008	0	EFF4	IMDEF83	0	EF83
IGGSP112	0	EFF6	IMDEF84	0	EF84
IGGSP119	0	EFF8	IMDEF85	0	EF85
IGGSP145	0	EFFB	IMDEF86	0	EF86
IGGSP169	0	EF FE	IMDEF87	0	EF87
IGGSP215	0	EFF7	IMDEF88	0	EF88
IGGSP235	0	EFF9	IMDEF89	0	EF89
IGGSP239	0	EFFA	IMDE5EA	0	E5EA
IGGSP251	0	EFFC	IMDE5EB	0	E5EB
IGGSP451	0	EFFD	IMDE5EC	0	E5EC
IMDCICS	0	EF6C	IMDE5ED	0	E5ED
IMDDB2VT	0	EF5F	IMDE5EE	0	E5EE
IMDEFAD	0	EFAD	IMDE5EF	0	E5EF
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IMDEF EA	0	EF EA	IMDE5E4	0	E5E4
IMDEF EB	0	EF EB	IMDE5E5	0	E5E5
IMDEF EC	0	EF EC	IMDE5E6	0	E5E6
IMDEF ED	0	EF ED	IMDE5E7	0	E5E7
IMDEF EE	0	EF EE	IMDE5E8	0	E5E8
IMDEF E5	0	EF E5	IMDE5E9	0	E5E9
IMDEF E6	0	EF E6	IMDE5FA	0	E5FA
IMDEF E7	0	EF E7	IMDE5FB	0	E5FB

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
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IMDE5F1	0	E5F1	IMDLANRJ	0	EF32
IMDE5F4	0	E5F4	IMDLANRK	0	EF33
IMDE5F5	0	E5F5	IMDLANRL	0	EF34
IMDE5F6	0	E5F6	IMDLANRM	0	EF35
IMDFSITA	0	EF5A	IMDLANRN	0	EF36
IMDFSITB	0	EF5B	IMDLANRO	0	EF37
IMDFSITC	0	EF5C	IMDLANRP	0	EF38
IMDFSITD	0	EF5D	IMDLANRQ	0	EF39
IMDFSIT4	0	EF54	IMDLANRR	0	EF3A
IMDFSIT5	0	EF55	IMDLANRS	0	EF3B
IMDFSIT6	0	EF56	IMDLANRT	0	EF3C
IMDFSIT7	0	EF57	IMDLANRU	0	EF3D
IMDFSIT8	0	EF58	IMDLANRV	0	EF3E
IMDFSIT9	0	EF59	IMDLANRW	0	EF3F
IMDGP00	0	EFAC	IMDLANR1	0	EF20
IMDGP01	0	EFAD	IMDLANR2	0	EF21
IMDGP02	0	EFB0	IMDLANR3	0	EF22
IMDGP03	0	EFB1	IMDLANR4	0	EF23
IMDGP04	0	EFB2	IMDLANR5	0	EF24
IMDGP05	0	EFB3	IMDLANR6	0	EF25
IMDGP06	0	EFB4	IMDLANR7	0	EF26
IMDGP07	0	EFB5	IMDLANR8	0	EF27
IMDGP08	0	EFB6	IMDLANR9	0	EF28
IMDGP09	0	EFB7	IMDMCSCH	0	5102
IMDGP10	0	EFB8	IMDMCS1X	0	5203
IMDGP11	0	EFB9	IMDMDMA1	0	EEEE
IMDGP12	0	EFBA	IMDMDSP	0	3
IMDGP13	0	EFBB	IMDMDSP1	0	1
IMDGP14	0	EFBC	IMDMDSP2	0	2
IMDGP15	0	EFBD	IMDMDSP3	0	3
IMDGP16	0	EFBE	IMDMDSP4	0	1004
IMDGP17	0	EFBF	IMDMEOS	0	5101
IMDGP18	0	EFC0	IMDMEOSX	0	5107
IMDGP19	0	EFC1	IMDMEXT	0	6201
IMDGP20	0	EFC2	IMDMFRR	0	4003
IMDGP21	0	EFC3	IMDMHSCH	0	5103
IMDGP22	0	EFC4	IMDMINTG	0	5109
IMDGP23	0	EFC5	IMDMIO1	0	5201
IMDGP24	0	EFC6	IMDMIO1X	0	5202
IMDGP25	0	EFC7	IMDMIO2	0	5200
IMDGP26	0	EFC8	IMDMMSCH	0	5104
IMDGP27	0	EFC9	IMDMPCI	0	2100
IMDGP28	0	EFCA	IMDMPCIX	0	2101
IMDGP29	0	EFCB	IMDMPI	0	6101
IMDGP30	0	EFCC	IMDMPIPG	0	0
IMDGP31	0	EFCD	IMDMRSCH	0	5106
IMDGP32	0	EFCE	IMDMSIO	0	5100
IMDGP33	0	EFCF	IMDMSLSLSD	0	4004
IMDGP34	0	EFD0	IMDMSLSU	0	4005
IMDGP35	0	EFD1	IMDMSLUR	0	4006
IMDGP36	0	EFD2	IMDMSRM	0	4001
IMDGP37	0	EFD3	IMDMSSCH	0	5105
IMDGP38	0	EFD4	IMDMSSM	0	0
IMDGP39	0	EFD5	IMDMSSM1	0	0
IMDGP40	0	EFD6	IMDMSTAE	0	4002
IMDGP41	0	EFD7	IMDMSVC	0	1000
IMDGP42	0	EFD8	IMDMTINT	0	6200
IMDGP43	0	EFD9	IMDMTP1	0	8100
IMDGP44	0	EFDA	IMDMTP2	0	8200
IMDGP45	0	EFDB	IMDMXSCH	0	5108
IMDGP46	0	EFDC	IMDOSIC	0	EF53
IMDGP47	0	EFDD	IMDTCAM0	0	EFA0
IMDGP48	0	EFDE	IMDTCAM1	0	EFA1
IMDGP49	0	EFDF	IMDTCAM2	0	EFA2
IMDGP50	0	EFE0	IMDTCAM3	0	EFA3
IMDLANRA	0	EF29	IMDTCAM4	0	EFA4
IMDLANRB	0	EF2A	IMDTCAM5	0	EFA5
IMDLANRC	0	EF2B	IMDTCAM6	0	EFA6
IMDLANRD	0	EF2C	IMDTCAM7	0	EFA7
IMDLANRE	0	EF2D	IMDTCAM8	0	EFA8
IMDLANRF	0	EF2E	IMDTCAM9	0	EFA9
IMDLANRG	0	EF2F	IMDVSM	0	EF65
IMDLANRH	0	EF30	IRASRM	0	4001

## IMDMEDIT Cross Reference

Name	Hex Offset	Hex Value
ISPTPIO1	0	8100
ISPTPIO2	0	8200
ISTCLEID	0	EFF1
ISTLNEID	0	EFF2
ISTRPEID	0	EFF0
ISTTDEID	0	EFE4
ISTTHEID	0	EFE2
ISTTPEID	0	EFEF
ISTTREID	0	EFE3
ISTVIEID	0	EFE1

## INF Information

### INF Heading Information

**Common Name:** VSM Information Message Table  
**Macro ID:** IHAINF  
**DSECT Name:** DSECT  
**Owning Component:** Virtual Storage Manager (SC1CH)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: 245  
 Key: 0  
**Size:** 48 bytes  
**Created by:** IGVVSERR  
**Pointed to by:** CVTQMSG  
**Serialization:** COMPARE AND SWAP  
**Function:** Contains information about an ABEND which is used to generate message IEA705I

### INF Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	48	INFLIST	INFORMATION LIST
0	(0)	ADDRESS	4	INFASCB	ASCB ADDRESS
4	(4)	CHARACTER	44	INFBODY	MAIN BODY OF ENTRY
4	(4)	ADDRESS	4	INFTCB	CURRENT TCB
8	(8)	ADDRESS	4	INFBADDR	VSM CALLERS RETURN ADDRESS
12	(C)	SIGNED	2	INFVARCT	COUNT OF VAR FIELDS
14	(E)	SIGNED	2	INFCC	SYSTEM COMPLETION CODE
16	(10)	UNSIGNED	1	INFCL	ABEND REASON CODE
17	(11)	CHARACTER	1	INFFLG	FLAG BYTE
		1... ....		INFBRENT	BRANCH ENTRY WHEN ON
		.1... ....		INFFRMN	FREEMAIN WHEN ON
18	(12)	CHARACTER	2	*	RESERVED
20	(14)	CHARACTER	4	INFVAR	VARIABLE INFORMATION
				(4294967303:562115048)	
48	(30)	CHARACTER	0	INFEND	END OF MAPPING MACRO

### INF Cross Reference

Name	Hex Offset	Hex Value
INFASCB	0	
INFBADDR	8	
INFBODY	4	
INFBRENT	11	80
INFCC	E	
INFCL	10	
INFEND	30	
INFFLG	11	
INFFRMN	11	40
INFLIST	0	
INFTCB	4	
INFVAR	14	
INFVARCT	C	



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## IOBE Information

### IOBE Programming Interface information

Programming Interface information

IOBE

End of Programming Interface information

## IOBE Heading Information • IOBE Map

### IOBE Heading Information

**Common Name:** Input/Output Block (IOB) Extension  
**Macro ID:** IOSDIOBE  
**DSECT Name:** IOSDIOBE  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** IOBE  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: User  
 Key: User  
 Data Space: No  
 Residency: 31 Bit  
**Size:** 48-bytes  
**Created by:** Issuer of EXCP or STARTIO  
**Pointed to by:** Register 0 at the time of the EXCP  
 IOSXIOBE for I/O drivers  
**Serialization:** None  
**Function:** An optional control block used by users of EXCP or of the I/O driver interface. It is used as a communication area between the user, IOS and device dependent code such as Error Recovery Procedures (ERPs). For I/O drivers, the IOBE is an extension of the IOSB extension (IOSBE) and is pointed to from the IOSBE via field IOSXIOBE. When the IOBE is used by EXCP users, the IOBE is pointed to by register 0 at entry to EXCP. EXCP then saves the address of the IOBE in the Request Queue Element (RQE).

### IOBE Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IOBE	Input/Output Block Extension
0	(0)	CHARACTER	4	IOBEID	Eye catcher.
4	(4)	BITSTRING	1	IOBEVERS	Version number.
5	(5)	BITSTRING	1	IOBEFLG1	Flags field. The bits in this flag are reserved and are not part of the programming interface.
		1... ....		IOBESPAB	"X'80" Suppress EXCP abends. The user requests to be posted back instead of getting abended with a completion code. (Only valid for E00 abends.)
Comment					
EQU X'7F' Reserved					
End of Comment					
6	(6)	BITSTRING	1	IOBEFLG2	Flag field 2. The bits in this flag byte are intended for use by the issuer of EXCP to control the execution of the channel program
		1... ....		IOBEMIDA	"X'80" This channel program uses MIDAWs.
		.1. ....		IOBEP	"X'40" Prefetching of CCWs and data is allowed
		..1. ....		IOBECPNM	"X'20" When set, channel program cannot be modified during execution, other than to add CCWs at the end
		...1 ....		IOBEEIDA	"X'10" 4K 8-Byte IDAWs
		.... 1..		IOBEPICIS	"X'08" PCI Synchronization: Set on by I/O driver to indicate that the channel must synchronize after the next CCW following the the PCI (CCW+8) when prefetching (IOSP) is also set.
		.... .1.		IOBNORWS	"X'04" No Read/Write Synchronization: Set on by I/O driver to indicate that the channel should not synchronize on read/write transitions when prefetching (IOSP) is also set. The driver insures that the read and writes are from different I/O buffers
		.... ..1.		IOB2CSWS	"X'02" Two Channel Status Words: Set on by the I/O driver to indicate that when CCW prefetch is requested (IOSP), if an error occurs where the control unit executes ahead of the channel, two ending CCW addresses should be presented to the driver. The second ending CCW address is contained in the IEDB. If this bit is off, an invalid ending CCW address is simulated by IOS
		.... ...1		IOBEFMT1	"X'01" Format-1 CCWs
7	(7)	BITSTRING	1	IOBEERPM	Mask indicating the functions the ERP is allowed to perform.
		1... ....		IOBEPMSG	"X'80" The user allows basic ERP recovery plus the issuance of permanent error messages that do not require interaction with the system or an operator.
		.1. ....		IOBEBPER	"X'40" Bypass permanent error recovery. Indicates that if an error is permanent, the ERP will not issue an IOS000I message, log the error, or perform other actions that the ERP might normally do for a permanent error. The I/O driver may provide an alternate means of recovery.



Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
EQU X'20' Reserved					
EQU X'10' Reserved					
EQU X'08' Reserved					
EQU X'04' Reserved					
EQU X'02' Reserved					
EQU X'01' Reserved					
End of Comment					
8	(8)	ADDRESS	4	IOBEUPTR (0)	Pointer definition of the user reserved field.
8	(8)	CHARACTER	4	IOBEUSER	Character field reserved for the user's needs.
12	(C)	ADDRESS	4	IOBEIEDB	Address of an I/O Error Data Block (IOSDIEDB).
16	(10)	BITSTRING	1	IOBEFLG3	Flag byte 3
		1... ....		IOBENSER	"X'80" Indicates that the device may bypass the channel program extent collision checking. Extent range enforcement will remain active. (DASD only)
		.1.. ....		IOBENVAL	"X'40" Indicates that the device is to bypass the validation checking of the paramaters on Define Extent and Locate Record commands. Extent enforcement remains active. (DASD only)
		..1. ....		IOBEDSMC	"X'20" Set ON by user to disable Streaming Mode Control for the current I/O operation.
		...1 ....		IOBEIOT	"X'10" When 0, IOBETIME only applies to active requests. When 1, IOBETIME applies to queued and active requests.
		.... 1...		IOBEDCWOFFSETVALID	"X'08" The value in IOBEDCWOFFset is valid. Must be set to zero by the driver.
		.... .1..		IOBERESCOUNTVALID	"X'04" The value in IOBEResCount is valid. Must be set to zero by the driver.
		.... ..1.		IOBEKEYFLDS0	"X'02" Key fields contain zero
		.... ...1		IOBENOIL	"X'01" For system use
17	(11)	CHARACTER	1	IOBESIOC	SIO condition code for format 1 EXCP/EXCPVR requests
18	(12)	BITSTRING	1	IOBETIME	Only honored when the DEB indicates the dataset was opened for input. When non-0, this is the maximum time value, in seconds, that the EXCP allows before an MIH condition is declared, regardless of the MIH setting for the device or whether MIH is is being bypassed. No message or logrec entry will be created when the condition occurs.
19	(13)	BITSTRING	1	IOBEFLG4	Flag byte 4
		1... ....		IOBEZHPF	"X'80" zHPF channel program - used for EXCPVR and EXCP virtual requests
20	(14)	BITSTRING	4	IOBERESCOUNT	Residual count for FCX. Must be set to zero by the driver
24	(18)	BITSTRING	2	IOBEDCWOFFSET	Offset of the last executed DCW within the DCW list. Valid only when IOBEDCWOFFsetValid is on. Must be set to zero by the driver.
26	(1A)	BITSTRING	2	IOBEDDPC_DATA (0)	Device dependent program check data
26	(1A)	BITSTRING	1	IOBEDDPC_RC	Reason code
27	(1B)	BITSTRING	1	IOBEDDPC_RCQ	First byte of reason code qualifier information
28	(1C)	BITSTRING	1	IOBERCOD	I/O completion reason code for EXCPVR and EXCP requests
29	(1D)	CHARACTER	15		Reserved
44	(2C)	ADDRESS	4	IOBECTKN	Pointer to I/O configuration token
44	(2C)	X'30'	0	IOBEEEND	"" End of IOBE.
44	(2C)	X'30'	0	IOBELNTH	"IOBEEEND-IOBE" Length of IOBE.
44	(2C)	X'1'	0	IOBEVRSC	"1" Version number.

## IOBE Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
IOBE	0		IOBEERPM	7	
IOBEBPER	7	40	IOBEFLG1	5	
IOBECPNM	6	20	IOBEFLG2	6	
IOBECTKN	2C		IOBEFLG3	10	
IOBEDCWOFFSET	18		IOBEFLG4	13	
IOBEDCWOFFSETVALID	10	8	IOBEFMT1	6	1
IOBEDDPC_DATA	1A		IOBEID	0	
IOBEDDPC_RC	1A		IOBEIEDB	C	
IOBEDDPC_RCQ	1B		IOBEIOT	10	10
IOBEDSMC	10	20	IOBEKEYFLDS0	10	2
IOBEEIDA	6	10	IOBELNTH	2C	30
IOBEEEND	2C	30	IOBEMIDA	6	80
			IOBENOIL	10	1
			IOBENSER	10	80
			IOBENVAL	10	40

## IOBE Cross Reference

Name	Hex Offset	Hex Value
IOBEP	6	40
IOBEP CIS	6	8
IOBEPMSG	7	80
IOBERCOD	1C	
IOBERESCOUNT	14	
IOBERESCOUNTVALID	10	4
IOBESIOC	11	
IOBESPAB	5	80
IOBETIME	12	
IOBEUPTR	8	
IOBEUSER	8	
IOBEVERS	4	
IOBEVRSC	2C	1
IOBEZHPF	13	80
IOBNORWS	6	4
IOB2CSWS	6	2

## **IOCOM Information**

### **IOCOM Programming Interface information**

Programming Interface information

#### **IOCOM**

**ONLY** the following fields are part of the programming interface information:

- IOCCSSID
- IOCEMW
- IOCMCSS
- IOCPAVE
- IOCDATH
- IOIECAA
- IOCOMWPT

End of Programming Interface information

## IOCOM Heading Information • IOCOM Map

### IOCOM Heading Information

**Common Name:** I/O Communication area  
**Macro ID:** IECDIOCM  
**DSECT Name:** IOCOM, IOCOMW  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** IOCM  
 Offset: IOCOM-16  
 Length: 8  
**Storage Attributes:** Main Storage: YES  
 Virtual Storage: n/a  
 Auxiliary Storage: n/a  
 Subpool: N/A - Nucleus resident  
 Key: 0  
 Residency: Below 16M  
**Size:** See assembler listing.  
**Created by:** IOSVDATA  
**Pointed to by:** CVTIXAVL field of the CVT data area to the IOCOM data area  
 IOWIOCOM field of the IOWA data area to the IOCOM data area  
 IOCOMWPT field of the IOCOM data area to the IOCOM writable  
 IOWIOCMW field of the IOWA data area to the IOCOM writable  
 IOCOMEX field of the IOCOM data area to the IOCOM extension  
 IOCSYNCA field of the IOCOM data area to the IOS SYNCH table  
**Serialization:** None for the readable portion of the IOCOM. The writable portion of the IOCOM (IOCOMW), the IOCHTFLD, is serialized using CDS instruction.  
**Function:** IOCOM contains addresses to IOS modules and control blocks.

### IOCOM Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IOCOM	
0	(0)	X'0'	0	IECIXAVL	"IOCOM" Compatibility name
0	(0)	DBL WORD	8	(0)	
0	(0)	SIGNED	2	IOCVOICT	Number of VOID entries *calculated by IEAIPL03
2	(2)	SIGNED	2	IOCVOILN	Length of each VOID table entry
4	(4)	ADDRESS	4	IOCPST	X'80000000'+IECPST Entry address of the IOS Post Status module
8	(8)	ADDRESS	4	IOCOMWPT	"V" IECOMW Pointer to modifiable part of IOCOM
12	(C)	ADDRESS	4	IOCSSCQ	X'80000000'+IOSVSSCQ Entry address for the STARTIO macro
16	(10)	ADDRESS	4	IOCMAP	X'80000000'+IECVMAP Entry address of the IOSMAP routine
20	(14)	ADDRESS	4	IOCSMFRR	X'80000000'+IOSVQFRR Address of IOQ Storage Manager FRR routine
24	(18)	ADDRESS	4	IOCSCOMP	X'80000000'+IOSVSCOM Address of IOS Storage Manager SRB entry compress routine
28	(1C)	ADDRESS	4	IOCSTIO	X'00000000'+IECVSTIO Entry address of the compatibility STARTIO macro
32	(20)	ADDRESS	4	IOCVoid	"V" IECVOID Address of vector of IOS drivers
36	(24)	ADDRESS	4	IOCIOSM	X'80000000'+IOSVSMGR Start address of the IOS Storage Manager
40	(28)	ADDRESS	4	IOCDIRB	"V" IOSVIRB Pointer to default error IRB
44	(2C)	ADDRESS	4	IOCPRGID	X'80000000'+IOSPGRTM Purge Dequeue routine address
48	(30)	ADDRESS	4	IOCHHRB	"V" IOSVCHRB Pointer to the channel recovery block (IOSDCHRB)
52	(34)	ADDRESS	4	IOCIDST	"V" IOSVISDT Pointer to the interrupt subclass definition table
56	(38)	ADDRESS	4	IOCSWAP	X'80000000'+IOSVSWAP Entry address of the SWAP device function
60	(3C)	ADDRESS	4	IOCSHUP	X'80000000'+IOSVSHUP Entry address of the routine to check for device reservations.
64	(40)	ADDRESS	4	IOCOMEX	IOSVIOCX Address of the IOCOM extension
68	(44)	ADDRESS	4	IOCATTBL	"V" IOSVATTN Address of attention table
72	(48)	ADDRESS	4	IOCSYNCA	"V" IOSVSYLK Address of the IOS Synchronization lock table
76	(4C)	ADDRESS	4	IOCCNT	X'80000000'+IOSVCNT Entry address of the routine to count requests queued on a UCB
80	(50)	ADDRESS	4	IOCHSCH	X'80000000'+IOSVHSCH Entry address of the Halt and Clear subchannel routine
84	(54)	ADDRESS	4	IOCGENA	X'00000000'+IECVGENA Address of IOSGEN subroutine
88	(58)	ADDRESS	4	IOCMSCQ	X'80000000'+IOSVMSCQ Entry address of the Modify subchannel routine
92	(5C)	ADDRESS	4	IOCBHSPCI	X'80000000'+BHIP1PCI Entry address of the BHS PCI interface routine
96	(60)	ADDRESS	4	IOCSTSQ	X'80000000'+IOSVSTSQ Entry address of the Store subchannel routine
100	(64)	ADDRESS	4	IOCTCCW	X'00000000'+IECVTCCW Address of CCW translator
104	(68)	ADDRESS	4	IOCSVCF	X'80000000'+IGC015 Entry point of SVC F in the IOS Post Status module
108	(6C)	ADDRESS	4	IOCVARY	X'80000000'+IOSVVARY Entry address of the Vary routine
112	(70)	ADDRESS	4	IOCCNXL	X'80000000'+IOSVCNXL Entry address of the cancel request routine
116	(74)	ADDRESS	4	IOQCNT	X'00000000'+IECVQCNT Address of purge IPIB quiesce count decrement/post subroutine
120	(78)	ADDRESS	4	IOCASCB	"V" IEAMASCB ASCB used for scheduling
124	(7C)	ADDRESS	4	IOCNSTP	Address of the NIP SCHIB table. Set by IEAIPL03, reset by IEAVNP02.
128	(80)	ADDRESS	4	IOCIOWA	"V" IOSVIOWA Address of IOWA table
132	(84)	ADDRESS	2	IOCIOWEL	IOWEL Length of IOWA

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
134	(86)	ADDRESS	2	IOCSMGSZ	0 Size of processor related storage
136	(88)	ADDRESS	4	IOCCPRM	X'80000000'+IOSVCPRM Address of IOS Storage Manager initialization routine
140	(8C)	ADDRESS	4	IOCSCP	X'80000000'+IOSVSCP Entry address of the start channel-program service routine
144	(90)	ADDRESS	4	IOCSIOQC	X'80000000'+IOSVIOQC Entry address of the scan- IOQ-chain service routine
148	(94)	ADDRESS	4	IOCSDUMP	"V" IOSVDUMP Address of the IOS SDUMP parameter list
152	(98)	ADDRESS	4	IOCHCRS	X'80000000'+IOSVHCRS Address of Halt/Clear resource service routine to free resources tied to the associated start IOSB
156	(9C)	ADDRESS	4	IOCZTAB	"V" IOSVZTAB Address of module work area table
160	(A0)	ADDRESS	4	IOCSMHDR	"V" IOSVQHDR Pointer to IOS storage page pool header tables
164	(A4)	ADDRESS	4	IOCSMLG	X'80000000'+IOSVSMGLG Address of IOS Storage Manager get large block entry
168	(A8)	ADDRESS	4	IOCSMLF	X'80000000'+IOSVSMFLF Address of IOS Storage Manager free large block entry
172	(AC)	ADDRESS	4	IOCSMPF	X'80000000'+IOSVSMFPF Address of IOS Storage Manager purge/free entry
176	(B0)	ADDRESS	4	IOCSMMG	X'80000000'+IECVSMMG Address of IOS Storage Manager EXCP get RQE (medium) block entry
180	(B4)	ADDRESS	4	IOCSMMF	X'80000000'+IECVSMMF Address of IOS Storage Manager EXCP free RQE (medium) block entry
184	(B8)	ADDRESS	4	IOCSMEG	X'80000000'+IECVSMEG Address of IOS Storage Manager EXCP get large block entry
188	(BC)	ADDRESS	4	IOCSMEF	X'80000000'+IECVSMEF Address of IOS Storage Manager EXCP free large block entry
192	(C0)	ADDRESS	4	IOCDPTH	X'80000000'+IECVDPATH Address of Dynamic Pathing module
196	(C4)	ADDRESS	4	IOCLEVL	X'00000000'+IOSVLEVL Entry address of the IOS Level routine
200	(C8)	ADDRESS	4	IOCRSUM	X'00000000'+IOSVRSUM Entry address of the Resume I/O routine
204	(CC)	ADDRESS	4	IOCEXHDR	"V" IECVSHDR Pointer to EXCP storage page pool header tables
208	(D0)	ADDRESS	4	IOCIOVTP	"V" IOVT Address of IOS Vector Table (IOVT)
212	(D4)	ADDRESS	4	IOCDPSV	X'80000000'+IOSRDPSV DPS Validation
216	(D8)	ADDRESS	4	IOCBIND	X'80000000'+IOSVBIND IOS PAV BIND Service
220	(DC)	ADDRESS	4	IOCSMT	X'80000000'+IOSCSMT IOS SCMT services
224	(E0)	ADDRESS	4	IOCCMB	X'80000000'+IOSVCMB IOS CMB Service
228	(E4)	ADDRESS	4	IOCHSWP	X'80000000'+IOSVHSWP IOS Hyperswap Initiation Service
232	(E8)	BITSTRING	1	IOCDRLV	DDR Level. Initialized by IOS Storage Manager at NIP.
233	(E9)	BITSTRING	3		Available
236	(EC)	ADDRESS	4	IOCCSTK	X'80000000'+IOSVCSTK IOS CPU Stack Service
240	(F0)	ADDRESS	4	IOCFBND	X'80000000'+IOSVFBND IOS Fast BIND Service
244	(F4)	ADDRESS	4	IOCRSV4 (6)	Reserved
268	(10C)	ADDRESS	4	IOCLVTBL	"V" IOSVLVTB Pointer to the IOS level table
272	(110)	BITSTRING	1	IOCFLAGS	IOCOM flag and ID byte
		1... ....		IOCSINTC	"X'80" IEAVNP02 subchannel initialization complete (set by IEAVNP02)
		.1. ....		IOCIODF	"X'40" IPL sets on if the IODF IPL path was used.
		.1. ....		IOCCRWE	"X'20" IEAVNP02 sets on when enabling for CRWs.
		...1 ....		IOCPAVS	"X'10" PAVs are supported
		.... 1...		IOCEMW	"X'08" Extended I/O measurement word facility is enabled
		.... .1..		IOCMCSS	"X'04" The multiple channel subsystem (MCSS) facility is supported by the hardware
272	(110)	X'110'	0	IOCHSSID	"IOCFLAGS+0,1" Highest subchannel set ID in use (bits 6-7)
273	(111)	BITSTRING	1	IOCQSCLV	Quiesce level. Initialized by IOS Storage Manager at NIP time
274	(112)	BITSTRING	1	IOCIOQVR	IOQ Version number
		.... ...1		IOCIOQV1	"X'01" IOQ Version 1. The IOQ has 92 bytes workarea for the device dependent exits
275	(113)	BITSTRING	1	IOCCSSID	Default channel subsystem id for this logical partition
276	(114)	ADDRESS	4	IOCIOQSQ	"V" IOSVIOSQ Address of IOS Storage Manager IOQ staging queue table
280	(118)	ADDRESS	4	IOCFDEV	X'80000000'+IOSRFDEV Address of force device SRB routine
284	(11C)	ADDRESS	4	IOCACRW	X'80000000'+IOSRACRW Address of asynchronous CRW processor
288	(120)	ADDRESS	4	IOCHIDT	"V" IOSRHIDT Address of the Hot I/O detection table
292	(124)	ADDRESS	4	IOCSCHNO	IECVGENA+X'0000001C' Address of the Subchannel number service routine in IECVGENA
296	(128)	ADDRESS	4	IOCIPID	IOSVIPID Address of the I/O prevention identifier service routine- IOSVIPID
300	(12C)	ADDRESS	4	IOCPRV	IOSVPRVT Address of the I/O Prevention service routine - IOSVPRVT
304	(130)	ADDRESS	4	IOCPURGC	IOSPURGC Address of the branch entry - IOSPURGC.
308	(134)	ADDRESS	4	IOCRERPT	Address of the resident ERP - table. (valid if IOCIODF is off)
312	(138)	ADDRESS	4	IOCCDTSR	X'80000000'+IOSCCDT Address of configuration data table service routine
316	(13C)	ADDRESS	4	IOCCUIR	X'80000000'+IOSVCUIR Address of CUIR service routine
320	(140)	ADDRESS	4	IOCSLFD	X'80000000'+IOSVSLFD Address of self description service routine
324	(144)	ADDRESS	4	IOCSLFI	X'80000000'+IOSVSLFI Address of self description initialization routine
328	(148)	ADDRESS	4	IOCIMSGA	X'80000000'+IMSGARRY Address of IOS message array
332	(14C)	ADDRESS	4	IOCMIHQ	X'80000000'+IOSVMIHQ Address of the MIH query service routine
336	(150)	ADDRESS	4	IOCMANI	X'80000000'+IOSVMANI Address of the IOS manual intervention service routine
340	(154)	ADDRESS	4	IOCCSCM	X'80000000'+IOSRCSCM Address of CSCM service routine
344	(158)	ADDRESS	4	IOCBHICT	X'80000000'+BHIT2RCD Address of BHI CTrace non BHIHSRV entry point
344	(158)	X'15C'	0	IOCOEND	"" End of the read only section of the IOCOM

# IOCOM Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	IOCOMW	Modifiable part of IOCOM
0	(0)	DBL WORD	8	(0)	
Comment					
(Addressed by IOCOMWPT)					
End of Comment					
0	(0)	CHARACTER	4	IOCIOW	Acronym for modifiable section of the IOCOM ('IOCW')
4	(4)	ADDRESS	2	IOCLNW	Length of the modifiable section of the IOCOM
6	(6)	SIGNED	2	IOCPGT	Number of active I/O purges
8	(8)	DBL WORD	8	IOCHTFLD (0)	
8	(8)	ADDRESS	4	IOCSLIH	X'8000000'+IOSVSLIH Pointer to the second level interrupt handler or the IOS interrupt trap routine. This field will also have an external label of IECSLIHA.
12	(C)	SIGNED	4	IOCHOTCT	Count of Hot Devices. If this field is not zero, IOCSLIH will point to the HOT I/O SLIH
16	(10)	ADDRESS	4	IOCMIHCA	MIHATBLE Address of the MIH work area. Prior to MIH initialization the first two bytes of the MIH work area are set to blanks. After MIH initialization, these two bytes are set to **.
20	(14)	ADDRESS	4	IOCIOPTA	Address of the I/O Prevention table (IOPT).
24	(18)	SIGNED	2	IOCIOPTC	Count of the number of IOPT table entries.
26	(1A)	SIGNED	2	IOCSSCBT	SSCB token updated everytime an SSCB is added or deleted from theCDT SSCB chain. This allows services like SSCBSCAN to check for SSCB changes.
28	(1C)	ADDRESS	4	IOCCDT	Pointer to configuration data table
32	(20)	ADDRESS	4	IOCCPAT	Pointer to channel path attribute table
36	(24)	ADDRESS	4	IOCCUIRQ	Pointer to CUIR request queue
40	(28)	SIGNED	4	IOCSLFCT	Counter used during self description initialization to keep track of the number of devices being initialized
44	(2C)	ADDRESS	1	IOCFLAG2	Flag byte. Note: IOCIOSHSWAP is initialized to '1'b and is never reset.
		1... ..		IOCSLFSD	"X'80" Indicates that scan of UCBs during self description initialization is done
		.1. ....		IOCCDTIN	"X'40" Indicates that CDT is initialized
		..1. ....		IOCCULA	"X'20" Indicates that the CULAs are initialized
		...1 ....		IOCCPCDS	"X'10" If ON, indicates the that IOS record in the couple dataset has been updated.
		.... 1...		IOCGDPSHSWAP2	"X'08" If ON, indicates that the GDPS Hyperswap Stage II environment exists, including: - Unplanned outage support - Recognition of ENF-63 as a trigger Specifically, this bit is on when the HS API address space is up and has a configuration.
		.... .1..		IOCDATH	"X'04" If ON, indicates that the "Device Active Only" time in the CMB is supported by the hardware
		.... ..1.		IOCIOSHSWAP	"X'02" If ON, indicates that the IOS Hyperswap environment exists
		.... ...1		IOCGDPSHSWAP	"X'01" If ON, indicates that the GDPS Hyperswap environment exists and is available
45	(2D)	ADDRESS	1	IOCFLAG3	Flag byte. Note: IOCODS and IOCPREFPATHS are initialized to '1'b and never reset
		1... ..		IOCODS	"X'80" Offline Device Services are supported
		.1. ....		IOCDPINC	"X'40" If ON, indicates that dynamic pathing initialization processing is complete for all online devices. (set by IECVIOS)
		..1. ....		IOJES3HSWAP	"X'20" If ON, indicates that JES3 supports hyperswaps (Set by JES3).
		...1 ....		IOCPREFPATHS	"X'10" If ON, preferred pathing is supported by IOS.
		.... 1...		IOCGDPSIOT	"X'08" If ON, indicates that GDPS supports the IO Timing trigger for HyperSwap
		.... ..1.		IOCBAND	"X'04" If ON, indicates that in-band Key management is preferred
		.... ..1.		IOCGDPSHSWPACT	"X'02" If ON, indicates that a HyperSwap is in the process of being performed
		.... ...1		IOCGDPSHSWPCLN	"X'01" If ON, indicates that HyperSwap is in the process of post swap cleanup
46	(2E)	BITSTRING	2		Reserved
48	(30)	ADDRESS	4	IOCPURGQ	Anchor for global queue of Purge Quiesce IPIBs. Serialized via the IOSYNCH lock.
52	(34)	ADDRESS	4	IOCPAVE	"V(PAVE)" Anchor for PAV Exit Table
56	(38)	ADDRESS	4	IOIECAA	"V(IECA)" Address of IOS Extended Communication Area
60	(3C)	SIGNED	4	IOCCADSALET	CADS Alet
64	(40)	SIGNED	4	IOCFLAG4 (0)	Flag Word
64	(40)	BITSTRING	1	IOCFLG4A	Flag Byte
		1... ..		IOCHPAV	"X'80" On, HYPERPAV=YES
		.1. ....		IOCHPBO	"X'40" On, HYPERPAV=BASEONLY
		..1. ....		IOCHPAVD	"X'20" On, at least one LSS is in HYPERPAV mode
		...1 ....		IOCHPFIL	"X'10" zHPF incorrect length support provided by the processor
		.... 1...		IOCSWAPMGRSETSSYSCANHSWAP	"X'08" 0-There is no hyperswap manager or the hyperswap manager does not support the IOCSysCanHyperSwap flag 1-The hyperswap manager supports the IOCSysCanHyperSwap flag
		.... .1..		IOCSYSTEMCANHYPERSWAP	

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
65	(41)	BITSTRING	3		"X'04" 0-The sysplex and/or this system is currently not enabled for hyperswap 1-The sysplex and this system are currently enabled for hyperswap
68	(44)	ADDRESS	4	IOC_BHS_CSMARRAY@	Reserved Address of the BHS CsmArray
72	(48)	BITSTRING	4		Reserved
72	(48)	X'4C'	0	IOSENDW	*** End of the modifiable section of the IOCOM

## IOCOM Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
IECIXAVL	0	0	IOECIEAA	38	
IOC_BHS_CSMARRAY@			IOCIMSGA	148	
	44		IOCINBAND	2D	4
IOACACRW	11C		IOCIOCW	0	
IOACASCB	78		IOCIODF	110	40
IOACATTBL	44		IOCIOPTA	14	
IOCBHICT	158		IOCIOPTC	18	
IOCBHSPCI	5C		IOCIOQSQ	114	
IOCBIND	D8		IOCIOQVR	112	
IOCCADSALET	3C		IOCIOQV1	112	1
IOCCDT	1C		IOCIOSSWAP	2C	2
IOCCDTIN	2C	40	IOCIOSSM	24	
IOCCDTSR	138		IOCIOVTP	D0	
IOCCHRB	30		IOCIOWA	80	
IOCCMB	E0		IOCIOWEL	84	
IOCCNT	4C		IOCIPID	128	
IOCCNXL	70		IOCISDT	34	
IOCCPAT	20		IOCIJES3HSWAP	2D	20
IOCCPRM	88		IOCLENW	4	
IOCCRWE	110	20	IOCLEVL	C4	
IOCCSCM	154		IOCLVTBL	10C	
IOCCSSID	113		IOCMANI	150	
IOCCSTK	EC		IOCMAP	10	
IOCCUIR	13C		IOCMCSS	110	4
IOCCUIRQ	24		IOCMIHCA	10	
IOCCULA	2C	20	IOCMIHQ	14C	
IOCDAOTH	2C	4	IOCMSCQ	58	
IOCDRLV	E8		IOCNSTP	7C	
IOCDIRB	28		IOCODS	2D	80
IOCDPINC	2D	40	IOCOEND	158	15C
IOCDPSV	D4		IOCOM	0	
IOCDPTH	C0		IOCOMEX	40	
IOCEMW	110	8	IOCOMW	0	
IOSENDW	48	4C	IOCOMWPT	8	
IOCEXHDR	CC		IOCPAVE	34	
IOCFBND	F0		IOCPAVS	110	10
IOCFDEV	118		IOCPGCT	6	
IOCFLAGS	110		IOCPREFPATHS	2D	10
IOCFLAG2	2C		IOCPRGID	2C	
IOCFLAG3	2D		IOCPRTV	12C	
IOCFLAG4	40		IOCPST	4	
IOCFLG4A	40		IOCPURGQ	30	
IOCGDPSHSWAP	2C	1	IOQCNT	74	
IOCGDPSHSWAP2			IOQSCLV	111	
	2C	8	IOCRERPT	134	
IOCGDPSHSWPACT			IOCRSUM	C8	
	2D	2	IOCRSV4	F4	
IOCGDPSHSWPCLN			IOCSCHNO	124	
	2D	1	IOCSCHNO	124	
IOCGDPSIOT	2D	8	IOCSCHNO	124	
IOCGENA	54		IOCSCHNO	124	
IOCHCRS	98		IOCSCHNO	124	
IOCHIDT	120		IOCSCHNO	124	
IOCHOTCT	C		IOCSCHNO	124	
IOCHPAV	40	80	IOCSCHNO	124	
IOCHPAVD	40	20	IOCSCHNO	124	
IOCHPBO	40	40	IOCSCHNO	124	
IOCHSCH	50		IOCSCHNO	124	
IOCHSSID	110	110	IOCSCHNO	124	
IOCHSWP	E4		IOCSCHNO	124	
IOCHTFLD	8		IOCSCHNO	124	

## IOCOM Cross Reference

Name	Hex Offset	Hex Value
IOCSMEG	B8	
IOCSMFRR	14	
IOCSMGSZ	86	
IOCSMHDR	A0	
IOCSMLF	A8	
IOCSMLG	A4	
IOCSMMF	B4	
IOCSMMG	B0	
IOCSMPF	AC	
IOCSSCBT	1A	
IOCSSCQ	C	
IOCSTIO	1C	
IOCSTSQ	60	
IOCSVCF	68	
IOCSWAP	38	
IOCSWAPMGRSETSSYSKANHSWAP	40	8
IOCSYNCA	48	
IOCSYSTEMCANHYPERSWAP	40	4
IOCTCCW	64	
IOCUPCDS	2C	10
IOCURGC	130	
IOCVARY	6C	
IOCVOICT	0	
IOCVOID	20	
IOCVOILN	2	
IOZHPFIL	40	10
IOCZTAB	9C	



## IOQ Information

### IOQ Heading Information

**Common Name:** IOS Queue Element  
**Macro ID:** IECDIOQ  
**DSECT Name:** IOQ and IOQE  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** IOQ  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Main Storage: YES  
 Virtual Storage: n/a  
 Auxiliary Storage: n/a  
 Subpool: 226  
 Key: 0  
 Residency: Below the 16M line  
**Size:** 128 bytes  
**Created by:** IOS  
**Pointed to by:** IOQCHAIN field of the IOQ data area (next IOQ)  
 UCBIQ field of the IOQ data area  
 UCBIQF field of the UCB data area  
 UCBIQL field of the UCB data area.  
**Serialization:** The respective UCB lock for queuing and dequeuing IOQs on the UCB IOQ chain.  
**Function:** Provides a queuing element necessary to enqueue and dequeue I/O requests on a UCB Queue. Contains the prefix CCWs associated with callers channel program.

### IOQ Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IOQ	
0	(0)	DBL WORD	8	(0)	Align on double word
0	(0)	CHARACTER	4	IOQID	Control block ID ('IOQ ')
4	(4)	CHARACTER	124	IOQIOS (0)	Area used by IOS
4	(4)	CHARACTER	28	IOQIOS1 (0)	IOS area 1
4	(4)	ADDRESS	4	IOQCHAIN	Points to next IOQ on UCB chain
8	(8)	ADDRESS	4	IOQIOSB	Address of IOSB associated with the I/O request
12	(C)	ADDRESS	4	IOQSTART	Address of the routine which will start the I/O request (SSCH, STSCH, MSCH or others)
16	(10)	BITSTRING	4	IOQFLAGS	IOS internal flags
16	(10)	BITSTRING	1	IOQFLA	IOQ activity flag byte - Byte needs to be zeroed on IOQ initialization or reuse.
		1... ..		IOQACTV	"X'80" ..IOQ active with an I/O request
		.1. ....		IOQMERGE	"X'40" ..Merge the device end status with the IOSB status.
		..1. ....		IOQPRVT	"X'20" ..This I/O request contains an IOPID (I/O Prevention Identifier) in IOSB
		...1 ....		IOQWLM	"X'10" ..This I/O request running with system in goal mode
		.... 1...		IOQIMEX	"X'08" ..This I/O request is allowed by IOS to be executed immediately.
		.... .1..		IOQSKIP	"X'04" ..This IOQ has been marked as permanently bypassed by IOS. The control blocks associated with this request could not be validated
17	(11)	BITSTRING	1	IOQPRFXO	Offset of channel program prefix set by SIO exit
18	(12)	BITSTRING	1	IOQPRI	I/O Priority value
		1111 1111		IOQHIPRI	"X'FF" ..Highest priority that can be assigned to an I/O
19	(13)	BITSTRING	1	IOQTYPE	Type of operation this IOQ represents.
		.... ....		IOQSTRT	"X'00" ..Start Subchannel request
		.... ...1		IOQSNS	"X'01" ..Sense request
		.... ..1.		IOQHLT	"X'02" ..Halt Subchannel request
		.... ...11		IOQCLR	"X'03" ..Clear Subchannel request
		.... ..1.		IOQSTOR	"X'04" ..Store Subchannel request
		.... .1.1		IOQMDFY	"X'05" ..Modify Subchannel request
		.... ..11.		IOQST1	"X'06" ..Subchannel type 1 request
		.... ..111		IOQINCPT	"X'07" ..Intercept condition request
		.... 1...		IOQINTER	"X'08" ..Interrogate request
20	(14)	ADDRESS	4	IOQAIOQ	Address of IOQ associated with this request- Halt and Clear requests
24	(18)	ADDRESS	4	IOQUCB	Address of the common segment of the UCB this request is queued on
28	(1C)	BITSTRING	2	IOQASID	ASID with which this request is associated

# IOQ Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
30	(1E)	BITSTRING	1	IOQCSSPR	Channel subsystem priority
31	(1F)	CHARACTER	1		Reserved
32	(20)	CHARACTER	4	IOQIOS2 (0)	IOQ area 2, this area should not be initialized to zero
32	(20)	ADDRESS	4	IOQEPTR	Address of IOQ Extension
36	(24)	CHARACTER	92	IOQIOS3 (0)	IOS area 3
36	(24)	BITSTRING	92	IOQDDTWT (0)	Work area for device support code
36	(24)	BITSTRING	92	IOQ_NON_FCX_FORMAT (0)	Non-FCX Format IOQ
36	(24)	CHARACTER	12		Reserved -
48	(30)	DBL WORD	8	IOQSNCCW (0)	Sense CCW
48	(30)	BITSTRING	64	IOQDDTWA (0)	Workarea for DDT exit usage. The first 8 bytes are used for Sense CCW.
48	(30)	BITSTRING	32		Sense CCW and reserved space
80	(50)	BITSTRING	32	IOQIRB	Save area for first 32-bytes of original IRB during IOS sense processing
112	(70)	CHARACTER	12		Reserved for IOS use- initialize to zeros
124	(7C)	BITSTRING	4	IOQDDTW2	Additional area for DDT exit usage
36	(24)	BITSTRING	92	IOQ_FCX_FORMAT (0)	FCX Format IOQ
36	(24)	BITSTRING	28		
64	(40)	BITSTRING	64	IOQTCW	Transport Control Word (on a 64-byte boundary)
64	(40)	X'80'	0	IOQLEN	**-'IOQ' Length of IOQ

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IOQE	
0	(0)	DBL WORD	8	(0)	Align on double word
0	(0)	BITSTRING	64	IOQEXT (0)	IOQ extension
0	(0)	CHARACTER	4	IOQEID	Control block ID ('IOQE')
4	(4)	BITSTRING	12	IOQMAREA (0)	IOQ Storage Manager area
4	(4)	ADDRESS	4	IOQSMGFP	IOQ primary queue forward pointer
8	(8)	ADDRESS	4	IOQSMGBP	IOQ primary queue backward pointer
12	(C)	ADDRESS	4	IOQSMGSQ	. IOQ staging queue address
16	(10)	BITSTRING	44	IOQEIOS (0)	Area used by IOS
16	(10)	BITSTRING	8	IOQSMGR (0)	IOQ Storage Manager header area with free chain queue word
16	(10)	ADDRESS	4	IOQSMGFQ	IOQ SMGR free chain queue word
20	(14)	BITSTRING	4	IOQSMHDR (0)	IOQ Storage Manager Header area
20	(14)	BITSTRING	4	IOQSMGH1 (0)	.
20	(14)	BITSTRING	2	IOQSMRV1	. Reserved - Initialize to zeros
22	(16)	BITSTRING	1	IOQSMRV2	. Reserved - Initialize to zeros
23	(17)	BITSTRING	1	IOQSMGAL	. IOQ allocation indication byte
		..11 11..		IOQALLOC	"X'3C" IOQ allocated indicator
		..1. ..1.		IOQDORMT	"X'22" IOQ is on the IOQ storage manager dormant queue
24	(18)	BITSTRING	2	IOQIOTCT	I/O timing count from when I/O request was placed on IOQ queue
26	(1A)	BITSTRING	2	IOQMIHCT	MIH time count from when I/O request was started
28	(1C)	CHARACTER	1	IOQMIHSF	MIH IOQ sequence usage field
29	(1D)	BITSTRING	1	IOQEFLAG	IOQ Extension Flags
		1... ....		IOQIOTQS	"X'80" ..Quiesce IO Timing for HyperSwap
		..1. ....		IOQENPFX	"X'40" No prefix command could be inserted for this I/O
		..1. ....		IOQELKNA	"X'20" Lock was not available at least one time (UCBLOCK)
		...1 ....		IOQBYPINTG	"X'10" Bypass interrogate processing for this I/O request
		.... 1...		IOQFORCERCYV	"X'08" A problem with user I/O control blocks occurred. IOS sets this flag to force MIH to provide IOQ recovery.
		.... ..1..		IOQECAPTURED	"X'04" The UCB is captured

Comment

EQU X'03' Reserved

End of Comment

30	(1E)	BITSTRING	1	IOQECPRI	Priority at which this IOQ is queued to the SSCB identified in IOQESSCB
31	(1F)	BITSTRING	1		Reserved
32	(20)	CHARACTER	8	IOQENCLV	Enclave token
40	(28)	ADDRESS	4	IOQORBUA	Address of UCB used for the SSCH operation. Will always contain an Actual UCB Common Segment address. May Contain an alias UCB address.
44	(2C)	ADDRESS	4	IOQESSCB	Address of the SSCB to which the IOQ is currently queued.
48	(30)	ADDRESS	4	IOQESSFPP	Forward IOQ pointer when queued to an SSCB.
52	(34)	ADDRESS	4	IOQESSBP	Backward IOQ pointer when queued to an SSCB.
56	(38)	BITSTRING	2	IOQEIOMS	I/O management support data
58	(3A)	CHARACTER	2		Reserved
60	(3C)	ADDRESS	4	IOQEIOQX	IOQX pointer, or zero
60	(3C)	X'40'	0	IOQELEN	**-'IOQE' Length of IOQE

## IOQ Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
IOQ	0		IOQSNCCW	30	
IOQ_FCX_FORMAT			IOQSNS	13	1
	24		IOQSTART	C	
IOQ_NON_FCX_FORMAT			IOQSTOR	13	4
	24		IOQSTRT	13	0
IOQACTV	10	80	IOQST1	13	6
IOQAIOQ	14		IOQTCW	40	
IOQALLOC	17	3C	IOQTYPE	13	
IOQASID	1C		IOQUCB	18	
IOQBYPINTG	1D	10	IOQWLM	10	10
IOQCHAIN	4				
IOQCLR	13	3			
IOQCSSPR	1E				
IOQDDTWA	30				
IOQDDTWT	24				
IOQDDTW2	7C				
IOQDORMT	17	22			
IOQE	0				
IOQECAPTURED	1D	4			
IOQEFLAG	1D				
IOQEID	0				
IOQEIOMS	38				
IOQEIOQX	3C				
IOQEIOS	10				
IOQELEN	3C	40			
IOQELKNA	1D	20			
IOQENCLV	20				
IOQENPFX	1D	40			
IOQEPTR	20				
IOEQPRI	1E				
IOQESSBP	34				
IOQESSCB	2C				
IOQESSFP	30				
IOQEXT	0				
IOQFLA	10				
IOQFLAGS	10				
IOQFORCERCVY	1D	8			
IOQHIPRI	12	FF			
IOQHLT	13	2			
IOQID	0				
IOQIMEX	10	8			
IOQINCPT	13	7			
IOQINTER	13	8			
IOQIOS	4				
IOQIOSB	8				
IOQIOS1	4				
IOQIOS2	20				
IOQIOS3	24				
IOQIOTCT	18				
IOQIOTQS	1D	80			
IOQIRB	50				
IOQLEN	40	80			
IOQMAREA	4				
IOQMDFY	13	5			
IOQMERGE	10	40			
IOQMIHCT	1A				
IOQMIHSF	1C				
IOQORBUA	28				
IOQPRFXO	11				
IOQPRI	12				
IOQPRVT	10	20			
IOQSKIP	10	4			
IOQSMGAL	17				
IOQSMGBP	8				
IOQSMGFP	4				
IOQSMGFQ	10				
IOQSMGH1	14				
IOQSMGR	10				
IOQSMGSQ	C				
IOQSMHDR	14				
IOQSMRV1	14				
IOQSMRV2	16				



# IORB Information

## IORB Heading Information

**Common Name:** Input/Output Request Block  
**Macro ID:** ILRIORB  
**DSECT Name:** IORB  
**Owning Component:** Auxiliary Storage Manager (SC1CW)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Virtual Storage: YES  
 Subpool: 245  
 Key: 0  
 Data Space: NO  
 Residency: Above 16 Megabytes virtual  
**Size:** 64 Bytes  
**Created by:** ILROPS00  
**Pointed to by:** PAREIORB field of the PARTE data area  
 SREIORB field of the SARTE data area  
 IORIORB field of the IORB data area  
 PCCWIORB field of the PCCW data area  
**Serialization:** The IORB is serialized via the in-use flag, IORFUSE, which is "on" when the IORB is in use.  
**Function:** Used by ASM to track I/O requests. It contains a pointer to a save area for IOS to use, as well as pointers to other control blocks.

## IORB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	64	IORB	I/O Request Block
0	(0)	CHARACTER	1	IORID	IORB identifier X'88'
1	(1)	UNSIGNED	1	IORNUM	Number of IORBs for this page data set
2	(2)	UNSIGNED	1	IORRTRY	Retry Count
3	(3)	BITSTRING	1	IORFLGS	Internal flags
		1... ..		IORFUSE	X'80' = IORB in use
		.1.. ..		IORFRPS	X'40' = RPS device
		..1. ....		IORSCMRQ	x'20' = IORB for SCM
		...1 ....		IORSCMAIDAW	x'10' = AIDAWs used for active/last STARTIO
		.... 1... ..		*	Reserved
		.... .111 ..		IORAPND	Appendage flags
		.... .1.. ..		IORFDI	DIE completed
		.... .1. ....		IORFNE	Normal end completed flag
		.... ...1 ..		IORFAE	Abnormal end completed flag
4	(4)	ADDRESS	4	IORIORB	Pointer to next IORB
8	(8)	CHARACTER	4	IORQPTR	PCCW or AIA ptr
8	(8)	ADDRESS	4	IORPCCW	Pointer to first PCCW
8	(8)	ADDRESS	4	IOREA0B	Pointer operation block
12	(C)	ADDRESS	4	IORIOSB	IOSB address
16	(10)	ADDRESS	4	IORSAVE	Pointer to 18-word save area
20	(14)	ADDRESS	4	IOREERR	Pointer to PCCW in error
20	(14)	ADDRESS	4	IORAIDAW	Pointer to AIDAW
24	(18)	CHARACTER	8	IORTSMP	TOD clock timestamp
32	(20)	ADDRESS	4	IORPARTE	Pointer to PARTE
36	(24)	SIGNED	4	IORREQ	Number of pages transferred using this IORB
40	(28)	SIGNED	4	IORSION	Number of STARTIOs and resumes issued using this IORB
44	(2C)	ADDRESS	4	IORNOP	Pointer to the last CCW in the channel program
48	(30)	ADDRESS	4	IORESRB	Pointer to the SRB used by the resume service
52	(34)	SIGNED	4	IORQSZ	Number of AIAs outstanding on this IORB
56	(38)	ADDRESS	4	IORAIAQF	Ptr to 1st AIA
60	(3C)	ADDRESS	4	IORAIAQL	Ptr to last AIA
64	(40)	CHARACTER	0	*	

## IORB Constants • IORB Cross Reference

### IORB Constants

Len	Type	Value	Name	Description
1	DECIMAL	5	IORMAXRETRIES	Max retry count

### IORB Cross Reference

Name	Hex Offset	Hex Value
IORAIAQF	38	
IORAIAQL	3C	
IORAIDAW	14	
IORAPND	3	07
IORB	0	
IOREAOB	8	
IORERR	14	
IORFAE	3	01
IORFDI	3	04
IORFLGS	3	
IORFNE	3	02
IORFRPS	3	40
IORFUSE	3	80
IORID	0	
IORIORB	4	
IORIOSB	C	
IORNOP	2C	
IORNUM	1	
IORPARTE	20	
IORPCCW	8	
IORQPTR	8	
IORRQSZ	34	
IORRTRY	2	
IORSAVE	10	
IORSCMAIDAW	3	10
IORSCMRQ	3	20
IORSION	28	
IORSRBP	30	
IORTREQ	24	
IORTSMP	18	

# IOSB Information

## IOSB Heading Information

**Common Name:** IOS (I/O Supervisor) Block  
**Macro ID:** IECDIOSB  
**DSECT Name:** IOSB  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** IOSB, if IOSB extension exists  
 Offset: 06C  
 Length: 4 Bytes

**Storage Attributes:** Subpool: Any subpool that satisfies fixed global storage attributes. Subpool 245 or 226 when obtained from the IOS storage manager.  
 Key: 0  
 Residency: Below the 16M line when obtained from either below or above the 16M line. from the IOS storage manager. Other IOS drivers could obtain the IOSB

**Size:** 108 bytes for basic IOSB.  
 44 bytes for an in-line extension (optional).

**Created by:** User of the STARTIO service  
**Pointed to by:** IOQIOSB of IECDIOQ  
 SRBPARM of IHASRB  
 RQESRB field of the RQE data area

**Serialization:** None

**Function:** The IOSB contains all the information needed to process an I/O request through the I/O initiation and completion. It is used to communicate between the I/O supervisor and the requestor of an I/O service, between the I/O supervisor and an error-recovery procedure, between an ERP and write-to-operator and statistics-update modules, and among the components of the I/O supervisor. It is also used to control successive entries from the I/O supervisor to an ERP.

## IOSB Map

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
0	(0)	STRUCTURE	156	IOSB		
0	(0)	CHARACTER	108	IOSBSTD	IOSB Standard- includes the modify and store services IOSB size.	
0	(0)	CHARACTER	1	IOSFLA	Flag byte A---	
		11.. ....		IOSACHN	Command & Data chaining	
		1... ....		IOSDCHN	Data chaining	
		.1.. ....		IOSCCHN	Command chaining	
		..1. ....		IOSEERR	Error routine procedure (ERP) in control. Bit must be initially set to zero by driver. If ERP returns with this bit set to a 1, a retry is assumed. If the ERP returns with the bit set to 0, the error is considered permanent or corrected depending on the setting of the IOSEX bit.	
		...1 ....		IOSSMDA	ERP status modifier bit A. Must be zeroed by driver. TAPE - Reposition device.	
		.... 1...		IOSSMDB	U/R - Immediate operation, CCW OP code in IOSMDB.	
		.... .1..		IOSEX	ERP status modifier bit B. Must be zeroed by driver. Set by fetch in exit for posting. TAPE- CRC needed. DASD- PCI fetch stop flag.	
		.... ..1.		IOSDOM	Exceptional condition. Upon return from normal or abnormal exit with this bit set to a 1, ERP processing is initiated if initial error condition. If bit is set to 0, it is assumed that the exit corrected the condition or did not consider it an error.	
		.... ...1		IOSIOSB	When the ERP returns with this bit set to a 1 and the IOSEERR bit set to 0, the error is considered permanent. When the ERP returns with this bit set to a 1, the error has been corrected.	
1	(1)	CHARACTER	1	IOSFLB	DOM macro required.	
		1... ....		IOSDIESE	IOS generated IOSB and obtained from the IOS storage manager.	
		.1.. ....		IOSSDR	Flag byte B	
		..1. ....		IOSNOTRS	Second entry to DIE	
		...1 ....		IOSRESRC	ERP doesnt want OBR	
		.... 1...		IOSIONRD	Driver does not require an address space switch on entry to DIE.	
		.... .1..		IOSMSG	IOS resources are held. Must be initialized to zero by driver. With bit set, the drivers DIE cannot return on codes 12 or 16.	
		.... ..1.		IOSBDCST	Set by a driver to request that the I/O request be issued to a not-ready device.	
		.... ...1		IOSLOG	Message indicators for WTO service. 0 = Intervention required msg. 1 = I/O error message.	
2	(2)	CHARACTER	1	IOSFLC	Broadcast bit	
		1... ....		IOSGDPLP	Create an OBR record.	
		.1.. ....		IOSEIDAW	Flag byte C	
					With IOSGDP set, limit IOSGPMASK field to logically available paths (UCBLPM).	
					Extended 4K 8-byte IDAWs	

# IOSB Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		.1.. ....		IOSVERIF	Non-DASD unsolicited device end verification needed.
		..1. ....		IOSCC3WE	Set by a driver to request deferred condition code 3 posting (post code of X'6D').
		...1 ....		IOSEXP	Set by a driver to request a specific exposure request. IOSUCB contains the specific exposure UCB address and IOSXBASE must contain the UCB prefix of the base exposure.
		.... 1...		IOSNORWS	No Read/Write Synchronization: Set on by I/O driver to indicate that the channel should not synchronize on read/write transitions when prefetching (IOSP) is also set. The driver insures that the read and writes are from different I/O buffers
		.... .1..		IOS2CSWS	Two Channel Status Words: Set on by the I/O driver to indicate that when CCW prefetch is requested (IOSP), if an error occurs where the control unit executes ahead of the channel, two ending CCW addresses should be presented to the driver. The second ending CCW address is contained in the IEDB. If this bit is off, an invalid ending CCW address is simulated by IOS
		.... ..1.		IOSNORTY	No retry allowed
		.... ..1.		IOSCTCNR	CTC-No retry allowed
		.... ...1		IOSGDP	Set by a driver to indicate a guaranteed device path (GDP) request. IOSGPMSK contains the path(s) involved.

Comment

IOSPROC - This byte indicates what type of special processing that is to be performed for IOS generated IOSBs. This processing normally runs asynchronous to IOS mainline processing. This field must be set to zero by drivers. IOSPROC values are assigned by IOS.

-----  
DCLs constants are provided at end of IOSB.

End of Comment

3	(3)	CHARACTER	1	IOSPROC	IOSPROC field
---	-----	-----------	---	---------	---------------

Comment

IOSDVRID - This byte identifies the I/O driver requesting the I/O request. Driver identification values are assigned by IOS.

-----  
DCLs constants are provided at end of IOSB.

End of Comment

4	(4)	CHARACTER	1	IOSDVRID	Driver ID value field
5	(5)	CHARACTER	1	IOSFLD	Flag byte D
		1... ....		IOSNOINT	Set by a driver to request that the I/O request be issued to a device that has an intercept condition. The intercept condition is to be saved for the next I/O request.
		.1.. ....		IOSMNORQ	IOS is not to requeue this IOSB if a Start Pending condition is detected (MIH, etc).
		..1. ....		IOSEPCIF	Early PCI exit call Flag. Set by the I/O driver to get called from the SLIH, instead of from post status for good intermediate status.
		...1 ....		IOSCCWDS	Channel program resides in a data space. Set by the I/O driver.
		.... 1...		IOSEPCIS	Early PCI exit Space switch flag. Set by the I/O driver to indicate that IOSVSLIH should CMSET to the driver's address space prior to invoking the PCI exit.
		.... .1..		IOSLIOPF	Long I/O Post flag set by the I/O driver to indicate that driver should be posted back if the I/O request will take a long time to complete due to an MIH condition, manual intervention, etc..
		.... ..1.		IOSNOLL	Set by the driver to indicate that post status must not get the local lock in order to use the local lock save area, as deadlock could occur. IOSPSLL must also be set by the driver.
		.... ...1		IOSBEXTF	IOSB extension valid
6	(6)	SIGNED	2	IOSASID	Address space identification of address space to be scheduled at termination of the I/O request.
8	(8)	ADDRESS	4	IOSPGAD	I/O driver termination address. High order bit defines the addressing mode. For attention processing, this field contains the attention address.
12	(C)	BITSTRING	1	IOSPKY	Protect key of IOSPGAD
		1111 ....		*	Protect key field.
		.... 1...		IOSLCL	ASID schedule at local level
		.... .1..		IOSIDR	Asynchronous ERP scheduling should be used for this request (indirect recording for paging I/O).
		.... ..1.		IOSPGDPX	This request has a back-up copy (duplexed page)
		.... ...1		IOSCHCMP	Set by driver to indicate that the driver has built a complete channel program, IOS is not to build a standard prefix.



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
					Comment
<p>Field IOSCOD values - I/O completion codes  IOSCOD values assigned by IOS.  DCLs constants are provided at the end of the IOSB.</p>					
-----					
<p>Completion codes 41 - 5F - Indicate permanent error conditions  these codes will always be last entry codes to abnormal end exits.</p>					
<p>Completion codes 60 - 73 - Indicate conditions that IOS has detected in processing the I/O request.</p>					
<p>Completion codes 74 - 7E - Indicate abnormal conditions for which correction may be possible.  These codes denote first entry to abnormal exits.</p>					
<p>Completion code 7F - Indicate normal I/O completion.  It does not indicate that the I/O request completed successfully.</p>					
-----					
<p>Completion code 49 - Applies only to Store and Modify subchannel requests.</p>					
					End of Comment
13	(D)	CHARACTER	1	IOSCOD	I/O completion code field.
					Comment
<p>IOSOPT and IOSOPT2 bit definitions - For Start Subchannel requests. See redefinition area for definitions for modify and store subchannel requests.</p>					
					End of Comment
14	(E)	CHARACTER	1	IOSOPT	Driver requested option byte.
		1... ....		IOSBYP	Bypass IOS channel program prefixing.
		.1. ....		IOSDEP	Device-end post requested.
		..1. ....		IOSQISCE	For callers using the STARTIO macro compatibility interface (all others should place the quiesce level in the IOSLEVEL field). This request initiated by a request that has set the quiesce level in the UCB.
		...1 ....		IOSPSLL	If 0, Local lock needed for IOS Post Status processing. If 1, Local lock not needed.
		.... 1..		IOSNERP	If flag UCBLERP is off, ERPs are not to be used. If UCBLERP is on, ERPs will unconditionally get control. ERPs will only be allowed to perform recovery of non-error unit checks and any additional function as defined by intermediate ERP mask flags. When this flag is on, ERPs may not perform any recovery for error cases except as defined by the ERP mask flags.
		.... .1..		IOSTSLL	If 0, Local lock needed by the termination routine. (IOSPSLL must be off). If 1, Local lock not needed by the termination routine
		.... ..1.		IOSAPR	Alternate path retry (APR) active. IOSGPMSK contains the available retry paths. Must be initially set to zero by driver
		.... ...1		IOSRELSE	Request for a stand-alone release CCW to be issued
					Comment
<p>IOSOPT2 - This byte reflects the I/O driver conditions for initiating an I/O request to the subchannel. See architecture for the meaning of these conditions.  This byte also reflects the IRB interrupt status.</p>					
					End of Comment
15	(F)	CHARACTER	1	IOSOPT2	Driver requested option byte 2
		1... ....		IOSF	CCW FORMAT----- If 0, Format 0 CCWs provided. If 1, Format 1 CCWs provided.
		.1. ....		IOSP	If 0, the driver does not want 'unlimited CCW prefetch'. If 1, the driver wants 'unlimited CCW prefetch'
		..1. ....		IOSI	If 0, the driver does not want 'initial status interruption' generated. If 1, the driver wants 'initial status interruption' generated.
		...1 ....		IOSA	If 1, the driver requests address limit check.
		.... 1..		IOSSI	If 1, the driver requests suppress suspend interruption.
		.... .1..		IOSZ	If 1, zero condition code to initial selection (interrupt condition).

# IOSB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.... ..1.		IOSE	If 1, Extended control information stored with interrupt (this bit is provided for information only, the stored data cannot be found from the IOSB).
		.... ...1		IOSN	If 1, path not operationsl.
Comment					
Unit Control Block (UCB) address - address to common segment.					
End of Comment					
16	(10)	ADDRESS	4	IOSUCB	Unit Control Block address
Comment					
IOSFCSW field - Subchannel Status Word field. - See redefinition area for definitions for modify subchannel requests.					
-----					
Format 0 CCW requests - Start Subchannel deferred condition code is stored in the IOSCC field and the 3 byte command address in IOSCSWCA (compartable with System/370). See redefinition area for format 0 CCW.					
End of Comment					
20	(14)	CHARACTER	8	IOSFCSW	8 byte subchannel CSW.
20	(14)	ADDRESS	4	IOSCCWAD	Format 1 CCW address. See redefinition area for format 0 usage of the word.
20	(14)	ADDRESS	4	IOSTCWAD	Ending TCW address for FCX
24	(18)	CHARACTER	2	IOSTATUS	CSW status
24	(18)	CHARACTER	1	IOSTSA	Device status
24	(18)	BITSTRING	1	IOSDSTAT	Device status
		1... ....		IOSDSATN	Attention
		.1. ....		IOSDSSM	Status Modifier
		..1. ....		IOSDSCUE	Control Unit End
		...1 ....		IOSDSBSY	Busy
		.... 1...		IOSDSCE	Channel End
		.... .1..		IOSDSDE	Device End
		.... ..1.		IOSDSUC	Unit Check
		.... ...1		IOSDSUEX	Unit Exception
25	(19)	CHARACTER	1	IOSTSB	Subchannel Status
25	(19)	BITSTRING	1	IOSSSTAT	Subchannel Status
		1... ....		IOSSSPCI	Program-Controlled Interupt
		.1. ....		IOSSSIL	Incorrect Length
		..1. ....		IOSSSPGC	Program Check
		...1 ....		IOSSSPTC	Protection Check
		.... 1...		IOSSSCDC	Channel-Data Check
		.... .1..		IOSSSCCC	Channel-Control Check
		.... ..1.		IOSSSICC	Interface-Control Check
		.... ...1		IOSSSCC	Chaining Check
		.... ...1		IOSSSCRF	Channel subsystem retry failed
26	(1A)	ADDRESS	2	IOSCSWRC	Residual Count
26	(1A)	BITSTRING	1	IOSFCXST	FCX status
27	(1B)	UNSIGNED	1	IOSSESTAT	Subchannel extended status
		1... ....		IOSINTGFAILED	
					Interrogate failed
		.111 1111		IOSSESQ	Subchannel extended status qualifier - see macro IHASESQ
Comment					
-----					
End of Comment					
28	(1C)	ADDRESS	4	IOSSRB	Pointer back to drivers SRB.
32	(20)	ADDRESS	4	IOSUSE	IOSB owner use field
36	(24)	ADDRESS	4	IOSIOPID	The I/O prevention identifier (IOPID) that covers this I/O request.
Comment					
Subchannel control field provided with the Subchannel status word (SCSW).					
End of Comment					
40	(28)	BITSTRING	2	IOSSCHC	Subchannel Control field
		1... ....		*	Reserved for architecture
		.111 ....		IOSFC	Function Control field.....

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.1.. ....		IOFSSCH	.. Start Subchannel
		..1. ....		IOFHSCCH	.. Halt Subchannel
		...1 ....		IOFCSCH	.. Clear Subchannel
40	(28)	BITSTRING	0	IOSAC	Activity Control field.....
		.... 1..		IOSARSCH	.. Resume Pending
		.... .1..		IOSASSCH	.. Start Pending
		.... ..1.		IOSAHSCH	.. Halt Pending
		.... ...1		IOSACSCH	.. Clear Pending
41	(29)	1... ....		IOSASUBA	.. Subchannel Active
		.1.. ....		IOSADEVA	.. Device Active
		..1. ....		IOSSPND	.. Subchannel Suspended
		...1 1111		IOSSC	Status Control Field.....
		...1 ....		IOSSALRT	.. Alert status
		.... 1..		IOSSINTR	.. Intermediate status
		.... .1..		IOSSPRIM	.. Primary status
		.... ..1.		IOSSSEC	.. Secondary status
		.... ...1		IOSSPNDG	.. Status pending (if bit is 0, this is simulated status).

Comment

IOSSNS - With unit check, contains the first two bytes of the sense data. With field set to X'10FE', this is an indication of unsuccessful sense.

End of Comment

42	(2A)	BITSTRING	2	IOSSNS	1st two bytes of sense data
----	------	-----------	---	--------	-----------------------------

Comment

End of common section - start of processing dependent sections.  
 .. NML - Normal I/O request processing  
 .. WTO - attention processing  
 .. PCI - Intermediate status processing

End of Comment

44	(2C)	ADDRESS	4	IOSIPIB	NML- IPIB address (IOS/Purge). Initially set to zero by driver and not to be reset by exits. PCI- Intermediate status SRB/IOSB chain pointer.
44	(2C)	BITSTRING	1	*	
45	(2D)	ADDRESS	3	IOSIPIBP	3-byte IPIB address. Used by I/O drivers who wish to reference the IPIB.
48	(30)	ADDRESS	4	IOSPCHN	NML- Pointer to 1st intermediate status SRB/IOSBs. PCI- Pointer to ending status IOSB for intermediate status SRB/IOSBs.
52	(34)	ADDRESS	4	IOSERP	ERP - Error Work Area (EWA) address provided. Must initially be set to zero by driver.

Comment

Driver Exit addresses - High order bit defines addressing mode.

End of Comment

56	(38)	ADDRESS	4	IOSPCI	Intermediate status exit address or zero.
60	(3C)	ADDRESS	4	IOSNRM	Normal end exit address
64	(40)	ADDRESS	4	IOSABN	Abnormal end exit address
68	(44)	ADDRESS	4	IOSDIE	Disabled Interrupt Exit address or zero.

Comment

Real Channel program - virtual and real addresses of the first CCW or the FCX TCW

End of Comment

72	(48)	ADDRESS	4	IOSRST	Real address
76	(4C)	ADDRESS	4	IOSVST	Virtual address

Comment

End of Comment

80	(50)	ADDRESS	4	IOSDSID	Data set ID for purge- set by driver or zero.
84	(54)	UNSIGNED	1	IOSLEVEL	IOS serialization level
85	(55)	BITSTRING	1	IOSGPMASK	GDP- Guaranteed Device path mask with IOSGDP bit set. APR- Alternate Path Retry path mask with IOSAPR bit set
86	(56)	UNSIGNED	2	IOSDCTI	IRB DCTI field- the I/O request device connect time.

# IOSB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
88	(58)	CHARACTER	1	IOSFMSK	Mode set/File mask
Comment					
-----					
End of Comment					
89	(59)	BITSTRING	1	IOSCKEY	On STARTIO- Channel program protect key. On interrupt- 1st byte of IRB
		1111 ....		IOSIRBKY	Protect key - bits 0-3
		.... 1...		IOSS	The I/O request has suspend capability.
		.... .1..		IOSIRBL	If 1, ESW contains logout data
		.... ..11		IOSIRBCC	SSCH deferred condition code
Comment					
-----					
End of Comment					
90	(5A)	CHARACTER	1	IOSMDB	ERP immediate CCW oper code
91	(5B)	CHARACTER	1	IOSMDM	ERP modifier mask
Comment					
-----					
End of Comment					
92	(5C)	CHARACTER	8	IOSEEK	Static seek address
92	(5C)	CHARACTER	4	*	Padding
96	(60)	CHARACTER	4	IOSCTC	Start of CTC overlay- see below
Comment					
-----					
End of Comment					
100	(64)	CHARACTER	8	IOSEEKA	Dynamic seek address
100	(64)	ADDRESS	1	IOSSKM	M
101	(65)	ADDRESS	2	IOSSKBB	BB
103	(67)	CHARACTER	4	IOSCCHH	CCHH
103	(67)	ADDRESS	2	IOSSKCC	CC
105	(69)	ADDRESS	2	IOSSKHH	HH
105	(69)	ADDRESS	1	IOSSKH1	H
106	(6A)	ADDRESS	1	IOSSKH2	H
107	(6B)	ADDRESS	1	IOSSKR	R
Comment					
-----					
End of Comment					
108	(6C)	CHARACTER	0	IOSEND	End of standard IOSB
Comment					
-----					
<p>IOSB Extension - This optional IOSB extension is indicated by the user by setting the IOSBEXTF flag in byte IOSFLD.            The IOSB extension is designed to be upward compatible.</p> <p>Note - The IOSB extension cannot grow beyond the end of the IOS large block (SRIO).</p>					
End of Comment					
108	(6C)	CHARACTER	48	IOSBEXT	IOSB Extension
108	(6C)	CHARACTER	4	IOSXID	ID - C'IOSB'
112	(70)	SIGNED	2	IOSXLEN	IOSB extension length
114	(72)	BITSTRING	1	IOSXFLG1	Flag byte 1.....
		1... ....		IOXNORQ	.. MIH is not to requeue this IOSB if a Start Pending condition is detected.
		.1.. ....		IOXGDPR	.. Do I/O even if device is reserved on another path. Valid if IOGDP bit is on.
		..1. ....		IOXDRT	Flag used to prevent swapping in Tape Library Environment

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
		...1 ....		IOSXMIHI	Flag used to inhibit MIH processing for a single request. If this bit is set, then MIH processing is disabled for this request only. This bit is applicable for STARTIO requests only and is ignored for all other requests (HSCH, CSCH, etc). This bit does not override the I/O timing facility.	
		.... 1...		IOSXIOSI	Flag indicating that the I/O driver is performing non- disruptive I/O. This will cause the NTXTIOSR bit to later be set to indicate this condition to the notification exit.	
		.... .1..		IOSXDPSV	DPS validation on CC3	
		.... ..1.		IOSXIOSN	Set by a driver indicating to start the I/O operation even if I/O synchronization is active on the device (for IOS recovery use only).	
		.... ...1		IOSXATPS	Indicates that attention processing was initiated for this I/O operation. Note: This bit is valid only in an IOS sense IOSB.	
115	(73)	BITSTRING	1	IOSXFLG2	Flag byte 2.....	
		1... ....		IOSXIOT	When off - IOSXTIME is for active request only. When on - IOSXTIME is for active and queued requests.	
		.1.. ....		IOSXNMIH	When on - MIH should not create a logrec entry or issue a message when a timeout occurs due to IOSXTIME	
		..1. ....		IOSXCPNM	When set, the Channel program is not modified by the driver during execution, other than to add CCWs at the end.	
		...1 ....		IOSXIDA2	When on - 2K 8-byte IDAWs	
		.... 1...		IOSXPCIS	PCI Synchronization: Set on by I/O driver to indicate that the channel must synchronize after the next CCW following the the PCI (CCW+8) when prefetching (IOSP) is also set.	
		.... .1..		IOSXDPMC	Set ON when Streaming Mode Control is disabled for the current I/O operation.	
		.... ..1.		IOSXSILC	Suppress incorrect length for Format 1 immediate CCWs	
		.... ...1		*	Reserved for future expansion of the IOSB extension- initialized to zero	
116	(74)	ADDRESS	4	IOSXSSXA	Address of driver start subchannel exit to be called if the UCB is not set to the normal level. IOSXSSXV bit must be set to a 1 in order to use this field.	
120	(78)	ADDRESS	4	IOSXIOBE	Address of the IOB extension.	
124	(7C)	UNSIGNED	1	IOSXRCCOD	Reason code detailing IOSCOD value	
125	(7D)	UNSIGNED	1	IOSXTIME	Maximum time value, in seconds, that the I/O driver allows before an MIH condition is declared, regardless of the MIH setting for the device or whether MIH is being bypassed. (Mutually exclusive with IOSXMIHI, and IOS queue time is not counted) For IOS recovery use only because a timeout condition will be surfaced as an MIH condition for the device	
126	(7E)	SIGNED	2	IOSXASPR	Asid that will be used for I/O priority queuing	
128	(80)	BITSTRING	1	IOSXFLG3	Flag byte 3	
		1... ....		IOSXNSER	Indicates that the device may bypass the channel program extent collision checking. Extent range enforcement will remain active. (DASD only)	
		.1.. ....		IOSXNVAL	Indicates that the device is to bypass the validation checking of the paramaters on Define Extent and Locate Record commands. Extent enforcement will remain active. (DASD only)	
		..1. ....		IOSXIMEX	Indicates that the driver has requested immediate execution of this I/O request. If allowed by IOS, this request will bypass the I/O priority management and assign the highest priority to this I/O request. Note: Currently, this bit is set by AOM on behalf of XRC requests utilizing the Define Subsystem Operation (DSO) CCW.	
		...1 ....		IOSXALTS	An alternate timestamp is provided in the define extent or prefix CCW parameter list	
		.... 1...		IOSXMIDA	The channel program uses Modified CCW Indirect Addressing (MIDAWs)	
		.... ..1..		IOSXFCX	This is a FICON Channel Extensions (FCX) (i.e., High Performance FICON) channel program	
		.... .1..		IOSXZHPF	Alternate name for FCX	
		.... ..11		*	Reserved	
129	(81)	CHARACTER	3	*	Reserved	
132	(84)	ADDRESS	4	IOSXIOD	I/O Data Area	

Comment

IOS Extension miscellaneous field. Dependent based on I/O type. Specific mappings are defined below.

End of Comment

136	(88)	CHARACTER	8	IOSXMSC	Miscellaneous Field
144	(90)	ADDRESS	4	IOSXBASE	When IOSEXP is set, this field contains the corresponding PAV-base UCB prefix address
148	(94)	CHARACTER	8	IOSXRSVF	Reserved IOSB extension area- initialized to zero
156	(9C)	CHARACTER	0	IOSEEND	End of IOSB w extension

Offsets

Dec	Hex	Type/Value	Len	Name (Dim)	Description
136	(88)	STRUCTURE	8	IOSXMSCN	IOS Extension Miscellaneous mapping for normal I/O requests.
136	(88)	CHARACTER	8	IOSXEIOP	Enclave I/O priority

## IOSB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
136	(88)	STRUCTURE	8	IOSXMSCS	IOS Extension Miscellaneous mapping for sense I/O requests.
136	(88)	SIGNED	4	IOSXATI	Attention index save area. Used to preserve the attention index while processing an unsolicited interrupt with unit check status
140	(8C)	BITSTRING	1	IOSXSFLG	Sense flag byte
		1... ....		IOSXRAT2	USLRRAT2 save area. Used to preserve this bit while processing an unsolicited interrupt with unit check status
		.1.. ....		IOSXRAT3	USLRRAT3 save area. Used to preserve this bit while processing an unsolicited interrupt with unit check status
141	(8D)	CHARACTER	3	*	Reserved for future use

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
96	(60)	STRUCTURE	9	*	CTC overlay
96	(60)	CHARACTER	8	IOSCTCDW	Sense command byte CCW (on a doubleword boundary)
96	(60)	CHARACTER	5	*	Padding
101	(65)	CHARACTER	1	IOSCTCMD	Command byte from sense OP if format 0 CCW (IOSF= 0 )
102	(66)	CHARACTER	2	*	Padding
104	(68)	CHARACTER	1	IOSCTCOP	Command byte from sense OP if format 1 CCW (IOSF= 1 )

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
42	(2A)	STRUCTURE	66	*	
42	(2A)	CHARACTER	42	IOSATTNS	With UC- sense data area
42	(2A)	CHARACTER	32	IOSASNS	Sense data area
74	(4A)	CHARACTER	10	*	Reserved.

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
44	(2C)	STRUCTURE	64	IOSATTSC	
44	(2C)	CHARACTER	40	IOSATTSN	Additional sense if any
44	(2C)	CHARACTER	30	IOSATSNS	Additional sense data
74	(4A)	BITSTRING	1	IOSATPMK	Attention path mask - path mask of path on which attention interrupt was received
75	(4B)	BITSTRING	1	IOSAFLGS	Attention flags
		1... ....		IOSAINTR	Indicates that attention routine is requesting intercept processing
		.1.. ....		IOSAINT	Indicates an intercept has been generated for this attention interrupt
		..11 1111		*	Unused
76	(4C)	ADDRESS	1	IOSAATI	Index to the attention table
77	(4D)	CHARACTER	7	*	Reserved
84	(54)	CHARACTER	24	IOSATTWA	Attention routine work area
84	(54)	CHARACTER	20	IOSXMSAV	CMSET savearea in IECTCATN
104	(68)	CHARACTER	4	*	Reserved

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
44	(2C)	STRUCTURE	64	IOSPCISC	
44	(2C)	ADDRESS	4	*	IOSPIB field- must not be used.
48	(30)	ADDRESS	4	*	IOSPCHN field- Must not be used.
52	(34)	CHARACTER	32	IOSPCIRS	Intermediate status reserved section.
84	(54)	CHARACTER	24	IOSPCIWA	Intermediate status work area

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
40	(28)	STRUCTURE	2	*	
40	(28)	CHARACTER	2	IOSAPMSK	Redefined field

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
20	(14)	STRUCTURE	8	*	Format 0 CCW layout.....
20	(14)	BITSTRING	1	IOSCC	Start subchannel deferred condition code (Not to be used for format 1 CCWs). The SSCH deferred condition code will always be stored (regardless of CCW format) in IOSIRBCC.

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
21	(15)	CHARACTER	7	IOSCSW	CSW low order 7 bytes
21	(15)	ADDRESS	3	IOSCSWCA	Last command address
24	(18)	CHARACTER	4	*	Status & residual count - see format 1 definitions above

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
14	(E)	STRUCTURE	1	*	
		1... ....		IOSSYN	If 1, indicates store or modify subchannel request is to be done synchronously. If 0, indicates caller can handle asynchronous issuing of store or modify subchannel.
		.1.. ....		IOSNOPH	If 1, indicates for a path message request, a conditional no path condition.
		..11 1111		*	Reserved- initialized to zero

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
15	(F)	STRUCTURE	1	*	
		1... ....		IOSMISC	If 1, interrupt subclass
		.1.. ....		IOSME	If 1, enabled indicator (IOS use only)
		..1. ....		IOSMLM	If 1, limit mode indicator
		...1 ....		IOSMMM	If 1, measurement mode
		.... 1...		IOSMLPM	If 1, logical path mask
		.... .1..		IOSMMBI	If 1, Measurement block index
		.... ..1.		IOSMPOM	If 1, path operational mask
		.... ...1		IOSMD	If 1, dynamic path indicator (IOS use only)

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
1	(1)	STRUCTURE	1	*	
		1... ....		IOSMLPMO	If 1, old LPM is to be 'ored' with new LPM. If 0, old LPM is to be 'anded' with new LPM. This bit valid only if IOSMLPM is on.
		.1.. ....		IOSMPOMO	If 1, old POM is to be 'ored' with new POM. If 0, old POM is to be 'anded' with new POM. This bit valid only if IOSMPOM is on.
		..1. ....		IOSMMMO	If 1, old measurement mode is to be 'ored' with new measurement mode. If 0, old measurement mode is to be 'anded' with the new measurement mode. This bit valid only if IOSMMM is on.
		...1 ....		IOSASIS	If 1, IOSMLPMO and IOSMPOMO are ignored, and the old LPM and/or POM are to be replaced by the new LPM/POM.
		.... 1111		*	Reserved- initialized to zero

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
20	(14)	STRUCTURE	8	*	
20	(14)	UNSIGNED	4	IOSSID	UCB Subsystem-identification word
24	(18)	CHARACTER	4	*	Reserved

### IOSB Constants

Len	Type	Value	Name	Description
Comment				
<p>Following are the PLS declares which replace the previously defined %dclares. The fields to which the values apply are reproduced as comments. This change allows a cross reference of the names used as field values.</p> <p>Constants for the IOSCC field - deferred condition codes</p>				
End of Comment				
1	HEX	30	IOSCC3	Deferred condition code 3
1	HEX	10	IOSCC1	Deferred condition code 1
1	HEX	00	IOSCC0	Deferred condition code 0

## IOSB Constants

Len	Type	Value	Name	Description
Comment				
Constants for the IOSIRBCC field - deferred condition codes				
End of Comment				
0	BIT	11	IOSIRBC3	Deferred condition code 3
0	BIT	01	IOSIRBC1	Deferred condition code 1
0	BIT	00	IOSIRBC0	Deferred condition code 0
Comment				
4 IOSPROC CHAR(1), SEE DCL FOR DESCRIPTION				
End of Comment				
1	HEX	04	IOSAPCI	Intermediate Status
1	HEX	08	IOSATTN	Attention
1	HEX	0C	IOSAPURG	Purge
1	HEX	14	IOSAWTO	WTO
1	HEX	18	IOSADDR	DDR
1	HEX	1C	IOSADIER	DIE redrive for different UCB
1	HEX	20	IOSAUR	Unconditional Reserve
1	HEX	F8	IOSAINTER	Interrogate
1	HEX	F9	IOSAST1	Subchannel type 1 request
1	HEX	FA	IOSASNQR	IOS Sense Request
1	HEX	FC	IOSACLRL	Clear Subchannel request
1	HEX	FD	IOSAHALT	Halt Subchannel request
1	HEX	FE	IOSAMOD	Modify Subchannel request
1	HEX	FF	IOSASTOR	Store Subchannel request
Comment				
4 IOSDVRID CHAR(1), SEE DCL FOR DESCRIPTION				
End of Comment				
1	HEX	00	IOSIOSID	Reserved for IOS
1	HEX	01	IOSMISID	Miscellaneous ID for 24 bit I/O requestors that cannot be purged, associated with a task, or violate extents
1	HEX	02	IOSXCPID	EXCP driver
1	HEX	03	IOSVSAID	VSAM driver
1	HEX	04	IOSATMID	VTAM driver
1	HEX	05	IOSTCMID	TCAM driver
1	HEX	06	IOSOLTID	OLTEP driver
1	HEX	07	IOSFCHID	Program Fetch driver
1	HEX	08	IOSJESID	JES3 driver
1	HEX	09	IOSSS1ID	MSC driver
1	HEX	0A	IOSPRGID	IECVIOPM driver
1	HEX	0B	IOSVPSID	VPSS
Comment				
'0C'X CRYPTO				
End of Comment				
1	HEX	0E	IOSASMID	ASM Driver
1	HEX	0F	IOSMDSID	Message Display service
1	HEX	10	IOSAUSID	Assign/Unassign service
1	HEX	11	IOSDYPID	Dynamic pathing driver
1	HEX	12	IOSDAVV	IOSVDAVV driver
1	HEX	13	IOSDCSID	Device Control Service
1	HEX	14	IOSAOMID	Asynchronous operation manager
1	HEX	15	IOSSMSID	DFSMS driver
1	HEX	16	IOSXCFID	XCF CTC I/O Driver
1	HEX	17	IOSCDRID	IOS use driver ID
1	HEX	18	IOSSLFID	IOSVSLFD driver ID
1	HEX	19	IOSPAVID	IOSVIOPA driver ID
1	HEX	1D	IOSMI2ID	Miscellaneous ID for 31 bit I/O requestors that cannot be purged, associated with a task, or violate extents
1	HEX	1E	IOSINTID	Generic IOS I/O driver ID
1	HEX	1F	IOSDACID	Discovery and AutoConfiguration
1	HEX	80	IOSV33ID	SVC33 driver
1	HEX	81	IOSCLRID	Clear Device recovery
1	HEX	82	IOSSCRID	Subchannel Recovery
1	HEX	83	IOSV16ID	SVC16 Purge driver
1	HEX	84	IOSAPRID	Unconditional Reserve (UR) Recovery driver



Len	Type	Value	Name	Description
1	HEX	85	IOSMIHID	Missing Interrupt Handler (MIH) driver
1	HEX	86	IOSPRVID	I/O Prevention Handler driver
1	HEX	87	IOSRSVID	Re-reserve service
Comment				
4 IOSCOD CHAR(1), SEE DCL FOR DESCRIPTION				
End of Comment				
1	HEX	41	IOSEERRC	Permanent I/O error
1	HEX	42	IOEXTC	Extent Error
1	HEX	43	IOSDPXC	Duplexed I/O request was not started because of the UCB level or not ready device.
1	HEX	44	IOSINTC	Request was intercepted because an error occurred after the last time the device was used and the requestors error recovery procedure wants this intercept condition treated as a permanent error.
1	HEX	45	IOSABNC	I/O request abnormally terminated because of a program check, machine check, etc. in IOS or an exit.
1	HEX	46	IOSCD46	Reserved
1	HEX	47	IOSEXTRM	I/O request not started as the driver start Subchannel exit requested termination prior to the SSCH being issued (See IOSXSSCH).
1	HEX	48	IOSPRGC	Request was purged
1	HEX	49	IOSCNCLD	Store or Modify subchannel has been cancelled
1	HEX	4A	IOSPVTIO	I/O Prevention - either the I/O request has not been started or the I/O request has been terminated.
1	HEX	4B	IOSTAPEC	Tape repositioning error
1	HEX	4C	IOSIVEXP	Invalid exposure number
1	HEX	4D	IOSGDPCC	Deferred condition code 3 on a GDP request or while NIP in control, or with IOSGDPLP set, no logically available paths (UCBLPM).
1	HEX	4E	IOSGDPRD	GDP- Reserved device or in conjunction with IOSRELSE, device can not be released.
1	HEX	50	IOSCD50	Reserved
1	HEX	51	IOSMIHCA	The I/O Request not started- the device is in permanent error.
1	HEX	52	IOSMIHSP	IOS found the I/O request Start Pending in the subchannel, and the driver requests that the I/O request not to be retried (MIH,etc)
1	HEX	53	IOSIOTCR	IOS cancelled the I/O request due to an I/O timeout condition
1	HEX	54	IOSCAPAS	The I/O request could not be started. The current address space did not match IOSASID and a Captured UCB address was used in IOSUCB.
1	HEX	60	IOSGDPWE	Deferred Condition Code 3 condition with the IOSCC3WE bit set.
1	HEX	71	IOSFTCHC	Hardware corrected data check for Fetch
1	HEX	74	IOSMIHC	A Simulated error status, generated by IOS
1	HEX	7D	IOSXERPL	An I/O exit requested the ERP to log this request
1	HEX	7E	IOSFINTC	Intercept condition before entrance to the ERP.
1	HEX	7F	IOSNRMC	Normal Completion
Comment				
Field IOSSNS value - Bad sense indication				
End of Comment				
2	HEX	10FE	IOSSNSBD	Value supplied for unsuccessful sense
Comment				
Field IOSXRCOD value - Reason code detailing IOSCOD value				
End of Comment				
1	HEX	09	IOSXRC9	Value indicating started I/O request timed-out
1	HEX	0A	IOSXRC10	Value indicating queued I/O request timed-out
1	HEX	0B	IOSXRC11	Value indicating PAV binding changed out from underneath IOSEXP request
1	HEX	0C	IOSXRC12	Value indicating 64-bit IDAWs requested on an unsupported host
1	HEX	0D	IOSXRC13	Value indicating an active IOQ exists with an inactive UCB.
1	HEX	0E	IOSXRC14	Value indicating that an FCX I/O was issued to a device that does not support FCX.
1	HEX	0F	IOSXRC15	Value indicating that the I/O request was terminated due to a HyperSwap being active.
1	HEX	10	IOSXRC16	Value indicating that the I/O request was terminated because a capability needed by the I/O request is not supported by the processor, device, or software
1	HEX	11	IOSXRC17	Value indicating that the I/O request was terminated because a configuration change affected the device.

## IOSB Cross Reference

### IOSB Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
IOSA	F	10	IOSEPCIS	5	08
IOSAATI	4C		IOSERP	34	
IOSABN	40		IOSERR	0	20
IOSAC	28		IOSEX	0	04
IOSACHN	0	C0	IOSEXP	2	10
IOSACSCH	28	01	IOSF	F	80
IOSADEVA	29	40	IOSFC	28	70
IOSAFLGS	4B		IOSFCSCH	28	10
IOSAHSCH	28	02	IOSFCSW	14	
IOSAINTE	4B	40	IOSFCXST	1A	
IOSAINTR	4B	80	IOSFHSC	28	20
IOSAPMSK	28		IOSFLA	0	
IOSAPR	E	02	IOSFLB	1	
IOSARSCH	28	08	IOSFLC	2	
IOSASID	6		IOSFLD	5	
IOSASIS	1	10	IOSFMSK	58	
IOSASNS	2A		IOSFSSCH	28	40
IOSASSCH	28	04	IOSGDP	2	01
IOSASUBA	29	80	IOSGDPLP	2	80
IOSATPMK	4A		IOSGPMSK	55	
IOSATSNS	2C		IOSI	F	20
IOSATTNS	2A		IOSIDR	C	04
IOSATTSC	2C		IOSINTGFAILED		
IOSATTSN	2C			1B	80
IOSATTWA	54		IOSIONRD	1	08
IOSB	0		IOSIOPID	24	
IOSBDCST	1	02	IOSIOSB	0	01
IOSBEXT	6C		IOSIPIB	2C	
IOSBEXTF	5	01	IOSIPIBP	2D	
IOSBSTD	0		IOSIRBCC	59	03
IOSBYP	E	80	IOSIRBKY	59	F0
IOSCC	14		IOSIRBL	59	04
IOSCCHH	67		IOSLCL	C	08
IOSCCHN	0	40	IOSLEVEL	54	
IOSCCWAD	14		IOSLIOPF	5	04
IOSCCWDS	5	10	IOSLOG	1	01
IOSCC3WE	2	20	IOSMD	F	01
IOSCHCMP	C	01	IOSMDB	5A	
IOSCKEY	59		IOSMDM	5B	
IOSCOD	D		IOSME	F	40
IOSCSW	15		IOSMISC	F	80
IOSCSWCA	15		IOSMLM	F	20
IOSCSWRC	1A		IOSMLPM	F	08
IOSCTC	60		IOSMLPMO	1	80
IOSCTCDW	60		IOSMMBI	F	04
IOSCTCMD	65		IOSMMM	F	10
IOSCTCNR	2	02	IOSMMMO	1	20
IOSCTCOP	68		IOSMNORQ	5	40
IOSDCHN	0	80	IOSMPOM	F	02
IOSDCTI	56		IOSMPOMO	1	40
IOSDEP	E	40	IOSMSG	1	04
IOSDIE	44		IOSN	F	01
IOSDIESE	1	80	IOSNERP	E	08
IOSDOM	0	02	IOSNOINT	5	80
IOSDSATN	18	80	IOSNOLL	5	02
IOSDSBSY	18	10	IOSNOPTH	E	40
IOSDSCE	18	08	IOSNORTY	2	02
IOSDSCUE	18	20	IOSNORWS	2	08
IOSDSDE	18	04	IOSNOTRS	1	20
IOSDSID	50		IOSNRM	3C	
IOSDSSM	18	40	IOSOPT	E	
IOSDSTAT	18		IOSOPT2	F	
IOSDSUC	18	02	IOSP	F	40
IOSDSUEX	18	01	IOSPCHN	30	
IOSDVRID	4		IOSPCI	38	
IOSE	F	02	IOSPCIRS	34	
IOSEEK	5C		IOSPCISC	2C	
IOSEEKA	64		IOSPCIWA	54	
IOSEEND	9C		IOSPGAD	8	
IOSEIDAW	2	40	IOSPGDPX	C	02
IOSEND	6C		IOSFKEY	C	
IOSEPCIF	5	20	IOSPROC	3	

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
IOSPSLL	E	10	IOSXMIDA	80	08
IOSQISCE	E	20	IOSXMIHI	72	10
IOSRELSE	E	01	IOSXMSAV	54	
IOSRESRC	1	10	IOSXMSC	88	
IOSRST	48		IOSXMSCN	88	
IOSS	59	08	IOSXMSCS	88	
IOSSALRT	29	10	IOSXNMIH	73	40
IOSSC	29	1F	IOSXNORQ	72	80
IOSSCHC	28		IOSXNSER	80	80
IOSSDR	1	40	IOSXNVAL	80	40
IOSSSEQ	1B	7F	IOSXPCIS	73	08
IOSSSTAT	1B		IOSXRAT2	8C	80
IOSSI	F	08	IOSXRAT3	8C	40
IOSSID	14		IOSXRCOD	7C	
IOSSINTR	29	08	IOSXRVSF	94	
IOSSKBB	65		IOSXSFLG	8C	
IOSSKCC	67		IOSXSILC	73	02
IOSSKHH	69		IOSXSSXA	74	
IOSSKH1	69		IOSXTIME	7D	
IOSSKH2	6A		IOSXZHPF	80	04
IOSSKM	64		IOSZ	F	04
IOSSKR	6B		IOS2CSWS	2	04
IOSSMDA	0	10			
IOSSMDB	0	08			
IOSSNS	2A				
IOSSPNDG	29	01			
IOSSPRIM	29	04			
IOSSRB	1C				
IOSSSCC	19	01			
IOSSSCCC	19	04			
IOSSSCDC	19	08			
IOSSSCRF	19	01			
IOSSSEC	29	02			
IOSSSICC	19	02			
IOSSSIL	19	40			
IOSSSPCI	19	80			
IOSSSPGC	19	20			
IOSSSPND	29	20			
IOSSSPTC	19	10			
IOSSSTAT	19				
IOSSYN	E	80			
IOSTATUS	18				
IOSTCWAD	14				
IOSTSA	18				
IOSTSB	19				
IOSTSL	E	04			
IOSUCB	10				
IOSUSE	20				
IOSVERIF	2	40			
IOSVST	4C				
IOSXALTS	80	10			
IOSXASPR	7E				
IOSXATI	88				
IOSXATPS	72	01			
IOSXBASE	90				
IOSXCPNM	73	20			
IOSXDDRT	72	20			
IOSXDPSV	72	04			
IOSXDPMC	73	04			
IOSXEIOP	88				
IOSXFCX	80	04			
IOSXFLG1	72				
IOSXFLG2	73				
IOSXFLG3	80				
IOSXGDPR	72	40			
IOSXID	6C				
IOSXIDA2	73	10			
IOSXIMEX	80	20			
IOSXIOBE	78				
IOSXIOD	84				
IOSXIOSI	72	08			
IOSXIOSN	72	02			
IOSXIOT	73	80			
IOSXLEN	70				



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## IOSDCHPD Information

### IOSDCHPD Programming Interface information

Programming Interface information

IOSDCHPD

End of Programming Interface information

## IOSDCHPD Heading Information • IOSDCHPD Map

### IOSDCHPD Heading Information

**Common Name:** IOSCHPD ATTRIBUTES MAPPING  
**Macro ID:** IOSDCHPD  
**DSECT Name:** CHPDATTR  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** CHPDA  
 Offset: X'0'  
 Length: 5 bytes  
**Storage Attributes:** Subpool: Subpool of caller  
 Key: Key of caller  
 Residency: Any  
**Size:** 32 bytes  
**Created by:** Caller of IOSCHPD service  
**Pointed to by:** N/A  
**Serialization:** NONE  
 LIBRARY = AMACLIB  
**Function:** PROVIDES A MAPPING OF THE IOSCHPD ATTRIBUTES

### IOSDCHPD Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CHPDATTR	IOSDCHPD ATTRIBUTES LIST
0	(0)	DBL WORD	8	(0)	
0	(0)	CHARACTER	5	CHPDACRO	ACRONYM- 'Chpda'
5	(5)	CHARACTER	1	CHPDAVRS	VERSION LEVEL
6	(6)	CHARACTER	2	CHPDAR1	Reserved
8	(8)	BITSTRING	4	CHPD AFLG (0)	Attribute flags
8	(8)	BITSTRING	1	CHPDAFL1	Attribute flag one
		1... ..		CHPDAON	"X'80" ON - Indicates ONLINE
		.1. ....		CHPDAOFF	"X'40" ON - Indicates OFFLINE
		..1. ....		CHPDAMAN	"X'20" ON - Indicates MANAGED
		...1 ....		CHPDA_CHID_VALID	"X'10" ON - Indicates that CHPDA_CHID contains a valid channel id
		.... 1..		CHPDA_CHID_EXTERNAL	"X'08" ON - indicates that CHPDA_CHID contains an external or physical channel id (PCHID). OFF - indicates that CHPDA_CHID contains an internal channel id. This bit is valid only when CHPDA_CHID_Valid is on.
		.... .1..		CHPDA_FCX	"X'04" ON - indicates that the FICON Channel Extensions (FCX) facility (i.e., High Performance FICON) is supported
		.... ..1.		CHPDA_OFFLINE_SWITCH	"X'02" ON - indicates that the channel port is offline due to switch port decommissioning
		.... ...1		CHPDA_OFFLINE_HMC	"X'01" ON - indicates that the channel port is offline due to HMC repair and verify
9	(9)	BITSTRING	1	CHPDAFL2	Attribute flag two
10	(A)	BITSTRING	1	CHPDAFL3	Attribute flag three
11	(B)	BITSTRING	1	CHPDAFL4	Attribute flag four
12	(C)	CHARACTER	1	CHPDATYP	Channel path type - Defined by PathInttype constants described in mapping macro IOSDPATH.
13	(D)	BITSTRING	1	CHPDA_CHPP	Channel path parameter

Comment

IQD Specific channel path parameter data

End of Comment

.... ..	CHPDA_MFS_16KB	"X'00" 16KB frame size
.1. ....	CHPDA_MFS_24KB	"X'40" 24KB frame size
1... ....	CHPDA_MFS_40KB	"X'80" 40KB frame size
11.. ....	CHPDA_MFS_64KB	"X'C0" 64KB frame size
.... .1..	CHPDA_IQD_OSD	"X'04" When 1, this CHPID is connected to an OSA direct-express channel
.... ..1.	CHPDA_IQD_IQDX	"X'02" When 1, this CHPID provides connectivity to the IEDN via a bridge function

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
					Comment
END - IQD Specific channel path parameter data					
					End of Comment
14	(E)	CHARACTER	2	CHPDA_CHID	Channel id (CHID)
16	(10)	CHARACTER	16	CHPDAR2	Reserved
16	(10)	X'20'	0	CHPDALEN	""-CHPDATTR" Length of CHPDATTR

**IOSDCHPD Cross Reference**

Name	Hex Offset	Hex Value
CHPDA_CHID	E	
CHPDA_CHID_EXTERNAL	8	8
CHPDA_CHID_VALID	8	10
CHPDA_CHPP	D	
CHPDA_FCX	8	4
CHPDA_IQD_IQDX	D	2
CHPDA_IQD_OSD	D	4
CHPDA_MFS_16KB	D	0
CHPDA_MFS_24KB	D	40
CHPDA_MFS_40KB	D	80
CHPDA_MFS_64KB	D	C0
CHPDA_OFFLINE_HMC	8	1
CHPDA_OFFLINE_SWITCH	8	2
CHPDACRO	0	
CHPDAFLG	8	
CHPDAFL1	8	
CHPDAFL2	9	
CHPDAFL3	A	
CHPDAFL4	B	
CHPDALEN	10	20
CHPDAMAN	8	20
CHPDAOFF	8	40
CHPDAON	8	80
CHPDAR1	6	
CHPDAR2	10	
CHPDATTR	0	
CHPDATYP	C	
CHPDAVRS	5	





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## IOSDCUIN Information

### IOSDCUIN Programming Interface information

Programming Interface information

IOSDCUIN

End of Programming Interface information

## IOSDCUIN Heading Information • IOSDCUIN Map

### IOSDCUIN Heading Information

**Common Name:** IOS Control Unit Information Mapping  
**Macro ID:** IOSDCUIN  
**DSECT Name:** CUIIN  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** CUIIN  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: 248 or 1, use CUIIN\_SUBPOOL when releasing storage  
 Key: IOSCUINF caller's key  
 Residency: Above 16M  
**Size:** CUIIN -- X'0020' bytes  
 CUIINENTRY -- X'0090' bytes  
 CUIIN\_PATHINFO\_HEADER -- X'0004' bytes  
 CUIIN\_PATHINFO -- X'0018' bytes  
**Created by:** IOSVDCUIN  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** Maps the output area associated with the IOSCUINF service.

### IOSDCUIN Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CUIIN	
0	(0)	CHARACTER	32	CUIINHDR (0)	
0	(0)	CHARACTER	4	CUIINID	Control block id 'CUIIN'
4	(4)	BITSTRING	1	CUIIN_VERSION	Version number
5	(5)	BITSTRING	1	CUIIN_HEADER_LENGTH	Length of header
6	(6)	BITSTRING	1	CUIIN_SUBPOOL	CUIIN area subpool
7	(7)	BITSTRING	1		Reserved
8	(8)	SIGNED	4	CUIIN_TOTAL_LENGTH	Length of entire area that must be freed by the caller
12	(C)	SIGNED	4	CUIIN_COUNT	Number of control unit entries
16	(10)	SIGNED	4	CUIIN_ENTRY_LENGTH	Length of each entry that is returned
20	(14)	CHARACTER	12		Reserved
20	(14)	X'20'	0	CUIIN_LEN	""-CUIIN"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CUIINENTRY	
0	(0)	CHARACTER	144	CUIIN_ENTRY (0)	Control unit entry
0	(0)	CHARACTER	16	CUIIN_NUMBERS (0)	List of unique control unit numbers
0	(0)	SIGNED	2	CUIIN_NUMBER	Control unit number
16	(10)	BITSTRING	1	CUIIN_NUMBER_VALID	Control unit number validity mask
17	(11)	BITSTRING	1	CUIIN_CLASS	Control unit class '80'x=Tape '40'x=Communications '20'x=Direct access '10'x=Display '08'x=Unit record '04'x=Character reader All other class numbers currently are reserved for future use. (Declared constants for UCBTBYT3 in IEFUCBOB can be used.)
18	(12)	BITSTRING	1	CUIIN_ATTRIBUTES (0)	Control unit group
		1... ....		CUIIN_PAV	"X'80" At least one Parallel Access Volume exists in this LSS
		.1.. ....		CUIIN_HYPERPAV	"X'40" HyperPAV
19	(13)	CHARACTER	1		Reserved
20	(14)	CHARACTER	32	CUIIN_ND	Node descriptor
52	(34)	CHARACTER	32	CUIIN_TOKEN_NED	Token NED
84	(54)	CHARACTER	32	CUIIN_CU_NED	Control unit NED
116	(74)	CHARACTER	20	CUIIN_STATS (0)	Performance statistics
116	(74)	SIGNED	4	CUIIN_NO_ALIAS_IO	The number of times an I/O request could not start for an LSS because no HyperPAV aliases were available and the device was not waiting for a reserve to be released from another system or long busy to subside
120	(78)	SIGNED	4	CUIIN_IO_REQUESTS	The total number of HyperPAV I/O requests for the LSS
124	(7C)	SIGNED	4	CUIIN_HW_ALIASES_IN_USE	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
128	(80)	SIGNED	4	CUIN_HW_CONCURRENT_ALIASES	The high water mark usage information on the number of in-use HyperPAV-alias devices for the LSS
132	(84)	SIGNED	4	CUIN_HW_IO_REQUESTS	The high water mark of the number of aliases concurrently in use by any HyperPAV-base for the LSS
136	(88)	SIGNED	4	CUIN_PATHINFO_OFFSET	The high water mark of IO requests
140	(8C)	CHARACTER	4		Offset into the CUIIN structure where pathinfo data for this CUIIN_Entry is returned
140	(8C)	X'90'	0	CUINENTRY_LEN	Reserved **_CUIINENTRY"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CUIN_PATHINFO_HEADER	PATHINFO data
0	(0)	SIGNED	2	CUIN_PI_ENTLEN	Length of each PI entry
2	(2)	BITSTRING	1	CUIN_PI_HDRLEN	Length of CUIIN_PathInfo_Header
3	(3)	BITSTRING	1	CUIN_PI_ENTRY_NUMBER	Number of PI entries
3	(3)	X'4'	0	CUIN_PATHINFO_HEADER_LEN	**_CUIIN_PATHINFO_HEADER"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CUIN_PATHINFO	PathInfo Entry
0	(0)	SIGNED	2	CUIN_PI_CU	Control unit number
2	(2)	SIGNED	2	CUIN_PI_INTERFACEID	Interface Id
4	(4)	SIGNED	2	CUIN_PI_TAG	Tag
6	(6)	BITSTRING	1	CUIN_PI_CHPID	CHPID
7	(7)	BITSTRING	5	CUIN_PI_FLAGS	PathInfo flags
		1111 ....		CUIN_PI_LA_VALIDITY_FLAGS	"X'F0" Validity flags
		1... ....		CUIN_PI_LA_DOMAIN_VALID	"X'80" Link address domain valid
		.1.. ....		CUIN_PI_LA_PORT_VALID	"X'40" Link address port valid
		..1. ....		CUIN_PI_LA_PP_VALID	"X'20" Link address PP valid
		...1 ....		CUIN_PI_LA_LOGADDR_VALID	"X'10" Link address logical address valid
		.... 1...		CUIN_PI_FICON	"X'08" CHPID is FICON
		.... .1..		CUIN_PI_TAG_VALID	"X'04" Tag field is valid
7	(7)	BITSTRING	4		Reserved
12	(C)	SIGNED	4	CUIN_PI_LINKADDRESS	Link address
12	(C)	BITSTRING	1	CUIN_PI_LA_DOMAIN	Domain of switch
13	(D)	BITSTRING	1	CUIN_PI_LA_PORTADDR	Destination port address for path associated with corresponding CHPID
14	(E)	BITSTRING	1	CUIN_PI_LA_PP	F-PORT and NL_PORT
15	(F)	BITSTRING	1	CUIN_PI_LOGICALADDR	Logical address
16	(10)	BITSTRING	8	CUIN_PI_WWPEN	WWPEN
16	(10)	X'E4C9D5'	0	CUIN_NAME	"C'CUIN" Defines CUIINID
16	(10)	X'1'	0	CUIN_CURRVRSN	"1" Current version

## IOSDCUIN Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
16	(10)	X'18'	0	CUIN_PATHINFO_LEN	**CUIN_PATHINFO"

## IOSDCUIN Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
CUIN	0		CUIN_PI_LA_PORTADDR		
CUIN_ATTRIBUTES			D		
	12		CUIN_PI_LA_PP		
CUIN_CLASS	11		E		
CUIN_COUNT	C		CUIN_PI_LA_PP_VALID		
CUIN_CU_NED	54		7	20	
CUIN_CURRVRSN			CUIN_PI_LA_VALIDITY_FLAGS		
	10	1	7	F0	
CUIN_ENTRY	0		CUIN_PI_LINKADDRESS		
CUIN_ENTRY_LENGTH			C		
	10		CUIN_PI_LOGICALADDR		
CUIN_HEADER_LENGTH			F		
	5		CUIN_PI_TAG	4	
CUIN_HW_ALIASES_IN_USE			CUIN_PI_TAG_VALID		
	7C		7	4	
CUIN_HW_CONCURRENT_ALIASES			CUIN_PI_WWPN	10	
	80		CUIN_STATS	74	
CUIN_HW_IO_REQUESTS			CUIN_SUBPOOL	6	
	84		CUIN_TOKEN_NED		
CUIN_HYPERPAV			34		
	12	40	CUIN_TOTAL_LENGTH		
CUIN_IO_REQUESTS			8		
	78		CUIN_VERSION	4	
CUIN_LEN	14	20	CUINENTRY	0	
CUIN_NAME	10	E4C9D5	CUINENTRY_LEN		
CUIN_ND	14		8C	90	
CUIN_NO_ALIAS_IO			CUINHDR	0	
	74		CUINID	0	
CUIN_NUMBER	0				
CUIN_NUMBER_VALID					
	10				
CUIN_NUMBERS	0				
CUIN_PATHINFO					
	0				
CUIN_PATHINFO_HEADER					
	0				
CUIN_PATHINFO_HEADER_LEN					
	3	4			
CUIN_PATHINFO_LEN					
	10	18			
CUIN_PATHINFO_OFFSET					
	88				
CUIN_PAV	12	80			
CUIN_PI_CHPID					
	6				
CUIN_PI_CU	0				
CUIN_PI_ENTLEN					
	0				
CUIN_PI_ENTRY_NUMBER					
	3				
CUIN_PI_FICON					
	7	8			
CUIN_PI_FLAGS					
	7				
CUIN_PI_HDRLEN					
	2				
CUIN_PI_INTERFACEID					
	2				
CUIN_PI_LA_DOMAIN					
	C				
CUIN_PI_LA_DOMAIN_VALID					
	7	80			
CUIN_PI_LA_LOGADDR_VALID					
	7	10			
CUIN_PI_LA_PORT_VALID					
	7	40			

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## **IOSDDACH Information**

### **IOSDDACH Programming Interface information**

Programming Interface information

**IOSDDACH**

End of Programming Interface information

## IOSDDACH Heading Information • IOSDDACH Map

### IOSDDACH Heading Information

**Common Name:** IOS ENF device availability change parameter list  
**Macro ID:** IOSDDACH  
**DSECT Name:** DACH  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** DACH  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: 245  
 Key: 0  
 Residency: Above 16M line  
**Size:** 64 bytes  
 DACH -- X'0040' bytes  
**Created by:** IOSRSCH (Subchannel recovery) or IOSCACDR  
 or IOSDCDCR or IOSVLPEP or IOSVSWR  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** IOSDDACH maps the parameter list passed to the listeners of ENF code 33.

NOTES= The ENF qualifier used for this signal has the following format:  
 BYTE 1: Device class (Byte 3 from UCBTYP)  
 BYTE 2: Reserved  
 BYTES 3-4: Qualifier number.  
 Each qualifier number designates a general class of events- such as IO subchannel change or IO resource available. Along with each qualifier number is a qualifier number dependent mapping which designates fields specific to the general class of events.  
 The DACHTYPE field is used to designate the exact event which occurred under the given qualifier number. Since the values of DACHTYPE are unique, this field can be used to determine which qualifier number dependent area is to be used when no ENF qualifier is specified. Furthermore, it can be used in the same manner when only the device class (DACHUCBC) portion of the ENF qualifier is used. An alternate method of determining the proper mapping to use for listeners not using the ENF qualifier is through the use of the DACHQC field. This field contains a copy of the ENF qualifier used for signalling. The qualifier number which determines the mapping used is a part of DACHQC.

### IOSDDACH Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DACH	ENF signal 33 parameter list
0	(0)	CHARACTER	4	DACHID	Control block ID
4	(4)	BITSTRING	1	DACHVERS	Version number
5	(5)	CHARACTER	2	DACHDEVC	Device category
7	(7)	CHARACTER	4	DACHTYPE	Type of change that occurred to the device (See constant declaration for valid types)
11	(B)	CHARACTER	1		reserved
12	(C)	CHARACTER	32	DACHQUALD	Qualifier dependent area
44	(2C)	CHARACTER	4	DACHQC (0)	Copy of ENF Qualifier.
44	(2C)	CHARACTER	1	DACHUCBC	Device class from UCBTYP field (Byte 3 of UCBTYP)
45	(2D)	CHARACTER	1		Reserved.
46	(2E)	SIGNED	2	DACHQN	DACH qualifier number field
48	(30)	CHARACTER	16	DACHRES	reserved
64	(40)	CHARACTER	1	DACHEND (0)	End of DACH parameter list
64	(40)	X'40'	0	DACH_LEN	""-DACH"

Comment

Qualifier dependent areas follow.  
 Qualifier dependent area for I/O subchannel change.

End of Comment

12	(C)	BITSTRING	1	DACH_IO_FIELDS (0)	
12	(C)	SIGNED	2	DACH_IO_DEVN	Device number undergoing a subchannel change

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
14	(E)	CHARACTER	4	DACH_IO_DTYP	Device type from UCBTYP
18	(12)	BITSTRING	1	DACH_IO_SSID	Subchannel set of the device number
18	(12)	X'7'	0	DACH_IO_FIELDS_LEN	**DACH_IO_FIELDS"
Comment					
Qualifier dependent area for IO resource accessible					
End of Comment					
12	(C)	BITSTRING	1	DACH_IORA_FIELDS (0)	
12	(C)	SIGNED	2	DACH_IORA_DEVN	Device number becoming accessible
14	(E)	CHARACTER	4	DACH_IORA_DTYP	Device type from UCBTYP
18	(12)	BITSTRING	1	DACH_IORA_CHPD	CHPID established.
19	(13)	BITSTRING 1... ..	1	DACH_IORA_FLAGS (0)	
		.1.. ..		DACH_IORA_ONLI	"X'80" On if device was online
				DACH_IORA_VARY_DEV	"X'40" On if IOS issued a VARY command in order to bring a device online that was marked offline due to CC3 during NIP
20	(14)	BITSTRING	1	DACH_IORA_SSID	Subchannel set ID associated with the IO resource
21	(15)	CHARACTER	23		Reserved
Comment					
Value for DACHID					
End of Comment					
21	(15)	X'C1C3C8'	0	DACHDACH	"C'DACH" DACH control block ID
Comment					
Value for DACHVERS					
End of Comment					
21	(15)	X'1'	0	DACHVERC	"1" DACH version number
Comment					
Value for DACHDEV					
End of Comment					
21	(15)	X'C9D6'	0	DACHDTIO	"C'IO" Device undergoing subchannel change is an I/O device
21	(15)	X'C3E4'	0	DACHDTCU	"C'CU" Device category is Control Unit
Comment					
Value for DACH_TRAN_MODE					
End of Comment					
21	(15)	X'1'	0	DACH_HYPERPAV_TRANSITION	"1" PAVMode change processing is requested for all devices in the LSS, target transition is HyperPAV mode.
21	(15)	X'2'	0	DACH_BASEPAV_TRANSITION	"2" PAVMode change processing is requested for all devices in the LSS, target transition is Base PAV mode.
Comment					
Value for DACH_PCIE_EVENT					
End of Comment					
21	(15)	X'1'	0	DACH_PCIE_DEVICE_ONLINE	"1" PCIE Device is online
21	(15)	X'2'	0	DACH_PCIE_DEVICE_OFFLINE	"2" PCIE Device is offline
21	(15)	X'20'	0	DACH_IORA_FIELDS_LEN	

# IOSDDACH Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
"-DACH_IORA_FIELDS"					
Comment					
Qualifier dependent area for CDR change (add or delete CDR record)					
End of Comment					
12	(C)	BITSTRING	1	DACH_CCDR_FIELDS (0)	
12	(C)	CHARACTER	8	DACH_CCDR_TIMESTP (0)	TOD clock value
12	(C)	CHARACTER	4	DACH_CCDR_DATE	Date
16	(10)	CHARACTER	4	DACH_CCDR_TIME	Time
20	(14)	SIGNED	2	DACH_CCDR_DEVN	Device number undergoing a CDR change
22	(16)	CHARACTER	4	DACH_CCDR_DTYP	Device type from UCBTYP
26	(1A)	SIGNED	2	DACH_CCDR_CDRLEN	Length of CDR record
28	(1C)	ADDRESS	4	DACH_CCDR_CDRADR	Address of CDR record
32	(20)	BITSTRING	1	DACH_CCDR_CHPID	Channel path that the CDR record was obtained
32	(20)	X'15'	0	DACH_CCDR_FIELDS_LEN	"-DACH_CCDR_FIELDS"
Comment					
Qualifier dependent area for Parallel Access Volume changes.					
End of Comment					
12	(C)	BITSTRING	1	DACH_PAV_FIELDS (0)	
12	(C)	SIGNED	2	DACH_PAV_DEVN	Device number of PAV-base device
14	(E)	CHARACTER	2	DACH_PAV_FLGS (0)	Flags
		1... ..		DACH_PAVBIND	"X'80" Alias is bound to base
		.1. ....		DACH_PAVUNBIND	"X'40" Alias is unbound from base
		..1. ....		DACH_PAVUNBINDALL	"X'20" All aliases are unbound from base
		...1 ....		DACH_PAVSCHIBDATAVALID	"X'10" Schib data is valid
		.... 1...		DACH_PAV_BASEMBIVALID	"X'08" The MBI for the base device is valid
		.... .1..		DACH_PAV_ALIASMBIVALID	"X'04" The MBI for the alias device is valid
		.... ..1.		DACH_PAV_DBT_VALID	"X'02" The device busy time for the alias device is valid
14	(E)	BITSTRING	1		Reserved
16	(10)	SIGNED	2	DACH_PAV_CNT	Count of PAVs, including base
18	(12)	BITSTRING	1	DACH_PAV_SSIDBASE	Subchannel set ID associated with the PAV-Base dev.
19	(13)	CHARACTER	1		Reserved
20	(14)	CHARACTER	4	DACH_PAV_TOKN	PAV token after change
24	(18)	CHARACTER	12	DACH_PAV_SCHIBDATA (0)	Schib Data
24	(18)	SIGNED	4	DACH_PAV_DEVICEBUSYDTIME	Device busy delay time
28	(1C)	SIGNED	4	DACH_PAV_CUBUSYDTIME	CU busy delay time
32	(20)	SIGNED	4	DACH_PAV_DPORTBUSYDTIME	Destination port busy delay time
36	(24)	SIGNED	2	DACH_PAV_DEVNALIAS	Device number of PAV-Alias device if this is a bind or unbind request



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
38	(26)	SIGNED	2	DACH_PAVBASEMBI	MBI for base device
40	(28)	SIGNED	2	DACH_PAVALIASEMBI	
42	(2A)	BITSTRING	1	DACH_PAV_SSIDALIAS	Subchannel set of the alias device number
43	(2B)	CHARACTER	1		
43	(2B)	X'20'	0	DACH_PAV_FIELDS_LEN	Reserved
					**_DACH_PAV_FIELDS"

Comment

Qualifier dependent area for Switch table change.

End of Comment

12	(C)	BITSTRING	1	DACH_ST_FIELDS	Switch device number updated
12	(C)	CHARACTER	4	DACH_SW_SWITCHNUMBER	
16	(10)	CHARACTER	2	DACH_SW_PORTNUMBER	Port Address on Switch
16	(10)	X'6'	0	DACH_ST_FIELDS_LEN	
					**_DACH_ST_FIELDS"

Comment

Qualifier dependent area for Device Offline and In Use by System Component

End of Comment

12	(C)	BITSTRING	1	DACH_NALOC_FIELDS	Device offline and in use by system component
12	(C)	CHARACTER	32	DACH_NALOC (0)	
12	(C)	ADDRESS	4	DACHNALOCUCB	UCB for device in use
44	(2C)	X'20'	0	DACH_NALOC_FIELDS_LEN	
					**_DACH_NALOC_FIELDS"

Comment

Qualifier dependent area for Control Unit Transitions

End of Comment

12	(C)	BITSTRING	1	DACH_TRAN_FIELDS	Control unit number undergoing transition
12	(C)	SIGNED	2	DACH_TRAN_CU	
14	(E)	BITSTRING	1	DACH_TRAN_MODE	Target transition mode
15	(F)	CHARACTER	29		
15	(F)	X'20'	0	DACH_TRAN_FIELDS_LEN	Reserved
					**_DACH_TRAN_FIELDS"

Comment

Qualifier dependent area for PCIE Device Event

End of Comment

12	(C)	BITSTRING	1	DACH_PCIE_FIELDS	PFID of PCIE device involved in event
12	(C)	SIGNED	4	DACH_PCIE_PFIID	
16	(10)	SIGNED	2	DACH_PCIE_DEVID	Device ID of PCIE device involved in event
18	(12)	SIGNED	2	DACH_PCIE_VENDID	
20	(14)	BITSTRING	1	DACH_PCIE_EVENT	Device event code
21	(15)	CHARACTER	23		
					Reserved

# IOSDDACH Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
Values for DACH qualifier number field (DACHQN). This is part of the ENF qualifier.					
End of Comment					
		.... .1		DACHIO	"X'0001" Qualifier value for ENF signal/listener when listening for an IO subchannel change
		.... .1.		DACHIORA	"X'0002" Qualifier value for ENF signal/listener when listening for IO resource available.
		.... .11		DACHCCDR	"X'0003" Qualifier value for ENF signal/listener when listening for a change CDR (add or delete Configuration Data Record)
		.... .1..		DACHPAV	"X'0004" Qualifier value for ENF signal/listener when listening for a change in the set of PAV UCBs
		.... .1.1		DACHQAPI	"X'0005" Qualifier value for ENF signal/listener when listening for a change in the Adjunct Processor Information
		.... .11.		DACHSTC	"X'0006" Qualifier value for ENF signal/listener when listening for a change in the switch table
		.... .111		DACHNAC	"X'0007" Qualifier value for ENF signal/listener when listening for an offline device in use by system component
		.... 1...		DACHTRAN	"X'0008" Qualifier value for ENF signal/listener when listening for a control unit transitioning event
		.... 1..1		DACHPCIE	"X'0009" Qualifier value for ENF signal/listener when listening for a PCIE Device event
21	(15)	BITSTRING	0	DACHIO_AS	"X'1001" Qualifier value for ENF signal/listener when listening for an IO subchannel change for a device in an alternate subchannel set
21	(15)	BITSTRING	0	DACHIORA_AS	"X'1002" Qualifier value for ENF signal/listener when listening for an IO resource available in an alternate subchannel set
21	(15)	BITSTRING	0	DACHPAV_AS	"X'1004" Qualifier value for ENF signal/listener when listening for a change in the set of PAV UCBs of which a device is in an alternate subchannel set
Comment					
Values for DACHTYPE field follow. These values MUST be unique even though they are further defining a specific qualifier number. The reason for this is that some listeners may not use the qualifier number field ENF qualifier, but still need to determine the exact event that occurred.					
Values for DACHTYPE field. These are types defining the IO subchannel change qualifier number.					
End of Comment					
21	(15)	X'D7C940'	0	DACHIFI	"C'IFI " Installed parameters initialized
21	(15)	X'D7D440'	0	DACHIPM	"C'IPM " Installed parameters modified
21	(15)	X'D7D940'	0	DACHIPR	"C'IPR " Installed parameters restored
Comment					
Values for DACHTYPE field. These are types defining the IO resource available qualifier number.					
End of Comment					
21	(15)	X'D7C540'	0	DACHLPE	"C'LPE " Logical path established type.
Comment					
Values for DACHTYPE field. These are types defining the change CDR qualifier number.					
End of Comment					
21	(15)	X'C3C4D9'	0	DACHACDR	"C'ACDR" Change CDR is an add CDR record
21	(15)	X'C3C4D9'	0	DACHDCDR	"C'DCDR" Change CDR is a delete CDR record
Comment					
Values for DACHTYPE field. This type is for the set of Parallel Access Volumes Alias UCBs.					
End of Comment					
21	(15)	X'C1E5E2'	0	DACHPAVS	"C'PAVS" Change in the set of PAV-alias devices

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
Values for DACHTYPE field. This type is for the Adjunct Processor Information.					
End of Comment					
21	(15)	X'D7C940'	0	DACHAPI	"C'API" Change in the Adjunct Processor Info
Comment					
Values for DACHTYPE field. These fields define the Port Record update.					
End of Comment					
21	(15)	X'E6E3C2'	0	DACHSWTB	"C'SWTB" Change in the Port State
Comment					
Values for DACHTYPE field. This type is for the Device Offline and In Use by System Component ENF.					
End of Comment					
21	(15)	X'C1D3C3'	0	DACHNALOC	"C'NALC" Offline device in use
Comment					
Values for DACHTYPE field. This type is for the Control Unit Transition event					
End of Comment					
21	(15)	X'D9C1D5'	0	DACHTYPETRAN	"C'TRAN" Transition
Comment					
Values for DACHTYPE field. This type is for the PCIE Online/Offline event					
End of Comment					
21	(15)	X'C3C9C5'	0	DACHTYPEPCIE	"C'PCIE" PCIE Event
21	(15)	X'20'	0	DACH_PCIE_FIELDS_LEN	"*-DACH_PCIE_FIELDS"

**IOSDDACH Cross Reference**

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DACH	0		DACH_IO_DEVN	C	
DACH_BASEPAV_TRANSITION	15	2	DACH_IO_DTYP	E	
DACH_CCDR_CDRADR	1C		DACH_IO_FIELDS	C	
DACH_CCDR_CDRLN	1A		DACH_IO_FIELDS_LEN	12	7
DACH_CCDR_CHPID	20		DACH_IO_SSID	12	
DACH_CCDR_DATE	C		DACH_IORA_CHPD	12	
DACH_CCDR_DEVN	14		DACH_IORA_DEVN	C	
DACH_CCDR_DTYP	16		DACH_IORA_DTYP	E	
DACH_CCDR_FIELDS	C		DACH_IORA_FIELDS	C	
DACH_CCDR_FIELDS_LEN	20	15	DACH_IORA_FIELDS_LEN	15	20
DACH_CCDR_TIME	10		DACH_IORA_FLAGS	13	
DACH_CCDR_TIMESTP	C		DACH_IORA_ONLI	13	80
DACH_HYPERPAV_TRANSITION	15	1	DACH_IORA_SSID	14	
			DACH_IORA_VARY_DEV	13	40

## IOSDDACH Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
DACH_LEN	40	40		C	
DACH_NALOC	C		DACH_TRAN_FIELDS_LEN	F	20
DACH_NALOC_FIELDS	C		DACH_TRAN_MODE	E	
DACH_NALOC_FIELDS_LEN	2C	20	DACHACDR	15	C3C4D9
DACH_PAV_ALIASMBIVALID	E	4	DACHAPI	15	D7C940
DACH_PAV_BASEMBIVALID	E	8	DACHCCDR	15	3
DACH_PAV_CNT	10		DACHDACH	15	C1C3C8
DACH_PAV_CUBUSYDTIME	1C		DACHDCDR	15	C3C4D9
DACH_PAV_DBT_VALID	E	2	DACHDEVC	5	
DACH_PAV_DEVICEBUSYDTIME	18		DACHDTCU	15	C3E4
DACH_PAV_DEVN	C		DACHDTIO	15	C9D6
DACH_PAV_DEVNALIAS	24		DACHEND	40	
DACH_PAV_DPORTBUSYDTIME	20		DACHID	0	
DACH_PAV_FIELDS	C		DACHIO	15	1
DACH_PAV_FIELDS_LEN	2B	20	DACHIO_AS	15	1001
DACH_PAV_FLGS	E		DACHIORA	15	2
DACH_PAV_SCHIBDATA	18		DACHIORA_AS	15	1002
DACH_PAV_SSIDALIAS	2A		DACHIPI	15	D7C940
DACH_PAV_SSIDBASE	12		DACHIPM	15	D7D440
DACH_PAV_TOKN	14		DACHIPR	15	D7D940
DACH_PAV_ALIASMBI	28		DACHLPE	15	D7C540
DACH_PAVBASEMBI	26		DACHNAC	15	7
DACH_PAVBIND	E	80	DACHNALOC	15	C1D3C3
DACH_PAVSCHIBDATAVALID	E	10	DACHNALOCUCB	C	
DACH_PAVUNBIND	E	40	DACHPAV	15	4
DACH_PAVUNBINDALL	E	20	DACHPAV_AS	15	1004
DACH_PCIE_DEVICE_OFFLINE	15	2	DACHPAVS	15	C1E5E2
DACH_PCIE_DEVICE_ONLINE	15	1	DACHPCIE	15	9
DACH_PCIE_DEVID	10		DACHQAPI	15	5
DACH_PCIE_EVENT	14		DACHQC	2C	
DACH_PCIE_FIELDS	C		DACHQN	2E	
DACH_PCIE_FIELDS_LEN	15	20	DACHQUALD	C	
DACH_PCIE_PFID	C		DACHRES	30	
DACH_PCIE_VENDID	12		DACHSTC	15	6
DACH_ST_FIELDS	C		DACHSWTB	15	E6E3C2
DACH_ST_FIELDS_LEN	10	6	DACHTRAN	15	8
DACH_SW_PORTNUMBER	10		DACHTYPE	7	
DACH_SW_SWITCHNUMBER	C		DACHTYPEPCIE	15	C3C9C5
DACH_TRAN_CU	C		DACHTYPETRAN	15	D9C1D5
DACH_TRAN_FIELDS			DACHUCBC	2C	
			DACHVERC	15	1
			DACHVERS	4	

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## IOSDDDCMI Information

### IOSDDDCMI Programming Interface information

Programming Interface information

IOSDDDCMI

End of Programming Interface information

## IOSDDDCMI Heading Information • IOSDDDCMI Map

### IOSDDDCMI Heading Information

**Common Name:** Dynamic Channel Path Management Information Area  
**Macro ID:** IOSDDDCMI  
**DSECT Name:** IOSDDDCMI  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** DCM  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: User  
 Key: User  
 Data Space: No  
 Residency: 31 Bit  
**Size:** 32-bytes  
**Created by:** Issuer of IOCINFO DCMINFO service  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** IOSDDDCMI maps the Dynamic Channel Path Management (DCM) information returned by the IOCINFO DCMINFO service.

### IOSDDDCMI Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DCMI	DCM information area
0	(0)	CHARACTER	4	DCMIID	Eye catcher
4	(4)	BITSTRING	1	DCMVERSION	DCM version number
5	(5)	BITSTRING	3		Available
8	(8)	BITSTRING	1	DCMISTATUSFLAGS	
		1... ....		DCMIACTIVE	DCM status flags "X'80" When set to 1, indicates that DCM is operational. When set to 0, indicates that DCM is not operational for one or more of the reasons listed below.
		.1.. ....		DCMILOCALMONO	"X'40" When set to 1, indicates the system is either XCF-local or monoplex.
		..1. ....		DCMIMULTISYSTEM	"X'20" When set to 1, indicates the system is a member of a multisystem cluster.
		...1 ....		DCMIGOALMODE	"X'10" When set to 1, indicates DCM is running in WLM goal mode. When set to 0, DCM is running in WLM balance mode. EQU X'08' Available EQU X'04' Available EQU X'02' Available EQU X'01' Available
9	(9)	BITSTRING	1	DCMIGLOBALREASON	DCM flags which indicate the reasons why DCM is not operational on any system in the cluster.
		1... ....		DCMINOCFCONNECT	"X'80" When set to 1, indicates DCM is not operational because of a coupling facility connectivity error.
		.1.. ....		DCMINOHSATOKEN	"X'40" When set to 1, indicates DCM is not operational because there is no HW token or there is an incompatible token in the Hardware System Area (HSA).
		..1. ....		DCMINOMGDCHPIDS	"X'20" When set to 1, indicates DCM is not operational because there are no managed channel paths defined.
		...1 ....		DCMINOHWFACILITIES	"X'10" When set to 1, indicates DCM is not operational because DCM facilities are not supported by the hardware.
		.... 1...		DCMISETOFF	"X'08" When set to 1, indicates DCM is not operational because DCM was turned off by a command. EQU X'04' Available EQU X'02' Available EQU X'01' Available
10	(A)	BITSTRING	1	DCMILOCALREASON	DCM flags which indicate the reasons why DCM is not fully operational on this system image within a multisystem cluster.
		1... ....		DCMICHPTERROR	"X'80" When set to 1, indicates the DCM Channel Path Table (CHPT) could not be built on this system image.
		.1.. ....		DCMISWTBERROR	"X'40" When set to 1, indicates the DCM Switch Table (SWTB) could not be built on this system image.
		..1. ....		DCMINOMGDSUBSYSTEMS	"X'20" When set to 1, indicates no DCM managed subsystems are defined or visible on this system image.
		...1 ....		DCMINOLPARSESECURITY	"X'10" When set to 1, indicates LPAR authorization failed for this system image.
		.... 1...		DCMINOALGORITHMS	"X'08" When set to 1, indicates that DCM algorithms cannot run on this system image for one or more of

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		.... .1..		DCMINODYNAMICIO	"X'04" When set to 1, indicates that dynamic I/O changes to the channel subsystem are not allowed on this image
		.... ..1.		DCMIDCMINGROUP	"X'02" When set to 1, indicates that the DCM Group has been joined
		.... ...1		DCMINNDEERROR	"X'01" When set to 1, neighbor node descriptor topology has not been built
11	(B)	BITSTRING	1	DCMILOCALREASON2	DCM flags which indicate the reasons why DCM is not fully operational on this system image within a multisystem cluster.
		1... ....		DCMISWITCHTABLESYNCHRONIZED	"X'80" When set to 1, indicates the Switch Table Synchronization completed. EQU X'40' Available EQU X'20' Available EQU X'10' Available EQU X'08' Available EQU X'04' Available EQU X'02' Available EQU X'01' Available Available
12	(C)	CHARACTER	20		

**IOSDDDCMI Cross Reference**

Name	Hex Offset	Hex Value
DCMI	0	
DCMIACTIVE	8	80
DCMICHPTERROR	A	80
DCMIDCMINGROUP	A	2
DCMIGLOBALREASON	9	
DCMIGOALMODE	8	10
DCMIID	0	
DCMILOCALMONO	8	40
DCMILOCALREASON	A	
DCMILOCALREASON2	B	
DCMIMULTISYSTEM	8	20
DCMINNDEERROR	A	1
DCMINOALGORITHMS	A	8
DCMINOCFCONNECT	9	80
DCMINODYNAMICIO	A	4
DCMINOHSATOKEN	9	40
DCMINOHWFACILITIES	9	10
DCMINOLPARSESECURITY	A	10
DCMINOMGDCHPIDS	9	20
DCMINOMGDSUBSYSTEMS	A	20
DCMISETOFF	9	8
DCMISTATUSFLAGS	8	
DCMISWITCHTABLESYNCHRONIZED	B	80
DCMISWTBERROR	A	40
DCMIVERSION	4	





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## IOSDDEVI Information

### IOSDDEVI Programming Interface information

Programming Interface information

IOSDDEVI

End of Programming Interface information

## IOSDDEVI Heading Information • IOSDDEVI Map

### IOSDDEVI Heading Information

**Common Name:** Device information mapping  
**Macro ID:** IOSDDEVI  
**DSECT Name:** DEVI  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** none  
**Storage Attributes:**  
     Subpool: caller-provided  
     Key: caller-provided  
     Residency: caller-provided  
**Size:** DEVI -- X'0100' bytes  
**Created by:** issuer of UCBININFO DEVINFO  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** Maps the input/output area for the DEVIAREA keyword associated with UCBININFO DEVINFO.

### IOSDDEVI Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DEVI	DEVI information mapping
0	(0)	BITSTRING	2	DEVIFCTN (0)	Indicates which device information areas will be filled in.
		1... ....		DEVIOFSA	"X'80" Indicates that the device offline reasons area is filled in.
		.1. ....		DEVIALVA	"X'40" Indicates that the PAV info is filled in
		..1. ....		DEVIFACA	"X'20" Indicates that the device facilities area is filled in
0	(0)	BITSTRING	1		Reserved.
2	(2)	BITSTRING	2	DEVIOFRS (0)	Device offline reasons. Reasons why device is being held in the offline state.
		1... ....		DEVIORSN	"X'80" Offline for operator reasons.
		.1. ....		DEVIHRSN	"X'40" Offline for hierarchy reasons.
		..1. ....		DEVIALOC	"X'20" Allocated offline because in use by a system component.
		...1 ....		DEVILRSN	"X'10" Offline for tape library reasons.
		.... 1..		DEVICRSN	"X'08" Offline for configuration manager reasons.
		.... .1.		DEVICUIR	"X'04" Offline for conditional CUIR reasons
		.... ..1.		DEVIUCUI	"X'02" Offline for unconditional CUIR reasons
2	(2)	BITSTRING	1		Reserved.
4	(4)	CHARACTER	8	DEVIPAVI (0)	Parallel Access Volume Info
4	(4)	SIGNED	2	DEVIHPPC	If DEVIPAVH is on, this field contains the number of HyperPAV alias devices for the input device
6	(6)	SIGNED	2	DEVIPAVT	If DEVIPAVB is on indicating the input device is an active PAV-base, then this field contains the current total number of PAV devices associated with the input device (i.e., the count of bound PAV-alias devices plus 1 for the PAV-base). Otherwise, this field is set to zero
8	(8)	CHARACTER	2	DEVIPAVF (0)	PAV flags
		1... ....		DEVIPAVC	"X'80" PAV-base capability
		.1. ....		DEVIPAVB	"X'40" Indicates that the input device is an active PAV-base. This implies the PAV-base has one or more bound PAV-alias devices associated with it.
		..1. ....		DEVIPAVH	"X'20" Indicates that the input device is a HyperPAV device. This implies that DEVIHPPC contains the count of the number of HyperPAV aliases configured for the input device
8	(8)	BITSTRING	1		Reserved
10	(A)	CHARACTER	2		Reserved
12	(C)	SIGNED	4	DEVIFACL (0)	Device facilities area
12	(C)	BITSTRING	1	DEVIFACL_BYTE0 (0)	

Comment

Device facilities area byte 0

End of Comment

		1... ....		DEVIFCX	"X'80" The FICON Channel Extensions (FCX) facility (i.e., High Performance FICON) is supported
		.1. ....		DEVIMIDA	"X'40" Device supports MIDAWs
13	(D)	BITSTRING	1	DEVIFACL_BYTE1 (0)	

Comment

Device facilities area byte 1

End of Comment

13	(D)	BITSTRING	1		Reserved
14	(E)	BITSTRING	1	DEVIFACL_BYTE2 (0)	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
Device facilities area byte 2					
End of Comment					
14	(E)	BITSTRING	1		Reserved
15	(F)	BITSTRING	1	DEVIFACL_BYTE3 (0)	
Comment					
Device facilities area byte 3					
End of Comment					
15	(F)	BITSTRING	1		Reserved
16	(10)	CHARACTER	2	DEVIFLAG1 (0)	Device information flags
16	(10)	BITSTRING	1	DEVIFLAG1_BYTE0 (0)	
		1... ..		DEVIDYNSUP	"X'80" This device supports dynamic
		.1.. ....		DEVIDYN	"X'40" This device is dynamic
		..1. ....		DEVIPAVW	"X'20" Customer has requested dynamic alias tuning by WLM for this device
		...1 ....		DEVIPIN	"X'10" This device is currently pinned
		.... 1...		DEVIUAVL	"X'08" This device is currently unavailable for allocation
18	(12)	CHARACTER	238		Reserved
18	(12)	X'100'	0	DEVI_LEN	**-DEVI"

**IOSDDEVI Cross Reference**

Name	Hex Offset	Hex Value
DEVI	0	
DEVI_LEN	12	100
DEVIALOC	2	20
DEVIALVA	0	40
DEVICRSN	2	8
DEVICUIR	2	4
DEVIDYN	10	40
DEVIDYNSUP	10	80
DEVIFACA	0	20
DEVIFACL	C	
DEVIFACL_BYTE0	C	
DEVIFACL_BYTE1	D	
DEVIFACL_BYTE2	E	
DEVIFACL_BYTE3	F	
DEVIFCTN	0	
DEVIFCX	C	80
DEVIFLAG1	10	
DEVIFLAG1_BYTE0	10	
DEVIHPPC	4	
DEVIHRSN	2	40
DEVILRSN	2	10
DEVIMIDA	C	40
DEVIOFRS	2	
DEVIOFSA	0	80
DEVIORSN	2	80
DEVIPAVB	8	40
DEVIPAVC	8	80
DEVIPAVF	8	
DEVIPAVH	8	20
DEVIPAVI	4	
DEVIPAVT	6	
DEVIPAVW	10	20
DEVIPIN	10	10
DEVIUAVL	10	8
DEVIUCUI	2	2



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## IOSDE63R Information

### IOSDE63R Programming Interface information

Programming Interface information

IOSDE63R

End of Programming Interface information

## IOSDE63R Heading Information • IOSDE63R Map

### IOSDE63R Heading Information

**Common Name:** IOS ENF-63 Record  
**Macro ID:** IOSDE63R  
**DSECT Name:** E63R  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** E63R  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Main Storage: Yes  
 Virtual Storage: N/A  
 Auxiliary Storage: N/A  
 Subpool: 245  
 Key: 0  
 Data Space: N/A  
 Residency: Above 16M Line  
**Size:** 128-Bytes  
**Created by:** IOSVHWP (via the IOSHSWAP macro)  
**Pointed to by:** Not Applicable  
**Serialization:** None  
**Function:** IOSDE63R maps the information passed to listeners of the Event Notification (ENF) code that signals when a permanent error has occurred for a device in a logical subsystem (LSS)

### IOSDE63R Map

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
0	(0)	STRUCTURE	0	E63R	IOS ENF 63 Record	
0	(0)	CHARACTER	4	E63RID	Control block ID	
4	(4)	SIGNED	1	E63RVERSION	Version number	
5	(5)	BITSTRING	1	E63RSOURCE	Source of this ENF request	
		.... ....		E63RSOURCEUNK		
		.... ....		E63RSOURCEUNK	"X'00" Source is unknown	
		.... .1		E63RSOURCEERP		
		.... .1		E63RSOURCEERP	"X'01" Error Recovery Procedures (ERP) processing	
		.... .1		E63RSOURCENOP		
		.... .1		E63RSOURCENOP	"X'02" No operational paths processing	
		.... .11		E63RSOURCEBOX		
		.... .11		E63RSOURCEBOX	"X'03" Device box processing	
Comment						
EQU X'04' Reserved for GDPS/IOS use						
End of Comment						
		.... .1.1		E63RSOURCEEOS		
		.... .11		E63RSOURCEEOS	"X'05" Device end-of-sense (EOS) exit processing	
		.... .11		E63RSOURCEIOT		
		.... .11		E63RSOURCEIOT	"X'06" IO Timing (IOT) processing	
6	(6)	SIGNED	2	E63RDEVNUM	Device number of the device that caused this ENF signal	
8	(8)	CHARACTER	32	E63RTOKENNED	Token NED of the subsystem for the device (Zeros if no subsystem data exists for the device).	
40	(28)	SIGNED	1	E63RSSID	Subchannel Set ID	
41	(29)	BITSTRING	1	E63RFLAGS	Flag byte	
		1... ....		E63RNDSS		
42	(2A)	CHARACTER	86	E63RNDSS	"X'80" Non-Disruptive state save (NDSS) is to be requested Available	

**IOSDE63R Cross Reference**

<b>Name</b>	<b>Hex Offset</b>	<b>Hex Value</b>
E63R	0	
E63RDEVNUM	6	
E63RFLAGS	29	
E63RID	0	
E63RNDSS	29	80
E63RSOURCE	5	
E63RSOURCEBOX		
	5	3
E63RSOURCEEOS		
	5	5
E63RSOURCEERP		
	5	1
E63RSOURCEIOT		
	5	6
E63RSOURCENOP		
	5	2
E63RSOURCEUNK		
	5	0
E63RSSID	28	
E63RTOKENNED	8	
E63RVERSION	4	





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## IOSDFEAT Information

### IOSDFEAT Programming Interface information

Programming Interface information

#### IOSDFEAT

End of Programming Interface information

## IOSDFEAT Heading Information • IOSDFEAT Map

### IOSDFEAT Heading Information

**Common Name:** IOS FEATURES INFORMATION MAPPING  
**Macro ID:** IOSDFEAT  
**DSECT Name:** FEAT  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: CALLER-PROVIDED  
 Key: CALLER-PROVIDED  
 Residency: CALLER-PROVIDED  
**Size:** 4 Bytes  
**Created by:** N/A  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** MAPS IOS FEATURES PARAMETER OR IOS FEATURES TABLE

### IOSDFEAT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	FEAT	
0	(0)	CHARACTER	4	FEAT_IOS (0)	
		1... ....		FEAT_IOS_AUTOSWITCH	"X'80" AUTO-SWITCHABLE Device
		.1.. ....		FEAT_IOS_WLM PAV	"X'40" Customer specified that this PAV-base device allows its PAV-alias's to be dynamically tunable by WLM tunable by WLM
0	(0)	CHARACTER	3		Reserved
4	(4)	X'4'	0	FEAT_LEN	"*-FEAT"

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## IOSDIECA Information

### IOSDIECA Programming Interface information

Programming Interface information

IOSDIECA

End of Programming Interface information

## IOSDIECA Heading Information • IOSDIECA Cross Reference

### IOSDIECA Heading Information

**Common Name:** IOS Extended Communication Area  
**Macro ID:** IOSDIECA  
**DSECT Name:** IECA  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** IECA  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Main Storage: Yes  
 Virtual Storage: N/A  
 Auxiliary Storage: N/A  
 Subpool: Nucleus  
 Key: N/A  
 Data Space: N/A  
 Residency: Above 16M Line  
**Size:** 64 bytes  
**Created by:** IOSVDATA  
**Pointed to by:** IOICIECA field of the writable IOCOM  
**Serialization:** Compare and Swap (CS) when setting the Fsdq queue header  
**Function:** Provide an area for communication between IOS and other programs.

### IOSDIECA Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IECA	
0	(0)	CHARACTER	4	IECA_ID	Eye catcher
4	(4)	ADDRESS	4	IECA_IOSAS_ASCB_ADDR	For cross-memory POST
8	(8)	BITSTRING	16	IECA_IOSVFSD_TTOKEN	For cross-memory POST
24	(18)	BITSTRING	4	IECA_IOSVFSD_ECB (0)	ECB to invoke IOSVFSD
		1... ....		IECA_IOSVFSD_ECB_WAIT	"X'80"
		.1.. ....		IECA_IOSVFSD_ECB_POST	"X'40"
28	(1C)	ADDRESS	4	IECA_FSDQ_HEADER	Fsdq queue header
32	(20)	ADDRESS	4	IECA_IRDVFSD_EP@	E.P. address of IRDVFSD
36	(24)	BITSTRING	1	IECA_FLAGS (0)	
		1... ....		IECA_IOSVFSD_IS_READY	"X'80" OK to invoke IOSVFSD
37	(25)	BITSTRING	3		Reserved
40	(28)	BITSTRING	24		Reserved
40	(28)	X'C5C3C1'	0	IECA_NAME	"C'IECA" Characters for acronym
40	(28)	X'40'	0	IECA_LEN	"*-IECA"

### IOSDIECA Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
IECA	0		IECA_IRDVFSD_EP@	20	
IECA_FLAGS	24		IECA_LEN	28	40
IECA_FSDQ_HEADER	1C		IECA_NAME	28	C5C3C1
IECA_ID	0	C9C5C3C1			
IECA_IOSAS_ASCB_ADDR	4				
IECA_IOSVFSD_ECB	18				
IECA_IOSVFSD_ECB_POST	18	40			
IECA_IOSVFSD_ECB_WAIT	18	80			
IECA_IOSVFSD_IS_READY	24	80			
IECA_IOSVFSD_TTOKEN	8	0			

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## IOSDIODI Information

### IOSDIODI Programming Interface information

Programming Interface information

IOSDIODI

End of Programming Interface information

## IOSDIODI Heading Information • IOSDIODI Map

### IOSDIODI Heading Information

**Common Name:** IODF Information area  
**Macro ID:** IOSDIODI  
**DSECT Name:** IOSDIODI  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** IODI  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: User  
 Key: User  
 Data Space: No  
 Residency: 31 Bit  
**Size:** 128 bytes  
**Created by:** Issuer of IOCINFO IODFINFO service  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** IOSDIODI maps IODF information returned by the IOCINFO IODFINFO service.

### IOSDIODI Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IODI	IODF Information area
0	(0)	CHARACTER	4	IODI_ID	Eye catcher
4	(4)	BITSTRING	1	IODI_VERSION	IODI version number
5	(5)	BITSTRING	1	IODI_FLAGS (0)	IODI flags
		1... ..		IODI_IODFUCBINVLD	"X'80" Indicates IODI_IODFUCB is not valid. There is no UCB for the IODF device. Available
6	(6)	CHARACTER	2		
8	(8)	CHARACTER	44	IODI_IODFDSNAME	IODF data set name
52	(34)	ADDRESS	4	IODI_IODFUCB	UCB address of IODF volume
56	(38)	CHARACTER	6	IODI_IODFVOLSER	Volume Serial of IODF volume
62	(3E)	SIGNED	2	IODI_IODFODEV	Original IODF device number
64	(40)	BITSTRING	1	IODI_IODFLOSS	Original IODF device subchannel set id
65	(41)	CHARACTER	63		Available
					Comment
IODI Eye-Catcher					
					End of Comment
65	(41)	X'D6C4C9'	0	IODISTRING	"C'IODI'" IODI Eye-Catcher
					Comment
IODI Version					
					End of Comment
65	(41)	X'1'	0	IODIVERSIONNUMBER	"1" IODI Version Number
65	(41)	X'80'	0	IODI_LEN	""-IODI"

**IOSDIODI Cross Reference**

<b>Name</b>	<b>Hex Offset</b>	<b>Hex Value</b>
IODI	0	
IODI_FLAGS	5	
IODI_ID	0	
IODI_IODFDSNAME		
	8	
IODI_IODFODEV		
	3E	
IODI_IODFOSS	40	
IODI_IODFUCB	34	
IODI_IODFUCBINVLD		
	5	80
IODI_IODFVOLSER		
	38	
IODI_LEN	41	80
IODI_VERSION	4	
IODISTRING	41	D6C4C9
IODIVERSIONNUMBER		
	41	1





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## IOSDIOFC Information

### IOSDIOFC Programming Interface information

Programming Interface information

### IOSDIOFC

End of Programming Interface information

## IOSDIOFC Heading Information • IOSDIOFC Cross Reference

### IOSDIOFC Heading Information

**Common Name:** I/O Facilities Information Area  
**Macro ID:** IOSDIOFC  
**DSECT Name:** IOFC  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: Any  
 Key: Any  
 Residency: Any  
**Size:** 256 bytes  
**Created by:** Issuer of IOCINFO IOFACILITIES  
**Pointed to by:** IOCINFO parameter list  
**Serialization:** None  
**Function:** IOSDIOFC maps the information which is returned by the IOCINFO IOFACILITIES function, which shows which I/O facilities are supported by the hardware and software.  
 Notes: None

### IOSDIOFC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IOFC	I/O Facilities Information Area
0	(0)	BITSTRING	1	IOFC_VERSION	Version number
1	(1)	BITSTRING	1	IOFC_FLAG1 (0)	Flag 1
		1... ..		IOFC_MIDAW_HW	"X'80" The MIDAW facility is supported by the hardware
		.1.. ..		IOFC_MIDAW_SW	"X'40" The MIDAW facility is supported and enabled by the software. This bit will only be on if IOFC_MIDAW_HW is on and the MIDAW facility has not been disabled via the IECIOSxx parmlib member or the SETIOS command.
		..1. ....		IOFC_FCX_HW	"X'20" The FICON Channel Extensions (FCX) facility (i.e., High Performance FICON) is supported by the hardware
		...1 ....		IOFC_FCX_SW	"X'10" The FICON Channel Extensions (FCX) facility (i.e., High Performance FICON) is supported and enabled by the software. This bit will only be on if IOFC_FCX_HW is on and the facility has not been disabled via the IECIOSxx parmlib member or the SETIOS command.
2	(2)	CHARACTER	254		Reserved
256	(100)	CHARACTER	1	IOFC_END (0)	End of IOFC

Comment

IOFC Version

End of Comment

256	(100)	X'1'	0	IOFC_VERSION_CURRENT	"1" Current IOFC version number
256	(100)	X'100'	0	IOFC_LEN	"*-IOFC"

### IOSDIOFC Cross Reference

Name	Hex Offset	Hex Value
IOFC	0	
IOFC_END	100	
IOFC_FCX_HW	1	20
IOFC_FCX_SW	1	10
IOFC_FLAG1	1	
IOFC_LEN	100	100
IOFC_MIDAW_HW	1	80
IOFC_MIDAW_SW	1	40
IOFC_VERSION	0	
IOFC_VERSION_CURRENT	100	1

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## IOSDMAP Information

### IOSDMAP Programming Interface information

Programming Interface information

IOSDMAP

End of Programming Interface information

## IOSDMAP Heading Information • IOSDMAP Map

### IOSDMAP Heading Information

**Common Name:** MAP - IOS Map Service Parameter List  
**Macro ID:**  
**DSECT Name:** IOSDMAP  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Main Storage: N/A  
 Virtual Storage: N/A  
 Auxiliary Storage: N/A  
 Subpool: Caller provided  
 Key: Caller provided  
 Residency: Caller provided  
**Size:** 40 Bytes  
**Created by:** Issuer of UCBINFO PATHMAP  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** The IOSDMAP macro maps the device path information that is returned via a call to the PATHMAP function of the UCBINFO macro.

### IOSDMAP Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IOSDMAP	
0	(0)	ADDRESS	4	MAPUCB	UCB Common Segment address (Required)
4	(4)	BITSTRING	1	MAPFLGS	UCB flag information
		1... ....		MAPVALPH	"X'80" If on, path validation has not been done. Reflects setting of UCBVALPH.

Comment

EQU X'7F' Reserved

End of Comment

5	(5)	BITSTRING	3	MAPRESV	Reserved
8	(8)	CHARACTER	32	MAPTABLE (0)	32 byte area where map output stored (Required).
8	(8)	BITSTRING	1	MAPCHPNO	Number of valid installed channel paths to the specified device.
9	(9)	BITSTRING	1	MAPLPUM	Last Path Used Mask
10	(A)	BITSTRING	6		Reserved
16	(10)	BITSTRING	3	MAPCHPDT (8)	Channel Path data - 8 CHPIDS

#### Offsets

Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	MAPDATA	Maps MAPCHPDT Fields----
0	(0)	BITSTRING	1	MAPCHPID	Channel Path ID number
1	(1)	BITSTRING	1	MAPPTHMK	PATHMASK - This mask corresponds to the bit settings in the PIM for this Channel path.
2	(2)	BITSTRING	1	MAPBIT	

Comment

EQU X'80' Reserved

End of Comment

	.1.. ....			MAPDCMVSU	"X'40" Dynamic Chpid Management mask. If on, indicates that the path is offline due to a Vary Switch or CONFIG Member(xx) request.
	..1. ....			MAPCMM	"X'20" Configuration management mask. If on, indicates that path is offline due to ESCM.
	...1 ....			MAPOPM	"X'10" Operator path mask. If on, indicates that path is offline due to the operator.
	.... 1..			MAPCPM	"X'08" C.U.I.R. path mask. If on, indicates that path is offline due to C.U.I.R.
	.... .1..			MAPLPM	"X'04" Logically available mask (LPM) 1 = Available 0 = Not available
	.... ..1.			MAPPAM	"X'02" Physically available mask 1 = Available 0 = Not available
	.... ...1			MAPVARY	"X'01" If ON, Vary offline in progress

## IOSDMAP Cross Reference

Name	Hex Offset	Hex Value
IOSDMAP	0	
MAPBIT	2	
MAPCHPDT	10	
MAPCHIPID	0	
MAPCHPNO	8	
MAPCMM	2	20
MAPCPM	2	8
MAPDATA	0	
MAPDCMVSW	2	40
MAPFLGS	4	
MAPLPM	2	4
MAPLPUM	9	
MAPOPM	2	10
MAPPAM	2	2
MAPPTHMK	1	
MAPRESV	5	
MAPTABLE	8	
MAPUCB	0	
MAPVALPH	4	80
MAPVARY	2	1



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## IOSDNPPL Information

### IOSDNPPL Programming Interface information

Programming Interface information

### IOSDNPPL

End of Programming Interface information

## IOSDNPPL Heading Information • IOSDNPPL Map

### IOSDNPPL Heading Information

**Common Name:** New Purge Parameter List  
**Macro ID:** IOSDNPPL  
**DSECT Name:** NPPL  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** NPPL  
 Offset: 28  
 Length: 4  
**Storage Attributes:** Subpool: Caller  
 Key: Key of Caller  
 Residency: Above or Below  
**Size:** 32 bytes  
**Created by:** Issuers of the PURGE macro  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** This DSECT describes the control block containing all the information necessary to do I/O purging to support 31-bit arguments.

### IOSDNPPL Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	NPPL	
0	(0)	BITSTRING	1	NPPLOPT1	Option byte one
		1... ..		NPPLDS	"X'80" If DSID purge requested, purge a single DSID. If zero, purge a list of DSIDs. In either case, the caller must be in supervisor state
		.1. ....		NPPLPOST	"X'40" ECBs associated with the I/O requests purged should be posted with X'48'
		..1. ....		NPPLHIO	"X'20" Halt the I/O requests
		...1 ....		NPPLREL	"X'10" Purge only the I/O requests marked related and associated with the argument (EXCP only)
		.... 1...		NPPLNPPL	"X'08" Indicator that new PPL is being used
		.... .1..		NPPLRB	"X'04" Do not purge the RB chain for asynchronously scheduled routines
		.... ..1.		NPPLTASK	"X'02" Purge a single TCB
1	(1)	BITSTRING	1	NPPLOPT2	Option byte 2
		1... ..		NPPLCAN	"X'80" Cancel command request
		..1. ....		NPPLMEM	"X'20" ASID purge specified. This Option may be specified only by a requestor that is in supervisor state.
		...1 ....		NPPLVC	"X'10" Perform DSID validity check (Supervisor state only) 0 - Bypass validity check 1 - Validity check
		.... 1...		NPPLOTCB	"X'08" Purge all requests so that when restored they can be associated with the TCB that originated them.
		.... .1..		NPPLTSKM	"X'04" Purge called by task termination
		.... ..1.		NPPLBSS	"X'02" Bypass status start
		.... ...1		NPPLUCB	"X'01" Purge DSID by UCB only when this bit is on only requests for specified UCB will be purged.(EXCP only)
2	(2)	BITSTRING	1	NPPLOPT3	Option byte three
		1... ..		NPPLIOPT	"X'80" I/O prevention requested
		.1. ....		NPPLCLR	"X'40" Bypass issuing HALT that needs to select the device (which could be busied off).
		..1. ....		NPPLNOSS	"X'20" No Status Stop - Allow SRBs/TCBs during CSCH Note: Do not turn on for a memterm purge.
3	(3)	BITSTRING	1	NPPLOPT4	Option byte four
4	(4)	BITSTRING	1	NPPLCC	Purge completion code '7F' successful completion '40' unsuccessful completion
5	(5)	BITSTRING	1	NPPLDVID	Driver ID -- required for DSID purge requests default value of x'00' implies EXCP is the owner
6	(6)	SIGNED	2	NPPLASID (0)	ASID of address space to which I/O requests are associated(required for purge by ASID)
6	(6)	SIGNED	2	NPPLFOFST	Offset of UCB within DEB for purge by UCB only.
8	(8)	SIGNED	4	NPPLIOPD (0)	4 byte I/O prevention identifier
8	(8)	SIGNED	4	NPPLDSID	DSID argument. If validity checking done, must point to a DEB
12	(C)	SIGNED	4	NPPLTCB	Address of TCB to be used to find the I/O requests if not supplied, the current TCB address will be used
16	(10)	SIGNED	4	NPPLPIRL	Address of the anchor from which the PIRL will be chained
20	(14)	SIGNED	4	NPPLSRB	Optional SRB address provided by branch entry callers if they require asynchronous notification of halt subchannel completion
24	(18)	SIGNED	4	NPPLRSVD	Reserved
28	(1C)	CHARACTER	4	NPPLID	Four byte EBCDIC identifier



## IOSDNPPL Cross Reference

Name	Hex Offset	Hex Value
NPPL	0	
NPPLASID	6	
NPPLBSS	1	2
NPPLCAN	1	80
NPPLCC	4	
NPPLCLR	2	40
NPPLDS	0	80
NPPLDSID	8	
NPPLDVID	5	
NPPLHIO	0	20
NPPLID	1C	
NPPLIOPD	8	
NPPLIOPT	2	80
NPPLMEM	1	20
NPPLNOSS	2	20
NPPLNPPL	0	8
NPPLOFST	6	
NPPLOPT1	0	
NPPLOPT2	1	
NPPLOPT3	2	
NPPLOPT4	3	
NPPLOTCB	1	8
NPPLPIRL	10	
NPPLPOST	0	40
NPPLRB	0	4
NPPLREL	0	10
NPPLRSVD	18	
NPPLSRB	14	
NPPLTASK	0	2
NPPLTCB	C	
NPPLTSKM	1	4
NPPLUCB	1	1
NPPLVC	1	10



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## IOSDPATH Information

### IOSDPATH Programming Interface information

Programming Interface information

IOSDPATH

End of Programming Interface information

## IOSDPATH Heading Information • IOSDPATH Map

### IOSDPATH Heading Information

**Common Name:** Path information mapping  
**Macro ID:** IOSDPATH  
**DSECT Name:** PATH  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** none  
**Storage Attributes:** Subpool: caller-provided  
 Key: caller-provided  
 Residency: caller-provided  
**Size:** PATH -- X'0100' bytes  
**Created by:** issuer of UCBINFO PATHINFO  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** Maps the input to and output from UCBINFO PATHINFO

### IOSDPATH Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PATH	Path information mapping
0	(0)	SIGNED	4	PATH#CHPIDS	Number of valid installed Channel Paths to the specific device.
4	(4)	CHARACTER	1	PATHFLAGS (0)	Flags mapped like MapFlgs in IOSDMAP
		1... ....		PATHVALPH	"X'80" If on, path validation has not been done. Reflects setting of UCBVALPH.
5	(5)	CHARACTER	1	PATHFLAGS1 (0)	More Flags
		1... ....		PATHINTTYPENOTAVAILABLE	
		.1. ....		PATHUAVVALID	"X'80" If on, no interface type information was available.
		..1. ....		PATHFC	"X'40" If on, the PathUa field contains the device unit address
		...1 ....		PATHATTRIBUTESVALID	"X'20" If on, the device is connected to at least one FICON channel (i.e., channel type is FICON POINT TO POINT, FICON SWITCHED, or FICON INCOMPLETE)
					"X'10" If on, path selection attribute information is supported (PathAttribute is valid).
6	(6)	BITSTRING	1	PATHLPUM	Last Path used mask (LPUM)
7	(7)	BITSTRING	2	PATHUA	Device unit address
9	(9)	CHARACTER	23		Reserved
32	(20)	CHARACTER	28	PATHCHPIDARRAY (0)	Array of up to 8 entries of path information. The last entry filled in is the entry corresponding to Path#Chpids. Note that Path#Chpids could be 0, in which case no entries are filled in.
32	(20)	SIGNED	2	PATHCHPID	Channel Path ID number
34	(22)	BITSTRING	1	PATHMASK	This mask corresponds to the bit setting in the PIM for this channel path.
35	(23)	BITSTRING	1	PATHBITS (0)	Mapped like MapBit in IOSDMAP
		.1. ....		PATHDCMVS	"X'40" Dynamic Chpid Management mask. If on, indicates that path is offline due to a Vary Switch or Config member(xx) request.
		..1. ....		PATHCMM	"X'20" Configuration management mask. If on, indicates that path is offline due to ESCM.
		...1 ....		PATHOPM	"X'10" Operator path mask. If on, indicates that path is offline due to the operator.
		.... 1..		PATHCPM	"X'08" Control unit recovery process path mask. If on, indicates that the path is offline due to control unit recovery process
		.... ..1.		PATHLPM	"X'04" Logically Available Mask: 1 = Available, 0 = Not available
		.... ..1.		PATHPAM	"X'02" Physically Available Mask: 1 = Available, 0 = Not available
		.... ...1		PATHVARY	"X'01" If On, vary OFFLINE in progress
36	(24)	BITSTRING	1	PATHINTTYPE	Interface type entry. Constants defining the possible values are below and begin with PathIntType_
37	(25)	BITSTRING	1	PATHATTRIBUTE	Path attribute. Constants are defined below
38	(26)	CHARACTER	22		Reserved
256	(100)	X'0'	0	PATHINTTYPE_UNKNOWN	"0" Channel path description not known
256	(100)	X'1'	0	PATHINTTYPE_BLOCK_MTPX	"1" Parallel block multiplexer channel path
256	(100)	X'2'	0	PATHINTTYPE_BYTE_MTPX	"2" Parallel byte multiplexer channel path
256	(100)	X'3'	0	PATHINTTYPE_ESCON_PT_TO_PT	"3" ESCON point to point channel path
256	(100)	X'4'	0	PATHINTTYPE_ESCON_UNKNOWN	"4" ESCON channel path
256	(100)	X'5'	0	PATHINTTYPE_ESCON_SWITCH	"5" ESCON switch point to point channel path
256	(100)	X'6'	0	PATHINTTYPE_ESCON_CONVERT	"6" Fiber extended channel path

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
256	(100)	X'7'	0	PATHINTTYPE_ESCON_NATIVE	"7" Native Interface
256	(100)	X'8'	0	PATHINTTYPE_CTC_PT_TO_PT	"8" CTC adapter point to point
256	(100)	X'9'	0	PATHINTTYPE_CTC_SW_PT_TO_PT	"9" CTC adapter switched point to point
256	(100)	X'A'	0	PATHINTTYPE_CTC_UNKNOWN	"10" CTC adapter
256	(100)	X'F'	0	PATHINTTYPE_ESCON_BYTE_CONVERT	"15" ESCON Byte Pacer channel path
256	(100)	X'10'	0	PATHINTTYPE_OSA_EXPRESS	"16" OSA Express channel path
256	(100)	X'11'	0	PATHINTTYPE_OSA_DIRECT_EXPRESS	"17" OSA Direct Express channel path
256	(100)	X'12'	0	PATHINTTYPE_OSA	"18" Open Systems Adapter
256	(100)	X'13'	0	PATHINTTYPE_ISD	"19" Internal System Device
256	(100)	X'14'	0	PATHINTTYPE_OSC	"20" OSA Console
256	(100)	X'15'	0	PATHINTTYPE_OSN	"21" OSA NCP (OSN)
256	(100)	X'16'	0	PATHINTTYPE_ICB_SENDER	"22" Integrated Cluster Bus Sender
256	(100)	X'17'	0	PATHINTTYPE_ICB_RECEIVER	"23" Integrated Cluster Bus Receiver
256	(100)	X'18'	0	PATHINTTYPE_IISC_SENDER	"24" Internal ISC Sender
256	(100)	X'19'	0	PATHINTTYPE_IISC_RECEIVER	"25" Internal ISC Receiver
256	(100)	X'1A'	0	PATHINTTYPE_FICON_NATIVE	"26" Native FICON
256	(100)	X'1B'	0	PATHINTTYPE_FICON_SWITCHED	"27" FICON switched
256	(100)	X'1C'	0	PATHINTTYPE_FICON_TO_BRIDGE	"28" FICON Bridge
256	(100)	X'1D'	0	PATHINTTYPE_FICON_INCOMPLETE	"29" FICON (Incomplete Description)
256	(100)	X'1E'	0	PATHINTTYPE_DSD	"30" Direct System Device (DSD)
256	(100)	X'1F'	0	PATHINTTYPE_EIO	"31" Emulated I/O (EIO)
256	(100)	X'21'	0	PATHINTTYPE_CBP	"33" Integrated Cluster Bus Peer
256	(100)	X'22'	0	PATHINTTYPE_CFP	"34" Coupling Facility Peer
256	(100)	X'23'	0	PATHINTTYPE_ICP	"35" Internal Coupling Peer
256	(100)	X'24'	0	PATHINTTYPE_IQD	"36" Internal Queued Direct Communications
256	(100)	X'25'	0	PATHINTTYPE_FCP	"37" Fibre Channel Protocol CHPID
256	(100)	X'26'	0	PATHINTTYPE_CIB	"38" Coupling over Infiniband
256	(100)	X'30'	0	PATHINTTYPE_OSA_ZBX_DATA	"48" OSA zBX Data
256	(100)	X'31'	0	PATHINTTYPE_OSA_ZBX_MANAGEMENT	"49" OSA zBX Management

Comment

Values for PathAttribute

End of Comment

256	(100)	X'0'	0	PATHATTRIBUTE_NOTSPECIFIED	"0" Path attributes are not specified for this path
256	(100)	X'1'	0	PATHATTRIBUTE_PREFERREDPATH	"1" This path is a preferred path
256	(100)	X'2'	0	PATHATTRIBUTE_NONPREFERREDPATH	"2" This path is a non-preferred path
256	(100)	X'100'	0	PATH_LEN	**"-PATH"

## IOSDPATH Cross Reference

### IOSDPATH Cross Reference

Name	Hex Offset	Hex Value
PATH	0	
PATH_LEN	100	100
PATH#CHPIDS	0	
PATHATTRIBUTE	25	
PATHATTRIBUTE_NONPREFERREDPATH	100	2
PATHATTRIBUTE_NOTSPECIFIED	100	0
PATHATTRIBUTE_PREFERREDPATH	100	1
PATHATTRIBUTESVALID	5	10
PATHBITS	23	
PATHCHPID	20	
PATHCHPIDARRAY	20	
PATHCMM	23	20
PATHCPM	23	8
PATHDCMVSW	23	40
PATHFC	5	20
PATHFLAGS	4	
PATHFLAGS1	5	
PATHINTTYPE	24	
PATHINTTYPE_BLOCK_MTPX	100	1
PATHINTTYPE_BYTE_MTPX	100	2
PATHINTTYPE_CBP	100	21
PATHINTTYPE_CFP	100	22
PATHINTTYPE_CIB	100	26
PATHINTTYPE_CTC_PT_TO_PT	100	8
PATHINTTYPE_CTC_SW_PT_TO_PT	100	9
PATHINTTYPE_CTC_UNKNOWN	100	A
PATHINTTYPE_DSD	100	1E
PATHINTTYPE_EIO	100	1F
PATHINTTYPE_ESCON_BYTE_CONVERT	100	F
PATHINTTYPE_ESCON_CONVERT	100	6
PATHINTTYPE_ESCON_NATIVE	100	7
PATHINTTYPE_ESCON_PT_TO_PT	100	3
PATHINTTYPE_ESCON_SWITCH	100	5
PATHINTTYPE_ESCON_UNKNOWN	100	4
PATHINTTYPE_FCP	100	25
PATHINTTYPE_FICON_INCOMPLETE	100	1D
PATHINTTYPE_FICON_NATIVE	100	1A
PATHINTTYPE_FICON_SWITCHED	100	1B
PATHINTTYPE_FICON_TO_BRIDGE	100	1C
PATHINTTYPE_ICB_RECEIVER	100	17
PATHINTTYPE_ICB_SENDER	100	16
PATHINTTYPE_ICP	100	23

Name	Hex Offset	Hex Value
PATHINTTYPE_IISC_RECEIVER	100	19
PATHINTTYPE_IISC_SENDER	100	18
PATHINTTYPE_IQD	100	24
PATHINTTYPE_ISD	100	13
PATHINTTYPE_OSA	100	12
PATHINTTYPE_OSA_DIRECT_EXPRESS	100	11
PATHINTTYPE_OSA_EXPRESS	100	10
PATHINTTYPE_OSA_ZBX_DATA	100	30
PATHINTTYPE_OSA_ZBX_MANAGEMENT	100	31
PATHINTTYPE_OSC	100	14
PATHINTTYPE_OSN	100	15
PATHINTTYPE_UNKNOWN	100	0
PATHINTTYPENOTAVAILABLE	5	80
PATHLPM	23	4
PATHLPUM	6	
PATHMASK	22	
PATHOPM	23	10
PATHPAM	23	2
PATHUA	7	
PATHUAVALID	5	40
PATHVALPH	4	80
PATHVARY	23	1

**IOSDPAVA Information**

**IOSDPAVA Programming Interface information**

Programming Interface information

**IOSDPAVA**

End of Programming Interface information

## IOSDPAVA Heading Information

### IOSDPAVA Heading Information

**Common Name:** Parallel Access Volume Array (PAVA) mapping  
**Macro ID:** IOSDPAVA  
**DSECT Name:** PAVA  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** PAVA  
Offset: 0  
Length: 4  
**Storage Attributes:** Subpool: caller-provided  
Key: caller-provided  
Residency: caller-provided  
**Size:** PAVA header - 20 bytes  
PAVA entry - 60 bytes per entry if non-extended format  
was requested.  
- 96 bytes per entry if extended format  
was requested.  
**Created by:** issuer of UCBINFO PAVINFO  
**Pointed to by:** N/A  
**Serialization:** N/A



**Function:**

The IOSDPAVA macro maps the input/output area that is specified via the PAVAREA keyword when the PAVINFO or HYPERPAVALIASES function is specified on the UCBINFO macro.

The PAVA consists of the following:

- A header that contains information such as the version number, the total size of the PAVA, and the number of entries.

- One or more entries that contains I/O response time statistics such as the accumulated connect and pending times from the channel measurement block.

If PAVINFOSUM=YES is specified on the UCBINFO PAVINFO macro, a single entry is created that contains the sum of the I/O response time statistics from the base device and all aliases bound to the base device at the time the UCBINFO PAVINFO macro is issued.

If PAVINFOSUM=NO is specified on the UCBINFO PAVINFO macro, a separate entry is created for the base or non-PAV device, and each alias that is bound to the base device.

If UCBINFO HYPERPAVALIASES is specified, a separate entry is created for each HyperPAV alias for the logical subsystem associated with the input base device.

For UCBINFO PAVINFO requests, the EXTFORMAT keyword specifies whether the extended or non-extended format of the PAVA is being requested. The extended format is required if your program needs to obtain new information that is added to the PAVA, and also allows z/OS to extend the length of the PAVA entry in the future without affecting existing programs.

The value specified for the EXTFORMAT keyword on the UCBINFO PAVINFO macro must match the value specified on the IOSDPAVA macro. Otherwise, your program may not work correctly.

If the extended format PAVA is requested, the following occurs:

- IOSDPAVA macro - The PAVA device entry will be generated as a separate DSECT/structure instead of an array following the PAVA header.

- UCBINFO PAVINFO service

- The PAVA header will contain a version of 3 or higher depending on the output version specified on the UCBINFO macro and the highest version supported by the service routine.

- PAVAELEN will contain the length of each device entry.

This length should be used to access the next device entry instead of the compile time length.

If the non-extended format PAVA is requested, the following occurs:

- IOSDPAVA macro - The PAVA device entry will be generated as an array following the PAVA header.

- UCBINFO PAVINFO service

- The PAVA header will contain a version of 2 or lower.

- PAVAELEN will be unpredictable depending on the level of the UCBINFO PAVINFO service routine code. For PLX, the next device entry may be accessed by incrementing the index used to address the PAVA array element. For assembler, the next device entry may be accessed by adding the length of PAVArray to the current pointer.

The following shows what the PAVA looks like depending on whether the extended or non-extended was requested:

## IOSDPAVA Map

Extended Format = Yes	Extended Format = No
1 PAVA	1 PAVA
3 PAVAHead	3 PAVAHead
5 PAVAIId	5 PAVAIId
5 PAVAVers (3 or higher)	5 PAVAVers (2 or lower)
5 PAVATokn	5 PAVATokn
5 PAVAHend (End of header)	
1 PAVAEEntry Based	3 PAVAEArray(*)
5 PAVADevn	5 PAVADevn
5 Flags and statistics	5 Flags and statistics
5 PAVAELen (non-zero)	5 PAVAELen (unpredictable)
3 PAVAEfStart (extfmt start)	
5 Version 3 information	
5 Version x information...	

Note: If your program is compiled with the level of the UC/INFO PAV/INFO macro that supports the EXT/FORMAT keyword, but your program runs on a system that does not have the extended format support, a non-extended format PAVA will be returned. Your program can detect this condition by checking the version number. If the version number is less than 3, then a non-extended format PAVA was returned. In this case, you may still use the extended format IOSDPAVA macro to access the data. However, you cannot use the PAVAElen field to address the subsequent PAVA entries, and you cannot access any fields that appear in version 3 and higher sections.

## IOSDPAVA Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	PAVA	PAVA information mapping
0	(0)	CHARACTER	20	PAVAHEAD (0)	Header
0	(0)	CHARACTER	4	PAVAID	Eye catcher
4	(4)	BITSTRING	1	PAVAVERS	Version
5	(5)	BITSTRING	1	PAVAPCNT	If the requested device is a HyperPAV base device, this field contains the count of HyperPAV alias devices configured in the LSS pool.
6	(6)	SIGNED	2	PAVALNTH	Length of PAVA as input to UC/INFO service
8	(8)	SIGNED	2	PAVATCNT	--- For PAV/INFO requests: If PAV/APAVB is on indicating the input device is an active PAV-base, then this field contains the current total number of PAV devices associated with the input device (i.e., the count of bound PAV-alias devices plus 1 for the PAV-base). Otherwise, this field is set to one. Note: If the PAV/INFO service indicates the PAV/AREA was not large enough to contain all of the device entries, this field should be used to recalculate the new size for the PAV/AREA. The new size is the PAVA header plus the size of a PAVA entry multiplied by the PAVATCNT --- For HYPERPAVALIASES requests: If the input device is a HyperPAV device, this field contains the current total number of alias exposures in the logical subsystem for the input device.
10	(A)	SIGNED	2	PAVARCNT	Count of the number of PAVA entries filled in by this service. Notes: . This field is not equal to PAVATCNT when the PAV/AREA passed by the caller is not large enough to contain all of the PAV devices associated with the input device . If PAV/INFOSUM=YES is specified, PAVARCNT is set equal to PAVATCNT by this service
12	(C)	CHARACTER	4	PAVAIOQ (0)	IOQ counts
12	(C)	SIGNED	2	PAVAIOQS	Number of started IOQs
14	(E)	SIGNED	2	PAVAIOQC	Total number of IOQs
16	(10)	CHARACTER	4	PAVATOKN	PAV token - changes every time the set of PAV-Alias devices change in any way
20	(14)	CHARACTER	60	PAVARRAY (0)	PAVA array element. Each element represents a single exposure in the PAV. The first element contains information on the PAV-base device and the subsequent entries contain information on the bound PAV-alias device(s). If HYPERPAVALIASES is selected, each element represents a single HyperPAV-alias device in the logical subsystem for the input device. Note: If the input device is a non-PAV DASD, only the first element will be filled in and will contain information for the input device.
20	(14)	SIGNED	2	PAVADEVN	Device number
22	(16)	CHARACTER	2	PAVAFLG1 (0)	Flag byte
		1... ....		PAVAPAVC	"X'80" PAV-base capability
		.1.. ....		PAVAPAVB	"X'40" Indicates that the input device is an active PAV-base. This implies the PAV-base has one or more bound PAV-alias devices associated with it.
		..1. ....		PAVAPAVA	"X'20" PAV-Alias device
		...1 ....		PAVAPAVW	"X'10" Customer has requested that this PAV device be WLM managed
		.... 1..		PAVAMCMB	"X'08" Indicates if measurement data is collected for this device
		.... .1.		PAVASTSC	"X'04" Indicates if model dependent subchannel data was stored
		.... ..1.		PAVADBTS	"X'02" Indicates if device busy time was stored (version 1 and above)
		.... ...1		PAVAPAVH	"X'01" Indicates if the device is a HyperPAV device.

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
24	(18)	CHARACTER	32	PAVACMB (0)	If PAVAMCMB is set, Channel Measurement Block Data
24	(18)	SIGNED	2	PAVASCHC	SSCH+RSCH instruction count
26	(1A)	SIGNED	2	PAVASAMP	Sample count
28	(1C)	SIGNED	4	PAVACONN	Connect time
32	(20)	SIGNED	4	PAVAPEND	Pending time
36	(24)	SIGNED	4	PAVADISC	Disconnect time
40	(28)	SIGNED	4	PAVACUQT	Control unit queue time
44	(2C)	SIGNED	4	PAVADAO	Device-active-only time
48	(30)	SIGNED	4		Reserved
52	(34)	SIGNED	4	PAVAICMR	Initial command response time
56	(38)	CHARACTER	12	PAVASMDB (0)	Subchannel model dependent data
56	(38)	SIGNED	4	PAVADBSY	Device Busy time
60	(3C)	SIGNED	4	PAVACBSY	Control-Unit Busy time
64	(40)	SIGNED	4	PAVASBSY	Switch Busy time
68	(44)	CHARACTER	8	PAVAECMB (0)	If PAVAMCMB is set, 4 byte ECMB channel measurement counts (version 1 and above)
68	(44)	SIGNED	4	PAVASCH4	4-byte SSCH+RSCH count
72	(48)	SIGNED	4	PAVASAM4	4-byte sample count
76	(4C)	BITSTRING	1	PAVASSID	Subchannel set id (version 2 and above)
77	(4D)	CHARACTER	1		Reserved
78	(4E)	SIGNED	2	PAVAELEN	Length of entry. This field is filled in for version 3 and above
80	(50)	SIGNED	4	PAVANEFEND (0)	End of non-extended format entry
80	(50)	X'C1E5C1'	0	PAVANAME	"C'PAVA" Defines PAVAID field
80	(50)	X'1'	0	PAVAVER1	"1" PAVAVERS version 1
80	(50)	X'2'	0	PAVAVER2	"2" PAVAVERS version 2
80	(50)	X'3'	0	PAVAVER3	"3" PAVAVERS version 3
80	(50)	X'50'	0	PAVA_LEN	"L'PAVAHead+(PAVANEFEnd-PAVADevn)" Length of PAVA header plus one non-extended format PAVA entry

IOSDPAVA Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
PAVA	0		PAVASTSC	16	4
PAVA_LEN	50	50	PAVATCNT	8	
PAVACBSY	3C		PAVATOKN	10	
PAVACMB	18		PAVAVERS	4	
PAVACONN	1C		PAVAVER1	50	1
PAVACUQT	28		PAVAVER2	50	2
PAVADAO	2C		PAVAVER3	50	3
PAVADBSY	38				
PAVADBTS	16	2			
PAVADEVN	14				
PAVADISC	24				
PAVAECMB	44				
PAVAELEN	4E				
PAVAFLG1	16				
PAVAHEAD	0				
PAVAICMR	34				
PAVAID	0				
PAVAIOQ	C				
PAVAIOQC	E				
PAVAIOQS	C				
PAVALNTH	6				
PAVAMCMB	16	8			
PAVANAME	50	C1E5C1			
PAVANEFEND	50				
PAVAPAVA	16	20			
PAVAPAVB	16	40			
PAVAPAVC	16	80			
PAVAPAVH	16	1			
PAVAPAVW	16	10			
PAVAPCNT	5				
PAVAPEND	20				
PAVARCNT	A				
PAVARRAY	14				
PAVASAMP	1A				
PAVASAM4	48				
PAVASBSY	40				
PAVASCHC	18				
PAVASCH4	44				
PAVASMDB	38				
PAVASSID	4C				



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## IOSDPAVE Information

### IOSDPAVE Programming Interface information

Programming Interface information

### IOSDPAVE

End of Programming Interface information

## IOSDPAVE Heading Information • IOSDPAVE Cross Reference

### IOSDPAVE Heading Information

**Common Name:** IOS Parallel Access Volume Exit Table  
**Macro ID:** IOSDPAVE  
**DSECT Name:** PAVE  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** PAVE  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Main Storage: Yes  
 Virtual Storage: N/A  
 Auxiliary Storage: N/A  
 Subpool: Nucleus  
 Key: N/A  
 Data Space: N/A  
 Residency: Above 16M Line  
**Size:** 8-Byte Header plus 4-bytes per entry  
**Created by:** IOSVDATA  
**Pointed to by:** IOCPAVE field of the IOCOM  
**Serialization:** Compare and Swap (CS) when setting Exit Table Entries  
**Function:** IOSDPAVE maps the Parallel Access Volume (PAV) exit table to be used by callers who require synchronous notification when the PAV state changes for a device. Note that asynchronous notification is done via ENF 33 processing.

### IOSDPAVE Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	PAVE	IOS PAV Exit Table
0	(0)	CHARACTER	8	PAVEHDR (0)	PAVE Header
0	(0)	CHARACTER	4	PAVEID	Eye Catcher - "PAVE"
4	(4)	BITSTRING	1	PAVEVERS	PAVE Version
5	(5)	BITSTRING	3		Reserved
8	(8)	BITSTRING	16	PAVEARRAY (0)	PAVE Entry Array
8	(8)	SIGNED	4	PAVEENTRY (0)	PAVE Entry
8	(8)	SIGNED	4	PAVERTN	Exit Routine Address

Comment					
PAVE Constants					
End of Comment					
24	(18)	X'4'	0	PAVEMAXENTRY	"4" Current number of entries in the PAVE

### IOSDPAVE Cross Reference

Name	Hex Offset	Hex Value
PAVE	0	
PAVEARRAY	8	
PAVEENTRY	8	
PAVEHDR	0	
PAVEID	0	
PAVEMAXENTRY	18	4
PAVERTN	8	
PAVEVERS	4	

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## IOSDSCMM Information

### IOSDSCMM Programming Interface information

Programming Interface information

#### IOSDSCMM

End of Programming Interface information

## IOSDSCMM Heading Information • IOSDSCMM Map

### IOSDSCMM Heading Information

**Common Name:** SCM-Measurement Block  
**Macro ID:** IOSDSCMM  
**DSECT Name:** SCMM SCMM\_MDD  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: Whatever IARST64 gives us (Fixed, common, SQA/ESQA)  
 Key: 0  
 Residency: Above the bar  
**Size:** Designated by the hardware  
 Frequency: Designated by hardware  
**Created by:** IECVIOI  
**Pointed to by:** The storage that contains all of the individual blocks is pointed to by COPB\_SCM\_MBS\_PTR.  
 Individual blocks are addressed by the user's pointer.  
**Serialization:** N/A  
**Function:** Maps the measurement blocks that are associated with SCM resource parts and that are updated by the Storage-Class-Memory-Measurements facility

### IOSDSCMM Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SCMM	
0	(0)	SIGNED	2	SCMM_SCMRESOURCEID	
2	(2)	SIGNED	2	SCMM_PARTID	
4	(4)	BITSTRING	1	SCMM_FLAGS	

Comment

Bit definitions:

End of Comment

		1... ..		SCMM_LASTBLOCK	"X'80" This is the last block
5	(5)	SIGNED	3	SCMM_TIMESTAMP	
8	(8)	CHARACTER	2	SCMM_RSVD1	Reserved
10	(A)	SIGNED	2	SCMM_MODELDEPDATAOFFSET	Offset from the origin of the SCM-measurement block to the start of the model-dependent-data field
12	(C)	SIGNED	4	SCMM_REQSPROCESSEDCPC	Internal requests processed by the SCM- resource part
16	(10)	SIGNED	4	SCMM_REQSPROCESSED	Internal requests processed by the SCM- resource part
20	(14)	SIGNED	4	SCMM_DATAUNITSWRITTENCPC	Data units written to the SCM-resource part
24	(18)	SIGNED	4	SCMM_DATAUNITSWRITTEN	Data units written to the SCM-resource part
28	(1C)	SIGNED	4	SCMM_DATAUNITSPREDCPC	Data units read from the SCM-resource part
32	(20)	SIGNED	4	SCMM_DATAUNITSPREAD	Data units read from the SCM-resource part
36	(24)	SIGNED	4	SCMM_AGGRESRESPTIMECPC	Aggregate time spent on execution of requests involving the SCM- resource part
40	(28)	SIGNED	4	SCMM_AGGRESRESPTIME	Aggregate time spent on execution of requests involving the SCM- resource part
44	(2C)	SIGNED	4	SCMM_IOPQUEUINGTIMECPC	Accumulated IOP-queueing time
48	(30)	SIGNED	4	SCMM_UTILIZATIONCPC	Count of work units
52	(34)	SIGNED	4	SCMM_UTILIZATION	Count of work units
52	(34)	X'38'	0	SCMM_LEN	"*-SCMM"

#### Offsets

Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SCMM_MDD	SCM- Measurement Block model- dependent data
0	(0)	CHARACTER	1	SCMM_MODELDEPDATA (0)	
0	(0)	X'0'	0	SCMM_MDD_LEN	"*-SCMM_MDD"



## IOSDSCMM Cross Reference

Name	Hex Offset	Hex Value
SCMM	0	
SCMM_AGGRESRESPTIME	28	
SCMM_AGGRESRESPTIMECPC	24	
SCMM_DATAUNITSREAD	20	
SCMM_DATAUNITSREADCPC	1C	
SCMM_DATAUNITSWRITTEN	18	
SCMM_DATAUNITSWRITTENCPC	14	
SCMM_FLAGS	4	
SCMM_IOPQUEUEINGTIMECPC	2C	
SCMM_LASTBLOCK	4	80
SCMM_LEN	34	38
SCMM_MDD	0	
SCMM_MDD_LEN	0	0
SCMM_MODELDEPDATA	0	
SCMM_MODELDEPDATAOFFSET	A	
SCMM_PARTID	2	
SCMM_REQSPROCESSED	10	
SCMM_REQSPROCESSEDCPC	C	
SCMM_RSVD1	8	
SCMM_SCMRESOURCEID	0	
SCMM_TIMESTAMP	5	
SCMM_UTILIZATION	34	
SCMM_UTILIZATIONCPC	30	



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## IOSDSHID Information

### IOSDSHID Programming Interface information

Programming Interface information

IOSDSHID

End of Programming Interface information

## IOSDSHID Heading Information • IOSDSHID Map

### IOSDSHID Heading Information

**Common Name:** System Host ID Mapping  
**Macro ID:** IOSDSHID  
**DSECT Name:** SHID  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Main Storage: YES  
 Virtual Storage: N/A  
 Auxiliary Storage: N/A  
 Subpool: N/A - Nucleus resident  
 Key: 0  
 Residency: Any  
**Size:** 56 bytes  
**Created by:** IOSVDATA  
**Pointed to by:** CVTHID field of the CVT data area  
**Serialization:** None  
**Function:** Maps the System Host ID, Alternate System Host ID, Central Processing Complex Node Descriptor and Central Processing Complex Node Identifier  
 ACRONYM = SHID

### IOSDSHID Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SHID	
Comment					
System Host ID Mapping					
End of Comment					
0	(0)	CHARACTER	11	SHID_SHID (0)	System Host Identifier
0	(0)	CHARACTER	2	SHID_BYTES01	Byte 0 and 1 definitions
0	(0)	X'0'	0	SHID_CPUAD	"SHID_BYTES01+0,2" CPU address format 0 PGID
0	(0)	X'0'	0	SHID_FMT1_BYTES01	"SHID_BYTES01+0,2" Byte 0 and 1 definitions for format 1 path group id (PGID)
0	(0)	X'0'	0	SHID_FORMAT	"SHID_FMT1_BYTES01+0,1" Format byte
		.... ....		SHID_PGIDFMT0	"X'00" PGID format zero
		1... ....		SHID_PGIDFMT1	"X'80" PGID format one
		.... 1...		SHID_VM	"X'08" VM hipervisor created the PGID
0	(0)	X'1'	0	SHID_CSSID	"SHID_FMT1_BYTES01+1,1" Channel Subsystem ID
2	(2)	CHARACTER	5	SHID_INFO (0)	CPU serial/model numbers
2	(2)	CHARACTER	3	SHID_BYTES234	Define Bytes 2 3 and 4
2	(2)	X'2'	0	SHID_CPUID	"SHID_BYTES234+0,3" CPU serial number format 0 PGID
2	(2)	X'2'	0	SHID_FMT1_BYTES234	"SHID_BYTES234+0,3" Define bytes 2,3 and 4 for format 1 PGID
2	(2)	X'2'	0	SHID_LPID	"SHID_FMT1_BYTES234+0,1" LPAR ID
2	(2)	X'3'	0	SHID_CPSN	"SHID_FMT1_BYTES234+1,2" CPU serial number
5	(5)	CHARACTER	2	SHID_MODNO	CPU model number
7	(7)	CHARACTER	4	SHID_TODCL	Time of day clock (left half)
Comment					

#### Alternate System Host ID Mapping

End of Comment					
11	(B)	CHARACTER	11	SHID_AHID (0)	Alternate System Host ID
11	(B)	CHARACTER	2	AHID_BYTES01	Byte 0 and 1 definitions
11	(B)	X'0'	0	AHID_CPUAD	"SHID_BYTES01+0,2" CPU address format 0 PGID
11	(B)	X'0'	0	AHID_FMT1_BYTES01	"SHID_BYTES01+0,2" Byte 0 and 1 definitions for format 1 path group id
11	(B)	X'0'	0	AHID_FORMAT	"SHID_FMT1_BYTES01+0,1" Format byte
		.... ....		AHID_PGIDFMT0	"X'00" PGID format zero
		1... ....		AHID_PGIDFMT1	"X'80" PGID format one
		.... 1...		AHID_VM	"X'08" VM hipervisor created the PGID
11	(B)	X'1'	0	AHID_CSSID	"SHID_FMT1_BYTES01+1,1" Channel Subsystem ID
13	(D)	CHARACTER	5	AHID_INFO (0)	CPU serial/model numbers

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
13	(D)	CHARACTER	3	AHID_BYTES234	Define Bytes 2 3 and 4
13	(D)	X'2'	0	AHID_CPUID	"SHID_BYTES234+0,3" CPU serial number format 0 PGID
13	(D)	X'2'	0	AHID_FMT1_BYTES234	"SHID_BYTES234+0,3" Define bytes 2,3 and 4 for format 1 PGID
13	(D)	X'2'	0	AHID_LPID	"SHID_FMT1_BYTES234+0,1" LPAR ID
13	(D)	X'3'	0	AHID_CPSN	"SHID_FMT1_BYTES234+1,2" CPU serial number
16	(10)	CHARACTER	2	AHID_MODNO	CPU model number
18	(12)	CHARACTER	4	AHID_TODCL	Time of day clock (left half)

Comment

Central Processing Complex Node Descriptor

Note - The data indicated by CPCND\_SDC is only valid when the first three bits of CPCND\_FLAGS (CPCND\_VALID) do not equal CPCND\_INVAL.

End of Comment

22	(16)	CHARACTER	32	SHID_CPCND (0)	CPC Node Descriptor
22	(16)	BITSTRING	1	CPCND_FLAGS	Flags
		111. ....		CPCND_VALID	"X'E0" Node descriptor validity
		.1. ....		CPCND_INVAL	"X'40" Node descriptor invalid
		...1 ....		CPCND_NTTYPE	"X'10" Node type

Comment

EQU X'0F' Reserved

End of Comment

23	(17)	CHARACTER	3	CPCND_PARMS	Node parameters
26	(1A)	CHARACTER	28	CPCND_SDC (0)	Self-describing component (SDC) Identifier
26	(1A)	CHARACTER	6	CPCND_TYPE	Type number
32	(20)	CHARACTER	3	CPCND_MODEL	Model number
35	(23)	CHARACTER	3	CPCND_MAN	Manufacturer
38	(26)	CHARACTER	2	CPCND_PLANT	Plant of manufacture
40	(28)	CHARACTER	12	CPCND_SEQNO	Sequence number
52	(34)	CHARACTER	2	CPCND_TAG	Tag

Comment

Central Processing Complex Node Identifier Mapping

End of Comment

54	(36)	CHARACTER	2	SHID_CPCID (0)	
54	(36)	BITSTRING	1	CPCID_FLAGS	Validity Flags
		1... ....		CPCID_VALID	"X'80" Valid indicator
55	(37)	CHARACTER	1	CPCID_MAP	The last six bits of this byte must be filled with the CPCID

IOSDSHID Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
AHID_BYTES01	B		CPCID_FLAGS	36	
AHID_BYTES234			CPCID_MAP	37	
AHID_CPSN	D	3	CPCID_VALID	36	80
AHID_CPUAD	B	0	CPCND_FLAGS	16	
AHID_CPUID	D	2	CPCND_INVAL	16	40
AHID_CSSID	B	1	CPCND_MAN	23	
AHID_FMT1_BYTES01	B	0	CPCND_MODEL	20	
AHID_FMT1_BYTES234			CPCND_NTTYPE	16	10
AHID_FORMAT	B	0	CPCND_PARMS	17	
AHID_INFO	D		CPCND_PLANT	26	
AHID_LPID	D	2	CPCND_SDC	1A	
AHID_MODNO	10		CPCND_SEQNO	28	
AHID_PGIDFMT0	B	0	CPCND_TAG	34	
AHID_PGIDFMT1	B	80	CPCND_TYPE	1A	
AHID_TODCL	12		CPCND_VALID	16	E0
AHID_VM	B	8	SHID	0	
			SHID_AHID	B	
			SHID_BYTES01	0	
			SHID_BYTES234		
			SHID_CPCID	36	

## IOSDSHID Cross Reference

Name	Hex Offset	Hex Value
SHID_CPCND	16	
SHID_CPSN	2	3
SHID_CPUAD	0	0
SHID_CPUID	2	2
SHID_CSSID	0	1
SHID_FMT1_BYTES01		
	0	0
SHID_FMT1_BYTES234		
	2	2
SHID_FORMAT	0	0
SHID_INFO	2	
SHID_LPID	2	2
SHID_MODNO	5	
SHID_PGIDFMT0		
	0	0
SHID_PGIDFMT1		
	0	80
SHID_SHID	0	
SHID_TODCL	7	
SHID_VM	0	8

---

## IOSDSPOF Information

### IOSDSPOF Programming Interface information

Programming Interface information

IOSDSPOF

End of Programming Interface information

## IOSDSPOF Heading Information • IOSDSPOF Map

### IOSDSPOF Heading Information

**Common Name:** Single Point of Failure Area  
**Macro ID:** IOSDSPOF  
**DSECT Name:** SPOFArea SPOFCheck SPOFGroupCheck  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Subpool: 1  
 Key: IOSSPOF callers key  
 Residency: 31-bit storage  
**Size:** Variable  
 SPOFAREA -- X'0030' bytes  
 SPOFCHECK -- X'011C' bytes  
 SPOFGROUPCHECK -- X'0114' bytes  
 SPOFArea -- X'0030' bytes  
 SPOFCheck -- X'011C' bytes  
 SPOFGroupCheck -- X'0114' bytes  
**Created by:** IOSSPOF Service  
**Pointed to by:** Contents of SPOFAREA Output Keyword  
**Serialization:** None required  
**Function:** Maps the particular single points of failure for the set of devices passed to the IOSSPOF service

### IOSDSPOF Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SPOFAREA	IOSSPOF output area mapping
0	(0)	CHARACTER	44	SPOFAREA_HEADER	
					SPOFArea Header
0	(0)	CHARACTER	8	SPOFAREA_EYECATCH	
					Eye Catcher 'SPOFAREA'
8	(8)	BITSTRING	1	SPOFAREA_VERSION	
					Version level
9	(9)	BITSTRING	1	SPOFAREA_HDRLLEN	
					Length of the SPOFArea header
10	(A)	BITSTRING	1	SPOFAREA_SUBPOOL	
					Subpool of SPOFArea
11	(B)	BITSTRING	1		Reserved
12	(C)	SIGNED	4	SPOFAREA_LEN	Length of SPOFArea, including header storage and entry storage
16	(10)	SIGNED	4	SPOFAREA_NUMENTRIES	Number of entries in SPOFArea_EntriesAddr
20	(14)	CHARACTER	16		Reserved
36	(24)	ADDRESS	4	SPOFAREA_SUMCHECKSADDR	Pointer to a SPOFCheck structure that contains a summary of single points of failure to all devices
40	(28)	ADDRESS	4	SPOFAREA_GROUPCHECKSADDR	Pointer to a SPOFGroupCheck structure that contains the hardware isolation failures of devices in DEVN1 DEVN2 or VOLSER1 and VOLSER2
44	(2C)	ADDRESS	4	SPOFAREA_ENTRIESADDR	Array of pointers to SPOFCheck structures that contains the single point of failure information of the devices passed in
44	(2C)	X'D7D6C6'	0	SPOFAREA_EYECATCHCONST_0TO3	"C'SPOF" This is the first 4-byte segment of an 8-byte constant. The eye catcher of the SPOFArea
44	(2C)	X'D9C5C1'	0	SPOFAREA_EYECATCHCONST_4TO7	"C'AREA" This is the second 4-byte segment of an 8-byte constant. The eye catcher of the SPOFArea
44	(2C)	X'1'	0	SPOFAREA_VERSIONCURRENT	"1" Current version number
44	(2C)	X'1'	0	SPOFAREA_VERSIONNONE	"1" Current version is version one

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SPOFCHECK	Check description mapping
Comment					
Checks for single points of failure					
End of Comment					
0	(0)	BITSTRING	8	SPOFCHECK_MASK64	



Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	BITSTRING	4	SPOFCHECK_32MASK1	Mask of single points of failure in 64 bit form
0	(0)	BITSTRING	2	SPOFCHECK_16MASK1	Mask of single points of failure in 32 bit form
0	(0)	BITSTRING	1	SPOFCHECK_8MASK1	Mask of single points of failure in 16 bit form
0	(0)	BITSTRING	1	SPOFCHECK_8MASK1	Mask of single points of failure in 8 bit form

Comment

---

Bit definitions:

---

End of Comment

- 1... .... SPOFCHECK\_NOTFOUND  
"X'80" Device does not exist
- .1.. .... SPOFCHECK\_NOTONLINE  
"X'40" Device is not online
- ..1. .... SPOFCHECK\_NOPATHS  
"X'20" Device has no paths varied online
- ...1 .... SPOFCHECK\_ONEPATH  
"X'10" Device has only one path varied online
- .... 1... SPOFCHECK\_ONESWITCH  
"X'08" All online paths go through one switch
- .... .1.. SPOFCHECK\_NOPREFPATHS  
"X'04" Device has only non preferred paths online
- .... ..1. SPOFCHECK\_ONLYPREFPATHS  
"X'02" Device has only preferred paths online
- .... ...1 SPOFCHECK\_ONEPREFPATH  
"X'01" Device has only one preferred path online

1	(1)	BITSTRING	1	SPOFCHECK_8MASK2	Mask of single points of failure in 8 bit form
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Comment

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Bit definitions:

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End of Comment

- 1... .... SPOFCHECK\_HOSTCHPSPF  
"X'80" All chpids share a single point of failure, on the host
- .1.. .... SPOFCHECK\_CUINTERSPF  
"X'40" All control unit interfaces share a single point of failure
- ..1. .... SPOFCHECK\_SWCMHDWCOMP  
"X'20" All online paths share one or more common switch hardware components

Comment

---

If the 'N' bits are on the check for single points of failure could not be done, due to check failure.

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End of Comment

8	(8)	BITSTRING	8	SPOFCHECK_NC_MASK64	Mask of single points of failure in 64 bit that couldn't be performed
8	(8)	BITSTRING	4	SPOFCHECK_NC_32MASK1	Mask of single points of failure in 32 bit form
8	(8)	BITSTRING	2	SPOFCHECK_NC_16MASK1	Mask of single points of failure in 16 bit form
8	(8)	BITSTRING	1	SPOFCHECK_NC_8MASK1	Mask of single points of failure in 8 bit form

Comment

---

Bit definitions:

---

End of Comment

- 1... .... SPOFCHECK\_NNOTFOUND  
"X'80" Device does not exist
- .1.. .... SPOFCHECK\_NC\_NOTONLINE  
"X'40" Device is not online
- ..1. .... SPOFCHECK\_NC\_NOPATHS  
"X'20" Device has no paths varied online
- ...1 .... SPOFCHECK\_NC\_ONEPATH  
"X'10" Device has only one path varied online
- .... 1... SPOFCHECK\_NC\_ONESWITCH

# IOSDSPOF Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.... .1..		SPOFCHECK_NC_NOPREFPATHS	"X'08" All online paths go through one switch
		.... ..1.		SPOFCHECK_NC_ONLYPREFPATHS	"X'04" Device has only non preferred paths online
		.... ...1		SPOFCHECK_NC_ONEPREFPATH	"X'02" Device has only preferred paths online
9	(9)	BITSTRING	1	SPOFCHECK_NC_8MASK2	"X'01" Device has only one preferred path online Mask of single points of failure in 8 bit form
Comment					
Bit definitions:					
End of Comment					
		1... ....		SPOFCHECK_NC_HOSTCHPSPF	"X'80" All chpids share a single point of failure, on the host
		.1... ....		SPOFCHECK_NC_CUINTERSPF	"X'40" All control unit interfaces share a single point of failure
Comment					
Validity flags					
End of Comment					
16	(10)	BITSTRING	1	SPOFCHECK_FLAGS	Use Flags
Comment					
Bit definitions:					
End of Comment					
		1... ....		SPOFCHECK_DEVNCH_VALID	"X'80" Is the devnchar valid
		.1... ....		SPOFCHECK_VOLSER_VALID	"X'40" Is the VOLSER valid
		..1. ....		SPOFCHECK_CHP_DIAG_VLD	"X'20" Is the CHP_Diag valid
		...1 ....		SPOFCHECK_CUI_DIAG_VLD	"X'10" Is the CUI_Diag valid
17	(11)	CHARACTER	5	SPOFCHECK_DEVNCHAR	The device number of the device in character form
22	(16)	CHARACTER	6	SPOFCHECK_VOLSER	The VOLSER of the checked device
Comment					
The CU interface numbers and compare channel components words					
End of Comment					
28	(1C)	BITSTRING	12	SPOFCHECK_CHP_DIAG	Resulting host specific compare channel components result word
28	(1C)	CHARACTER	12	SPOFCHECK_CHP_DIAG_CHAR	Resulting host specific compare channel components result word
40	(28)	BITSTRING	2	SPOFCHECK_CUI_DIAG	Control unit interface Area
40	(28)	BITSTRING	1	SPOFCHECK_NUM_COM_CUI	The number of common control unit interfaces
41	(29)	BITSTRING	1	SPOFCHECK_NUM_PSB_CUI	The number of possible control unit interfaces in common
42	(2A)	BITSTRING	2		Reserved
Comment					
Switch Diagnostic Area					
Contains additional information regarding the common switch hardware components shared by all the online paths.					
End of Comment					
44	(2C)	CHARACTER	224	SPOFCHECK_SWITCH_DIAG	Switch diagnostic area
44	(2C)	CHARACTER	30	SPOFCHECK_SD_PND	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
74	(4A)	BITSTRING	1	SPOFCHECK_SD_COUNT	The physical switch's node descriptor dot qualified
75	(4B)	CHARACTER	1		The total number of hardware components in common among the online paths.
76	(4C)	CHARACTER	24	SPOFCHECK_SD_HWPART_NAME	Reserved
268	(10C)	CHARACTER	16		The array of common hardware component names, obtained from the switch
					Reserved
Comment					
The number of checks in a SPOFCheck					
End of Comment					
268	(10C)	X'B'	0	SPOFCHECK_NUMBER	"11" There are 11 types of checks in a SPOFCheck

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SPOFGROUPCHECK	
Comment					
Group Check mapping					
Checks for single points of failure					
End of Comment					
0	(0)	BITSTRING	8	SPOFGROUPCHECK_MASK64	Mask of single points of failure in 64 bit form
0	(0)	BITSTRING	4	SPOFGROUPCHECK_32MASK1	Mask of single points of failure in 32 bit form
0	(0)	BITSTRING	2	SPOFGROUPCHECK_16MASK1	Mask of single points of failure in 16 bit form
0	(0)	BITSTRING	1	SPOFGROUPCHECK_8MASK1	Mask of single points failure in 8 bit form
Comment					
Bit definitions:					
End of Comment					
		1... ....		SPOFGROUPCHECK_SAMEDEVICE	"X'80" Devices are the same device
		.1.. ....		SPOFGROUPCHECK_SHARELSS	"X'40" Devices share a logical subsystem
		..1. ....		SPOFGROUPCHECK_SHAREPHYSJU	"X'20" Devices share a physical control unit
		...1 ....		SPOFGROUPCHECK_SHARESWITCH	"X'10" All online paths of both devices go through one switch
		.... 1..		SPOFGROUPCHECK_HOSTCHPSPF	"X'08" All chpids share a single point of failure, on the host side in both devices
		.... .1..		SPOFGROUPCHECK_CUINTERSPF	"X'04" All control unit interfaces share a single point of failure for both devices
		.... ..1.		SPOFGROUPCHECK_SWCMHDWCOMP	"X'02" All online paths share one or more common switch hardware components
Comment					

If the 'N' bits are on the check for single points of failure could not be done, due to check failure.

End of Comment					
8	(8)	BITSTRING	8	SPOFGROUPCHECK_NC_MASK64	Mask of single points of failure that couldn't be performed
8	(8)	BITSTRING	4	SPOFGROUPCHECK_NC_32MASK1	Mask of single points of failure in 32 bit form
8	(8)	BITSTRING	2	SPOFGROUPCHECK_NC_16MASK1	Mask of single points of failure in 16 bit form
8	(8)	BITSTRING	1	SPOFGROUPCHECK_NC_8MASK1	Mask of single points of failure in 8 bit form

# IOSDSPOF Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
Bit definitions:					
End of Comment					
		1... ....		SPOFGROUPCHECK_NC_SAMEDEVICE	"X'80" Devices are the same device
		.1.. ....		SPOFGROUPCHECK_NC_SHARELSS	"X'40" Devices share a logical subsystem
		..1. ....		SPOFGROUPCHECK_NC_SHAREPHYSU	"X'20" Devices share a physical control unit
		...1 ....		SPOFGROUPCHECK_NC_SHARESWITCH	"X'10" All online paths of both devices go through one switch
		.... 1..		SPOFGROUPCHECK_NC_HOSTCHPSPF	"X'08" All chpids share a single point of failure, on the host side in both devices
		.... .1..		SPOFGROUPCHECK_NC_CUINTERSPF	"X'04" All control unit interfaces share a single point of failure for both devices
Comment					
Validity flags					
End of Comment					
16	(10)	BITSTRING	1	SPOFGROUPCHECK_FLAGS	Use Flags
Comment					
Bit definitions:					
End of Comment					
		1... ....		SPOFGROUPCHECK_CHP_DIAG_VLD	"X'80" On if the CHP_Diag is valid
		.1.. ....		SPOFGROUPCHECK_CUI_DIAG_VLD	"X'40" On if the CUI_Diag is valid
17	(11)	CHARACTER	3		Reserved
Comment					
The CU interface numbers and compare channel components words					
End of Comment					
20	(14)	BITSTRING	12	SPOFGROUPCHECK_CHP_DIAG	Resulting host specific compare channel components result word
20	(14)	CHARACTER	12	SPOFGROUPCHECK_CHP_DIAG_CHAR	Resulting host specific compare channel components result word
32	(20)	BITSTRING	2	SPOFGROUPCHECK_CUI_DIAG	Resulting and of Attached Node Descriptor tags
32	(20)	BITSTRING	1	SPOFGROUPCHECK_NUM_COM_CUI	The number of common control unit interfaces
33	(21)	BITSTRING	1	SPOFGROUPCHECK_NUM_PSB_CUI	The number of possible control unit interfaces in common
34	(22)	BITSTRING	2		Reserved
Comment					
Group Switch Diagnostic Area					
Contains additional information regarding the common switch hardware components shared by all the online paths.					
End of Comment					
36	(24)	CHARACTER	224	SPOFGROUPCHECK_SWITCH_DIAG	Switch diagnostic area
36	(24)	CHARACTER	30	SPOFGROUPCHECK_SD_PND	The physical switch's node descriptor dot qualified
66	(42)	BITSTRING	1	SPOFGROUPCHECK_SD_COUNT	The total number of hardware components in common among the online paths.
67	(43)	CHARACTER	1		Reserved
68	(44)	CHARACTER	24	SPOFGROUPCHECK_SD_HWPART_NAME	The array of common hardware component names, obtained from the switch
260	(104)	CHARACTER	16		Reserved

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
The number of checks in a SPOFGroupCheck					
End of Comment					
260	(104)	X'7'	0	SPOFGROUPCHECK_NUMBER	"7" There are 7 types of checks in a SPOFGroupCheck

**IOSDSPOF Cross Reference**

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SPOFAREA	0			8	4
SPOFAREA_ENTRIESADDR	2C		SPOFCHECK_NC_NOTONLINE	8	40
SPOFAREA_EYECATCH	0		SPOFCHECK_NC_ONEPATH	8	10
SPOFAREA_EYECATCHCONST_0TO3	2C	D7D6C6	SPOFCHECK_NC_ONEPREFPATH	8	1
SPOFAREA_EYECATCHCONST_4TO7	2C	D9C5C1	SPOFCHECK_NC_ONESWITCH	8	8
SPOFAREA_GROUPCHECKSADDR	28		SPOFCHECK_NC_ONLYPREFPATHS	8	2
SPOFAREA_HDRLEN	9		SPOFCHECK_NC_16MASK1	8	
SPOFAREA_HEADER	0		SPOFCHECK_NC_32MASK1	8	
SPOFAREA_LEN	C		SPOFCHECK_NC_8MASK1	8	
SPOFAREA_NUMENTRIES	10		SPOFCHECK_NC_8MASK2	9	
SPOFAREA_SUBPOOL	A		SPOFCHECK_NNOTFOUND	8	80
SPOFAREA_SUMCHECKSADDR	24		SPOFCHECK_NOPATHS	0	20
SPOFAREA_VERSION	8		SPOFCHECK_NOPREFPATHS	0	4
SPOFAREA_VERSIONCURRENT	2C	1	SPOFCHECK_NOTFOUND	0	80
SPOFAREA_VERSIONONE	2C	1	SPOFCHECK_NOTONLINE	0	40
SPOFCHECK	0		SPOFCHECK_NUM_COM_CUI	28	
SPOFCHECK_CHP_DIAG	1C		SPOFCHECK_NUM_PSB_CUI	29	
SPOFCHECK_CHP_DIAG_CHAR	1C		SPOFCHECK_NUMBER	10C	B
SPOFCHECK_CHP_DIAG_VLD	10	20	SPOFCHECK_ONEPATH	0	10
SPOFCHECK_CUI_DIAG	28		SPOFCHECK_ONEPREFPATH	0	1
SPOFCHECK_CUI_DIAG_VLD	10	10	SPOFCHECK_ONESWITCH	0	8
SPOFCHECK_CUINTERSPF	1	40	SPOFCHECK_ONLYPREFPATHS	0	2
SPOFCHECK_DEVNCH_VALID	10	80	SPOFCHECK_SD_COUNT	4A	
SPOFCHECK_DEVNCHAR	11		SPOFCHECK_SD_HWPART_NAME	4C	
SPOFCHECK_FLAGS	10		SPOFCHECK_SD_PND	2C	
SPOFCHECK_HOSTCHPSPF	1	80	SPOFCHECK_SWCMHDWCOMP	1	20
SPOFCHECK_MASK64	0		SPOFCHECK_SWITCH_DIAG	2C	
SPOFCHECK_NC_CUINTERSPF	9	40	SPOFCHECK_VOLSER	16	
SPOFCHECK_NC_HOSTCHPSPF	9	80	SPOFCHECK_VOLSER_VALID	10	40
SPOFCHECK_NC_MASK64	8		SPOFCHECK_16MASK1	0	
SPOFCHECK_NC_NOPATHS	8	20	SPOFCHECK_32MASK1		
SPOFCHECK_NC_NOPREFPATHS					

## IOSDSPOF Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SPOFCHECK_8MASK1	0			0	
SPOFCHECK_8MASK2	0				
SPOFGROUPCHECK	1				
SPOFGROUPCHECK_CHP_DIAG	0				
SPOFGROUPCHECK_CHP_DIAG_CHAR	14				
SPOFGROUPCHECK_CHP_DIAG_VLD	14				
SPOFGROUPCHECK_CUI_DIAG	10	80			
SPOFGROUPCHECK_CUI_DIAG_VLD	20				
SPOFGROUPCHECK_CUINTERSPF	10	40			
SPOFGROUPCHECK_FLAGS	0	4			
SPOFGROUPCHECK_HOSTCHPSPF	10				
SPOFGROUPCHECK_MASK64	0	8			
SPOFGROUPCHECK_NC_CUINTERSPF	0				
SPOFGROUPCHECK_NC_HOSTCHPSPF	8	4			
SPOFGROUPCHECK_NC_MASK64	8	8			
SPOFGROUPCHECK_NC_SAMEDEVICE	8				
SPOFGROUPCHECK_NC_SHARELSS	8	80			
SPOFGROUPCHECK_NC_SHAREPHYSUCU	8	40			
SPOFGROUPCHECK_NC_SHARESWITCH	8	20			
SPOFGROUPCHECK_NC_16MASK1	8	10			
SPOFGROUPCHECK_NC_32MASK1	8				
SPOFGROUPCHECK_NC_8MASK1	8				
SPOFGROUPCHECK_NUM_COM_CUI	8				
SPOFGROUPCHECK_NUM_PSB_CUI	20				
SPOFGROUPCHECK_NUMBER	21				
SPOFGROUPCHECK_SAMEDEVICE	104	7			
SPOFGROUPCHECK_SD_COUNT	0	80			
SPOFGROUPCHECK_SD_HWPART_NAME	42				
SPOFGROUPCHECK_SD_PND	44				
SPOFGROUPCHECK_SHARELSS	24				
SPOFGROUPCHECK_SHAREPHYSUCU	0	40			
SPOFGROUPCHECK_SHARESWITCH	0	20			
SPOFGROUPCHECK_SWCMHDWCOMP	0	10			
SPOFGROUPCHECK_SWITCH_DIAG	0	2			
SPOFGROUPCHECK_16MASK1	24				
SPOFGROUPCHECK_32MASK1	0				
SPOFGROUPCHECK_8MASK1	0				

# IOSDSRWQ Information

## IOSDSRWQ Heading Information

**Common Name:** Subchannel Recovery Word Queuing Element  
**Macro ID:** IOSDSRWQ  
**DSECT Name:** SRWQ  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** SRWQ  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Main Storage: YES  
 Virtual Storage: n/a  
 Auxiliary Storage: n/a  
 Subpool: 245  
 Key: 0  
 Residency: Above 16MB line  
**Size:** 128 bytes.  
**Created by:** IOSRACRW when obtaining the hardware pending CRWs. By IOS modules when they create software CRWs.  
**Pointed to by:** UCBSCHRC field of the UCB data area  
**Serialization:** For Subchannel Recovery, the UCB lock.  
**Function:** The SRWQ contains all the data and pointers needed by IOS modules to perform Subchannel recovery

## IOSDSRWQ Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	132	SRWQ	
0	(0)	CHARACTER	36	SRWQFLD1	
0	(0)	CHARACTER	4	SRWQID	Acronym ('SRWQ')
4	(4)	ADDRESS	4	SRWQNEXT	Pointer to next SRWQ
8	(8)	CHARACTER	4	SRWQCRW	CRW
12	(C)	SIGNED	4	SRWQSQNO	Sequence number of this CRW
16	(10)	SIGNED	4	SRWQASNO	Associated sequence number
20	(14)	CHARACTER	4	SRWQDATA	Additional data - module usage
24	(18)	BITSTRING	1	SRWQFLG1	Flag byte
		1... ....		*	Reserved
		.1. ....		SRWQSOFT	If ON, the CRW in SRWQCRW is a software generated CRW. The ERC (CRWERC) field is defined by the constants in the IHACRW mapping macro
		..1. ....		SRWQHUNG	If ON, the SRWQDATA field contains a related CRW.
		...1 ....		SRWQSCBV	If ON, the SRWQSCIB field contains valid SCHIB data.
		.... 1...		SRWQECBA	If ON, the SRWQFECB field contains an ECB address.
		.... .1..		SRWQSCHW	If ON, a subchannel recovery process, described by this SRWQ, is waiting for the completion of channel path recovery.
		.... ..1.		SRWQNOMSG164	Don't issue message IOS164I
		.... ...1		SRWQCMP1	If ON, this SRWQ has been processed
25	(19)	UNSIGNED	1	SRWQSP	Subpool of SRWQE
26	(1A)	SIGNED	2	SRWQLENG	Length of SRWQE
28	(1C)	BITSTRING	1	SRWQFLG2	Flag byte
		1... ....		SRWQNCON	State of UCBNOCON
		.1. ....		SRWQMSG	Message must be issued for software CRW
		..1. ....		SRWQTHRD	If the SRWQ element represents a software generated CRW, this bit indicates that the CRW should be treated like a hardware generated CRW.
		...1 ....		SRWQ_PIN_UCBLOOK	UCB pinned by UCBLOOK service SRWQPIN field valid
		.... 1...		SRWQ_PIN_UCBSCAN	UCB pinned by UCBSCAN service
		.... .1..		SRWQEARLYUCBDEFER	UCBDEFER set early by IOSRACRW to prevent posting of I/O during Hyperswappable events. IOSRSCH is required to properly "defer box" the device.
		.... ..11		*	Reserved
29	(1D)	CHARACTER	1	SRWQRSV1	Reserved
30	(1E)	ADDRESS	2	SRWQCP	Processor address CRW retrieved on
32	(20)	CHARACTER	4	SRWQFREE	Free-SRWQ chain
36	(24)	CHARACTER	44	SRWQSRB	SRB
80	(50)	CHARACTER	28	SRWQFLD2	Recovery dependent data field
80	(50)	CHARACTER	28	SRWQSCIB	SCHIB data for subchannel recovery
108	(6C)	CHARACTER	4	SRWQFECB	ECB address

## IOSDSRWQ Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
112	(70)	ADDRESS	4	SRWQASCB	ASCB for ECB (zero if masters address space is to be posted)
116	(74)	CHARACTER	8	SRWQPIN	Pin token for UCB - valid when SRWQ_Pin_UCBLOOK set
124	(7C)	CHARACTER	8	SRWQSTKN	STOKEN for software CRWs that require cross memory post

## IOSDSRWQ Cross Reference

Name	Hex Offset	Hex Value
SRWQ	0	
SRWQ_PIN_UCBLOOK	1C	10
SRWQ_PIN_UCBSCAN	1C	08
SRWQASCB	70	
SRWQASNO	10	
SRWQCMP	18	01
SRWQCP	1E	
SRWQCRW	8	
SRWQDATA	14	
SRWQEARLYUCBDEFER	1C	04
SRWQECBA	18	08
SRWQFECB	6C	
SRWQFLD1	0	
SRWQFLD2	50	
SRWQFLG1	18	
SRWQFLG2	1C	
SRWQFREE	20	
SRWQHUNG	18	20
SRWQID	0	
SRWQLENG	1A	
SRWQMSG	1C	40
SRWQNCON	1C	80
SRWQNEXT	4	
SRWQNOMSG164	18	02
SRWQPIN	74	
SRWQRSV1	1D	
SRWQSCBV	18	10
SRWQSCHW	18	04
SRWQSCIB	50	
SRWQSOFT	18	40
SRWQSP	19	
SRWQSQNO	C	
SRWQSRB	24	
SRWQSTKN	7C	
SRWQTHRD	1C	20



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## IOSDSWAP Information

### IOSDSWAP Programming Interface information

Programming Interface information

#### IOSDSWAP

End of Programming Interface information

## IOSDSWAP Heading Information • IOSDSWAP Map

### IOSDSWAP Heading Information

**Common Name:** IOS Swap Parameter List  
**Macro ID:** IOSDSWAP  
**DSECT Name:** SWAP  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** SWAP  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: Any fixed storage subpool  
 Key: 0  
 Residency: Fixed storage  
**Size:** One SWAP DSECT plus one SWAPLIST DSECT per device pair  
 Swap -- X'0010' bytes  
 SwapList -- X'0010' bytes  
**Created by:** Callers of IOSVSWAP and users of UCBSWAP  
**Pointed to by:** n/a  
**Serialization:** None  
**Function:** This mapping is used as input to IOSVSWAP and UCBSWAP in order to allow a list of device pairs to be swapped.  
 Notes:  
 - In order to distinguish the use of this mapping vs. the register only interface to IOSVSWAP, the high order bit of register 1, which contains the address of the Swap Parameter List, must be set to 1 when calling IOSVSWAP (i.e., Reg1 = the Swap Parameter List address OR'd with x'80000000).  
 - UCBSWAP is for IOS use only and is not part of the programming interface.

### IOSDSWAP Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SWAP	SWAP parameter list mapping
0	(0)	CHARACTER	4	SWAPID	Swap identifier "SWAP"
4	(4)	BITSTRING	1	SWAPVERSION	Version number
5	(5)	CHARACTER	1	SWAPFLAGS	Flags

Comment

Bit definitions:

End of Comment

		1... ....		SWAPBYPASSALLOCTABLES	"X'80" Indicates that IOSVSWAP should bypass swapping the allocation tables
		.1.. ....		SWAPBYPASSQUEUEDMSCHCHECKS	"X'40" Indicates that IOSVSWAP should bypass queued MSCH checking for all devices in the SwapList. This avoids a queued modify from causing IOSVSWAP to fail
		..1. ....		SWAPBYPASSMIDAWCHECKS	"X'20" Indicates that IOSVSWAP should bypass MIDAW consistency checking for all devices in the SwapList. Note: This bit is for IOS use only
6	(6)	CHARACTER	2		Available
8	(8)	SIGNED	4	SWAPLISTCOUNTER	Count of device pairs to swap
12	(C)	ADDRESS	4	SWAPLISTADDRESS	Address of device pair list
16	(10)	CHARACTER	1	SWAPEND (0)	End of table

Comment

Constants - Header Information

End of Comment

16	(10)	X'0'	0	SWAP_VERSION	"0" Current version constant
16	(10)	X'E6C1D7'	0	SWAP_IDENTIFER	"C'SWAP'" Swap Id
16	(10)	X'10'	0	SWAP_LEN	"*-Swap"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SWAPLIST	Swap device pair list
0	(0)	ADDRESS	4	SWAPFROMUCB	From device actual UCB addr
4	(4)	ADDRESS	4	SWAPTOUCB	To device actual UCB addr
8	(8)	CHARACTER	4	SWAPWORKAREA	Workarea for caller
12	(C)	CHARACTER	4	SWAPENTRYRESULT	Results
12	(C)	SIGNED	2	SWAPENTRYRSN	Reason code for device pair
14	(E)	SIGNED	2	SWAPENTRYRC	Return code for device pair

Comment

Constants - IOSVSWAP Return Codes

End of Comment

14	(E)	X'0'	0	SWAP_RCSUCCESS	"0" Swap successful
14	(E)	X'4'	0	SWAP_RCFAILED	"4" Swap failed

Comment

Constants - IOSVSWAP Reason Codes

End of Comment

14	(E)	X'2'	0	SWAP_RSNFROMDISABLEFAILED1	"2" The attempt to disable the FROM device failed. This reason code is used when the device is not boxed.
14	(E)	X'3'	0	SWAP_RSNFROMDISABLEFAILED2	"3" The attempt to disable the FROM device failed. This reason code is used when the device is boxed and either disabled or hot
14	(E)	X'4'	0	SWAP_RSNTODISABLEFAILED	"4" The attempt to disable the TO device failed.
14	(E)	X'5'	0	SWAP_RSNTODISABLED	"5" The TO device was already in the disabled state.
14	(E)	X'6'	0	SWAP_RSNFROMHASQUEUEDMSCH	"6" The FROM device had a modify subchannel request queued
14	(E)	X'7'	0	SWAP_RSNTOHASQUEUEDMSCH	"7" The TO device had a modify subchannel request queued
14	(E)	X'8'	0	SWAP_RSNMIDAWINCOMPATIBLE	"8" The MIDAW capabilities of the FROM and TO device are different
14	(E)	X'9'	0	SWAP_RSNULLUTENTRYNOTFOUND	"9" The ULUT entry was not successfully found for one or both of the devices being swapped
14	(E)	X'10'	0	SWAPLIST_LEN	**SwapList"

### IOSDSWAP Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SWAP	0		SWAP_VERSION	10	0
SWAP_IDENTIFER			SWAPBYPASSALLOCTABLES	5	80
SWAP_LEN	10	E6C1D7	SWAPBYPASSMIDAWCHECKS	5	20
SWAP_RCFAILED			SWAPBYPASSQUEUEDMSCHCHECKS	5	40
SWAP_RCSUCCESS	E	4	SWAPEND	10	
SWAP_RSNFROMDISABLEFAILED1	E	0	SWAPENTRYRC	E	
SWAP_RSNFROMDISABLEFAILED2	E	2	SWAPENTRYRESULT		
SWAP_RSNFROMHASQUEUEDMSCH	E	3	SWAPENTRYRSN	C	
SWAP_RSNMIDAWINCOMPATIBLE	E	6	SWAPFLAGS	5	
SWAP_RSNTODISABLED	E	8	SWAPFROMUCB	0	
SWAP_RSNTODISABLEFAILED	E	5	SWAPID	0	
SWAP_RSNTOHASQUEUEDMSCH	E	4	SWAPLIST	0	
SWAP_RSNULLUTENTRYNOTFOUND	E	7	SWAPLIST_LEN	E	10
	E	9	SWAPLISTADDRESS		
			SWAPLISTCOUNTER	C	
			SWAPTOUCB	8	
			SWAPVERSION	4	
			SWAPWORKAREA	4	
				8	



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## IOSDSWTD Information

### IOSDSWTD Programming Interface information

Programming Interface information

IOSDSWTD

End of Programming Interface information

## IOSDSWTD Heading Information • IOSDSWTD Map

### IOSDSWTD Heading Information

**Common Name:** Switch Data Area mapping  
**Macro ID:** IOSDSWTD  
**DSECT Name:** SWITCH\_DATA\_AREA  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** none  
**Storage Attributes:** Subpool: caller-provided  
 Key: caller-provided  
 Residency: caller-provided  
**Size:** 52 bytes for SWITCH\_DATA\_AREA  
 46 bytes + (2 bytes \* number of CUs)  
 for each SWITCH\_Port\_Record  
**Created by:** IOSVIOSW  
**Pointed to by:** N/A  
**Serialization:** N/A  
**Function:** Maps the output area associated with the IOSWITCH service.

### IOSDSWTD Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0		

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SWITCH_DATA_AREA	
0	(0)	CHARACTER	4	SWITCH_ID	Switch Data Area Eye catcher
4	(4)	SIGNED	1	SWITCH_VERSION	Version number
		.... ..11		SWITCH_CURRVRSN	"X'03" Current Version
		.... ...1		SWITCH_VRSNONE	"X'01" Version 1
		.... ..1.		SWITCH_VRSNTWO	"X'02" Version 2 Supports the two byte implemented and installed port counts.
		.... ..11		SWITCH_VRSNTHREE	"X'03" Version 3 Supports switch_physical_nd
5	(5)	SIGNED	1	SWITCH_OFFSET_1ST_PORT	Offset to first port record
6	(6)	SIGNED	2	SWITCH_DEVICE	Switch device number
8	(8)	SIGNED	1	SWITCH_TOTAL_IMPLEMENTED	Total number of implemented ports Note: Field maintained for legacy applications. The two byte version of this field should be used.
9	(9)	SIGNED	1	SWITCH_TOTAL_INSTALLED	Total number of installed ports Note: Field maintained for legacy applications. The two byte version of this field should be used.
10	(A)	CHARACTER	1	SWITCH_FLAGS	Flags
		1... ....		SWITCH_OFFLINE	"X'80" On = offline switch
		.1.. ....		SWITCH_RPSN_VALID	"X'40" On = relative physical switch number valid
11	(B)	SIGNED	1	SWITCH_RPSN	Relative physical switch number
12	(C)	CHARACTER	32	SWITCH_NODE_DESC	Node descriptor
44	(2C)	CHARACTER	32	SWITCH_TOKEN_NED	Token Ned
76	(4C)	SIGNED	2	SWITCH_TOTAL_IMPLEMENTED_2BYTE	Two byte version of the count of total implemented ports.
78	(4E)	SIGNED	2	SWITCH_TOTAL_INSTALLED_2BYTE	Two byte version of the count of total installed ports.
80	(50)	CHARACTER	4		Reserved
84	(54)	CHARACTER	32	SWITCH_PHYSICAL_ND	Physical node descriptor
84	(54)	X'74'	0	SWITCH_LEN	"*-SWITCH_DATA_AREA"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SWITCH_PORT_RECORD	

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	SIGNED	2	SWITCH_PORT_OFFSET_NEXT	Port record Offset to next port record
2	(2)	SIGNED	1	SWITCH_PORT_ADDRESS	Logical port address
3	(3)	SIGNED	1	SWITCH_PORT_NUMBER	Port number
4	(4)	CHARACTER	1	SWITCH_PORT_FLAGS_1	Port flags set 1
		1... ....		SWITCH_PORT_INSTALLED	"X'80" On = port installed
		.1.. ....		SWITCH_PORT_COMMAND_OFFLINE	"X'40" On = offline to DCM by command
		..1. ....		SWITCH_PORT_SYSTEM_OFFLINE	"X'20" On = offline to DCM by system
		...1 ....		SWITCH_PORT_STATE_OFFLINE	"X'10" On = offline to DCM by port state
		.... 1...		SWITCH_PORT_DCM_INELIGIBLE	"X'08" On = ineligible for use by DCM
		.... .1..		SWITCH_PORT_CHANNEL	"X'04" On = attached to channel
		.... ..1.		SWITCH_PORT_CU	"X'02" On = attached to CUs
		.... ...1		SWITCH_PORT_UNKNOWN	"X'01" On = neither CHPID or CU(s)
5	(5)	CHARACTER	1	SWITCH_PORT_FLAGS_2	Port flags set 2
		1... ....		SWITCH_PORT_SYSTEM_CHANNEL	"X'80" On = channel is known to caller's system
		1... ....		SWITCH_PORT_MACHINE_CHANNEL	"X'80" Old name for bit
		.1.. ....		SWITCH_E_PORT	"X'40" On = port is an E_PORT and attached device is a switch
6	(6)	CHARACTER	4		Reserved
10	(A)	SIGNED	2	SWITCH_PORT_PATH_COUNT	Number of CHPIDs connected
12	(C)	SIGNED	4	SWITCH_PORT_TIME_STAMP	Destination port busy time stamp
16	(10)	CHARACTER	4	SWITCH_PORT_DESC	Port descriptor
20	(14)	CHARACTER	32	SWITCH_PORT_PDCM	Prohibit Dynamic Connectivity Mask
52	(34)	CHARACTER	32	SWITCH_PORT_ATT_ND	Attached node descriptor
84	(54)	SIGNED	1	SWITCH_PORT_CHPID	CHPID number
85	(55)	SIGNED	1	SWITCH_PORT_CU_COUNT	Number of CU entries
86	(56)	SIGNED	2	SWITCH_PORT_CU_#	CU number array entry

**IOSDSWTD Cross Reference**

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
SWITCH_CURRVRSN				54	
SWITCH_DATA_AREA	4	3	SWITCH_PORT_ADDRESS	2	
SWITCH_DEVICE	0		SWITCH_PORT_ATT_ND	34	
SWITCH_E_PORT	6		SWITCH_PORT_CHANNEL	4	4
SWITCH_FLAGS	A	40	SWITCH_PORT_CHPID	54	
SWITCH_ID	0		SWITCH_PORT_COMMAND_OFFLINE	4	40
SWITCH_LEN	54	74	SWITCH_PORT_CU	4	2
SWITCH_NODE_DESC	C		SWITCH_PORT_CU_#	56	
SWITCH_OFFLINE	A	80	SWITCH_PORT_CU_COUNT	55	
SWITCH_OFFSET_1ST_PORT	5		SWITCH_PORT_DCM_INELIGIBLE		
SWITCH_PHYSICAL_ND					

## IOSDSWTD Cross Reference

Name	Hex Offset	Hex Value
SWITCH_PORT_DESC	4	8
SWITCH_PORT_FLAGS_1	10	
SWITCH_PORT_FLAGS_2	4	
SWITCH_PORT_INSTALLED	5	
SWITCH_PORT_MACHINE_CHANNEL	4	80
SWITCH_PORT_NUMBER	5	80
SWITCH_PORT_OFFSET_NEXT	3	
SWITCH_PORT_PATH_COUNT	0	
SWITCH_PORT_PDCM	A	
SWITCH_PORT_RECORD	14	
SWITCH_PORT_STATE_OFFLINE	0	
SWITCH_PORT_SYSTEM_CHANNEL	4	10
SWITCH_PORT_SYSTEM_OFFLINE	5	80
SWITCH_PORT_TIME_STAMP	4	20
SWITCH_PORT_UNKNOWN	C	
SWITCH_RPSN	4	1
SWITCH_RPSN_VALID	B	
SWITCH_TOKEN_NED	A	40
SWITCH_TOTAL_IMPLEMENTED	2C	
SWITCH_TOTAL_IMPLEMENTED_2BYTE	8	
SWITCH_TOTAL_INSTALLED	4C	
SWITCH_TOTAL_INSTALLED_2BYTE	9	
SWITCH_VERSION	4E	
SWITCH_VRSNONE	4	
SWITCH_VRSNTHREE	4	1
SWITCH_VRSNTWO	4	3
	4	2



**IOSDTCCB Information**

**IOSDTCCB Programming Interface information**

Programming Interface information

**IOSDTCCB**

End of Programming Interface information

## IOSDTCCB Heading Information • IOSDTCCB Map

### IOSDTCCB Heading Information

**Common Name:** Transport Command Control Block  
**Macro ID:** IOSDTCCB  
**DSECT Name:** TCAH, DCW, TCAT  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Main Storage: Yes  
 Virtual Storage: Yes  
 Auxiliary Storage: N/A  
 Subpool: Any  
 Key: Any  
 Residency: Below 2G in virtual, above 2G in real  
**Size:** 16 Bytes for TCAH  
 8 bytes for DCW  
 8 bytes for TCAT  
**Created by:** User  
**Pointed to by:** TCWTCCBAddr in IOSDTCW (real address)  
 TIDAW0\_Addr in IOSDTCW (real address)  
**Serialization:** None  
**Function:** IOSDTCCB maps the Transport Command Control which contain the commands to be transported to the device for execution. The TCCB contains the following sections:  
 -- Transport Command Area Header (TCAH) - Contains information about the TCA and the operations described within.  
 -- Transport Command Area (TCA) - Contains one to 30 Device Command Words (DCWs) that specify the commands to be executed. Each DCW contains the following information  
 -- Command code  
 -- Flags to indicate command chaining etc.  
 -- The length of the control data for the command, if any  
 -- The length of the data to be read or written  
 If the command requires control data (e.g., define extent or locate record parameter data), the control data immediately follows the DCW. If the control data is not a multiple of 4, pad bytes must be added to properly align the next DCW or the TCA trailer on a word boundary. The total size of the DCWs plus control data cannot exceed 240 bytes. The need for control data reduces the number of DCWs that may be contained in the TCA.  
 -- Transport Command Area Trailer (TCAT) - Contains the transport count which specifies the count of data bytes to be transferred.

### IOSDTCCB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TCAH	Transport Command Area Header
0	(0)	CHARACTER	4	TCAH_WORD0 (0)	Word 0
0	(0)	BITSTRING	1	TCAH_FORMAT	Format control
1	(1)	CHARACTER	3	TCAH_W0RSVD	Reserved
4	(4)	CHARACTER	4	TCAH_WORD1 (0)	Word 1
4	(4)	CHARACTER	3	TCAH_W1RSVD	Reserved
7	(7)	BITSTRING	1	TCAH_TCAL	This value is the length of the TCA in bytes (TCA = DCWs + control data + pad bytes) plus 12
8	(8)	CHARACTER	4	TCAH_WORD2 (0)	Word 2
8	(8)	BITSTRING	2	TCAH_SERVACT	Device dependent service action code
10	(A)	CHARACTER	1	TCAH_W2RSVD	Reserved
11	(B)	BITSTRING	1	TCAH_PRIORITY	Priority - must be set to zero by the builder of the channel program
12	(C)	CHARACTER	4	TCAH_WORD3 (0)	Word 3
12	(C)	CHARACTER	4	TCAH_W3RSVD	Reserved
16	(10)	CHARACTER	1	TCAH_END (0)	End of TCA header

Comment

Constants for TCAH\_Format

End of Comment

.111 1111

TCAH\_FORMAT\_7F

"X'7F" Only format allowed

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
Constants for TCAH_ServAct					
End of Comment					

16	(10)	BITSTRING	0	TCAH_SERVACT_1FFE	"X'1FFE" Device dependent service action code
16	(10)	BITSTRING	0	TCAH_SERVACT_1FFF	"X'1FFF" Device dependent service action code
16	(10)	BITSTRING	0	TCAH_SERVACT_INTG	"X'1FFF" Service action code used for interrogate
16	(10)	X'10'	0	TCAH_LEN	"*-TCAH"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	DCW	Device Command Word
0	(0)	CHARACTER	4	DCW_WORD0 (0)	DCW word zero
0	(0)	BITSTRING	1	DCW_CMD	Command code
1	(1)	BITSTRING	1	DCW_FLAGS (0)	Flags
		1... ....		DCW_FBIT0_RSVD	"X'80" Reserved
		.1. ....		DCW_CMDCHAIN	"X'40" Command chain to the next DCW
		.1. ....		DCW_SLI	"X'20" Suppress length indication
		...1 1111		DCW_FBIT37_RSVD	"X'1F" Reserved
2	(2)	CHARACTER	1	DCW_W0B2RSVD	Reserved
3	(3)	BITSTRING	1	DCW_CDCOUNT	Control data count
4	(4)	SIGNED	4	DCW_COUNT	Count of read or write bytes
8	(8)	CHARACTER	1	DCW_END (0)	End of DCW
8	(8)	CHARACTER	1	DCW_CONTROL_DATA (0)	Start of control data (if any)
		.1.1 ....		DCW_CMD_TCAX	"X'50" Transfer-TCA-extension (TCAX) command code
		.11. ....		DCW_CMD_TCOB	"X'60" Transfer-CBC-offset-block (TCOB) command code
8	(8)	X'8'	0	DCW_LEN	"*-DCW"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TCAT	Transport Command Area Trailer
0	(0)	CHARACTER	4	TCAT_CHANUSE	Reserved for use by channel
4	(4)	SIGNED	4	TCAT_TRANSPORT_COUNT	Count of data bytes transferred
8	(8)	CHARACTER	1	TCAT_END (0)	End of TCA trailer
8	(8)	X'8'	0	TCAT_LEN	"*-TCAT"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TCATB	Transport Command Area Trailer
0	(0)	CHARACTER	4	TCATB_CHANUSE	Reserved for use by channel
4	(4)	SIGNED	4	TCATB_WRITE_COUNT	Count of write data bytes transferred
8	(8)	SIGNED	4	TCATB_READ_COUNT	Count of read data bytes transferred
12	(C)	CHARACTER	1	TCATB_END (0)	End of TCATB
12	(C)	X'C'	0	TCATB_LEN	"*-TCATB"

## IOSDTCCB Cross Reference

### IOSDTCCB Cross Reference

Name	Hex Offset	Hex Value
DCW	0	
DCW_GDCOUNT	3	
DCW_CMD	0	
DCW_CMD_TCAX	8	50
DCW_CMD_TCOB	8	60
DCW_CMDCHAIN	1	40
DCW_CONTROL_DATA		
	8	
DCW_COUNT	4	
DCW_END	8	
DCW_FBIT0_RSVD		
	1	80
DCW_FBIT37_RSVD		
	1	1F
DCW_FLAGS	1	
DCW_LEN	8	8
DCW_SLI	1	20
DCW_WORD0	0	
DCW_W0B2RSVD	2	
TCAH	0	
TCAH_END	10	
TCAH_FORMAT	0	
TCAH_FORMAT_7F		
	10	7F
TCAH_LEN	10	10
TCAH_PRIORITY		
	B	
TCAH_SERVACT	8	
TCAH_SERVACT_INTG		
	10	1FFF
TCAH_SERVACT_1FFE		
	10	1FFE
TCAH_SERVACT_1FFF		
	10	1FFF
TCAH_TCAL	7	
TCAH_WORD0	0	
TCAH_WORD1	4	
TCAH_WORD2	8	
TCAH_WORD3	C	
TCAH_W0RSVD	1	
TCAH_W1RSVD	4	
TCAH_W2RSVD	A	
TCAH_W3RSVD	C	
TCAT	0	
TCAT_CHANUSE	0	
TCAT_END	8	
TCAT_LEN	8	8
TCAT_TRANSPORT_COUNT		
	4	
TCATB	0	
TCATB_CHANUSE		
	0	
TCATB_END	C	
TCATB_LEN	C	C
TCATB_READ_COUNT		
	8	
TCATB_WRITE_COUNT		
	4	

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## IOSDTCW Information

### IOSDTCW Programming Interface information

Programming Interface information

IOSDTCW

End of Programming Interface information

## IOSDTCW Heading Information • IOSDTCW Map

### IOSDTCW Heading Information

**Common Name:** Transport Control Word  
**Macro ID:** IOSDTCW  
**DSECT Name:** TCW and TIDAW  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Main Storage: Yes  
 Virtual Storage: Yes  
 Auxiliary Storage: N/A  
 Subpool: Any  
 Key: Any  
 Residency: Below 2G in virtual and real storage  
**Size:** 64 Bytes for TCW,  
 16 bytes for TIDAW  
**Created by:** User  
**Pointed to by:** TCW Pointers:  
 IOSRST in IECDIOSB (real address)  
 IOSVST in IECDIOSB (virtual address)  
 IOSTCWAD in IECDIOSB (real or virtual address)  
 ORBCPA in IHAORB (real address)  
 IRBTCWAD in IHAIRB (real address)  
 TCWInterrogateAddr in IOSDTCW (real address)  
 TIDAW Pointers:  
 TCWTCBAddr in IOSDTCW (real address)  
 TCWInputAddr in IOSDTCW (real address)  
 TCWOutputAddr in IOSDTCW (real address)  
 TCWOutputAddr in IOSDTCW (real address)  
 TIDAW0\_Addr in IOSDTCW (real address)  
**Serialization:** None  
**Function:** IOSDTCW maps the Transport Control Word (TCW) which contains all of the information needed by the channel to drive an FCX I/O operation. It includes the following information:  
 -- A pointer to a Transport Command Control Block (TCCB) that contains the commands to be executed. See macro IOSDTCCB.  
 -- For write requests, a pointer to a data buffer or a list of data buffers (see TIDAL description below) that contain information that is transferred to the device.  
 -- For read requests, a pointer to a data buffer or a list of data buffers (see TIDAL description below) that will contain information that is transferred from the device.  
 -- A pointer to a Transport Status Block (TSB) that contains additional completion status over and above the status information stored in the IRB. See macro IOSDTSB.  
 The TCW is built by the I/O driver or its callers and passed to IOS in the IOSB. The first TCW is always copied to the IOQ by the device dependent STARTIO exit. This allows the exit to modify the channel program and also allows IOS to assign a Transport Status Block (TSB).  
 This macro also contains the mapping for the Transport Indirect Address Word (TIDAW). The TIDAW allows the TCCB and read/write data to be scattered in storage. The TCW points to an area of storage called a TIDAL list or TIDAL. Each quadword in the list is a TIDAW which points to either an area of storage or another TIDAL.

### IOSDTCW Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	TCW	Transport Control Word
0	(0)	CHARACTER	4	TCWORD0 (0)	Word 0
0	(0)	BITSTRING	1	TCWORD0BYTE0 (0)	Word 0, byte 0
		11. ....		TCWFORMAT	"X'CO" TCW format
		..11 1111		TCWFORMATRSVD1	"X'3F" Reserved, zeroes
1	(1)	CHARACTER	3	TCWFLAGS (0)	Flags
1	(1)	BITSTRING	1	TCWFLAG1 (0)	Flag one
		1... ....		TCWRSVD1	"X'80" Reserved
		..1. ....		TCWRSVD2	"X'40" Reserved
		...1. ....		TCWRSVD3	"X'20" Reserved
		...1 ....		TCWRSVD4	"X'10" Reserved

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.... 1...		TCWRSVD5	"X'08" Reserved
		.... .1..		TCWINPUT@TIDAL	"X'04" The input address in TCWInputAddr points to a TIDAL. Otherwise, it points to data.
		.... ..1.		TCWTCCB@TIDAL	"X'02" The TCCB address in TCWTCCBAddr points to a TIDAL. Otherwise, it points to a TCCB.
		.... ...1		TCWOUTPUT@TIDAL	"X'01" The output address in TCWOutputAddr points to a TIDAL. Otherwise, it points to data.
2	(2)	BITSTRING 11.. ....	1	TCWFLAG2 (0) TCWTIDAWFORMAT	Flag two "X'C0" The format of the TIDAW "X'20" TSRQB is designated
		..1. ....		TCWTSRQB	"X'1F" Reserved
		...1 1111		TCWRSVD6	Flag three
3	(3)	BITSTRING	1	TCWFLAG3 (0)	Reserved
3	(3)	BITSTRING	1	TCWRSVD7	Reserved
4	(4)	CHARACTER	4	TCWORD1 (0)	Word 1
4	(4)	CHARACTER	1	TCWRSVD8	Reserved
5	(5)	BITSTRING	1	TCWTCCBLRW (0)	TCCB length and read and write bits
		1111 11..		TCWTCCBL	"X'FC" TCCB length - The length of the TCCB in words minus 5. That is, this length includes the entire TCCB except for the TCA header and the last word of the TCA trailer (5 words total).
		.... ..1.		TCWREAD	"X'02" Data is transferred from the device to storage
		.... ...1		TCWWRITE	"X'01" Data is transferred from storage to the device
6	(6)	CHARACTER	2	TCWRSVD9	Reserved
8	(8)	ADDRESS	8	TCWOUTPUTADDR	Words 2 & 3 - output data address or TIDAL
16	(10)	ADDRESS	8	TCWINPUTADDR	Words 4 & 5 - input data data or TIDAL
24	(18)	ADDRESS	8	TCWTSBADDR	Words 6 & 7 - Transport Status Block address. This field is reserved for IOS use and must be set to zero by the builder of the channel program.
32	(20)	ADDRESS	8	TCWTCCBADDR	Words 8 & 9 - Transport Command Control Block (TCCB) address or TIDAL. See macro IOSDTCB.
40	(28)	SIGNED	4	TCWOUTPUTBYTECOUNT	Word 10 - Output data byte count
44	(2C)	SIGNED	4	TCWINPUTBYTECOUNT	Word 11 - Input data byte count
48	(30)	CHARACTER	4	TCWORD12	Word 12 - Reserved
52	(34)	CHARACTER	4	TCWORD13	Word 13 - Reserved
56	(38)	CHARACTER	4	TCWORD14	Word 14 - Reserved
60	(3C)	ADDRESS	4	TCWINTERROGATEADDR	Word 15 - Interrogate TCW address. Reserved for IOS use only. Must be set to zero by the builder of the channel program.

Comment

---

Constants for TCWFormat

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End of Comment

.... ....	TCWFORMAT_0	"B'00000000" Format 0 TCW
.1.. ....	TCWFORMAT_1	"B'01000000" Reserved for future use
1... ....	TCWFORMAT_2	"B'10000000" Reserved for future use
11.. ....	TCWFORMAT_3	"B'11000000" Reserved for future use

Comment

---

Constants for TCWTIDAWFormat

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End of Comment

.... ....	TCWTIDAWFORMAT_0	"B'00000000" Format 0 TIDAW
.1.. ....	TCWTIDAWFORMAT_1	"B'01000000" Reserved for future use
1... ....	TCWTIDAWFORMAT_2	"B'10000000" Reserved for future use
11.. ....	TCWTIDAWFORMAT_3	"B'11000000" Reserved for future use
60 (3C) X'40'	0 TCW_LEN	"*-TCW"

## IOSDTCW Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	TIDAW0	Format 0 TIDAW
0	(0)	BITSTRING	1	TIDAW0_FLAGS (0)	Flags
		1... ....		TIDAW0_LAST	"X'80" This is the last TIDAW for a TCW
		.1... ....		TIDAW0_SKIP	"X'40" Skip the transfer of information to main storage during a read, sense-id, or sense operation
		..1. ....		TIDAW0_DTINT	"X'20" Data transfer interruption control
		...1 ....		TIDAW0_TTIC	"X'10" TIDAW transfer in channel - the 8-byte address is the starting address of the next TIDAL
		.... 1...		TIDAW0_GENCBC	"X'08" For output requests, insert a Checking Block Code (CBC) word after transferring the data represented by this TIDAW. The setting of this bit is device and command dependent.
1	(1)	CHARACTER	3	TIDAW0_RSVD1	Reserved
4	(4)	SIGNED	4	TIDAW0_COUNT	The number of bytes to be transferred
8	(8)	ADDRESS	8	TIDAW0_ADDR (0)	Data address
8	(8)	ADDRESS	4	TIDAW0_ADDR_HIGH	High order word of address
12	(C)	ADDRESS	4	TIDAW0_ADDR_LOW	Low order word of address
12	(C)	X'10'	0	TIDAW0_LEN	"*-TIDAW0"

## IOSDTCW Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
TCW	0			3C	40
TCW_LEN	3C	40	TCWTIDAWFORMAT_2	3C	80
TCWFLAGS	1		TCWTIDAWFORMAT_3	3C	C0
TCWFLAG1	1		TCWTSBADDR	18	
TCWFLAG2	2		TCWTSRQB	2	20
TCWFLAG3	3		TCWWORD0	0	
TCWFORMAT	0	C0	TCWWORD0BYTE0	0	
TCWFORMAT_0	3C	0	TCWWORD1	4	
TCWFORMAT_1	3C	40	TCWWORD12	30	
TCWFORMAT_2	3C	80	TCWWORD13	34	
TCWFORMAT_3	3C	C0	TCWWORD14	38	
TCWFORMATRSVD1	0	3F	TCWWRITE	5	1
TCWINPUT@TIDAL	1	4	TIDAW0	0	
TCWINPUTADDR	10		TIDAW0_ADDR	8	
TCWINPUTBYTECOUNT	2C		TIDAW0_ADDR_HIGH	8	
TCWINTERROGATEADDR	3C		TIDAW0_ADDR_LOW	C	
TCWOUTPUT@TIDAL	1	1	TIDAW0_COUNT	4	
TCWOUTPUTADDR	8		TIDAW0_DTINT	0	20
TCWOUTPUTBYTECOUNT	28		TIDAW0_FLAGS	0	
TCWREAD	5	2	TIDAW0_GENCBC	0	8
TCWRSVD1	1	80	TIDAW0_LAST	0	80
TCWRSVD2	1	40	TIDAW0_LEN	C	10
TCWRSVD3	1	20	TIDAW0_RSVD1	1	
TCWRSVD4	1	10	TIDAW0_SKIP	0	40
TCWRSVD5	1	8	TIDAW0_TTIC	0	10
TCWRSVD6	2	1F			
TCWRSVD7	3				
TCWRSVD8	4				
TCWRSVD9	6				
TCWTCCB@TIDAL	1	2			
TCWTCCBADDR	20				
TCWTCCBL	5	FC			
TCWTCCBLRW	5				
TCWTIDAWFORMAT	2	C0			
TCWTIDAWFORMAT_0	3C	0			
TCWTIDAWFORMAT_1					



## **IOSDUPFX Information**

### **IOSDUPFX Programming Interface information**

Programming Interface information

#### **IOSDUPFX**

**ONLY** the following fields are part of the programming interface information:

- UCBCHPID
- UCBMCMB
- UCBRESVP
- UCBSID
- UCBMBI
- UCBRESVH
- UCBRRP

End of Programming Interface information

## IOSDUPFX Heading Information • IOSDUPFX Map

### IOSDUPFX Heading Information

**Common Name:** UCB PREFIX MAPPING  
**Macro ID:** IOSDUPFX  
**DSECT Name:** UPFX  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Main Storage: YES  
 Virtual Storage: N/A  
 Auxiliary Storage: N/A  
 Subpool: 245  
 Key: 0  
 Residency: ABOVE THE LINE  
**Size:** 40 BYTES  
**Created by:** IOS  
**Pointed to by:** N/A  
**Serialization:** NONE  
 THE FIELDS IN THE UCB PREFIX WILL BE VOLATILE,  
 AND ARE ONLY FOR MONITORING PROGRAMS.  
**Function:** UPFX WILL CONTAIN INFORMATION ABOUT THE STATE OF THE  
 DEVICE.

### IOSDUPFX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UPFX	,
0	(0)	BITSTRING	1	UCBRSTEM	Reset Event mask
1	(1)	SIGNED	1	UCBMIHKY	MIH UCB time interval key
Comment					
IOS MIH control byte					
End of Comment					
2	(2)	BITSTRING	1	UCBMIHTI	Missing Interrupt Handler byte
		1... ....		UCBMIHSS	"X'80" Customer-specified scan interval being used
		.1. ....		UCBMIHPB	"X'40" With bit set, Missing Interrupt Handler checking of device is bypassed for started I/O requests for which idle with work queued conditions are not detected (set by device support code and MVS components)
		..1. ....		UCBMIHFF	"X'20" MIH processing was turned oFF for the device via the SETIOS command or parmlib
		...1 ....		UCBMIHMO	"X'10" MIH Message-Only flag. Bypasses MIH/IOT recovery actions for the device. Currently used for I/O timing processing only.
		.... 1...		UCBIOQRP	"X'08" Pending I/O request condition
		.... .1.		UCBMIHMP	"X'04" Message pending, to be DOM'D during the next MIH scan
		.... ..1.		UCBMIHIO	"X'02" Clear subchannel scheduled by MIH
		.... ...1		UCBPGDEV	"X'01" Device is being used for paging. For PAV devices, this bit is only set in the base.
Comment					
IOS HOT I/O control byte					
End of Comment					
3	(3)	SIGNED	1	UCBHOTIO	HOT-I/O indicator
		1... ....		UCBHSCD	"X'80" SCD associated with the UCB
		.1. ....		UCBHSOL	"X'40" A solicited interrupt has completed with other than DCC-3 since the last time HOT-I/O detection was called.
		..1. ....		UCBSUSOL	"X'20" - Indicates that the last unsolicited interrupt occurred when a request was outstanding, and could have been induced
		...1 ....		UCBINDHI	"X'10" - Indicates that an induced hot I/O condition has been detected on the device
		.... 1...		UCBHCHPR	"X'08" Channel path recovery is attempting to clear up a HOT-I/O condition for this device.
		.... .111		UCBHCHPI	"X'07" IF UCBHCHPR is on, this is an index into UCBCHPID, specifying the channel path over which the HOT-I/O condition was detected.
Comment					
IOS UCB IOQ chains of I/O requests associated with this device					
End of Comment					
4	(4)	ADDRESS	4	UCBIOQF	First request for this device
8	(8)	ADDRESS	4	UCBIOQL	Last request for this device

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
Associated subchannel data					
End of Comment					
12	(C)	SIGNED	4	UCBSID (0)	Subsystem-identification word in connected subchannel (valid only if UCBNOCON is not set). Note that some information such as the subchannel set id will be valid regardless of whether the device is connected to a subchannel
12	(C)	SIGNED	2	UCBSIDA	First 16 bits of SID
12	(C)	X'D'	0	UCBSSID	"UCBSID+1,1" Subchannel set id (bits 13-14)
14	(E)	SIGNED	2	UCBSCHNO	Subchannel number - valid only if device is connected to a subchannel (i.e. UCBNOCON is off)
16	(10)	SIGNED	2	UCBPMCW1	Path management control word
Comment					
EQU X'8000' Reserved - set to zero					
EQU X'4000' Reserved - set to zero					
End of Comment					
16	(10)	BITSTRING	0	UCBISC	"X'3800" Interruption subclass
Comment					
EQU X'0400' Reserved - set to zero					
EQU X'0200' Reserved - set to zero					
EQU X'0100' Reserved - set to zero					
End of Comment					
		1... ....		UCBENABL	"X'0080" Subchannel enabled for interruptions
		.11. ....		UCBLM	"X'0060" Limit mode checking state
		... ..		UCBLNONE	"X'0000" No limit mode checking
		..1. ....		UCBLGTE	"X'0020" Data address must be greater than or equal to the limit
		.1. ....		UCBLLT	"X'0040" Data address must be less than the limit
		...1 1..		UCBMM	"X'0018" Measurement mode state
		...1 ....		UCBMCMB	"X'0010" Store measurements in Channel Measurement Block
		.... 1..		UCBMDCTI	"X'0008" DCTI is to be stored in Extended Status Word
		.... .1..		UCBDPMPM	"X'0004" Dynamic pathing multiple path state
Comment					
EQU X'0002' Reserved - set to zero					
EQU X'0001' Reserved - set to zero					
End of Comment					
18	(12)	SIGNED	2	UCBMBI	Measurement Block Index
20	(14)	BITSTRING	1	UCBLPM	Logical path mask (LPM)
21	(15)	SIGNED	1		Reserved - set to zero
22	(16)	BITSTRING	1	UCBLPUM	Last path used mask (LPUM)
23	(17)	BITSTRING	1	UCBPIM	The path installed mask for this subchannel
24	(18)	BITSTRING	8	UCBCHPS (0)	The set of 8 channel paths associated with this subchannel.
24	(18)	SIGNED	1	UCBCHPID (8)	Array reference to each channel path identifier (CHPID) for this subchannel. (The bits in UCBLPM, UCBLPUM and UCBPIM map to the bytes in this array. For example, a X'80' in UCBPIM indicates the first byte in this array contains a CHPID for a path that is installed on the associated device.)
Comment					
I/O Supervisor general fields					
End of Comment					
32	(20)	SIGNED	1	UCBLEVEL	Highest level set in UCBLVMSK
33	(21)	BITSTRING	1	UCBIOF1	IOS flag byte
		1... ....		UCBRESVH	"X'80" Device reserved indicator
		.1. ....		UCBVALPH	"X'40" Path validation indicator
		..1. ....		UCBRESVP	"X'20" Reserve channel program pending
		...1 ....		UCBRRP	"X'10" Reserve/release pending
		.... 1..		UCBDPTH	"X'08" Dynamic pathing feature has been initialized for this device
		.... .1..		UCBDPVAL	"X'04" Dynamic pathing validation required
		.... ..1.		UCBDSTF	"X'02" Restart device state transition flushing
		.... ...1		UCBAPGID	"X'01" - Alternate PGID established

## IOSDUPFX Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
IOS I/O timing time interval key					
End of Comment					
34	(22)	SIGNED	1	UCBIOTKY	I/O timing time interval key
Comment					
IOS MIH flags byte					
End of Comment					
35	(23)	SIGNED	1	UCBMIHFG	MIH flags byte
		1... ....		UCBMIHMT	"X'80" Mount pending condition has been detected
		.1. ....		UCBMIHMI	"X'40" Missing interrupt condition has been detected
		..1. ....		UCBMIHIW	"X'20" Idle with work queued condition been detected
		...1 ....		UCBMIHC1	"X'10" An SSCH was issued and a condition code 1 was returned indicating status was pending at the subchannel. This flag is used to prevent improper detection of idle with work queued conditions.
		.... 1...		UCBIOTTM	"X'08" An I/O timeout condition has been detected for an active I/O request
		.... .1..		UCBMIHC2	"X'04" An SSCH was issued and a condition code 1 was returned indicating status was pending at the subchannel. This flag is used to trigger stage 2 processing to initiate recovery for this case.
		.... ..1.		UCBMIMIH	"X'02" Device support code requested entry to the MIH exit at the minimal MIH scan (one second) provided no I/O requests are active on the device. For PAV devices, this bit is only set in the base.
		.... ...1		UCBIOTHS	"X'01" An IO Timing HyperSwap was triggered on this device.
Comment					
IOS level bit mask					
End of Comment					
36	(24)	BITSTRING	4	UCBLVMSK	UCB level bit mask

## IOSDUPFX Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
UCBAPGID	21	1	UCBMIHC1	23	10
UCBCHPID	18		UCBMIHC2	23	4
UCBCHPS	18		UCBMIHFF	2	20
UCBDPMPM	10	4	UCBMIHFG	23	
UCBDPTH	21	8	UCBMIHIO	2	2
UCBDPVAL	21	4	UCBMIHIW	23	20
UCBDSTF	21	2	UCBMIHKY	1	
UCBENABL	10	80	UCBMIHMI	23	40
UCBHCHPI	3	7	UCBMIHMO	2	10
UCBHCHPR	3	8	UCBMIHMP	2	4
UCBHOTIO	3		UCBMIHMT	23	80
UCBHSCD	3	80	UCBMIHPB	2	40
UCBHSOL	3	40	UCBMIHSS	2	80
UCBINDHI	3	10	UCBMIHTI	2	
UCBIOQF	4		UCBMIMIH	23	2
UCBIOQL	8		UCBMM	10	18
UCBIOQRP	2	8	UCBPGDEV	2	1
UCBIOSF1	21		UCBPIM	17	
UCBIOTHS	23	1	UCBPMCW1	10	
UCBIOTKY	22		UCBRESVH	21	80
UCBIOTTM	23	8	UCBRESVP	21	20
UCBISC	10	3800	UCBRRP	21	10
UCBLEVEL	20		UCBRSTEM	0	
UCBLGTE	10	20	UCBSCHNO	E	
UCBLLT	10	40	UCBSID	C	
UCBLM	10	60	UCBSIDA	C	
UCBLNONE	10	0	UCBSSID	C	D
UCBLPM	14		UCBSUSOL	3	20
UCBLPUM	16		UCBVALPH	21	40
UCBLVMSK	24		UPFX	0	
UCBMBI	12				
UCBMCMB	10	10			
UCBMDCTI	10	8			

## **IOSDUPI Information**

### **IOSDUPI Programming Interface information**

Programming Interface information

#### **IOSDUPI**

**ONLY** the following fields are part of the programming interface information:

- UCBCHPID
- UCBMCMB
- UCBRESVP
- UCBSID
- UCBMBI
- UCBRESVH
- UCBRRP

End of Programming Interface information

## IOSDUPI Heading Information • IOSDUPI Map

### IOSDUPI Heading Information

**Common Name:** UCB Prefix Information Area  
**Macro ID:** IOSDUPI  
**DSECT Name:** UCBPDATA  
**Owning Component:** IOS (SC1C3)  
**Eye-Catcher ID:** NONE  
**Storage Attributes:** Main Storage: Yes  
 Virtual Storage: N/A  
 Subpool: Invoker of UCB services  
 Key: Invoker of UCB services  
 Residency: Invoker of UCB services  
**Size:** 48 bytes  
**Created by:** Invoker of UCB services  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** This macro maps the UCB prefix data returned by the UCB services UCBINFO, UCBLOOK, or UCBSCAN

### IOSDUPI Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	UCBPDATA	Copy of UCB prefix data
0	(0)	BITSTRING	1	UCBRSTEM	Reset Event mask
1	(1)	SIGNED	1	UCBMIHKY	MIH UCB time interval key
Comment					
IOS MIH control byte					
End of Comment					
2	(2)	BITSTRING	1	UCBMIHTI	Missing Interrupt Handler byte
		1... ....		UCBMIHSS	"X'80" Customer-specified scan interval being used
		.1.. ....		UCBMIHPB	"X'40" With bit set, Missing Interrupt Handler checking of device is bypassed for started I/O requests for which idle with work queued conditions are not detected (set by device support code and MVS components)
		..1. ....		UCBMIHFF	"X'20" MIH processing was turned oFF for the device via the SETIOS command or parmlib
		...1 ....		UCBMIHMO	"X'10" MIH Message-Only flag. Bypasses MIH/IOT recovery actions for the device. Currently used for I/O timing processing only.
		.... 1...		UCBIOQRP	"X'08" Pending I/O request condition
		.... .1..		UCBMIHMP	"X'04" Message pending, to be DOM'D during the next MIH scan
		.... ..1.		UCBMIHIO	"X'02" Clear subchannel scheduled by MIH
		.... ...1		UCBPGDEV	"X'01" Device is being used for paging. For PAV devices, this bit is only set in the base.
Comment					
IOS HOT I/O control byte					
End of Comment					
3	(3)	SIGNED	1	UCBHOTIO	HOT-I/O indicator
		1... ....		UCBHSCD	"X'80" SCD associated with the UCB
		.1.. ....		UCBHSOL	"X'40" A solicited interrupt has completed with other than DCC-3 since the last time HOT-I/O detection was called.
		..1. ....		UCBSUSOL	"X'20" - Indicates that the last unsolicited interrupt occurred when a request was outstanding, and could have been induced
		...1 ....		UCBINDHI	"X'10" - Indicates that an induced hot I/O condition has been detected on the device
		.... 1...		UCBHCHPR	"X'08" Channel path recovery is attempting to clear up a HOT-I/O condition for this device.
		.... .111		UCBHCHPI	"X'07" IF UCBHCHPR is on, this is an index into UCBCHPID, specifying the channel path over which the HOT-I/O condition was detected.
Comment					
IOS UCB IOQ chains of I/O requests associated with this device					
End of Comment					
4	(4)	ADDRESS	4	UCBIOQF	First request for this device
8	(8)	ADDRESS	4	UCBIOQL	Last request for this device

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
Associated subchannel data					
End of Comment					
12	(C)	SIGNED	4	UCBSID (0)	Subsystem-identification word in connected subchannel (valid only if UCBNOCON is not set). Note that some information such as the subchannel set id will be valid regardless of whether the device is connected to a subchannel
12	(C)	SIGNED	2	UCBSIDA	First 16 bits of SID
12	(C)	X'D'	0	UCBSSID	"UCBSID+1,1" Subchannel set id (bits 13-14)
14	(E)	SIGNED	2	UCBSCHNO	Subchannel number - valid only if device is connected to a subchannel (i.e. UCBNOCON is off)
16	(10)	SIGNED	2	UCBPMCW1	Path management control word
Comment					
EQU X'8000' Reserved - set to zero					
EQU X'4000' Reserved - set to zero					
End of Comment					
16	(10)	BITSTRING	0	UCBISC	"X'3800" Interruption subclass
Comment					
EQU X'0400' Reserved - set to zero					
EQU X'0200' Reserved - set to zero					
EQU X'0100' Reserved - set to zero					
End of Comment					
		1... ....		UCBENABL	"X'0080" Subchannel enabled for interruptions
		.11. ....		UCBLM	"X'0060" Limit mode checking state
		... ..		UCBLNONE	"X'0000" No limit mode checking
		..1. ....		UCBLGTE	"X'0020" Data address must be greater than or equal to the limit
		.1. ....		UCBLLT	"X'0040" Data address must be less than the limit
		...1 1..		UCBMM	"X'0018" Measurement mode state
		...1 ....		UCBMCMB	"X'0010" Store measurements in Channel Measurement Block
		.... 1..		UCBMDCTI	"X'0008" DCTI is to be stored in Extended Status Word
		.... .1..		UCBDPMPM	"X'0004" Dynamic pathing multiple path state
Comment					
EQU X'0002' Reserved - set to zero					
EQU X'0001' Reserved - set to zero					
End of Comment					
18	(12)	SIGNED	2	UCBMBI	Measurement Block Index
20	(14)	BITSTRING	1	UCBLPM	Logical path mask (LPM)
21	(15)	SIGNED	1		Reserved - set to zero
22	(16)	BITSTRING	1	UCBLPUM	Last path used mask (LPUM)
23	(17)	BITSTRING	1	UCBPIM	The path installed mask for this subchannel
24	(18)	BITSTRING	8	UCBCHPS (0)	The set of 8 channel paths associated with this subchannel.
24	(18)	SIGNED	1	UCBCHPID (8)	Array reference to each channel path identifier (CHPID) for this subchannel. (The bits in UCBLPM, UCBLPUM and UCBPIM map to the bytes in this array. For example, a X'80' in UCBPIM indicates the first byte in this array contains a CHPID for a path that is installed on the associated device.)
Comment					
I/O Supervisor general fields					
End of Comment					
32	(20)	SIGNED	1	UCBLEVEL	Highest level set in UCBLVMSK
33	(21)	BITSTRING	1	UCBIOF1	IOS flag byte
		1... ....		UCBRESVH	"X'80" Device reserved indicator
		.1. ....		UCBVALPH	"X'40" Path validation indicator
		..1. ....		UCBRESVP	"X'20" Reserve channel program pending
		...1 ....		UCBRRP	"X'10" Reserve/release pending
		.... 1..		UCBDPTH	"X'08" Dynamic pathing feature has been initialized for this device
		.... .1..		UCBDPVAL	"X'04" Dynamic pathing validation required
		.... ..1.		UCBDSTF	"X'02" Restart device state transition flushing
		.... ...1		UCBAPGID	"X'01" - Alternate PGID established

## IOSDUPI Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
IOS I/O timing time interval key					
End of Comment					
34	(22)	SIGNED	1	UCBIOTKY	I/O timing time interval key
Comment					
IOS MIH flags byte					
End of Comment					
35	(23)	SIGNED	1	UCBMIHFG	MIH flags byte
		1... ....		UCBMIHMT	"X'80" Mount pending condition has been detected
		.1. ....		UCBMIHMI	"X'40" Missing interrupt condition has been detected
		..1. ....		UCBMIHIW	"X'20" Idle with work queued condition been detected
		...1 ....		UCBMIHC1	"X'10" An SSCH was issued and a condition code 1 was returned indicating status was pending at the subchannel. This flag is used to prevent improper detection of idle with work queued conditions.
		.... 1...		UCBIOTTM	"X'08" An I/O timeout condition has been detected for an active I/O request
		.... .1..		UCBMIHC2	"X'04" An SSCH was issued and a condition code 1 was returned indicating status was pending at the subchannel. This flag is used to trigger stage 2 processing to initiate recovery for this case.
		.... ..1.		UCBMIMIH	"X'02" Device support code requested entry to the MIH exit at the minimal MIH scan (one second) provided no I/O requests are active on the device. For PAV devices, this bit is only set in the base.
		.... ...1		UCBIOTHS	"X'01" An IO Timing HyperSwap was triggered on this device.
Comment					
IOS level bit mask					
End of Comment					
36	(24)	BITSTRING	4	UCBLVMSK	UCB level bit mask
Comment					
UCB lock word and pointer to the active IOQ element					
End of Comment					
40	(28)	SIGNED	4	UCBLOCKC	Device lock word
44	(2C)	ADDRESS	4	UCBIOQC	Address of last queuing element started, halted, or cleared for this device. This field contains a valid address only when UCBSTRT, UCBHALT, or UCBCLEAR are set on.

## IOSDUPI Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
UCBAPGID	21	1	UCBLEVEL	20	
UCBCHPID	18		UCBLGTE	10	20
UCBCHPS	18		UCBLLT	10	40
UCBDPMPM	10	4	UCBLM	10	60
UCBDPTH	21	8	UCBLNONE	10	0
UCBDPVAL	21	4	UCBLOCKC	28	
UCBDSTF	21	2	UCBLPM	14	
UCBENABL	10	80	UCBLPUM	16	
UCBHCHPI	3	7	UCBLVMSK	24	
UCBHCHPR	3	8	UCBMBI	12	
UCBHOTIO	3		UCBMCMB	10	10
UCBHSCD	3	80	UCBMDCTI	10	8
UCBHSOL	3	40	UCBMIHC1	23	10
UCBINDHI	3	10	UCBMIHC2	23	4
UCBIOQC	2C		UCBMIHFF	2	20
UCBIOQF	4		UCBMIHFG	23	
UCBIOQL	8		UCBMIHIO	2	2
UCBIOQRP	2	8	UCBMIHIW	23	20
UCBIOSF1	21		UCBMIHKY	1	
UCBIOTHS	23	1	UCBMIHMI	23	40
UCBIOTKY	22		UCBMIHMO	2	10
UCBIOTTM	23	8	UCBMIHMP	2	4
UCBISC	10	3800	UCBMIHMT	23	80



Name	Hex Offset	Hex Value
UCBMIHPB	2	40
UCBMIHSS	2	80
UCBMIHTI	2	
UCBMIMIH	23	2
UCBMM	10	18
UCBPDATA	0	
UCBPGDEV	2	1
UCBPIM	17	
UCBPMCW1	10	
UCBRESVH	21	80
UCBRESVP	21	20
UCBRRP	21	10
UCBRSTEM	0	
UCBSCHNO	E	
UCBSID	C	
UCBSIDA	C	
UCBSSID	C	D
UCBSUSOL	3	20
UCBVALPH	21	40



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## IOSDVSAP Information

### IOSDVSAP Programming Interface information

Programming Interface information

IOSDVSAP

End of Programming Interface information

## IOSDVSAP Heading Information • IOSDVSAP Map

### IOSDVSAP Heading Information

**Common Name:** Vary Switch API Element  
**Macro ID:** IOSDVSAP  
**DSECT Name:** VSAP\_RESOURCE  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** VSAP  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Subpool: User's  
 Key: User's  
 Residency: ANY  
**Size:** See mapping  
**Created by:** Storage obtained by IOSVRYSW invoker.  
**Pointed to by:** User defined pointer  
**Serialization:** None  
**Function:** IOSDVSAP maps each element of the array of resource elements that is passed to the IOSVRYSW Vary Switch API. Each element is created by a separate IOSVRYSW BUILD invocation.

### IOSDVSAP Map

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
0	(0)	STRUCTURE	0	VSAP_RESOURCE	Vary Switch element	
0	(0)	CHARACTER	4	VSAP_ID	Acronym ('VSAP')	
4	(4)	BITSTRING	1	VSAP_VER	Macro version level	
5	(5)	BITSTRING	1	VSAP_FLAGS	VSAP flags	
		1... ..		VSAP_ONLINE	"X'80" Switch/port is to be brought online to DCM	
		.1. ....		VSAP_OFFLINE	"X'40" Switch/port is to be taken offline to DCM	
		..1. ....		VSAP_UNCOND	"X'20" An UNCOND request is to be specified on the VARY PATH commands invoked as a result of this VARY SWITCH request.	
Comment						
EQU X'1F' Reserved						
End of Comment						
6	(6)	CHARACTER	4		Reserved	
10	(A)	BITSTRING	2	VSAP_SWITCHDEV	Switch device number being altered	
12	(C)	BITSTRING	1	VSAP_PORTADDR	Port address being altered	
13	(D)	BITSTRING	3		Reserved	
13	(D)	X'10'	0	VSAPEND	*** End of VSAP	
Comment						
Various constants						
End of Comment						
13	(D)	X'1'	0	VSAPV707	"1" Level HBB7707	
13	(D)	X'1'	0	VSAPVRSN	"VSAPV707" Current version	
13	(D)	X'10'	0	VSAPSIZE	"VSAPEND-VSAP_RESOURCE" Size of VSAP	
Comment						
Return Code constants						
End of Comment						
		...1 ....		IOSDVSAP_VSWITCH_UNEXPECTED_ERROR	"X'10" An unexpected error occurred further in the Vary Switch Processing.	
13	(D)	BITSTRING	0	IOSDVSAP_ABEND_ACCESSING_STORAGE	"X'FF04" Storage passed on the macro call was not accessible by the service.	
13	(D)	BITSTRING	0	IOSDVSAP_ASIM_FAILURE	"X'FF08" The attempt to queue a work element to the IOS address space failed. Request is currently not able to be performed.	
13	(D)	BITSTRING	0	IOSDVSAP_BAD_DATA	"X'FF0C" VSAP data is readable but not valid.	
13	(D)	BITSTRING	0	IOSDVSAP_ENVIRONMENTAL_ERROR	"X'FF10" Caller is not in a valid environment to invoke the IOSVRYSW API.	
13	(D)	BITSTRING	0	IOSDVSAP_SYSTEM_ERROR		

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
13	(D)	BITSTRING	0	IOSDVSAP_ESTAE_ERROR	"X'FF14" The processing suffered a catastrophic error. Function could not be processed. "X'FF18" IOSVRYSW processing module IOSVVSWF could not establish a recovery environment.

**IOSDVSAP Cross Reference**

Name	Hex Offset	Hex Value
IOSDVSAP_ABEND_ACCESSING_STORAGE	D	FF04
IOSDVSAP_ASIM_FAILURE	D	FF08
IOSDVSAP_BAD_DATA	D	FF0C
IOSDVSAP_ENVIRONMENTAL_ERROR	D	FF10
IOSDVSAP_ESTAE_ERROR	D	FF18
IOSDVSAP_SYSTEM_ERROR	D	FF14
IOSDVSAP_VSWITCH_UNEXPECTED_ERROR	D	10
VSAP_FLAGS	5	
VSAP_ID	0	
VSAP_OFFLINE	5	40
VSAP_ONLINE	5	80
VSAP_PORTADDR	C	
VSAP_RESOURCE	0	
VSAP_SWITCHDEV	A	
VSAP_UNCOND	5	20
VSAP_VER	4	
VSAPEND	D	10
VSAPSIZE	D	10
VSAPVRSN	D	1
VSAPV707	D	1



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## IOSDZHPF Information

### IOSDZHPF Programming Interface information

Programming Interface information

IOSDZHPF

End of Programming Interface information

## IOSDZHPF Heading Information • IOSDZHPF Map

### IOSDZHPF Heading Information

**Common Name:** zHPF Channel Program Information Area  
**Macro ID:** IOSDZHPF  
**DSECT Name:** ZHPF\_Info  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: Any  
 Key: Any  
 Residency: Any  
**Size:** 32 bytes  
**Created by:** Issuer of IOSZHPF  
**Pointed to by:** IOSZHPF parameter list  
**Serialization:** None  
**Function:** IOSDZHPF maps the information which is returned by the IOSZHPF macro, which describes the zHPF capabilities of a device from an operating system, processor, online channel, and device point of view.

**Notes:**  
 -- Some capabilities must be supported by both the processor and device before they can be used in a zHPF channel program. For example, if a program wants to build a channel program that requires the bi-directional or incorrect length capabilities, it must check whether the appropriate processor and device related flags are on. Otherwise, the channel program will fail.  
 -- The following macros are used to define the device specific capabilities in field ZHPF\_DevCapabilities:  
 Device Class Mapping Macro  
 -----  
 DASD IECZHPF

### IOSDZHPF Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ZHPF_INFO	zHPF Channel Program Information Area
0	(0)	BITSTRING	1	ZHPF_VERSION	Version number
1	(1)	BITSTRING	1	ZHPF_FLAG1 (0)	Capabilities flag 1
		1... ....		ZHPF_BIDI	"X'80" Indicates that all of the online paths for the device support bidirectional data for zHPF I/O requests.
		.1.. ....		ZHPF_EXCPVR	"X'40" zHPF is supported for EXCPVR requests
		..1. ....		ZHPF_INCORRECT_LEN	"X'20" The incorrect length facility is supported by the processor
		...1 ....		ZHPF_EXCP	"X'10" zHPF is supported for EXCP virtual requests
2	(2)	CHARACTER	2		Reserved
4	(4)	SIGNED	4	ZHPF_MAXXFERSIZE	Maximum amount of data (in bytes) that can be transferred in a single Transport Control Area (TCA)
8	(8)	CHARACTER	8	ZHPF_DEVCAPABILITIES	Device specific zHPF capabilities. This field is valid only when DEVINFO(YES) is specified on the IOSZHPF macro. See the appropriate device dependent macro for a mapping of this information.
16	(10)	CHARACTER	16		Reserved
32	(20)	CHARACTER	1	ZHPF_END (0)	End of ZHPF

Comment

ZHPF Version

End of Comment

32	(20)	X'1'	0	ZHPF_VERSION_CURRENT	"1" Current ZHPF version number
32	(20)	X'20'	0	ZHPF_INFO_LEN	**ZHPF_INFO"



## IOSDZHPF Cross Reference

Name	Hex Offset	Hex Value
ZHPF_BIDI	1	80
ZHPF_DEVCAPABILITIES	8	
ZHPF_END	20	
ZHPF_EXCP	1	10
ZHPF_EXCPVR	1	40
ZHPF_FLAG1	1	
ZHPF_INCORRECT_LEN	1	20
ZHPF_INFO	0	
ZHPF_INFO_LEN	20	20
ZHPF_MAXXFERSIZE	4	
ZHPF_VERSION	0	
ZHPF_VERSION_CURRENT	20	1



## IPIB Information

### IPIB Heading Information

**Common Name:** I/O Purge Interface Block  
**Macro ID:** IECDIPIB  
**DSECT Name:** IPIB  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** IPIB  
 Offset: 44  
 Length: 4  
**Storage Attributes:** Main Storage: YES  
 Virtual Storage: N/A  
 Auxiliary Storage: N/A  
 Subpool: 226  
 Key: 0  
 Data Space: N/A  
 Residency: Below 16M  
**Size:** IPIB - 56 Bytes  
 IPIB Extension - 32 Bytes  
**Created by:** IOSPURGA  
**Pointed to by:** IOSIPIB field of the IOSB  
 ASCBIOSP field of the ASCB  
 PWAIPIB field of the PWA  
 IOCPURGC field of the IOCOM  
**Serialization:** IPIB - None  
 IPIB Extension - IOSYNCH Lock  
**Function:** Describes the IOS purge interface block and  
 IOS purge interface block extension that  
 is used to contain all the information that  
 is communicated between the IOS purge function  
 and the IOS drivers.

### IPIB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	56	IPIB	
0	(0)	BITSTRING	1	IPIBOPT	Purge Option flags.....
		1... ..		IPIBMEM	ASID (memory purge) specified
		.1.. ..		IPIBTASK	TCB purge was specified if not ASID purge
		..1. ....		IPIBRBP	RB purge specified
		...1 ....		IPIBPOST	Post the ECBs related to the I/O requests that are purged.
		.... 1...		IPIBREL	Purge only related requests (EXCP driver only)
		.... .1..		IPIBHALT	Halt I/O requests - do not build a restore chain
		.... ..1.		IPIBOTCB	Purge so I/O requests may be restored to the originating TCB.
		.... ...1		IPIBPVNT	I/O Prevention request
1	(1)	CHARACTER	1	IPIBVID	Driver ID for DSID purge, default value of X'00' implies EXCP.
2	(2)	BITSTRING	1	IPIBFLG1	Flag byte.....
		1... ..		IPIBDQ	IOSPURGA issued the PURGEDQ macro.
		.1.. ....		IPIBTIME	Indicator to show that quiesce is being timed.
		..1. ....		IPIBPBUV	Indicator to show purge by UCB validity check done.
		...1 ....		IPIBCHN	IPIB chained on Purge Quiesce queue (IOCPURGQ)
		.... 1...		IPIBSRBS	Indicates to the IOS IPIB decrement routine that the SRB in field IPIBSRBP is to be scheduled when the quiesce count (IPIBCNT) has gone to zero.
		.... .1..		IPIBQUIA	Indicates that the quiesce function is still active looking for I/O requests that have to be counted.
		.... ..11		*	Reserved - set to zeros
3	(3)	CHARACTER	1	*	Reserved - set to zeros
4	(4)	CHARACTER	4	IPIBCNT	Count of I/O requests to be completed. Decrement by IOS drivers when the I/O event completes by calling IEVCQCNT routine in IOSPURGD
8	(8)	ADDRESS	4	*	
8	(8)	ADDRESS	4	IPIBECB	ECB to be posted when the IPIBCNT goes to zero. Purge waits on this ECB when count is established
8	(8)	ADDRESS	4	IPIBSRBP	SRB to be scheduled when the IPIBCNT goes to zero. Purge continues when this SRB is scheduled.

## IPIB Cross Reference

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
<p>This field contains the purge argument that is used when searching the system data areas for I/O requests that have to be halted or quiesced. This field will contain one of the following:</p> <ul style="list-style-type: none"> <li>o ASID purge- right two bytes the address space being purged and the left two bytes the sign bit of the ASID.</li> <li>o TCB purge- Contains the TCB address.</li> <li>o DSID purge- Contains the DSID address (argument)</li> </ul>					
End of Comment					
12	(C)	ADDRESS	4	IPIBARG	Purge argument.....
Comment					
-----					
End of Comment					
16	(10)	ADDRESS	4	IPIBSRB	Pointer to the first SRB of SRBS that have been collected for return to the appropriate driver
20	(14)	CHARACTER	8	*	
20	(14)	ADDRESS	4	IPIBIO	Pointer to the I/O request returned to purge for placement on the PIRL (Quiesce function)
24	(18)	ADDRESS	4	IPIBDVRU	Pointer to additional data that a driver provides to be made available when the driver is requested to restore. Purge sets this driver data in the driver slot on the PIRL
28	(1C)	ADDRESS	4	IPIBPIRL	Pointer to the PIRL associated with purge request.
32	(20)	ADDRESS	4	IPIBPSQ	Pointer to the chain of I/O requests involved with this purge, found by routines running asynchronously with the purge routine (E.G. the interrupt handler).
36	(24)	ADDRESS	4	IPIBLNK	Pointer to a chained IPIB for a halt purge. The first would be a quiesce.
40	(28)	ADDRESS	4	IPIBASCB	ASCB address for memory in which purge was issued.
44	(2C)	CHARACTER	4	IPIBIPIB	Control block acronym --in EBCDIC--
48	(30)	ADDRESS	4	IPIBPASS	IPIB pass count.
52	(34)	ADDRESS	4	IPIBARG2	If purge by UCB, contains the address of UCB to use as second argument on driver call.
56	(38)	CHARACTER	0	IPIBEND	End of IPIB

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	32	IPBE	IPIB extension
0	(0)	ADDRESS	4	IPBENIPB	Pointer to next IPIB on chain. The only IPIBs on this chain are for I/O that are currently undergoing I/O Prevention and Purge Quiesce simultaneously. If zero, it is the last IPIB on the chain.
4	(4)	ADDRESS	4	IPBEIPIB	Pointer to previous IPIB Extension on the chain. If zero, it is the first IPIB on the chain.
8	(8)	CHARACTER	24	*	Reserved

## IPIB Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
IPBE	0		IPIBLNK	24	
IPBENIPB	0		IPIBMEM	0	80
IPBEIPIB	4		IPIBOPT	0	
IPIB	0		IPIBOTCB	0	02
IPIBARG	C		IPIBPASS	30	
IPIBARG2	34		IPIBPBUIV	2	20
IPIBASCB	28		IPIBPIRL	1C	
IPIBCHN	2	10	IPIBPOST	0	10
IPIBCNT	4		IPIBPSQ	20	
IPIBDQ	2	80	IPIBPVNT	0	01
IPIBDVID	1		IPIBQUIA	2	04
IPIBDVRU	18		IPIBRBP	0	20
IPIBECB	8		IPIBREL	0	08
IPIBEND	38		IPIBSRB	10	
IPIBFLG1	2		IPIBSRBP	8	
IPIBHALT	0	04	IPIBSRBS	2	08
IPIBIO	14		IPIBTASK	0	40
IPIBIPIB	2C		IPIBTIME	2	40

# IPWA Information

## IPWA Heading Information

**Common Name:** IPWA - Purge Work Area  
**Macro ID:** IOSDIPWA  
**DSECT Name:** PWA, PWAEXT  
**Owning Component:** I/O Supervisor (SC1C3)  
**Eye-Catcher ID:** IPWA  
 Offset: 0  
 Length: 4  
**Storage Attributes:** Main Storage: YES  
 Virtual Storage: n/a  
 Auxiliary Storage: n/a  
 Key: 0  
 Residency: PWA Above 16M line SQA storage PWAEXT below 16M line SQA storage  
**Size:** PWA 732 bytes  
 PWAEXT 144 bytes  
**Created by:** IOSPURGA, IOSPURGC  
**Pointed to by:** PWA - PWAPtr (Register 6) in IOSPURGA,  
 IOSPURGB, IOSPURGC module  
 PWA31PTR in PWAEXT structure in  
 IOSDIPWA  
 PWAEXT - PWA24Ptr in PWA structure in  
 IOSDIPWA  
**Serialization:** Area PWAIPBE is serialized via IOSYNCH lock.  
 The other areas of the PWA have none.  
**Function:** This DSECT describes the control block mapping  
 the dynamic workarea used by the modules  
 implementing purge process.

## IPWA Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	712	PWA	
0	(0)	CHARACTER	4	PWAID	IDENTIFIER 'IPWA'
4	(4)	ADDRESS	4	PWA24PTR	24 bit PWA mapped by PWAEXT
8	(8)	ADDRESS	4	PWAIPIBA	Address of IPIB
12	(C)	CHARACTER	32	PWANPPL	NPPL GOES HERE
44	(2C)	ADDRESS	4	PWAPRLPT	
48	(30)	ADDRESS	4	PWASAVWD	SAVEAREA FOR BRANCH CALLER'S SAVEAREA PTR
52	(34)	SIGNED	4	PWAHCNT	PURGE HALT COUNT
56	(38)	SIGNED	4	PWAHALTQ	QUEUE OF HALTED SRBS
60	(3C)	SIGNED	4	PWAHECB	ECB FOR WAITING ON HALTS
64	(40)	SIGNED	2	*	NUMBER OF TIMES ESTAE ENTERED
66	(42)	CHARACTER	1	PWAMASK	MASK FLAG BYTE
		11.. ....		*	RESERVED
		..1. ....		PWAGETMN	Storage obtained via GETMAIN
		...1 ....		PWASTIME	Indicator that start time must be stored in the EWA
		.... 1...		PWAIOCNT	Indicator that I/O should be counted in the IPIB
		.... .1..		PWANODRV	Indicator that driver ID not provided
		.... ..1.		PWABRNCH	INDICATOR THAT PURGE WAS CALLED VIA BRANCH ENTRY
		.... ...1		PWAFREE	INDICATOR THAT PIRL MUST BE FREED
67	(43)	BITSTRING	1	PWARETC	RETURN CODE FLAG BYTE
		1... ....		PWATCB	TCB NOT PURGEABLE
		.1.. ....		PWADSID	DSID NOT PURGEABLE OR PURGE BY UCB INVALID
		..1. ....		PWANOENQ	Unable to obtain ENQ resource.
		...1 1111		*	RESERVED
68	(44)	BITSTRING	1	PWARETC2	SECOND RETURN CODE FLAG BYTE
		1... ....		PWAMEM	MEMORY PURGE INVALID
		.1.. ....		PWAESTA	indicator that ESTAE has been established.
		..1. ....		PWAPURGB	indicator that PURGB in control
		...1 ....		PWAPURGC	indicator that PURGC in control
		.... 1...		PWACYCLE	purge is the process of looping
		.... ..1.		PWAINVAL	flag to indicate that purge failed for one reason or another.
		.... ..1.		PWASYNCH	indicator that IOSYNCH lock obtained to synchronize IPIBPURG and IOSVPRGA
		.... ...1		PWASYNEQ	indicator that IOSYNCH lock obtained in PSRBENQ to look at PCI IOSBs.
69	(45)	CHARACTER	3	*	Reserved for alignment purposes.
72	(48)	ADDRESS	4	PWASAVP	PIRL POINTER
76	(4C)	ADDRESS	4	PWAUCBLK	Savearea for UCB lock address.
80	(50)	ADDRESS	4	PWARET0	Return address for subroutines.
84	(54)	ADDRESS	4	PWARET1	Return address for subroutines.

# IPWA Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
88	(58)	ADDRESS	4	PWASET2	Return address for subroutines.
92	(5C)	ADDRESS	4	PWASET3	Return address for subroutines.
96	(60)	ADDRESS	4	PWASET4	Return address for subroutines.
100	(64)	ADDRESS	4	PWASET5	Return address for subroutines.
104	(68)	ADDRESS	4	PWASET15	Return address for subroutines.
108	(6C)	ADDRESS	4	PWAUCBP	Active UCB pointer.
112	(70)	ADDRESS	4	PWACSAV1	Save area for IOSPURGC
116	(74)	ADDRESS	4	PWACSAV2	Save area for IOSPURGC
120	(78)	CHARACTER	68	PWAEMCPM	
Comment					
Static parameters are placed here.					
End of Comment					
120	(78)	ADDRESS	4	PWAEASPT	ASID pointer
124	(7C)	ADDRESS	4	PWAEPMPT	address of ASID and TCB pointer.
128	(80)	ADDRESS	4	PWAERMTR	Cleanup routine address.
132	(84)	CHARACTER	8	PWAEPPDM	
132	(84)	CHARACTER	2	*	Halfword alignment.
134	(86)	SIGNED	2	PWAEASID	ASID.
136	(88)	SIGNED	4	PWAETCB	TCB pointer.
188	(BC)	CHARACTER	72	PWAEABSV	18 word savearea for calls from IOSPURGA to IOSPURGB.
260	(104)	CHARACTER	72	PWAEBCSV	18 word savearea for calls from IOSPURGB to IOSPURGC.
260	(104)	CHARACTER	4	PWAEBCR0	
264	(108)	CHARACTER	4	PWAEBCR1	
268	(10C)	CHARACTER	4	PWAEBCR2	
272	(110)	CHARACTER	60	*	
332	(14C)	SIGNED	2	PWAIQLN	Length of an IOQ.
334	(14E)	SIGNED	2	PWAASID	ASID for which purge working.
336	(150)	UNSIGNED	2	PWAPRLNG	PIRL length.
338	(152)	BITSTRING	1	PWAFGL0	Flags used by FRR or ESTAE.
		1... ..		PWAPGCT	IOCPGCT is active.
		.1. ....		PWAIOSP	ASCBIOSP is active.
		..1. ....		PWASTATS	Status stop is active.
		...1 ....		PWAENQFL	SRB ENQ is active.
		.... 1..		PWASDBF	4K SDWA buffer is held.
		.... .1.		PWAIQOP	IOQ purge active.
		.... ..1.		PWARCRTY	Retry will be attempted from recovery routine.
		.... ...1		PWAFRR	FRR is active.
339	(153)	BITSTRING	1	PWAFGL1	Flags used by FRR and ESTAE.
		1... ..		PWALOCAL	Local lock is held.
		.1. ....		PWACMS	CMS lock is held.
		..1. ....		PWASYNLK	IOSYNCH lock is held (SYNPURGE).
		...1 ....		PWANSDWA	No SDWA obtained in recovery.
		.... 1..		PWAWKUP	Purge was woken up by timer pop
		.... .1.		PWARETRY	HSCH will be attempted again.
		.... ..1.		PWAUSPM	Processing is taking place which is dependent on integrity of user parameters (purge parameter list)
		.... ...1		PWAUSPM2	Indicator that users parameter is being moved to PWA in IOSPURGC.
340	(154)	ADDRESS	4	PWA13BSV	Savearea for register 13.
344	(158)	ADDRESS	4	PWAESV13	savearea for register 13.
348	(15C)	ADDRESS	4	PWAE2S13	savearea for savearea pointer.
352	(160)	CHARACTER	72	PWAECSV	savearea for calls from PURGC to
424	(1A8)	CHARACTER	44	PWAESRB	SRB goes here.
468	(1D4)	BITSTRING	1	PWAFGL2	Flags used by FRR and ESTAE.
		1... ..		PWAPRBST	Caller was in problem state
		.1. ....		PWASTTCB	Indicates that only TCBS need to be started
469	(1D5)	BITSTRING	1	PWAPHWD	Flags used for controlling Purge Halt with delay processing
		1... ..		PWAPHWD1	Purge halt with delay - first pass processing. Dequeue the inactive I/O operations and halt the non-DASD I/O and read only DASD I/O
		.1. ....		PWAPHWD2	Simulate Purge Quiesce in order to wait for active DASD writes
		..1. ....		PWAPHWD3	Simulated purge quiesce is complete, do one more purge halt in case any new operations got started
		...1 ....		PWAPHWDT	Terminate current I/O request
		.... 1..		PWAPHWDW	Found atleast one DASD write I/O operation in the first pass, must perform purge quiesce (2nd pass)
470	(1D6)	CHARACTER	1	PWAPHWDF	File mask of current I/O
471	(1D7)	BITSTRING	1	PWAFGL3	Flag byte 3
		1... ..		PWARESTP	Work bit to status stop TCBS/SRBs after a clear subchannel is done.
		.1. ....		PWADIVIO	Purge is waiting for DIV I/O to complete
		..11 1111		*	Reserved for future use
472	(1D8)	CHARACTER	8	PWAWORK8	8 byte work area - used by IOSTARTM macro
472	(1D8)	ADDRESS	4	PWASVR8	Save area for REG8 during I/O Prevention processing

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
476	(1DC)	ADDRESS	4	PWASVR14	Save area for REG14 during I/O Prevention processing
480	(1E0)	ADDRESS	4	PWARET6	Return address for subrtn
484	(1E4)	CHARACTER	32	PWAIPIBE	IPIB Extension
516	(204)	SIGNED	4	PWATQERC	Return code from ENQTQE
520	(208)	CHARACTER	128	PWATQE	TQE area (DWORD bdy)

Comment

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10@0AD

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End of Comment

648	(288)	ADDRESS	4	PWAASCB	ASCB for xmem post
652	(28C)	CHARACTER	8	PWACKL1	STCK TOD clock storage
652	(28C)	CHARACTER	4	PWACKL1H	High Word TOD clock time
656	(290)	CHARACTER	4	PWACKL1L	Low Word TOD clock time
660	(294)	CHARACTER	8	PWACKL2	STCK TOD clock storage
660	(294)	UNSIGNED	4	PWACKL2H	High Word TOD clock time
664	(298)	UNSIGNED	4	PWACKL2L	Low Word TOD clock time
668	(29C)	UNSIGNED	4	PWACKLCC	Used for testing condition code on the STCK instruction
		11.. ....		*	
		..11 ....		PWASTKCC	STCK Condition Code
668	(29C)	BITSTRING	3	*	
672	(2A0)	UNSIGNED	4	PWAFLAGS	Status Flags
		1... ....		PWATQEAC	Indicates that the TQE was set and requires a DEQueue
		.1.. ....		PWARCVYH	A Purge Halt was issued out of purge's Estae routine
676	(2A4)	SIGNED	2	PWATASID	Address space ID for timer DIE
678	(2A6)	CHARACTER	32	PWAIN TG	Interrogate parameter list
710	(2C6)	CHARACTER	2	*	Reserved for future use
712	(2C8)	CHARACTER	0	*	Align TQE on DWORD bndry

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	248	PWAEXT	PWA ext

Comment

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THE FOLLOWING FIELD CONFORMS TO STORAGE OBTAINED FROM IOSVSMGR

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End of Comment

0	(0)	ADDRESS	4	PWANEXT	Pointer to next block
4	(4)	CHARACTER	8	PWA24ID	EBCDIC identifier.
12	(C)	ADDRESS	4	PWA31PTR	Pointer to 31 bit PWA
16	(10)	CHARACTER	72	PWAREGSV	REG SAVE AREA
16	(10)	SIGNED	4	PWAREG0	
20	(14)	SIGNED	4	PWAREG1	
24	(18)	SIGNED	4	PWAREG2	
28	(1C)	SIGNED	4	PWAREG3	
32	(20)	SIGNED	4	PWAREG4	
36	(24)	SIGNED	4	PWAREG5	
40	(28)	SIGNED	4	PWAREG6	
44	(2C)	SIGNED	4	PWAREG7	
48	(30)	SIGNED	4	PWAREG8	
52	(34)	SIGNED	4	PWAREG9	
56	(38)	SIGNED	4	PWAREGA	
60	(3C)	CHARACTER	20	PWAHISAV	
60	(3C)	SIGNED	4	PWAREGB	
64	(40)	SIGNED	4	PWAREGC	
68	(44)	SIGNED	4	PWAREGD	
72	(48)	SIGNED	4	PWAREGE	
76	(4C)	SIGNED	4	PWAREGF	
80	(50)	CHARACTER	8	*	REMAINDER OF SAVE AREA
88	(58)	CHARACTER	56	PWAIPIB	IPIB GOES HERE

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	4	*	Redefinition of IPIB address
0	(0)	CHARACTER	1	*	First byte is available as IPIB is a 24-bit address. The IPIB is contained in the PWA which was obtained in SP226 (SQA).

## IPWA Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		1... ....		PWAIPIBV	IPIB address for current pass. On every pass through Purge, this bit gets switched to ensure a unique IOSIPIB address.
		.1.. ....		PWAIOPRV	When set in IOSIPIB, indicates that any IPIB created as a result of a PREVENTIO request should have its associated IPIBCNT decremented.
		..1. ....		PWAIQSC	When set in IOSIPIB, indicates that any IPIB created as a result of a Purge Quiesce request should have its associated IPIBCNT decremented.
		...1 ....		PWAIOMEM	When set in IOSIPIB, indicates that any IPIB created as a result of a memory Purge Quiesce request should have its associated IPIBCNT decremented.
		.... 1..		PWADLLCK	When set, indicates that the local lock has been obtained by IOSPURGD.
		.... .1..		PWADMODE	When set, indicates that caller of IOSPURGD was in 24-bit AMODE.
		.... ..1.		PWADFRR	When set, indicates that IOSPURGD has obtained an FRR.
		.... ...1		*	Reserved.
1	(1)	ADDRESS	3	PWAIABA	24-bit address of IPIB

## IPWA Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
PWA	0		PWAIOMEM	0	10
PWAASCB	288		PWAIOPRV	0	40
PWAASID	14E		PWAIQLN	14C	
PWABRNCH	42	02	PWAIQPP	152	04
PWACKCC	29C		PWAIQSC	0	20
PWACK1	28C		PWAIOSP	152	40
PWACK1H	28C		PWAIABA	1	
PWACK1L	290		PWAIPIB	58	
PWACK2	294		PWAIPIBA	8	
PWACK2H	294		PWAIPIBE	1E4	
PWACK2L	298		PWAIPIBV	0	80
PWACMS	153	40	PWALOCAL	153	80
PWACSAV1	70		PWAMASK	42	
PWACSAV2	74		PWAMEM	44	80
PWACYCLE	44	08	PWANEXT	0	
PWADFRR	0	02	PWANODRV	42	04
PWADIVIO	1D7	40	PWANOENQ	43	20
PWADLLCK	0	08	PWANPPL	C	
PWADMODE	0	04	PWANSDWA	153	10
PWADSID	43	40	PWAPGCT	152	80
PWAEABSV	BC		PWAPHWD	1D5	
PWAEASID	86		PWAPHWDF	1D6	
PWAEASPT	78		PWAPHWDT	1D5	10
PWAEBCR0	104		PWAPHWDW	1D5	08
PWAEBCR1	108		PWAPHWD1	1D5	80
PWAEBCR2	10C		PWAPHWD2	1D5	40
PWAEBCSV	104		PWAPHWD3	1D5	20
PWAECBSV	160		PWAPRBST	1D4	80
PWAEMCPM	78		PWAPRLNG	150	
PWAENQFL	152	10	PWAPRLPT	2C	
PWAEPDPM	84		PWAPURGB	44	20
PWAEPMPT	7C		PWAPURGC	44	10
PWAERMTR	80		PWARCRTY	152	02
PWAESRB	1A8		PWARCVYH	2A0	40
PWAESTA	44	40	PWAREGA	38	
PWAESV13	158		PWAREGB	3C	
PWAETCB	88		PWAREGC	40	
PWAEXT	0		PWAREGD	44	
PWAE2S13	15C		PWAREGE	48	
PWAFLAGS	2A0		PWAREGF	4C	
PWAFLG0	152		PWAREGSV	10	
PWAFLG1	153		PWAREG0	10	
PWAFLG2	1D4		PWAREG1	14	
PWAFLG3	1D7		PWAREG2	18	
PWAFREE	42	01	PWAREG3	1C	
PWAFRR	152	01	PWAREG4	20	
PWAGETMN	42	20	PWAREG5	24	
PWAHALTQ	38		PWAREG6	28	
PWAHCNT	34		PWAREG7	2C	
PWAHECB	3C		PWAREG8	30	
PWAHISAV	3C		PWAREG9	34	
PWAID	0		PWARESTP	1D7	80
PWAINTG	2A6		PWARETC	43	
PWAINVAL	44	04	PWARETC2	44	
PWAIOCNT	42	08	PWARETRY	153	04



Name	Hex Offset	Hex Value
PWASET0	50	
PWASET1	54	
PWASET15	68	
PWASET2	58	
PWASET3	5C	
PWASET4	60	
PWASET5	64	
PWASET6	1E0	
PWASAVP	48	
PWASAVWD	30	
PWASDBF	152	08
PWASTATS	152	20
PWASTIME	42	10
PWASTKCC	29C	30
PWASTTCB	1D4	40
PWASVR14	1DC	
PWASVR8	1D8	
PWASYNCH	44	02
PWASYNEQ	44	01
PWASYNLK	153	20
PWATASID	2A4	
PWATCB	43	80
PWATQE	208	
PWATQEAC	2A0	80
PWATQERC	204	
PWAUCBLK	4C	
PWAUCBP	6C	
PWAUSPM	153	02
PWAUSPM2	153	01
PWAWKUP	153	08
PWAWORK8	1D8	
PWA13BSV	154	
PWA24ID	4	
PWA24PTR	4	
PWA31PTR	C	



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## **IQE Information**

### **IQE Programming Interface Information**

Programming Interface Information

#### **IQE**

**ONLY** the following fields are part of the programming interface:

- IQEPARAM
- IQEIRB
- IQETCB

End of Programming Interface Information

## IQE Heading Information • IQE Cross Reference

### IQE Heading Information

**Common Name:** Interruption Queue Element  
**Macro ID:** IHAIQE  
**DSECT Name:** IQE  
**Owning Component:** Supervisor Control (SC1C5)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: 253  
**Size:** 24 bytes  
**Created by:** Caller of stage 2 exit effector  
**Pointed to by:** ASXBFIQE field of the ASXB data area  
 ASXBLIQE field of the ASXB data area  
 IQELINK field of the IQE data area  
 RBIQE field of the IRB data area (first IQE)  
 TAXELNK field of the TAXE data area (next IQE)  
 TAXEIQE field of the TAXE data area (next available IQE)  
 TCBIQE field of the TCB data area (EXTR scheduling IQE)  
**Serialization:** LOCAL lock  
**Function:** Represents request to schedule an asynchronous exit routine via an IRB.

### IQE Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IQESECT	, IQEPTR
0	(0)	ADDRESS	4	IQELNK (0)	.WORD REFERENCE FOR IQELNKA
0	(0)	BITSTRING	1	IQESTAT1	.1 BYTE RESERVED
1	(1)	ADDRESS	3	IQELNKA	.ADDR NEXT IQE
4	(4)	ADDRESS	4	IQEPARAM	.PARMS TO BE PASSED TO ASYN EXIT RTN
8	(8)	ADDRESS	4	IQEIRB (0)	.WORD REFERENCE FOR IQEIRBA
8	(8)	BITSTRING	1	IQEFLAGS	.FLAG FIELD
		1... ....		IQEPURGE	"X'80" .THIS IQE MUST NOT BE SCHEDULED
		.1... ....		IQETIMER	"X'40" .STIMER OR STIMER REQUEST
		.... 1111		IQEKEY	"X'0F" .STIMER(M) KEY
9	(9)	ADDRESS	3	IQEIRBA	.ADDR IRB TO BE SCHEDULED
12	(C)	ADDRESS	4	IQETCB (0)	.WORD REFERENCE FOR IQETCBA
12	(C)	BITSTRING	1	IQESTAT2	.1 BYTE RESERVED
13	(D)	ADDRESS	3	IQETCBA	.ADDR TCB ASSOCIATED WITH THIS IQE

Comment

THE FOLLOWING IS IN BEHALF OF S.M.F.

End of Comment

16	(10)	ADDRESS	4	IQEDCB	.ADDR OF DCB
20	(14)	ADDRESS	4	IQEOUTLM	.ADDR OF OUTPUT LIMIT
24	(18)	CHARACTER	1	IQEEND (0)	.END OF IQE
24	(18)	X'18'	0	IQELEN	"IQEEND-IQESECT" .LENGTH OF IQE

### IQE Cross Reference

Name	Hex Offset	Hex Value
IQEDCB	10	
IQEEND	18	
IQEFLAGS	8	
IQEIRB	8	
IQEIRBA	9	
IQEKEY	8	F
IQELEN	18	18
IQELNK	0	
IQELNKA	1	
IQEOUTLM	14	
IQEPARAM	4	
IQEPURGE	8	80
IQESECT	0	
IQESTAT1	0	
IQESTAT2	C	
IQETCB	C	
IQETCBA	D	
IQETIMER	8	40

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## IRACPMB Information

### IRACPMB Programming Interface information

Programming Interface information

IRACPMB

End of Programming Interface information

## IRACPMB Heading Information

### IRACPMB Heading Information

**Common Name:** Channel Path Measurement Block  
**Macro ID:** IRACPMB  
**DSECT Name:** CPMB - Complete mapping CPMB\_CHP\_ENTRY - mapping for one channel path entry  
**Owning Component:** SRM (SC1CX)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: 245  
Key: Key 0  
Residency: Above 16MB

**Size:** CMC2CMG3 -- X'0014' bytes  
CPM2CMG3 -- X'001C' bytes  
CMC2 -- X'2000' bytes  
CMC2CMG2 -- X'0014' bytes  
CPM2 -- X'2000' bytes  
CPM2CMG1 -- X'001C' bytes  
CPM2CMG2 -- X'001C' bytes  
CPMB -- X'1000' bytes  
CPMB\_CHP\_ENTRY -- X'0008' bytes  
CPMX -- X'4000' bytes  
CPMXCMG2 -- X'0040' bytes

**Created by:** IEAVNP1F when the Channel Path Measurement Facility exists.  
IRASRCHM when switching between Compatability Mode and  
Extended Measurement Mode (IRARMI14) and vice versa. @WA38548

**Pointed to by:** Original Channel Path Measurement Format  
CMCTCPMB field of Channel Measurement Control Table (CMCT)  
Channel Measurement Characteristics Table  
CMCTMCM2 field of Channel Measurement Control  
Table (CMCT) @WA38548  
Extended Channel Path Measurement Format  
CMCTCPM2 field of Channel Measurement Control  
Table (CMCT) @WA38548  
Extended Channel Utilization Blocks  
CMCTCPMX field of Channel Measurement Control  
Table (CMCT) @OA22918

**Serialization:** None

**Function:** MVS provides a Channel Path Measurement Facility (CPMF) which allows monitoring programs such as RMF to report channel utilization information. The CPMF presents the information in this control block, called the Channel Path Measurement Block (CPMB). CPMF can be operating in one of two modes as indicated by the CMCTCpmfMode of the CMCT (IRACMCT). The two modes of operation are CPMF Compatability Mode and Extended Measurement Mode. The system may switch between the two modes of operation at any time. @WA38548

The following applies to both Compatability Mode and Extended Measurement Mode:  
 When provided for in the machine, MVS automatically activates the CPMF at IPL and does not deactivate it unless an internal malfunction occurs. When such a malfunction occurs, MVS may reactivate the CPMF, and indicates this fact to the monitoring program via the CMCTCRCT field of the CMCT.  
 The system may switch between the two modes of operation at any time.  
 The CPMF updates the CPMB at least once every four seconds with information about the activity of the channel paths configured to the system or to the logical partition. When updating the CPMB, the CPMF does not update all channel path measurement entries simultaneously.

NOTE: The CPMF does not provide utilization information for byte multiplexer channel paths.  
 @WA38548

When CPMF is operating in Compatability Mode the following description applies.  
 When the central electronics complex (CEC) is in BASIC mode, the CPMB contains information about all channels configured in the system. When MVS runs in a logical partition of the CEC (LPAR mode), the CPMB contains information about the contribution of that logical partition to the total usage of each channel configured to that logical partition.  
 @WA38548

When CPMF is operating in Extended Measurement Mode the following description applies.  
 When the central electronics complex (CEC) is in BASIC mode, the CPM2 contains information about all channels configured in the system. When MVS runs in a logical partition of the CEC (LPAR mode), the CPMB contains information about the contribution of that logical partition to the total usage of each channel configured to that logical partition as well as the total usage of that channel path by all LPARs.  
 A Channel Measurement Characteristics (CMC2) table is built that describes the measurement group that each channel path belongs to. The Channel Measurement Group determines the contents and format of the channel-utilization-entry for the associated channel path.  
 The Channel Path Measurement Extensions block (CPM2) contains a channel-utilization-entry for each possible channel path in the system. The contents and format of each channel-utilization-entry are determined by the channel-measurement-group contained in the CMC2 entry for the corresponding CHPID.  
 No sample count is stored by CPMF when running in Extended Measurement Mode. The system polls the channel subsystem every 20 seconds to discover if the facility is still active. If not active, the system will attempt to restart CPMF.  
 @WA38548

The Extended Channel Utilization block (CPMX) contains a channel-utilization-entry for each possible channel path in the system. The contents and format of each extended-channel-utilization-entry are determined by the channel-measurement-group contained in the CMC2 entry for the corresponding CHPID.  
 Extended measurements are supported when the E bit in the Channel Measurement Characteristics (CMC2) is set.  
 @OA22918

## IRACPMB Map

### IRACPMB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPMB	Channel Path Measurement Block
0	(0)	CHARACTER	4		Reserved
4	(4)	SIGNED	4	CPMB_SAMPLE_COUNT	CPMF sample count - updated whenever new data is stored in the CPMB. The CPMF increments this field by one each time it updates the CPMB. When the system activates or reactivates the CPMF, this field's initial value is undefined. This field wraps around to zero after it reaches 4,294,967,295. No alert will be issued if a wrap occurs. If this value does not change during a 20-second interval, the CPMF has stopped. If this field changes between two observations, either the CPMF operated normally, incrementing this field between the observations, or the system deactivated the CPMF, and then reactivated it.
8	(8)	CHARACTER	4088	CPMB_CHP_DATA	Channel path data, comprised of a list of 256 channel path measurement entries. Each entry (from 0 to 255) is associated with the same-numbered channel path.
8	(8)	X'1000'	0	CPMB_LEN	"*-CPMB"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPMB_CHP_ENTRY	A channel path measurement entry
0	(0)	SIGNED	4	CPMB_CUM_CHP_BUSY (0)	Cumulative channel path busy.
		1... ..		CPMB_CHP_ENTRY_NOT_VALID	"X'80" Validity flag for the CHP entry. 0 - Entry is valid. 1 - Entry is not valid.
0	(0)	BITSTRING	3		CHP busy count data
4	(4)	BITSTRING	1	CPMB_CHP_FLAGS (0)	Flags.
		1... ..		CPMB_SHARED_CHANNEL	"X'80" Shared Channel Indicator. 1 - The channel is shared. 0 - The channel is unshared.
5	(5)	SIGNED	3	CPMB_CUM_CHP_TIME	Cumulative channel path elapsed time.
5	(5)	X'8'	0	CPMB_CHP_ENTRY_LEN	"*-CPMB_CHP_ENTRY"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CMC2	Channel Measurement Characteristics for CPM2
0	(0)	CHARACTER	32	CMC2CHANMEASUREMENTCHARBLOCK (0)	

Comment

Channel Measurement Characteristics Block

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	BITSTRING	1	CMC2FLAGS (0)	Channel Measurement Characteristics Flags
		1... ..		CMC2NOTVALID	"X'80" Not Valid - when 0 indicates that information is provided in this CMC block
		.1.. ..		CMC2SHAREDCHPID	"X'40" Shared channel path
		..1. ....		CMC2EXTSUPPORT	"X'20" When 1 indicates that extended-channel measurements are supported
1	(1)	CHARACTER	2		Reserved
3	(3)	BITSTRING	1	CMC2CHPID	Channel path ID
4	(4)	BITSTRING	1	CMC2MASKBYTE (0)	Mask
		1111 1...		CMC2CMCVALIDITYMASK	"X'F8" CMC Validity mask, bits 0-4 correspond to words 3-7 of the channel measurements characteristics block. When 1, the corresponding word has meaning
5	(5)	BITSTRING	1	CMC2MISC (0)	



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
		.... 1111		CMC2CMGP	"X'0F" Channel measurement group power. When non-zero, the CMC2SPEED value has to be multiplied by the factor 10 to the power of CMC2CMGP to get the speed in units of bits per second.
6	(6)	BITSTRING	1	CMC2CMGQ	Channel measurement group qualifier
7	(7)	BITSTRING	1	CMC2CMG	Channel measurement group for this CHPID
8	(8)	CHARACTER	2		Reserved
10	(A)	SIGNED	2	CMC2SPEED	Channel speed. If CMC2CMGP is zero, the value is the channel speed in units of 100 megabits per second. Otherwise, the value must be multiplied by 10**CMC2CMGP to get the speed in units of bits per second.
12	(C)	CHARACTER	20	CMC2DATA	Channel measurement characteristics data

Comment

Values for the CMC2CMG field, the channel measurement group types.

End of Comment

12	(C)	X'1'	0	CMCCMG1	"1" Channel Measurement Group one
12	(C)	X'2'	0	CMCCMG2	"2" Channel Measurement Group two
12	(C)	X'3'	0	CMCCMG3	"3" Channel Measurement Group three
8192	(2000)	X'2000'	0	CMC2_LEN	**_CMC2"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CMC2CMG2	Channel Measurement Characteristics for channel measurement group 2
0	(0)	SIGNED	4	CMC2MAXBUSCYCLES	Maximum bus cycles per second
4	(4)	SIGNED	4	CMC2MAXCHANNELWORKUNITS	Maximum channel work units per second
8	(8)	SIGNED	4	CMC2MAXWRITEDATAUNITS	Maximum write data units per second
12	(C)	SIGNED	4	CMC2MAXREADDATAUNITS	Maximum read data units per second
16	(10)	SIGNED	4	CMC2DATAUNITSIZE	Data unit size
16	(10)	X'14'	0	CMC2CMG2_LEN	**_CMC2CMG2"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CMC2CMG3	Channel Measurement Characteristics for channel measurement group 3
0	(0)	SIGNED	4	CMC3DATAUNITSIZE	Data unit size
4	(4)	SIGNED	4	CMC3DATAUNITSIZECPC	Data unit size CPC
8	(8)	SIGNED	4	CMC3MESSAGEUNITSIZE	Message unit size
12	(C)	SIGNED	4	CMC3MESSAGEUNITSIZECPC	Message unit size CPC
16	(10)	CHARACTER	4		Reserved
16	(10)	X'14'	0	CMC2CMG3_LEN	**_CMC2CMG3"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPM2	Channel Path Measurement Block - format 2
0	(0)	CHARACTER	32	CPM2CHANNELUTILIZATIONENTRY (0)	

Comment

Channel Utilization Entry

End of Comment

0	(0)	BITSTRING	1	CPM2CHANNELUTILINFOVALIDITYMASK	Channel utilization info validity mask, bit positions 0-7 correspond to words 0-7 of this channel utilization entry
1	(1)	SIGNED	3	CPM2TIMESTAMP	

## IRACPMB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
4	(4)	CHARACTER	28	CPM2DATA	Time stamp indicating when data was last stored in this CUE, 128 microsecond granularity
8192	(2000)	X'2000'	0	CPM2_LEN	Channel measurement group data "-CPM2"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPM2CMG1	Channel Measurement Group 1
0	(0)	SIGNED	4	CMG1TOTALCHANNELBUSYTIME	Channel Path Busy Time, total for the CHPID
4	(4)	SIGNED	4	CMG1LPARCHANNELBUSYTIME	Channel Path Busy Time, just for this LPAR
8	(8)	CHARACTER	20		Reserved
8	(8)	X'1C'	0	CPM2CMG1_LEN	"*-CPM2CMG1"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPM2CMG2	Channel Measurement Group 2
0	(0)	SIGNED	4	CMG2TOTALBUSYCYCLECOUNT	Count of Bus Cycles, total for the CHPID
4	(4)	SIGNED	4	CMG2TOTALCHANNELWORKUNITCOUNT	Count of Channel Work Units, total for the CHPID
8	(8)	SIGNED	4	CMG2LPARCHANNELWORKUNITCOUNT	Count of Channel Work Units, just for this LPAR
12	(C)	SIGNED	4	CMG2TOTALWRITEDATAUNITS	Count of Data Units Written, total for the CHPID
16	(10)	SIGNED	4	CMG2LPARWRITEDATAUNITS	Count of Data Units Written, just for this LPAR
20	(14)	SIGNED	4	CMG2TOTALREADDATAUNITS	Count of Data Units Read, total for the CHPID
24	(18)	SIGNED	4	CMG2LPARREADDATAUNITS	Count of Data Units Read, just for this LPAR
24	(18)	X'1C'	0	CPM2CMG2_LEN	"*-CPM2CMG2"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPM2CMG3	Channel Measurement Group 3
0	(0)	SIGNED	4	CMG3MESSAGEUNITSENT	Count of message units sent by programs
4	(4)	SIGNED	4	CMG3MESSAGEUNITSENTCPC	Count of message units sent by programs from all logical partitions using this channel path
8	(8)	SIGNED	4	CMG3UNSUCCATTEMPTSTOSEND	Unsuccessful attempts to send messages except when the attempts failed due to unavailable buffers in the receiving log. partition
12	(C)	SIGNED	4	CMG3UNAVAILRECEIVEBUFFERS	Count of unavailable receive buffers in the issuing partition
16	(10)	SIGNED	4	CMG3UNAVAILRECEIVEBUFFERSGPC	Unavailable receive buffers in the target partition including all unsucc. attempts from all partitions using the channel path
20	(14)	SIGNED	4	CMG3DATAUNITSENT	Number of data units sent by programs in the issuing logical partition
24	(18)	SIGNED	4	CMG3DATAUNITSENTCPC	Number of data units sent by all logical partitions which have access to the channel path
24	(18)	X'1C'	0	CPM2CMG3_LEN	"*-CPM2CMG3"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	CPMX	Extended Channel Utilization Block
0	(0)	CHARACTER	64	CPMXCHANNELUTILIZATIONENTRY	(0)

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
Extended Channel Utilization Entry					
End of Comment					
0	(0)	CHARACTER	64	CPMXDATA	Extended channel measurement group data
16384	(4000)	X'4000'	0	CPMX_LEN	**-CPMX"

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
0	(0)	STRUCTURE	0	CPMXCMG2	CMG=2 extended data
0	(0)	SIGNED	4	CPMXTOTALCOUNTOPS	
4	(4)	SIGNED	4	CPMXTOTALCOUNTOPSDEFERRED	
8	(8)	CHARACTER	8	CPMXSUMMATIONCOUNTOPS	
16	(10)	SIGNED	4	CPMXTOTALCOUNTOPSF0X	
20	(14)	SIGNED	4	CPMXTOTALCOUNTOPSDEFERREDF0X	
24	(18)	CHARACTER	8	CPMXSUMMATIONCOUNTOPSF0X	
32	(20)	CHARACTER	32	CPMXRESERVED	
32	(20)	X'40'	0	CPMXCMG2_LEN	**-CPMXCMG2"

**IRACPMB Cross Reference**

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
CMCCMG1	C	1	CMG1LPARCHANNELBUSYTIME		
CMCCMG2	C	2		4	
CMCCMG3	C	3	CMG1TOTALCHANNELBUSYTIME		
CMC2	0			0	
CMC2_LEN	2000	2000	CMG2LPARCHANNELWORKUNITCOUNT		
CMC2CHANMEASUREMENTCHARBLOCK				8	
	0		CMG2LPARREADDATAUNITS		
CMC2CHPID	3			18	
CMC2CMCVAILIDITYMASK			CMG2LPARWRITEDATAUNITS		
	4	F8		10	
CMC2CMG	7		CMG2TOTALBUSCYCLECOUNT		
CMC2CMGP	5	F		0	
CMC2CMGQ	6		CMG2TOTALCHANNELWORKUNITCOUNT		
CMC2CMG2	0			4	
CMC2CMG2_LEN	10	14	CMG2TOTALREADDATAUNITS		
CMC2CMG3	0			14	
CMC2CMG3_LEN	10	14	CMG2TOTALWRITEDATAUNITS		
CMC2DATA	C			C	
CMC2DATAUNITSIZE			CMG3DATAUNITSSENT		
	10			14	
CMC2EXTSUPPORT			CMG3DATAUNITSSENTCPC		
	0	20		18	
CMC2FLAGS	0		CMG3MESSAGEUNITSSENT		
CMC2MASKBYTE	4			0	
CMC2MAXBUSCYCLES			CMG3MESSAGEUNITSSENTCPC		
	0			4	
CMC2MAXCHANNELWORKUNITS			CMG3UNAVAILRECEIVEBUFFERS		
	4			C	
CMC2MAXREADDATAUNITS			CMG3UNAVAILRECEIVEBUFFERSCPC		
	C			10	
CMC2MAXWRITEDATAUNITS			CMG3UNSUCCATTEMPTSTOSEND		
	8			8	
CMC2MISC	5		CPMB		
CMC2NOTVALID	0	80	CPMB_CHP_DATA		
CMC2SHAREDCHPID				8	
	0	40	CPMB_CHP_ENTRY		
CMC2SPEED	A			0	
CMC3DATAUNITSIZE			CPMB_CHP_ENTRY_LEN		
	0			5	8
CMC3DATAUNITSIZECPC			CPMB_CHP_ENTRY_NOT_VALID		
	4			0	80
CMC3MESSAGEUNITSIZE			CPMB_CHP_FLAGS		
	8			4	
CMC3MESSAGEUNITSIZECPC			CPMB_CUM_CHP_BUSY		
	C			0	

## IRACPMB Cross Reference

Name	Hex Offset	Hex Value
CPMB_CUM_CHP_TIME	5	
CPMB_LEN	8	1000
CPMB_SAMPLE_COUNT	4	
CPMB_SHARED_CHANNEL	4	80
CPMX	0	
CPMX_LEN	4000	4000
CPMXCHANNELUTILIZATIONENTRY	0	
CPMXCMG2	0	
CPMXCMG2_LEN	20	40
CPMXDATA	0	
CPMXRESERVED	20	
CPMXSUMMATIONCOUNTOPS	8	
CPMXSUMMATIONCOUNTOPSFCX	18	
CPMXTOTALCOUNTOPS	0	
CPMXTOTALCOUNTOPSDEFERRED	4	
CPMXTOTALCOUNTOPSDEFERREDFCX	14	
CPMXTOTALCOUNTOPSPFCX	10	
CPM2	0	
CPM2_LEN	2000	2000
CPM2CHANNELUTILINFOVALITYMASK	0	
CPM2CHANNELUTILIZATIONENTRY	0	
CPM2CMG1	0	
CPM2CMG1_LEN	8	1C
CPM2CMG2	0	
CPM2CMG2_LEN	18	1C
CPM2CMG3	0	
CPM2CMG3_LEN	18	1C
CPM2DATA	4	
CPM2TIMESTAMP	1	

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## IRAECMB Information

### IRAECMB Programming Interface information

Programming Interface information

IRAECMB

End of Programming Interface information

## IRAECMB Heading Information • IRAECMB Map

### IRAECMB Heading Information

**Common Name:** Extended Channel Measurement Block mapping  
**Macro ID:** IRAECMB  
**DSECT Name:** ECMB  
**Owning Component:** SRM (SC1CX)  
**Eye-Catcher ID:** ECMB  
 Offset: 0  
 Length: 4

**Storage Attributes:** Key: 0 FREQUENCY: One ECMB for every DASD (including aliases) and tape device that is connected to a subchannel  
**Size:** ECMBHEADER -- X'0040' bytes  
 IRAECMB -- X'0080' bytes  
 ECMB -- X'0040' bytes

**Created by:** IEAVNP1F  
**Pointed to by:** SCHCMBAD (real address)  
 - To address an ECMB, the following must be done:  
 - CMCTECMBAlet contains the ALET of the data space containing the ECMBs. This ALET must be loaded into an access register and a SAC instruction must be issued to switch into access register mode.  
 - CMCTECMBPtr contains the address of the array of ECMB entries within the data space. This address may be zero since the data space may start at address zero. There is an array of up 65536 entries for each subchannel set. The first element in each array contains the ECMB header, which is mapped by the ECMBHeader data structure. The ECMB header corresponds to ECMB array index zero within the subchannel set. CMCTECMBhighMBIs contains the highest assigned ECMB index within each of the subchannel sets.  
 The index for the ECMB entry assigned to the device is in the UCBMBI field of that device's UCB. To compute the ECMB address for that device, multiply the subchannel set id in UCBSSID by 65536 and add that to UCBMBI. Then multiply the result by the size of an ECMB entry (64 bytes) and add CMCTECMBPtr. That is:  

$$\text{ECMBPtr} = \text{CMCTECMBPtr} + 64 * (\text{UCBSSID} * 65536 + \text{UCBMBI})$$
  
**Serialization:** None  
**Function:** IRAECMB maps the Extended Channel Measurement Block.

### IRAECMB Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IRAECMB	Extended Channel Measurement Block
0	(0)	CHARACTER	64	ECMBHEADER (0)	Extended Channel Measurement Block header
0	(0)	CHARACTER	4	ECMBNAME	Acronym 'ECMB'
4	(4)	SIGNED	4	ECMBLENGTH	Length of ECMB array
8	(8)	BITSTRING	1	ECMBBITS (0)	Bits
		11.. ....		ECMBSUBCHANNELSET	"X'CO" Subchannel set ID
9	(9)	CHARACTER	55		Reserved
64	(40)	CHARACTER	64	ECMBENTRY	Array of ECMB entries
64	(40)	X'80'	0	IRAECMB_LEN	""-IRAECMB"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ECMB	Extended Channel Measurement Block
0	(0)	SIGNED	4	ECMBSSCHRSCHCOUNT	Number of SSCH/RSCH instructions
4	(4)	SIGNED	4	ECMBSAMPLECOUNT	Number of SSCH/RSCH instructions for which data was collected
8	(8)	SIGNED	4	ECMBCONNECTTIME	Summation of device connect times
12	(C)	SIGNED	4	ECMBPENDINGTIME	Summation of SSCH/RSCH request pending times
16	(10)	SIGNED	4	ECMBDISCONNECTTIME	Summation of subchannel disconnect times
20	(14)	SIGNED	4	ECMBCUQUEUEINGTIME	Summation of control unit queueing times
24	(18)	SIGNED	4	ECMBDEVICEACTIVEONLYTIME	

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
28	(1C)	SIGNED	4	ECMBDEVICEBUSYTIME	Summation of device- active-only times
32	(20)	SIGNED	4	ECMBINITIALCMDRESPTIME	Summation of device busy times
36	(24)	SIGNED	4	ECMBINTERRUPTDELAYTIME	Initial command response time
40	(28)	CHARACTER	24		Interrupt delay time
40	(28)	X'C3D4C2'	0	ECMBECMB	Reserved
40	(28)	X'40'	0	ECMB_LEN	"C'ECMB" Acronym for ECMBname "-ECMB"

**IRAECMB Cross Reference**

Name	Hex Offset	Hex Value
ECMB	0	
ECMB_LEN	28	40
ECMBBITS	8	
ECMBCONNECTTIME		
	8	
ECMBCUQUEUEINGTIME		
	14	
ECMBDEVICEACTIVEONLYTIME		
	18	
ECMBDEVICEBUSYTIME		
	1C	
ECMBDISCONNECTTIME		
	10	
ECMBECMB	28	C3D4C2
ECMBENTRY	40	
ECMBHEADER	0	
ECMBINITIALCMDRESPTIME		
	20	
ECMBINTERRUPTDELAYTIME		
	24	
ECMBLENGTH	4	
ECMBNAME	0	
ECMBPENDINGTIME		
	C	
ECMBSAMPLECOUNT		
	4	
ECMBSSCHRSCHCOUNT		
	0	
ECMBSUBCHANNELSET		
	8	C0
IRAECMB	0	
IRAECMB_LEN	40	80





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## IRAENF55 Information

### IRAENF55 Programming Interface information

Programming Interface information

IRAENF55

End of Programming Interface information

## IRAENF55 Heading Information • IRAENF55 Map

### IRAENF55 Heading Information

**Common Name:** ENF signal 55 parameters  
**Macro ID:** IRAENF55  
**DSECT Name:** ENF55  
**Owning Component:** SRM (SC1CX)  
**Eye-Catcher ID:** 'IRAENF55'  
 Offset: 0  
 Length: 8  
**Storage Attributes:** Subpool: 245  
 Residency: Above 16M line  
**Size:** 200 bytes @LHISTOC  
**Created by:** IRASTFXS @LHISTOC  
 IRASTAUX @LPSMONA  
 IRASTSCM @LPSMONA  
 IRARMRMR @LPSMONA  
**Pointed to by:** N/A  
**Serialization:** SRM LOCK  
**Function:** Contains parameters for ENF signal 55  
 The ENF 55 signal issues events of the following types and orders:  
 - Pageable Storage shortages  
 - ENF55QLF\_REAL\_CRITICAL\_SHORTAGE  
 - ENF55QLF\_REAL\_SHORTAGE  
 - ENF55QLF\_REAL\_SHORTAGE\_RELIEVED  
 - ENF55QLF\_REAL\_APPL\_WARNING  
 - ENF55QLF\_REAL\_APPL\_WARNING\_RELIEVED  
 - ENF55QLF\_REAL\_WARNING  
 - Auxiliary Storage shortages  
 - ENF55QLF\_AUX\_CRITICAL\_SHORTAGE  
 - ENF55QLF\_AUX\_SHORTAGE  
 - ENF55QLF\_AUX\_SHORTAGE\_RELIEVED  
 - ENF55QLF\_AUX\_APPL\_WARNING  
 - ENF55QLF\_AUX\_APPL\_WARNING\_RELIEVED  
 - ENF55QLF\_AUX\_WARNING  
 - ENF55QLF\_SCM\_HIGH\_USAGE @LFLASHA  
 - ENF55QLF\_SCM\_HIGH\_USAGE\_RELIEVED @LFLASHA  
 - Available Frame Queue Shortages  
 - ENF55QLF\_AFQ\_SHORTAGE  
 - ENF55QLF\_AFQ\_SHORTAGE\_RELIEVED  
 @LLENHA  
 - Preferred Frame Queue Shortages  
 - ENF55QLF\_PREF\_SHORTAGE  
 - ENF55QLF\_PREF\_SHORTAGE\_RELIEVED  
 @LPSMONA

### IRAENF55 Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENF55	ENF signal 55 parameters
0	(0)	CHARACTER	8	ENF55ID	Control Block ID - "IRAENF55"
8	(8)	SIGNED	2	ENF55LEN	Parameter List Length
10	(A)	BITSTRING	1	ENF55VER	Parameter List Version
11	(B)	BITSTRING	1	ENF55TYP	Type of frame needed to end pageable shortage situation (for qualifier x'80000000') 4 = Pageable frames in between the 16M and 2G lines 3 = Pageable frames below 16M line 2 = Pageable frames in real storage 1 = PTA frames (DREF + Fixed pages) in processor storage 0 = Not in a shortage @64BITSRM Type of slots needed to end auxiliary shortage situation (for qualifier x'08000000' and for qualifier x'04000000') 1 = AUX slots needed 0 = Not in a shortage Type of slots needed to end preferred shortage situation (for qualifier x'00002000') 4 = Preferred frames in between the 16M and 2G lines 3 = Preferred frames below 16M line 2 = Preferred frames in real storage 0 = Not in a shortage
12	(C)	BITSTRING	4	ENF55QLF	Qualifier Code
16	(10)	SIGNED	2	ENF55FRM	Obsolete (but still maintained) use ENF55FramesNeeded instead
18	(12)	SIGNED	2	ENF55RSV1	Reserved
20	(14)	SIGNED	4	ENF55FRAMESNEEDED	Number of frames needed to end the shortage situation. (valid for qualifier code x'80000000')
20	(14)	SIGNED	4	ENF55SLOTSNEEDED	Number of slots needed to end the shortage situation. (valid for qualifier code x'08000000' and qualifier code x'04000000')
24	(18)	CHARACTER	8	ENF55TIMESTAMP	Time when the ENF signal got issued (STCK format)

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
32	(20)	SIGNED	2	ENF55RSV4	Reserved
Comment					
When the system is in a pageable storage shortage, the address space elements get filled with the top causer of the current shortage. The field ENF55NoOfAsidElements contains the number of valid address space elements, mapped via ENF55AsidElement.					
End of Comment					
34	(22)	SIGNED	2	ENF55ASIDELEMENTOFFSET	Offset to the Asid element section
36	(24)	SIGNED	2	ENF55ASIDELEMENTLENGTH	Length of a single Asid element
38	(26)	SIGNED	2	ENF55NOOFASIDELEMENTS	Number of elements elements in the Asid section
40	(28)	CHARACTER	1	ENF55FIXEDEND (0)	Begin of dynamic sections
40	(28)	X'28'	0	ENF55_LEN	"*-ENF55"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ENF55ASIDELEMENT	Address space element
0	(0)	SIGNED	2	ENF55ASID	Address space ID of the address space which is a preferred candidate
2	(2)	SIGNED	2	ENF55RSV10	reserved
4	(4)	SIGNED	4	ENF55FRAMES	Number of frames the address space has fixed in the shortage area
4	(4)	SIGNED	4	ENF55SLOTS	Number of slots the address space has allocated on AUX
Comment					
Constants					
End of Comment					
		....		ENF55QLF_REAL_SHORTAGE	"X'80000000" Pageable Storage Shortage To many fixed frames in the storage. See ENF55TYP for the storage area. Issued when IRA400E occurs
		....		ENF55QLF_REAL_SHORTAGE_RELIEVED	"X'40000000" Pageable Storage Shortage relieved Issued when IRA402I occurs
		....		ENF55QLF_REAL_WARNING	"X'20000000" Pageable Storage Warning There are many fixed frames in the storage. See ENF55TYP for the storage area Issued when IRA405I occurs
		....		ENF55QLF_REAL_CRITICAL_SHORTAGE	"X'10000000" Critical Pageable Storage Shortage To many fixed frames in the storage. See ENF55TYP for the storage area. Issued when IRA401E occurs
		....		ENF55QLF_AUX_CRITICAL_SHORTAGE	"X'08000000" Critical Auxiliary Storage Shortage To many slots allocated on the AUX subsystem. Issued when IRA201E occurs
		....		ENF55QLF_AUX_SHORTAGE	"X'04000000" Auxiliary Storage Shortage To many slots allocated on the AUX subsystem. Issued when IRA200E occurs
		....		ENF55QLF_AUX_SHORTAGE_RELIEVED	"X'02000000" Auxiliary Storage Shortage relieved Issued when IRA202I occurs
		....		ENF55QLF_AUX_WARNING	"X'01000000" Auxiliary Storage Warning There are many slots allocated on the AUX subsystem Issued when IRA205I occurs
4	(4)	BITSTRING	0	ENF55QLF_REAL_APPL_WARNING	"X'00800000" Pageable Storage Application Warning 5% below a pageable storage shortage level. See ENF55TYP for the storage area.
4	(4)	BITSTRING	0	ENF55QLF_REAL_APPL_WARNING_RELIEVED	"X'00400000" Pageable Storage Application Warning relieved
4	(4)	BITSTRING	0	ENF55QLF_AUX_APPL_WARNING	"X'00200000" Auxiliary Storage Application Warning 5% below a auxiliary storage shortage level.
4	(4)	BITSTRING	0	ENF55QLF_AUX_APPL_WARNING_RELIEVED	"X'00100000" Auxiliary Storage Application Warning relieved
4	(4)	BITSTRING	0	ENF55QLF_SCM_HIGH_USAGE	"X'00040000" High usage of Flash Storage. Issued when IRA250I occurs
4	(4)	BITSTRING	0	ENF55QLF_SCM_HIGH_USAGE_RELIEVED	

## IRAENF55 Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
4	(4)	BITSTRING	0	ENF55QLF_AFQ_SHORTAGE	"X'00020000" High usage of Flash Storage relieved. Issued when IRA252I occurs
4	(4)	BITSTRING	0	ENF55QLF_AFQ_SHORTAGE_RELIEVED	"X'00008000" Available Frame Queue Shortage Not enough frames on the available frame queue
4	(4)	BITSTRING	0	ENF55QLF_PREF_SHORTAGE	"X'00004000" Available Frame Queue Shortage relieved
4	(4)	BITSTRING	0	ENF55QLF_PREF_SHORTAGE_RELIEVED	"X'00002000" Preferred Frame Queue Shortage Not enough frames on the preferred frame queue. See ENF55TYP for the storage area.
		.... ....		ENF55QLF_SHORTAGE_RECOGNIZED	"X'00001000" Preferred Frame Queue Shortage relieved
		.... ....		ENF55QLF_SHORTAGE_RELIEVED	"X'80000000" Obsolete, use new constant above
4	(4)	BITSTRING	0	ENF55QLF_HIGH_SCM_USAGE	"X'40000000" Obsolete, use new constant above
4	(4)	BITSTRING	0	ENF55QLF_HIGH_SCM_USAGE_RELIEVED	"X'00040000" Obsolete, use new constant above
4	(4)	X'1'	0	ENF55_VERSION1	"X'00020000" Obsolete, use new constant above
4	(4)	X'2'	0	ENF55_VERSION2	"1" Version 1 constant
4	(4)	X'2'	0	ENF55_LATEST_VERSION	"2" Version 2 constant
4	(4)	X'D9C1C5'	0	ENF55_EYECATCHER_0TO3	"2" Latest version constant
4	(4)	X'C6F5F5'	0	ENF55_EYECATCHER_4TO7	"C'IRAE" This is the first 4-byte segment of an 8-byte constant. Storage due to fixed storage - relieved
4	(4)	X'14'	0	ENF55_MAXNOOFASIDELEMENTS	"C'NF55" This is the second 4-byte segment of an 8-byte constant. Storage due to fixed storage - relieved
4	(4)	X'C8'	0	ENF55_LENGTH	"20" Maximal number of elements in the address space list LHIHSTOA
4	(4)	X'8'	0	ENF55_ASIDELEMENTLENGTH	"200" Length of IRAENF55
4	(4)	X'8'	0	ENF55ASIDELEMENT_LEN	"8" Length of a AsidList entry
					**-'ENF55AsidElement"

## IRAENF55 Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
ENF55	0		ENF55FRAMESNEEDED		
ENF55_ASIDELEMENTLENGTH	4	8	ENF55FRM	14	
ENF55_EYECATCHER_0TO3	4	D9C1C5	ENF55FRM	10	
ENF55_EYECATCHER_4TO7	4	C6F5F5	ENF55ID	0	
ENF55_LATEST_VERSION	4	2	ENF55LEN	8	
ENF55_LEN	28	28	ENF55NOOFASIDELEMENTS	26	
ENF55_LENGTH	4	C8	ENF55QLF	C	
ENF55_MAXNOOFASIDELEMENTS	4	14	ENF55QLF_AFQ_SHORTAGE	4	8000
ENF55_VERSION1	4	1	ENF55QLF_AFQ_SHORTAGE_RELIEVED	4	4000
ENF55_VERSION2	4	2	ENF55QLF_AUX_APPL_WARNING	4	200000
ENF55ASID	0		ENF55QLF_AUX_APPL_WARNING_RELIEVED	4	100000
ENF55ASIDELEMENT	0		ENF55QLF_AUX_CRITICAL_SHORTAGE	4	0
ENF55ASIDELEMENT_LEN	4	8	ENF55QLF_AUX_SHORTAGE	4	0
ENF55ASIDELEMENTLENGTH	24		ENF55QLF_AUX_SHORTAGE_RELIEVED	4	0
ENF55ASIDELEMENTOFFSET	22		ENF55QLF_AUX_WARNING	4	0
ENF55FIXEDEND	28		ENF55QLF_HIGH_SCM_USAGE	4	40000
ENF55FRAMES	4		ENF55QLF_HIGH_SCM_USAGE_RELIEVED	4	20000
			ENF55QLF_PREF_SHORTAGE		

Name	Hex Offset	Hex Value
ENF55QLF_PREF_SHORTAGE_RELIEVED	4	2000
ENF55QLF_REAL_APPL_WARNING	4	1000
ENF55QLF_REAL_APPL_WARNING_RELIEVED	4	800000
ENF55QLF_REAL_CRITICAL_SHORTAGE	4	400000
ENF55QLF_REAL_SHORTAGE	4	0
ENF55QLF_REAL_SHORTAGE_RELIEVED	4	0
ENF55QLF_REAL_WARNING	4	0
ENF55QLF_REAL_WARNING_RELIEVED	4	0
ENF55QLF_SCM_HIGH_USAGE	4	40000
ENF55QLF_SCM_HIGH_USAGE_RELIEVED	4	20000
ENF55QLF_SHORTAGE_RECOGNIZED	4	0
ENF55QLF_SHORTAGE_RELIEVED	4	0
ENF55RSV1	12	
ENF55RSV10	2	
ENF55RSV4	20	
ENF55SLOTS	4	
ENF55SLOTSNEEDED	14	
ENF55TIMESTAMP	18	
ENF55TYP	B	
ENF55VER	A	



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## IRAEVPL Information

### IRAEVPL Programming Interface information

Programming Interface information

IRAEVPL

End of Programming Interface information

## IRAEVPL Heading Information • IRAEVPL Map

### IRAEVPL Heading Information

**Common Name:** Sysevent Parameter List Mappings  
**Macro ID:** IRAEVPL  
**DSECT Name:** IRAENCSTATE\_PARMLIST IRAENQHR\_PARMLIST IRAENCASSOC\_PARMLIST IRAQRYCN\_PARMLIST  
**Owning Component:** SRM (SC1CX)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: any fixed subpool  
 Key: any  
 Residency: Above 16M  
**Size:** IRAENCSTATE\_PARMLIST -- X'0004' bytes  
 IRAENQHR\_PARMLIST -- X'0058' bytes  
 IRAENCASSOC\_PARMLIST -- X'0018' bytes  
 IRAQRYCN\_PARMLIST -- X'00D0' bytes  
**Created by:** SYSEVENT ENCSTATE invoker  
**Pointed to by:**  
**Serialization:** User-defined  
**Function:** Maps external sysevent parameter lists

### IRAEVPL Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IRAENCSTATE_PARMLIST	
0	(0)	SIGNED	4	IRAENCSTATE_FUNCTIONCODE	IRAEVPL.17: See constants
Comment					
IRAEVPL.26: Enclave is entering the idle state					
End of Comment					
0	(0)	X'1'	0	IRAENCSTATE_IDLE	"1"
Comment					
IRAEVPL.35: Enclave is leaving the idle state. Note that newly created enclaves are considered non-idle by SRM.					
End of Comment					
0	(0)	X'2'	0	IRAENCSTATE_NONIDLE	"2"
0	(0)	X'4'	0	IRAENCSTATE_PARMLIST_LEN	**-IRAENCSTATE_PARMLIST"
Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IRAENQHR_PARMLIST	
0	(0)	CHARACTER	88	IRAENQHR_WORKUNITINFORMATION	IRAEVPL.544: information required when the sysevent macro invocation specifies TYPE=IraEnq- HR_WorkUnitInfo
0	(0)	CHARACTER	8	IRAENQHR_ETOKEN	IRAEVPL.547: Enclave token or 0 if the work unit is not known to be associated with an enclave
8	(8)	ADDRESS	4	IRAENQHR_TCBPTR	IRAEVPL.553: Address of resource holder's TCB or 0 if the holder is an SRB. The parameter is ignored for ENQRLSE
12	(C)	CHARACTER	8	IRAENQHR_TOKEN	IRAEVPL.559: Enqueue hold token pointing to the associated enqueue hold element. This is an output parameter for Hold requests and a mandatory input parameter for Rlse requests. Not valid for short time promotion
20	(14)	CHARACTER	4	IRAENQHR_SUBSYS	IRAEVPL.565: Generic subsystem type
24	(18)	CHARACTER	8	IRAENQHR_SUBSYSNAME	IRAEVPL.571: Subsystem instance
32	(20)	CHARACTER	32	IRAENQHR_SUBSYSREQUEST	IRAEVPL.577: Additional information to distinguish between different invocations by the same subsystem
64	(40)	SIGNED	4	IRAENQHR_FUNCTION	IRAEVPL.583: Function code: 0 = standard promotion, 1 = short time promotion. The parameter is ignored for ENQRLSE
68	(44)	BITSTRING	4	IRAENQHR_FLAGS	



Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
					IRAEVPL.589: flags
Comment					
Bit definitions:					
End of Comment					
		1... ..		IRAENQHR_FLAGS_RHTERM	"X'80" IRAEVPL.595: This flag signals to SRM that the parameters IraEnqHR_ASID, IraEnqHR_STOKEN, and IraEnqHR_Etoken are serialized against resource holder's termination. 0 = serialized, 1 = not serialized
72	(48)	SIGNED	2	IRAENQHR_ASID	IRAEVPL.601: Address space ID or 0 if resource holder is identified by STOKEN or enclave token
74	(4A)	SIGNED	2		IRAEVPL.607: For future use
76	(4C)	CHARACTER	8	IRAENQHR_STOKEN	IRAEVPL.613: Address space token or 0 if resource holder is identified by ASID or enclave token
84	(54)	CHARACTER	4		IRAEVPL.619: reserved
Comment					
IRAEVPL.628: Return code 8 will be passed to the caller of EnqHold/Rlse requests of type 2 or later if an invalid enclave token was specified.					
End of Comment					
84	(54)	X'8'	0	IRAENQHR_RETURN_CODE_08	"8"
Comment					
IRAEVPL.637: Return code 10 will be passed to the caller of EnqHold/Rlse requests of type 3 or later if an invalid ASID was specified.					
End of Comment					
84	(54)	X'A'	0	IRAENQHR_RETURN_CODE_10	"10"
Comment					
IRAEVPL.646: Return code 12 will be passed to the caller of EnqHold/Rlse requests of type 3 or later if an invalid STOKEN was specified.					
End of Comment					
84	(54)	X'C'	0	IRAENQHR_RETURN_CODE_12	"12"
Comment					
IRAEVPL.655: Return code 14 will be passed to the caller of EnqHold requests of type 3 or later if an invalid TCB address was specified.					
End of Comment					
84	(54)	X'E'	0	IRAENQHR_RETURN_CODE_14	"14"
Comment					
IRAEVPL.664: Return code 16 will be passed to the caller of EnqHold/Rlse requests of type 3 or later if an invalid combination of ASID, STOKEN, or enclave token was specified					
End of Comment					
84	(54)	X'10'	0	IRAENQHR_RETURN_CODE_16	"16"

## IRAEVPL Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
IRAEVPL.673: Equivalent to MVS 5.2.2 and earlier form of sysevents where only the asid or enclave token of the holder was available.					
End of Comment					
84	(54)	X'0'	0	IRAENQHR_NOWORKUNITINFO	"0"
Comment					
IRAEVPL.682: Enqhold/Enqrise against address space or enclave, and the TCB and ASCB of the holder are supplied.					
End of Comment					
84	(54)	X'1'	0	IRAENQHR_WORKUNITINFO	"1"
Comment					
IRAEVPL.691: Enqhold/Enqrise against address space or enclave with subsystem information					
End of Comment					
84	(54)	X'2'	0	IRAENQHR_SUBSYSTEMINFO	"2"
Comment					
IRAEVPL.700: Enqhold/Enqrise against address space or enclave with subsystem information. Support of short time / high frequency enqueue promotion. Support of STOKEN					
End of Comment					
84	(54)	X'3'	0	IRAENQHR_SHORT_TIME	"3"
Comment					
IRAEVPL.709: Maximum request type for Enqhold/Enqrise Sysevents					
End of Comment					
84	(54)	X'3'	0	IRAENQHR_MAXREQUESTTYPE	"3"
Comment					
IRAEVPL.718: Function code for standard enqueue promotion					
End of Comment					
84	(54)	X'0'	0	IRAENQHR_FUNCTION_STANDARD	"0"
Comment					
IRAEVPL.727: Function code for short time / high frequency enqueue promotion					
End of Comment					
84	(54)	X'1'	0	IRAENQHR_FUNCTION_STP	"1"
84	(54)	X'58'	0	IRAENQHR_PARMLIST_LEN	**_IRAENQHR_PARMLIST"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IRAENCASSOC_PARMLIST	
0	(0)	BITSTRING	1	IRAENCASSOC_FUNCTION_CODE	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
1	(1)	BITSTRING	1	IRAENCASSOC_RSV1	IRAEVPL.470: Function code for this request. See EncAssoc function code constants
2	(2)	CHARACTER	22		IRAEVPL.444: Reserved field. Must be set to zero IRAEVPL.438: For future use
Comment					
IRAEVPL.217: Return code 4 will be passed to the caller of EncAssoc if the specified function code is invalid					
End of Comment					
2	(2)	X'4'	0	IRAENCASSOC_RETURN_CODE_04	"4"
Comment					
IRAEVPL.459: Return code 10 will be passed to the caller of EncAssoc if the specified enclave token is invalid					
End of Comment					
2	(2)	X'10'	0	IRAENCASSOC_RETURN_CODE_10	"16"
Comment					
IRAEVPL.392: Function code for SYSEVENT EncAssoc: Associate an enclave with an address space					
End of Comment					
2	(2)	X'1'	0	IRAENCASSOC_FUNCTION_ASSOC	"1"
Comment					
IRAEVPL.468: Function code for SYSEVENT EncAssoc: Disassociate an enclave with an address space					
End of Comment					
2	(2)	X'2'	0	IRAENCASSOC_FUNCTION_DISASSOC	"2"
2	(2)	X'18'	0	IRAENCASSOC_PARMLIST_LEN	**IRAENCASSOC_PARMLIST"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	IRAQRYCN_PARMLIST	
0	(0)	CHARACTER	208	IRAQRYCN_QUERY_CONTENTION	IRAEVPL.865: Query contention information
0	(0)	CHARACTER	8	IRAQRYCN_EYE_CATCHER	IRAEVPL.964: Input: Eye catcher of query contention parameter list
8	(8)	SIGNED	2	IRAQRYCN_LEN	IRAEVPL.976: Input: Length of query contention parameter list
10	(A)	BITSTRING	1	IRAQRYCN_VERSION	IRAEVPL.970: Input: Version of query contention parameter list
11	(B)	BITSTRING	1		IRAEVPL.916: For future use
12	(C)	SIGNED	2	IRAQRYCN_ASID	IRAEVPL.758: Input: Address space ID or 0 if resource holder is identified by STOKEN or enclave token
14	(E)	SIGNED	2	IRAQRYCN_NUM_OF_CL_ENTRIES	IRAEVPL.387: Output: Number of entries returned in the Contention Information array IRAQryCn_Co-ntention_In-formation
16	(10)	CHARACTER	8	IRAQRYCN_STOKEN	IRAEVPL.922: Input: Address space token or 0 if resource holder is identified by ASID or enclave token
24	(18)	CHARACTER	8	IRAQRYCN_ETOKEN	IRAEVPL.386: Input: Enclave token or 0 if the work unit is not associated with an enclave
32	(20)	SIGNED	4	IRAQRYCN_REQTYPE	IRAEVPL.1007: Input: Request type of query. Return contention information for: 1=Standard EnqHolds and Short time EnqHolds, 2=Chronic resource contentions, 0=All

## IRAEVPL Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
36	(24)	SIGNED	4		IRAEVPL.1001: Reserved
40	(28)	CHARACTER	32	IRAQRYCN_CONTENTION_INFORMATION	IRAEVPL.424: Output: Contention information returned by SRM
40	(28)	CHARACTER	32	IRAQRYCN_CI_RECORD	IRAEVPL.871: Contention information data record
40	(28)	CHARACTER	4	IRAQRYCN_SUBSYS	IRAEVPL.429: Generic subsystem type
44	(2C)	CHARACTER	8	IRAQRYCN_SUBSYSNAME	IRAEVPL.934: Subsystem instance
52	(34)	BITSTRING	8	IRAQRYCN_CST	IRAEVPL.940: Contention start time in STCK format
60	(3C)	SIGNED	4	IRAQRYCN_CONTENTION_ID	IRAEVPL.264: ID of SRM service the resource contention was assigned to 1=Standard EnqHold 2=Short time EnqHold 3=Chronic resource contention
64	(40)	SIGNED	4	IRAQRYCN_COUNT	IRAEVPL.877: Number of contentions signaled to SRM for this Subsystem type, Subsystem instance, and contention ID combination
68	(44)	CHARACTER	4		IRAEVPL.431: reserved
200	(C8)	CHARACTER	8		IRAEVPL.776: reserved
Comment					
IRAEVPL.785: Return code 4 will be passed to the caller of SYSEVENT QRYCONT if there are no contentions.					
End of Comment					
200	(C8)	X'4'	0	IRAQRYCN_RETURN_CODE_04	"4"
Comment					
IRAEVPL.502: Return code 8 will be passed to the caller of SYSEVENT QRYCONT if an invalid enclave token was specified.					
End of Comment					
200	(C8)	X'8'	0	IRAQRYCN_RETURN_CODE_08	"8"
Comment					
IRAEVPL.794: Return code 10 will be passed to the caller of SYSEVENT QRYCONT if the specified ASID did not map to a valid, active address space.					
End of Comment					
200	(C8)	X'A'	0	IRAQRYCN_RETURN_CODE_10	"10"
Comment					
IRAEVPL.803: Return code 12 will be passed to the caller of SYSEVENT QRYCONT if the specified STOKEN did not map to a valid, active address space.					
End of Comment					
200	(C8)	X'C'	0	IRAQRYCN_RETURN_CODE_12	"12"
Comment					
IRAEVPL.812: Return code 14 will be passed to the caller of SYSEVENT QRYCONT if an invalid combination of ASID, STOKEN, or enclave token was specified in the parameter list.					
End of Comment					
200	(C8)	X'E'	0	IRAQRYCN_RETURN_CODE_14	"14"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
IRAEVPL.821: Return code 16 will be passed to the caller of SYSEVENT QRYCONT if there is additional resource contention information available					
End of Comment					
200	(C8)	X'10'	0	IRAQRYCN_RETURN_CODE_16	"16"
Comment					
IRAEVPL.957: Return code 18 will be passed to the caller of SYSEVENT QRYCONT if an invalid version, length, or eye catcher was specified in the parameter list					
End of Comment					
200	(C8)	X'12'	0	IRAQRYCN_RETURN_CODE_18	"18"
Comment					
IRAEVPL.992: Return code 20 will be passed to the caller of SYSEVENT QRYCONT if an invalid request type was specified in the parameter list					
End of Comment					
200	(C8)	X'14'	0	IRAQRYCN_RETURN_CODE_20	"20"
Comment					
IRAEVPL.848: Contention caused by SYSEVENT ENQHOLD Standard					
End of Comment					
200	(C8)	X'1'	0	IRAQRYCN_CONTENTION_ID_STD_ENQHOLD	"1"
Comment					
IRAEVPL.883: Contention caused by SYSEVENT ENQHOLD Short time promotion					
End of Comment					
200	(C8)	X'2'	0	IRAQRYCN_CONTENTION_ID_STP_ENQHOLD	"2"
Comment					
IRAEVPL.892: Contention caused by Chronic resource contention service IWMCNTN					
End of Comment					
200	(C8)	X'3'	0	IRAQRYCN_CONTENTION_ID_CNTN	"3"
Comment					
IRAEVPL.946: Eyecatcher of query contention parmlist					
End of Comment					
200	(C8)	X'D9C1D8'	0	IRAQRYCN_EYE_CATCHER_VALUE_0TO3	"C'IRAQ'" This is the first 4-byte segment of an 8-byte constant.
200	(C8)	X'E8C3D5'	0	IRAQRYCN_EYE_CATCHER_VALUE_4TO7	"C'RYCN'" This is the second 4-byte segment of an 8-byte constant.
Comment					
IRAEVPL.499: Parmlist length value					
End of Comment					
200	(C8)	X'D0'	0	IRAQRYCN_LENGTH_VALUE	

## IRAEVPL Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
					"208"
Comment					
IRAEVPL.982: Parmlist version 01					
End of Comment					
200	(C8)	X'1'	0	IRAQRYCN_VERSION_01	"1"
Comment					
IRAEVPL.1022: Request type 'All' returns contention information for Standard EnqHolds, Short time EnqHolds, and Chronic resource contentions					
End of Comment					
200	(C8)	X'0'	0	IRAQRYCN_REQTYPE_ALL	"0"
Comment					
IRAEVPL.1013: Request type 'EnqHold' returns contention information for Standard EnqHolds and Short time EnqHolds					
End of Comment					
200	(C8)	X'1'	0	IRAQRYCN_REQTYPE_ENQHOLD	"1"
Comment					
IRAEVPL.1031: Request type 'CNTN' returns contention information for Chronic resource contentions					
End of Comment					
200	(C8)	X'2'	0	IRAQRYCN_REQTYPE_CNTN	"2"
200	(C8)	X'D0'	0	IRAQRYCN_PARMLIST_LEN	"*-IRAQRYCN_PARMLIST"

## IRAEVPL Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
IRAENCASSOC_FUNCTION_ASSOC	2	1	IRAENQHR_FLAGS	0	
IRAENCASSOC_FUNCTION_CODE	0		IRAENQHR_FLAGS_RHTERM	44	
IRAENCASSOC_FUNCTION_DISASSOC	2	2	IRAENQHR_FUNCTION	44	80
IRAENCASSOC_PARMLIST	0		IRAENQHR_FUNCTION_STANDARD	40	
IRAENCASSOC_PARMLIST_LEN	2	18	IRAENQHR_FUNCTION_STP	54	0
IRAENCASSOC_RETURN_CODE_04	2	4	IRAENQHR_FUNCTION_STP	54	1
IRAENCASSOC_RETURN_CODE_10	2	10	IRAENQHR_MAXREQUESTTYPE	54	3
IRAENCASSOC_RSV1	1		IRAENQHR_NOWORKUNITINFO	54	0
IRAENCSTATE_FUNCTIONCODE	0		IRAENQHR_PARMLIST	0	
IRAENCSTATE_IDLE	0	1	IRAENQHR_PARMLIST_LEN	54	58
IRAENCSTATE_NONIDLE	0	2	IRAENQHR_RETURN_CODE_08	54	8
IRAENCSTATE_PARMLIST	0		IRAENQHR_RETURN_CODE_10	54	A
IRAENCSTATE_PARMLIST_LEN	0	4	IRAENQHR_RETURN_CODE_12	54	C
IRAENQHR_ASID	48		IRAENQHR_RETURN_CODE_14	54	E
IRAENQHR_ETOKEN			IRAENQHR_RETURN_CODE_16	54	10

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
IRAENQHR_SHORT_TIME	54	3	IRAQRYCN_RETURN_CODE_16	C8	10
IRAENQHR_STOKEN	4C		IRAQRYCN_RETURN_CODE_18	C8	12
IRAENQHR_SUBSYS	14		IRAQRYCN_RETURN_CODE_20	C8	14
IRAENQHR_SUBSYSNAME	18		IRAQRYCN_STOKEN	10	
IRAENQHR_SUBSYSREQUEST	20		IRAQRYCN_SUBSYS	28	
IRAENQHR_SUBSYSTEMINFO	54	2	IRAQRYCN_SUBSYSNAME	2C	
IRAENQHR_TCBPTR	8		IRAQRYCN_VERSION	A	
IRAENQHR_TOKEN	C		IRAQRYCN_VERSION_01	C8	1
IRAENQHR_WORKUNITINFO	54	1			
IRAENQHR_WORKUNITINFORMATION	0				
IRAQRYCN_ASID	C				
IRAQRYCN_CI_RECORD	28				
IRAQRYCN_CONTENTION_ID	3C				
IRAQRYCN_CONTENTION_ID_CNTN	C8	3			
IRAQRYCN_CONTENTION_ID_STD_ENQHOLD	C8	1			
IRAQRYCN_CONTENTION_ID_STP_ENQHOLD	C8	2			
IRAQRYCN_CONTENTION_INFORMATION	28				
IRAQRYCN_COUNT	40				
IRAQRYCN_CST	34				
IRAQRYCN_ETOKEN	18				
IRAQRYCN_EYE_CATCHER	0				
IRAQRYCN_EYE_CATCHER_VALUE_0TO3	C8	D9C1D8			
IRAQRYCN_EYE_CATCHER_VALUE_4TO7	C8	E8C3D5			
IRAQRYCN_LEN	8				
IRAQRYCN_LENGTH_VALUE	C8	D0			
IRAQRYCN_NUM_OF_CI_ENTRIES	E				
IRAQRYCN_PARMLIST	0				
IRAQRYCN_PARMLIST_LEN	C8	D0			
IRAQRYCN_QUERY_CONTENTION	0				
IRAQRYCN_REQTYPE	20				
IRAQRYCN_REQTYPE_ALL	C8	0			
IRAQRYCN_REQTYPE_CNTN	C8	2			
IRAQRYCN_REQTYPE_ENQHOLD	C8	1			
IRAQRYCN_RETURN_CODE_04	C8	4			
IRAQRYCN_RETURN_CODE_08	C8	8			
IRAQRYCN_RETURN_CODE_10	C8	A			
IRAQRYCN_RETURN_CODE_12	C8	C			
IRAQRYCN_RETURN_CODE_14	C8	E			





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## IRAICSM Information

### IRAICSM Programming Interface information

Programming Interface information

#### IRAICSM

End of Programming Interface information

## IRAICSM Heading Information • IRAICSM Cross Reference

### IRAICSM Heading Information

**Common Name:** System Resource Manager Installation Control Specification Symbol Table Entry Mapping Macro  
**Macro ID:** IRAICSM  
**DSECT Name:** ICSM  
**Owning Component:** SRM (SC1CX)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Main Storage: N/A  
 Virtual Storage: N/A  
 Auxiliary Storage: N/A  
 Subpool: Storage must be non-pageable  
 Key: IWMRCOLL caller's key  
 Residency: N/A  
**Size:** 48 Bytes (per ICSM entry)  
**Created by:** As a result of IWMRCOLL invocation  
**Pointed to by:** ICSMNDX is located within the RCAAICSS by adding an offset located in RCAAICSX to the start of RCAAICSS (the ICSMNDX contains an array of offsets).  
 ICSM is located within the RCAAICSS by adding an offset located in RCAAICSM to the start of RCAAICSS. To access a particular PGN, the ICSMNDX(PGN) offset must also be added in.  
**Serialization:** None  
**Function:** The ICSM element contains information related to each unique performance group specified in the installation control specification parmlib member. The information is the subsystem name, transaction name, userid, transaction class, or service class name.  
 If the data is unavailable, the field contains zeros. If multiple symbolic names are associated with the same performance group, the field contains blanks.  
 An array is used to index into this table. The first index is for performance group 1. The last index is for the highest performance group number specified in the installation control specification. If a performance group is not specified, the index value is zero.

### IRAICSM Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	ICSM	
0	(0)	CHARACTER	4	ICSMSUBN	SUBSYSTEM NAME
4	(4)	CHARACTER	10	ICSMTRXN	TRANSACTION NAME
14	(E)	CHARACTER	10	ICSMUSRD	USERID
24	(18)	CHARACTER	10	ICSMCLS	TRANSACTION CLASS
34	(22)	CHARACTER	10	ICSMRVC	SERVICE CLASS (SRVCLASS)
44	(2C)	BITSTRING	1	ICSMFLAG	FLAGS
		1... ..		ICSMACTN	"BIT0" ACCOUNT NUMBER SPECIFIED FOR PGN IN ICS
45	(2D)	BITSTRING	3	ICSMRSVD	RESERVED
48	(30)	SIGNED	4	ICSMEND (0)	END OF ICSM
48	(30)	X'30'	0	ICSMLEN	"ICSMEND-ICSM" LENGTH OF ICSM

### IRAICSM Cross Reference

Name	Hex Offset	Hex Value
ICSM	0	
ICSMACTN	2C	80
ICSMCLS	18	40404040
ICSMEND	30	
ICSMFLAG	2C	0
ICSMLEN	30	30
ICSMRSVD	2D	0
ICSMRVC	22	40404040
ICSMSUBN	0	40404040
ICSMTRXN	4	40404040
ICSMUSRD	E	40404040

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## IRALPDAT Information

### IRALPDAT Programming Interface information

Programming Interface information

IRALPDAT

End of Programming Interface information

## IRALPDAT Heading Information • IRALPDAT Map

### IRALPDAT Heading Information

**Common Name:** Sysevent REQLPDAT parameter list  
**Macro ID:** IRALPDAT  
**DSECT Name:** LPDAT  
**Owning Component:** System Resource Manager (SC1CX)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: caller-defined, must be fixed  
 Key: 0  
 Residency: Between 16M and 2G  
**Size:** See assembly listing  
**Created by:** Caller of SYSEVENT REQLPDAT  
**Pointed to by:** Register 1 on entry to SYSEVENT REQLPDAT  
**Serialization:** None  
**Function:** Maps data returned by SYSEVENT REQLPDAT (Request LPAR Data).  
 If the caller is running with z/OS V1.2 or lower system, the caller is required to invoke SYSEVENT REQRSMST to determine whether REQLPDAT sysevent is supported by the system.  
 The area returned by REQLPDAT consists of an area mapped by DSECT LPDATMAP and zero or more contiguous areas each mapped by DSECT LPDatServiceTableEntryMap.  
 The only input to REQLPDAT is field LPDATLEN in the parameter area. You must set LPDATLEN to the length of the provided parameter area before invoking the REQLPDAT SYSEVENT. You should either  
 o set LPDATLEN to 0,  
 o set LPDATLEN using equate LPDATPARMLENGTH and provide a parameter area that has a size of at least LPDATPARMLENGTH bytes, or  
 o obtain a sufficiently large parameter area of more than LPDATPARMLENGTH bytes and set LPDATLEN accordingly.  
 The parameter area contains variable data and its length can change at any time, not just with a new release of z/OS. Therefore, you must check the return code from REQLPDAT. If the input LPDATLEN value is smaller than the needed size of the parameter area, then the SYSEVENT will return with return code 4. In this case,  
 o the system will set the LPDATLEN field to the actual needed length of the parameter area.  
 o You must call REQLPDAT again with a parameter area that is at least LPDATLEN bytes long, making sure that the LPDATLEN field indicates the length of the area  
 On return the caller can inspect LpDatVer field to determine which fields have been filled in.

### IRALPDAT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	LPDATMAP	
0	(0)	CHARACTER	4	LPDATINOUT (0)	IRALPDAT.417: Input/Output fields
0	(0)	SIGNED	4	LPDATLEN	IRALPDAT.422: Length of area. If SYSEVENT REQLPDAT fails with return code of 4, this field can be examined to obtain correct size of the parameter list
4	(4)	CHARACTER	176	LPDATOUT (0)	IRALPDAT.428: Output fields for version 4
4	(4)	BITSTRING	1	LPDATVER	IRALPDAT.431: Version
5	(5)	BITSTRING	1	LPDATFLAGS (0)	IRALPDAT.437: flags
		1... ..		LPDATDEFCAPSET	"X'80" IRALPDAT.443: Partition is set with defined capacity. Data contained in LpDatDefCapData section is valid
		.1.. ..		LPDATDEFCAPDATAVALID	"X'40" IRALPDAT.3: Data contained in LpDatDefCapData section is valid
6	(6)	SIGNED	2		IRALPDAT.449: Reserved
8	(8)	SIGNED	4	LPDATCECCAPACITY	IRALPDAT.455: CEC CPU capacity in millions of service units per hour
12	(C)	CHARACTER	8	LPDATIMGLOGICALPARTITIONNAME	IRALPDAT.461: Logical partition name
20	(14)	SIGNED	4	LPDATIMGCAPACITY	IRALPDAT.467: Logical partition CPU capacity in millions of service units per hour
24	(18)	SIGNED	4	LPDATPHYCPUADJFACTOR	

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
28	(1C)	SIGNED	4	LPDATCUMWEIGHT	IRALPDAT.473: Physical CPU adjustment factor (i.e. adjustment factor for converting CPU time to equivalent service in basic-mode with all processors online)
32	(20)	SIGNED	4	LPDATWEIGHTACCUMCOUNTER	IRALPDAT.479: Cumulative weight of the image since IPL for the local partition
36	(24)	CHARACTER	60	LPDATDEFPCAPDATA (0)	IRALPDAT.485: Number of times the current weight is accumulated
36	(24)	SIGNED	4	LPDATAVGIMGSERVICE	IRALPDAT.491: The following data section is available if the system provides licensing information. This is the case if the system is running in LPAR mode
40	(28)	BITSTRING	8	LPDATCUMUNCAPPEDELAPESEDTIME	IRALPDAT.494: Long-term average CPU service used by this logical partition, in millions of service units per hour. If this value is above the partition's defined capacity, the partition will be capped.
48	(30)	BITSTRING	8	LPDATCUMCAPPEDELAPESEDTIME	IRALPDAT.500: Cumulative uncapped elapsed time since defined capacity for the local partition was established, in micro seconds. Only valid if a defined capacity limit was specified
56	(38)	SIGNED	4	LPDATSERVICETABLEENTRYINTERVAL	IRALPDAT.506: Cumulative capped elapsed time since defined capacity for the local partition was established, in micro seconds. Only valid if a defined capacity limit was specified
60	(3C)	SIGNED	4	LPDATSERVICETABLEOFFSET	IRALPDAT.512: Approximate time interval (in seconds) for each entry in the service table
64	(40)	SIGNED	4	LPDATSERVICETABLEENTRYLENGTH	IRALPDAT.518: Offset from the beginning of the LPDatMap area. The Service Table Entries area consists of contiguous entries each mapped by DSECT LPDatServic- eTableEntryMap. The number of entries is contained in field LPDatServic- eTableEntries. Access the first entry by adding the value in LPDatServic- eTableOffset to the address of the LPDatMap area.
68	(44)	SIGNED	4	LPDATSERVICETABLEENTRIES	IRALPDAT.524: Length of one service table entry
72	(48)	CHARACTER	8	LPDATCAPACITYGROUPNAME	IRALPDAT.530: Number of service entries in the service table
80	(50)	SIGNED	4	LPDATCAPACITYGROUPMSLIMIT	IRALPDAT.33: all partitions which have the same CapacityGroupName build the capacity group
84	(54)	BITSTRING	8	LPDATGROUPJOINEDTOD	IRALPDAT.309: The group limit in million service units per hour (MSU)
92	(5C)	SIGNED	4	LPDATIMGMSLIMIT	IRALPDAT.378: Timestamp when this lpar has joined its group (last change of group name)
96	(60)	CHARACTER	76	LPDATINSTALLEDPCAPDATA (0)	IRALPDAT.85: Capacity in millions of service units per hour which is derived from defined capacity and group capacity
96	(60)	CHARACTER	16	LPDATMODELCAPIIDENT	IRALPDAT.69: The following data section is always available with version 4 of the parameter area, but it contains non-zero data only on hardware that supplies this data. For more details about this data see the description in "Store System Information" in manual "z/Architecture Principles of Operation".
112	(70)	CHARACTER	16	LPDATMODEL	IRALPDAT.72: The 16-character (0-9 or uppercase A-Z) EBCDIC model-capacity identifier of the configuration. The identifier is left-justified with trailing blank characters if necessary. Valid only if the first word of LPDatModel is zero.
128	(80)	CHARACTER	16	LPDATMODELPERMCAPIIDENT	IRALPDAT.319: The 16-character (0-9 or uppercase A-Z) EBCDIC model identifier of the configuration. The identifier is left-justified with trailing blank characters if necessary. Valid only if the first word is not zero. Otherwise field LPDatModelCapIdent represents both the model-capacity identifier and the model.
144	(90)	CHARACTER	16	LPDATMODELTEMPCAPIIDENT	IRALPDAT.108: The 16-character (0-9 or uppercase A-Z) EBCDIC model-permanent capacity identifier of the configuration. The identifier is left-justified with trailing blank characters if necessary. Valid only if non-zero.
160	(A0)	SIGNED	4	LPDATMODELCAPRATING	IRALPDAT.276: The 16-character (0-9 or uppercase A-Z) EBCDIC model-temporary capacity identifier of the configuration. The identifier is left-justified with trailing blank characters if necessary. Valid only if non-zero.
					IRALPDAT.282: When non-zero, an unsigned integer whose value is associated with the model capacity as identified by the model-capacity identifier. There is no formal description of the algorithm used to generate this integer.

## IRALPDAT Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
164	(A4)	SIGNED	4	LPDATMODELPERMCAPRATING	IRALPDAT.277: When non-zero, an unsigned integer whose value is associated with the model-permanent capacity as identified by the model-permanent-capacity identifier. There is no formal description of the algorithm used to generate this integer.
168	(A8)	SIGNED	4	LPDATMODELTEMPCAPRATING	IRALPDAT.293: When non-zero, an unsigned integer whose value is associated with the model-temporary capacity as identified by the model-temporary- capacity identifier. There is no formal description of the algorithm used to generate this integer.
172	(AC)	CHARACTER	8	LPDATRESERVED	IRALPDAT.536: Reserved for future use
180	(B4)	CHARACTER	1	LPDATEND1 (0)	IRALPDAT.542: End on a word boundary
180	(B4)	X'B4'	0	LPDATMAP_LEN	""-LPDATMAP"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	LPDATSERVICETABLEENTRYMAP	
0	(0)	SIGNED	4	LPDATSERVICEUNCAPPED	IRALPDAT.560: Basic-mode service units accumulated while the partition was uncapped.
4	(4)	SIGNED	4	LPDATSERVICEUNCAPPEDTIME	IRALPDAT.566: Elapsed time that the partition was uncapped, in 1.024 millisecond units
8	(8)	SIGNED	4	LPDATSERVICECAPPED	IRALPDAT.572: Basic-mode service units accumulated while the partition was capped.
12	(C)	SIGNED	4	LPDATSERVICECAPPEDTIME	IRALPDAT.578: Elapsed time that the partition was capped, in 1.024 millisecond units.
16	(10)	SIGNED	4	LPDATSERVICEUNUSEDGROUPCAPACITY	IRALPDAT.324: Service units which would be allowed by the group capacity limit but are not consumed by the members of the group.

				Comment	
		IRALPDAT.630: Version 1			
				End of Comment	
16	(10)	X'1'	0	LPDATVER1	"1"
				Comment	
		IRALPDAT.16: Version 2			
				End of Comment	
16	(10)	X'2'	0	LPDATVER2	"2"
				Comment	
		IRALPDAT.44: Version 3 (additional fields) @LGCL2			
				End of Comment	
16	(10)	X'3'	0	LPDATVER3	"3"
				Comment	
		IRALPDAT.49: Version 4 (additional fields)			
				End of Comment	
16	(10)	X'4'	0	LPDATVER4	"4"
				Comment	
		IRALPDAT.639: Current Version			
				End of Comment	
16	(10)	X'4'	0	LPDATCURVER	"4"

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
IRALPDAT.648: Service completed successfully					
End of Comment					
16	(10)	X'0'	0	LPDATRCOK	"0"
Comment					
IRALPDAT.335: Parameter list is too small to contain current version data					
End of Comment					
16	(10)	X'4'	0	LPDATRCTOOSMALL	"4"
Comment					
IRALPDAT.657: Current required length of Parameter list					
End of Comment					
16	(10)	X'474'	0	LPDATPARMLENGTH	"1140"
16	(10)	X'14'	0	LPDATSERVICETABLEENTRYMAP_LEN	"*-LPDATSERVICETABLEENTRYMAP"

**IRALPDAT Cross Reference**

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
LPDATAVGIMGSERVICE	24		LPDATMODELPERMCAPIIDENT	80	
LPDATCAPACITYGROUPMSULIMIT	50		LPDATMODELPERMCAPRATING	A4	
LPDATCAPACITYGROUPNAME	48		LPDATMODELTEMPCAPIIDENT	90	
LPDATCECCAPACITY	8		LPDATMODELTEMPCAPRATING	A8	
LPDATCUMCAPPEDELAPESTIME	30		LPDATOUT	4	
LPDATCUMUNCAPPEDELAPESTIME	28		LPDATPARMLENGTH	10	474
LPDATCUMWEIGHT	1C		LPDATPHYCPUADJFACTOR	18	
LPDATCURVER	10	4	LPDATRCOK	10	0
LPDATDEFCAPDATA	24		LPDATRCTOOSMALL	10	4
LPDATDEFCAPDATAVALID	5	40	LPDATRESERVED	AC	
LPDATDEFCAPSET	5	80	LPDATSERVICECAPPED	8	
LPDATEND1	B4		LPDATSERVICECAPPEDTIME	C	
LPDATFLAGS	5		LPDATSERVICETABLEENTRIES	44	
LPDATGROUPJOINEDTOD	54		LPDATSERVICETABLEENTRYINTERVAL	38	
LPDATIMGCAPACITY	14		LPDATSERVICETABLEENTRYLENGTH	40	
LPDATIMGLOGICALPARTITIONNAME	C		LPDATSERVICETABLEENTRYMAP	0	
LPDATIMGMSULIMIT	5C		LPDATSERVICETABLEENTRYMAP_LEN	10	14
LPDATINOUT	0		LPDATSERVICETABLEOFFSET	3C	
LPDATINSTALLEDPCAPDATA	60		LPDATSERVICEUNCAPPED	0	
LPDATLEN	0		LPDATSERVICEUNCAPPEDTIME	4	
LPDATMAP	0		LPDATSERVICEUNUSEDGROUPCAPACITY	10	
LPDATMAP_LEN	B4	B4	LPDATVER	4	
LPDATMODEL	70		LPDATVER1	10	1
LPDATMODELCAPIIDENT	60				
LPDATMODELCAPRATING	A0				

## IRALPDAT Cross Reference

Name	Hex Offset	Hex Value
LPDATVER2	10	2
LPDATVER3	10	3
LPDATVER4	10	4
LPDATWEIGHTACCUMCOUNTER	20	



# IRAUCBX Information

## IRAUCBX Heading Information

**Common Name:** Resources Manager User Control Block Extension  
**Macro ID:** IRAUCBX  
**DSECT Name:** Oucbx,OucbS,OucbSamples,OucbReptSamples  
**Owning Component:** SYSTEMS RESOURCE MANAGER (SC1CX)  
**Eye-Catcher ID:** OUCBS  
 SOS  
 RSOS  
 Offset: OUCBS - 0 in OucbS  
 SOS - 124 in OucbSamples  
 RSOS - 124 in OucbReptSamples  
 Length: OUCBS - 8 bytes  
 SOS - 4 bytes  
 RSOS - 4 bytes

**Storage Attributes:** Main Storage: ESQA  
 Subpool: 245  
 Key: 0  
 Residency: Above 16M line

**Size:** 1152 bytes  
**Created by:** IRAEVMEM, IRARMERR  
**Pointed to by:** None  
**Serialization:** SRM lock, Compare and Swap (CS) instruction  
**Function:** This block contains address-space related data needed by SRM. It is contained within the OUCB and the length of the OUCB includes the storage required for this block.

## IRAUCBX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	1408	OUCBX	
0	(0)	CHARACTER	128	OUCB_CACHELINE3	
					3rd cache line of OUCB
0	(0)	ADDRESS	4	OUCBAPRQ	Address of record chain for APPC service requests
4	(4)	UNSIGNED	4	OUCBRSTB	BASE TIME FOR PAGE RES SECS
8	(8)	BITSTRING	8	OUCBEJST	Elapsed job step time for reduced preemption - elapsed jobstep time at first sample of sample cycle stored from the ASCBEJST
16	(10)	BITSTRING	8	OUCBSWPC	FIELD FOR SWAP PG CTS
16	(10)	SIGNED	4	OUCBPSO	PAGES SWAPPED AT LAST SWAPOUT
20	(14)	SIGNED	4	OUCBWSS	WORKING SET SIZE SWAP-IN
24	(18)	UNSIGNED	4	OUCBHOLD	HOLD COUNT
28	(1C)	UNSIGNED	4	OUCBOUTT	Time user should stay swapped out
32	(20)	SIGNED	4	OUCBFX	CNT OF REQUIRED FIXED/LSQA
36	(24)	SIGNED	4	OUCBHSUM	BASE VALUE FOR HIPERSPACE PAGE-IN COUNT
40	(28)	SIGNED	4	OUCBCSUM	BASE VALUE FOR CACHE READ MISS COUNT
44	(2C)	UNSIGNED	2	OUCBCFCT	Number of samples taken to determine average central storage usage
46	(2E)	UNSIGNED	2	OUCBSWCB	short wait count base, base for ascbswct
48	(30)	UNSIGNED	4	OUCBWKTM	Time that work unit entered MVS system in SRM time format
52	(34)	SIGNED	4	OUCBSRRC	Count of Sysplex Router Registrations for space
56	(38)	UNSIGNED	4	OUCBPGTB	Base value for pages paged and pages moved that is updated when a point is plotted for this address space
60	(3C)	UNSIGNED	4	OUCBAUXB	Base value for auxiliary pages paged that is updated when a point is plotted for this address space
64	(40)	UNSIGNED	4	OUCBRESB	Base value for resident time that is updated when a point is plotted for this address space
68	(44)	UNSIGNED	4	OUCBPGIB	Base value for the count of pages paged in that is updated when a point is plotted for this address space
72	(48)	UNSIGNED	4	OUCBPU2B	Base value for pages paged and pages moved that is updated every RM2 interval if the address space is managed.
76	(4C)	SIGNED	4	OUCBBPIN	Base value for block page-in count
80	(50)	SIGNED	4	OUCBBPNE	Base value for block page-in from expanded count
84	(54)	SIGNED	4	OUCBPINE	Base value for page-in from expanded count
88	(58)	SIGNED	4	OUCBBKIA	Base value for blocks in aux count
92	(5C)	SIGNED	4	OUCBBKIE	Base value for blocks in expanded count
96	(60)	SIGNED	2	OUCBSWFC	SWAP IN FAIL COUNT
98	(62)	SIGNED	2	OUCBSFEC	SWAP IN FAIL EVALUATION COUNT
100	(64)	SIGNED	2	OUCBSEEC	SWAP TO EXTENDED EVALUATION FAILURE COUNT
102	(66)	SIGNED	2	OUCBMTRM	COUNT OF TERMWAITS DETECTED BY MS6
104	(68)	ADDRESS	4	OUCBSQFP	secondary oucb queue forward pointer
108	(6C)	ADDRESS	4	OUCBSQBP	secondary oucb queue back pointer

# IRAUCBX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
112	(70)	ADDRESS	4	OUCBSPTR	Pointer to OUCBS sampling data
116	(74)	ADDRESS	4	OUCBSAMPLESPTR	Address of set-of-samples section
120	(78)	ADDRESS	4	OUCBREPTSAMPLESPTR	Address of reporting set-of- samples section
124	(7C)	UNSIGNED	4	OUCBXSPECIALFULLPREEMPTTIME	Time, when the OucbxSpecialFullPreempt flag was set or reset
128	(80)	CHARACTER	128	OUCB_CACHELINE4	4th cache line of OUCB
128	(80)	CHARACTER	8	OUCBXSMF30EXPPAGERESIDENCYTIME	Page seconds for expanded storage, SMF30 interval
136	(88)	CHARACTER	8	OUCBXDECPUTIMEFORWM1	CPU time, STCK format, accumulated by dependent enclaves owned by this space but not yet rolled up by WM1
144	(90)	UNSIGNED	2	OUCBXSERVINSTLIMIT	Architectural limit for the number of server instances per server which can be supported by the application
146	(92)	UNSIGNED	2	OUCBXSERVINSTINITIAL	Number of server instances started by WLM if this is the first server which binds to a work queue
148	(94)	UNSIGNED	2	OUCBSERVINSTCAPACITY	Maximum number of server instances, also the maximum number of concurrent IWMSSEL requests
150	(96)	CHARACTER	2	*	reserved
152	(98)	ADDRESS	4	OUCBWORKQTOKEN	Server Environment Address Space Queue Entry pointer or 7FFFF000
156	(9C)	UNSIGNED	4	OUCBWAITTIMEBASE	Base for I/O wait time (ouxbwait)
160	(A0)	UNSIGNED	4	OUCBUSINGTIMEBASE	Base for I/O using time (ouxbcon + ouxbdisc)
164	(A4)	BITSTRING	1	OUCBWLMF	WLM flags, name used in IPCS formatter
		1... ....		OUCBXSPECIALFULLPREEMPT	Special full preemption requested via the FULLPRE sysevent
		.1. ....		OUCBXMFT	Space target of xmem page faults during this policy interval
		..1. ....		OUCBXNOPR	If off, the address space is eligible for full preemption. The bit is copied to bit ASCBNOPR in module IRACPSRP depending on OPT parms and other conditions.
		...1 ....		*	reserved
		.... 1...		OUCBXWASHIDP	If on, indicates this address space was created with the ASCRE HIPRI attribute, aka oucbhidp was once on. Must be off unless the space is a started task.
		.... .1..		OUCBXRESTARTTRANATSWAPIN	An active transaction was stopped while the space was swapped out. Since some of the bookkeeping required cannot be completed until swap in, this will tweak the behavior in restore complete (RSTORCMP).
		.... ..1.		OUCBXWASPRIV	If on, indicates that in the absence of classification rules that specifically classify this space it would be privileged.
		.... ...1		OUCBXOLDPREEMPTION	Value of AscBNopr when the hidp attribute was removed due to classification of a started task. Meaningless for address spaces that were never hidp.
165	(A5)	CHARACTER	3	*	reserved
168	(A8)	UNSIGNED	4	OUCBXENCSSCHCOUNT	Start subchannel count for completed independent enclaves. Only start subchannels whose times are included in connect, disconnect, and wait measurement are included.
172	(AC)	SIGNED	4	OUCBXFIX_B2G	Count of fixed frames in between the 16M and 2G lines @64BITSRM
176	(B0)	UNSIGNED	1	OUCBESVP	expanded storage access policy for vio
177	(B1)	UNSIGNED	1	OUCBESHP	expanded storage access policy for hiperspace
178	(B2)	UNSIGNED	1	OUCBESTP	expanded storage access policy for swap trim
179	(B3)	UNSIGNED	1	OUCBSONA	# of times a swap-out was not attempted due to lack of resources
180	(B4)	UNSIGNED	4	OUCBMDEL	MPL delay suffered over the current transaction
184	(B8)	UNSIGNED	4	OUCBSWSA	swap working set size accumulator including both primary and secondary working sets (accumulated at swap in time in goal mode)
188	(BC)	UNSIGNED	4	OUCBSWSC	swap working set count - count of working set sizes accumulate in OUCBSWSA
192	(C0)	UNSIGNED	4	OUCBESB1	UIC-expanded bucket 1
196	(C4)	UNSIGNED	4	OUCBESB2	UIC-expanded bucket 2
200	(C8)	UNSIGNED	4	OUCBESB3	UIC-expanded bucket 3
204	(CC)	UNSIGNED	4	OUCBESB4	UIC-expanded bucket 4
208	(D0)	UNSIGNED	4	OUCBAXPU	Base value for pages paged to aux that is updated when a point is plotted for this address space
212	(D4)	UNSIGNED	4	OUCBPLAB	Base for OUXBPIN to determine number of aux page faults per departure from the current period. For period paging plot.
216	(D8)	SIGNED	4	OUCBEFS	accumulated samples of RAXESCT for determining the average expanded storage allocated for an RM2 interval
220	(DC)	UNSIGNED	4	OUCBSDAC	Swap delay accumulator

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
224	(E0)	SIGNED	4	OUCBAPDS	Saved copy of private area paging delay samples
228	(E4)	SIGNED	4	OUCBTMPS	Accumulated time address space is swap in processor storage
232	(E8)	SIGNED	4	OUCBTMCT	Count of times the address space is moved from being swapped in processor storage to aux
236	(EC)	SIGNED	4	OUCBTMSD	Start of time address space is delayed for a swap in from aux
240	(F0)	SIGNED	4	OUCBTMRD	Start of time an address space is experiencing MPL delay
244	(F4)	UNSIGNED	4	OUCBTMC	TIME OF SWAPOUT STAT CHG
248	(F8)	UNSIGNED	4	OUCBXREGISTRATIONCOUNT	number of active registrations owned by this address space
252	(FC)	CHARACTER	4	OUCBCRM	Chronic resource contention management related info
252	(FC)	BITSTRING	1	OUCBCRMFLAGS	CRM status flags
		1... ....		OUCBCRMPROA	CRM promotion caused by A/S resource holder
		.1. ....		OUCBCRMPROE	CRM promotion caused by enclave resource holder
		..1. ....		OUCBCRMI	CRM promotion was on during PA interval
		...1 ....		OUCBCRMR	CRM promotion was on during RA interval
		.... 1111		*	For future use
253	(FD)	UNSIGNED	1	OUCBCRMDP	CRM calculated dispatch priority
254	(FE)	UNSIGNED	2	OUCBCRMPROPAGATEDCOUNT	Number of propagated CRM promotions
256	(100)	CHARACTER	128	OUCB_CACHELINE5	5th cache line of OUCB
256	(100)	UNSIGNED	4	OUCBIATK	WLM Classification token from first INITATT sysevent
260	(104)	UNSIGNED	4	OUCBLRPS	RRPATOD last time in RPS
264	(108)	CHARACTER	1	OUCBQID	current queue id
265	(109)	CHARACTER	1	OUCBPQID	previous queue id
266	(10A)	CHARACTER	1	OUCBIQFL	invalid queue flags
267	(10B)	BITSTRING	1	OUCBSMSK	Mask which represents which subsystem this job belongs to (see IWMAIFL mapping)
268	(10C)	UNSIGNED	4	OUCBPINB	policy count base for ouxbpin
272	(110)	UNSIGNED	4	OUCBPINT	policy time base for ouxbpin
276	(114)	UNSIGNED	4	OUCBTAXB	Base for blocked/unblocked page-in from aux (rm2 plotting interval)
280	(118)	UNSIGNED	4	OUCBVHDB	Base for vio & hiperspace page-in from aux (per depature)
284	(11C)	UNSIGNED	4	OUCBVHPB	Base for vio & hiperspace page in from aux (rm2 plotting interval)
288	(120)	UNSIGNED	4	OUCBVHUB	Base for vio & hiperspace aux page units
292	(124)	UNSIGNED	4	OUCBEXIB	Base for OUXBPINE
296	(128)	UNSIGNED	4	OUCBEXOB	Base for OUXBPOTE
300	(12C)	UNSIGNED	4	OUCBCRMB	Base for OUXBCRMS (cache hiperspace read miss count)
304	(130)	UNSIGNED	1	OUCBCPUS	Number of CPUs currently running work in this space. Must be recomputed before each use!
305	(131)	CHARACTER	1	OUCBFLGX	More WLM Flags
		1... ....		OUCBACFL	Flag indicating MPL and SWAP delay is being accumulated during period switch. ON = accumulation should not be retried after abend.@OW23722
		.1. ....		*	Reserved
		..1. ....		*	Reserved
		...1 ....		*	Reserved
		.... 1..		OUCBXSTGPROTNOW	Address space is currently storage-protected. If on, implies that the address space is running in a single period service class that does not have short response time goals _and_ either the space was assigned storage protection explicitly via a classification rule or the space is serving CICS/IMS transactions whose service class was assigned storage protection via a CICS/IMS classification rule
		.... .1..		OUCBXSTGCRIT_SPECIFIED_EXPLICIT	Address space was assigned explicit storage protection, meaning it matched a classification rule which specified storage-critical=yes.
		.... ..1.		OUCBXIGNORETRXNSPECIFIED	Address space is exempt from being a transaction server. It matched a classification rule which specified manage region to goals = Region. There is no equivalent ...now bit, SRM always observes this setting.
		.... ...1		OUCBXTRXMGMTBOTHSPECIFIED	Address space matched a classification rule which specified "Manage Region Using Goals Of BOTH". Which means it is managed towards the velocity goal of the region. But, transaction completions are reported and used for management of the transaction service classes with response time goals. This option should only be used with CICS TORs, the associated AORs should remain at the default "Manage Region Using Goals Of TRANSACTION".
306	(132)	UNSIGNED	2	OUCBPROPAGATEDENQHOLDCOUNT	Count of Enqhlds propagated to the address space because of enclave tasks
308	(134)	UNSIGNED	4	OUCBTMFM	time that the first swap-out was attempted for a reqswap/swp/fixed storage shortage swap
312	(138)	SIGNED	4	OUCBEUB1	Unadjusted expanded uic bucket 1
316	(13C)	SIGNED	4	OUCBEUB2	Unadjusted expanded uic bucket 2
320	(140)	SIGNED	4	OUCBEUB3	Unadjusted expanded uic bucket 3
324	(144)	SIGNED	4	OUCBEUB4	Unadjusted expanded uic bucket 4

# IRAUCBX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
328	(148)	CHARACTER 1... .. .1.. .. ..1. .. ...1 .. .... 1.. .... .1.. .... ..1. .... ...1	1	OUCBWLM2 OUCBDFRR OUCBEFRR OUCBGFRR OUCBWSMT OUCBMDAC OUCBSSPS OUCBRSNS OUCBPSRB	Flags Dequeued by IRARMERR Enqueued by IRARMERR Getmained by IRARMERR WSM last set protective processor storage target Indicates that the mpl delay for this space has been accumulated Shared page second base (oucbspss) is non-zero OUCBNSWI bit set by SRM recovery Preemptible SRB time attributable to this address space (AssbAsst) is non-zero
329	(149)	BITSTRING 1... .. .1.. .. ..11 1111	1	OUCBWL2F OUCBPSRV OUCBXDEPENCLTIMEEXISTS *	Flags used by WL2, clustered in one byte to reduce pathlength in service calculations Transaction service preemptible SRB time base (ouxbprss) is non-zero Dependent enclave CPU time exists that may not have been merged into the owning address space's CPU time. reserved
330	(14A)	UNSIGNED	2	OUCBXDEPENCLCOUNT	Summary count of number of dependent enclaves owned by this address space. Halfword is enough as long as enclave pseudoids are limited to a halfword
332	(14C)	ADDRESS	4	OUCBENCH	Header of the ENCB queue owned by this address space
336	(150)	ADDRESS	4	OUCBENCL	Trailer of the ENCB queue owned by this address space
340	(154)	ADDRESS	4	OUCBETIM	Accumulate tx active time of completed enclaves owned by this space
344	(158)	ADDRESS	4	OUCBECPU	Accumulate CPU service of completed enclaves owned by this space
348	(15C)	BITSTRING	8	OUCBECPT	Accumulate total CPU time of completed enclaves owned by this space (STCK format)
356	(164)	ADDRESS	4	OUCBETRC	Accumulate transaction counts of completed enclaves owned by this space
360	(168)	CHARACTER	16	OUCBENQMANAGEMENT	Enq related info
360	(168)	BITSTRING 1... .. .1.. .. ..1. .. ...1 ..	2	OUCBENQFLAGS OUCBENQP OUCBPROA OUCBPROE OUCBCQHASBEENCORRUPTED	Enq status flags Increase CPU DP for enqueue promotion Enqueue promotion due to A/S EnqHold Enqueue promotion due to enclave EnqHold Context queue had invalid elements
360	(168)	BITSTRING	1	*	For future use
362	(16A)	UNSIGNED	2	OUCBNQC	Number of enqueue hold elements in OUCB context queue
364	(16C)	SIGNED	4	OUCBNQT	ENQ residency start time
368	(170)	SIGNED	4	OUCBENQCPUTIMECONSUMEDBASE	Reference value to calculate OUCBEnqCPUtimeConsumed. 1.024 milliseconds unit@WLMPEMG
372	(174)	SIGNED	4	OUCBENQCPUTIMECONSUMED	CPU time consumed for and A/S or Job while enqueue promoted. 1.024 milliseconds unit@WLMPEMG
376	(178)	CHARACTER	8	OUCBCONTEXTQUEUE	Queue of context elements
376	(178)	ADDRESS	4	OUCBCONTEXTQUEUEHEAD	address of 1st element in queue
380	(17C)	ADDRESS	4	OUCBCONTEXTQUEUETAIL	address of last element in queue
384	(180)	CHARACTER	128	OUCB_CACHELINE6	6th cache line of OUCB
384	(180)	ADDRESS	4	OUCBGRLU	Address of the Generic Resource LU Object
388	(184)	SIGNED	4	OUCB_RAW_SERVICE_ACCUM	Raw service accumulator. Note: This field is provided on a 10 second policy interval basis to represent the raw service (CPU & SRB) accumulated in the current policy interval. This field is cleared each time IRAPASDC is invoked
392	(188)	ADDRESS	4	OUCB_BPAH	Pointer to address space buffer pool header if address space has ever owned buffer pools
396	(18C)	SIGNED	4	OUCBFRAMESTOBESTOLENBYRSM	Number of frames that RSM is requested to steal from this address space
400	(190)	BITSTRING	8	OUCBSPSS	Shared page seconds
408	(198)	ADDRESS	4	OUCBXJAFBADDR	Pointer to Jafb sect
412	(19C)	UNSIGNED	4	OUCBX_RSTORCMP_TIME	Time when the address space came in (End of RSTORCMP).
416	(1A0)	BITSTRING	8	OUCBASST	Base Preemptible SRB time used in AP1, loaded from AssbAsst.
424	(1A8)	BITSTRING	8	OUCBSRST	Shared page residency time (central storage)
432	(1B0)	ADDRESS	4	OUCBSCLS	Service class & report class is saved during tso logon termination through change period to SRMGOOD class
432	(1B0)	UNSIGNED	2	OUCBSSCI	goal mode: Workload reporting saved service class index
434	(1B2)	UNSIGNED	2	OUCBSRCI	goal mode: Workload reporting saved report class index
436	(1B4)	CHARACTER	8	OUCBETCBQ	DHDTTC queue of IRAETCBs
436	(1B4)	ADDRESS	4	OUCBETCBFIRST	First ETCB on queue

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
440	(1B8)	ADDRESS	4	OUCBETCBLAST	Last ETCB on queue
444	(1BC)	CHARACTER	8	OUCBXDETOTALCPUTIME	CPU time, STCK format, accumulated by all completed dependent enclaves owned by this space during its current transaction as in CASE
452	(1C4)	UNSIGNED	2	OUCBSCPI	Service Class Period Index. Used by IOS as an index into the IOSDSCMT. Matches sppte_number in the sppte pointed to by OucbSppte. 0 is not a valid index.
454	(1C6)	CHARACTER	2	*	
456	(1C8)	UNSIGNED	4	OUCBXIEIOCONNECTTIME	Sum of EncbCon for all completed independent enclaves, smf 30 interval
460	(1CC)	UNSIGNED	4	OUCBXIEIODISCONNECTTIME	Sum of EncbDisc for all completed independent enclaves, smf 30 interval
464	(1D0)	UNSIGNED	4	OUCBXIEIOWAITTIME	Sum of EncbWait for all completed independent enclaves, smf 30 interval
468	(1D4)	UNSIGNED	4	OUCBXIESSCHCOUNT	Sum of EncbloSC for all completed independent enclaves, smf 30 interval
472	(1D8)	UNSIGNED	4	OUCBXDEIOCONNECTTIME	Sum of EncbCon for all completed dependent enclaves, smf 30 interval
476	(1DC)	UNSIGNED	4	OUCBXDEIODISCONNECTTIME	Sum of EncbDisc for all completed dependent enclaves, smf 30 interval
480	(1E0)	UNSIGNED	4	OUCBXDEIOWAITTIME	Sum of EncbWait for all completed dependent enclaves, smf 30 interval
484	(1E4)	UNSIGNED	4	OUCBXDESSCHCOUNT	Sum of EncbloSC for all completed dependent enclaves, smf 30 interval
488	(1E8)	SIGNED	2	OUCBXPERFORMVALUE	Contains the value passed for the PERFORM= keyword. This value is preserved across a mode switch and is used during Goal Mode classification.
490	(1EA)	BITSTRING	2	OUCBXFLAGS	
		1... ....		OUCBXRESETBEFOREINITIATION	On if JobSelect passed in a RESET SRVCLASS for a batch job that would be used to override classification.
		.1.. ....		OUCBXRESETAFTERINITIATION	On if address space was reset while it was running.
		..1. ....		OUCBXOPERATORFORCEDINITIATION	On if JobSelect said that the initiation was forced upon JES, e.g. via \$SJ
		...1 ....		OUCBXJOBREINCARNATED	On if job has been restarted
		.... 1...		OUCBXSYST	System task, that is, the PPT and/or SCHEDxx specified SYST and it passed allocation checks.
		.... .1..		OUCBXHASREMOTESYSTEMDATA	This address space has Remote System Data. The data exists either at the address space level or at an owned original enclave level.
		.... ..1.		OUCBXREMOTESYSTEMDATAINCOMPLETE	Indicates the address space Remote System Data is not complete for the following reasons: Premature Undo Export - Subsystem deletes the enclave before the Undo Export - There are outstanding Imports (determined by WLM) at Undo Export time
		.... ...1		OUCBXCANCEL	indicates that sysevent CANCEL was issued
491	(1EB)	1... ....		OUCBXNONCANCELABLE	The address space is non cancelable. In the PPT and/or SCHEDxx the NOCANCEL keyword is specified for the program
		.111 ....		*	reserved
		.... 1111		*	reserved
492	(1EC)	UNSIGNED	4	OUCBXDEENQCPUTIMECONSUMED	Sum of CPU time consumed while enqueue promoted for all completed dependent enclaves.
496	(1F0)	UNSIGNED	4	OUCBENQCPUTIMECONSUMEDI	Interval CPU time consumed while enqueue promoted. 1.024 milliseconds unit@WLMPEM2
500	(1F4)	BITSTRING	1	OUCBIRSFLAGS	REALSWAP / TRANSWAP (ESAME mode) flags. See also REALSWAP / TRANSWAP sysevent, where the phase is explained.
		1... ....		OUCBGENERICIRS	The flag is set when a REALSWAP or Transwap request is passed to RCT (Phase R-P2 and T-P2).
		.1.. ....		OUCBREALSWAPINRSM	The flag is set when a REALSWAP request is passed to RCT (R-P2) The address space should be logically swapped while this bit is on. Memory of the current realswap request moves from oucbirsw to here when RCT is told to execute it.
		..1. ....		OUCBTRANSWAPINRSM	The flag is set when a TRANSWAP request is passed to RCT (T-P2) The address space should be logically swapped while this bit is on. Memory of the current transwap request remains in oucbtws.
		...1 ....		*	reserved
		.... 1...		OUCBXNOIARYBLSWCALL	

# IRAUCBX Map

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
		.... .1..		OUCBREALSWAPREDRIVE	Do not call in Realswap Type=Complete the RSM module IARYBLSW. This flag is set when a REALSWAP request has failed in RSM. The flag stays on while SRM redrives the request.
		.... ..1.		OUCBTRANSWAPREDRIVE	This flag is set when a TRANSWAP request has failed in RSM. The flag stays on while SRM redrives the request. 1@ME23305D
501	(1F5)	UNSIGNED	1	OUCBXOUCBSRCSAVE	Saved value of OUCBSRC during a REALSWAP
502	(1F6)	CHARACTER	1	*	Reserved
503	(1F7)	BITSTRING	1	OUCBXRAXSWAPREASON	This fields saves the RAX information, as long the REALSWAP is pending.
504	(1F8)	UNSIGNED	4	OUCBIRST	RRPATOD last time in REALSWAP
508	(1FC)	UNSIGNED	4	OUCBREALSWAPRSMFAILEDTIME	Save the time when RCT notified SRM that RSM was unable to complete a REALSWAP or TRANSWAP in memory. Usually set in sysevent realswap,type=completion but can also be set via quiesce fail if the failure occurred while such a request was in progress. The TRANSWAP or REALSWAP fail flag is set simultaneously.
512	(200)	CHARACTER	0	*	fill up cache line
512	(200)	CHARACTER	128	OUCB_CACHELINE7	7th cache line of OUCB
512	(200)	SIGNED	4	OUCBXCLSFYPRIORITY	Subsystem priority used for classification purposes, in binary format. Contains hexadecimal 80000000 if the subsystem did not provide a priority.
516	(204)	UNSIGNED	4	OUCBXQUEUEETIME	Duration of time work was eligible for execution. 1.024 millisecond units. Passed into JobSelect. Hex 0s if not supplied. OS390 R4 JES2 with reformatted spool is the first supplier.
520	(208)	UNSIGNED	4	OUCBXJCLCONVERSIONTIME	Duration of JCL conversion for batch job. 1.024 millisecond units. Passed into JobSelect. Hex 0s if not supplied. OS390 R4 JES2 with reformatted spool is the first supplier.
524	(20C)	UNSIGNED	4	OUCBXSYSORRESAFFTIME	Duration that batch job was ineligible for execution on every system in the MAS due to resource or system affinity. 1.024 millisecond units. Passed into JobSelect. Hex 0s if not supplied. OS390 R4 JES2 with reformatted spool is the first supplier.
528	(210)	UNSIGNED	4	OUCBXINELIGIBLETIME	Duration that batch job was ineligible for execution on every system in the MAS for reasons other than affinities. Examples: job hold, job class hold. TYPRUN=HOLD and TYPRUN= JCLHOLD times are excluded from all of these times. 1.024 millisecond units. Passed into JobSelect. Hex 0s if not supplied. OS390 R4 JES2 with reformatted spool is the first supplier.
532	(214)	CHARACTER	16	OUCBXSCHEDEVN	Resource affinity scheduling environment requested in the JCL, or 00x if none was supplied
548	(224)	UNSIGNED	4	OUCBXEQUBATCHQDELAY	Equivalent batch queue delay samples.
552	(228)	UNSIGNED	4	OUCBXTOTALSERVICEBASE	Base for total service used by address space over a policy interval
556	(22C)	UNSIGNED	4	OUCBXIOWAITTIMEINTVBASE	Interval base for OUXBWAIT
560	(230)	UNSIGNED	4	OUCBXIOCONTIMEINTVBASE	Interval base for OUXBCON
564	(234)	UNSIGNED	4	OUCBXIOCOUNTIMEINTVBASE	Interval base for OUXBIOSC
568	(238)	UNSIGNED	4	OUCBXIODISCTIMEINTVBASE	Interval base for OUXBDISC
572	(23C)	UNSIGNED	4	OUCBXIOSQTIMEINTVBASE	Interval base for OucbxIosQtime
576	(240)	ADDRESS	4	OUCBXCRRB	Pointer to CRRB for address space
580	(244)	ADDRESS	4	OUCBXCAS	Pointer to CRAS
584	(248)	BITSTRING	8	OUCBCAPB	Base value for captured CPU time that is updated when a point is plotted for this address space.
592	(250)	UNSIGNED	4	OUCBXREMOTESERVICE	The number of service units consumed by multisystem dependent enclaves on other systems. Maintained in goal mode only.
596	(254)	ADDRESS	4	OUCBXREMOTESYSTEMDATAPTR	Pointer to the Foreign Enclave AcctData(FEAD) which is used for SMF30 data reporting
600	(258)	UNSIGNED	4	OUCBXLATCHCOUNT	Latch count that indicates whether address space is holding any latches
604	(25C)	UNSIGNED	4	OUCBXPERIODSTARTREMOTESERVICE	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
					Amount of remote service attributed to starting the address space's current period
608	(260)	UNSIGNED	4	OUCBXARRIVALTIMESTCKWORD1	
612	(264)	UNSIGNED	4	OUCBX_CONNTIME_BASE	Time that work unit entered MVS system - STCK format, 1st word only
616	(268)	CHARACTER	8	OUCBXSUBSYSTEMCOLLECTIONNAME	RM2 interval base for OUXBCONN
624	(270)	BITSTRING	4	OUCBX_GMI_F1	Subsystem collection name corresponding to IWMCLSFY SUBCOLN value. For JES2/JES3, MAS/JESplex name. Blanks for other address spaces.
		1... ..		OUCBX_STCR_CHSK	Flags
		.1.. ..		OUCBX_STCR_PHSK	Indicates, that storage critical housekeeping was the last who has set the central storage protective target
		..1. ....		OUCBX_PA_PCS_TAR	Indicates, that storage critical housekeeping was the last who has set the processor storage protective target
		...1 ....		OUCBX_PA_PPS_TAR	Indicates, that policy adjustment was the last who has set the central storage protective target
624	(270)	BITSTRING	3	*	Indicates, that policy adjustment was the last who has set the processor storage protective target
628	(274)	UNSIGNED	4	OUCBX_PPS_CHANGETIME	Reserved
632	(278)	UNSIGNED	4	OUCBX_PCS_CHANGETIME	Time of last processor protective storage target setting
636	(27C)	UNSIGNED	4	OUCBX_QSCEST_TIME	Time of last central protective storage target setting
640	(280)	CHARACTER	128	OUCB_CACHELINE8	Time when the OUCBQSS flag was set.
640	(280)	BITSTRING	8	OUCBX_BASE_SERVTIME_ON_PRO	8th cache line of OUCB
				(4294967298:562218112)	
656	(290)	BITSTRING	8	OUCBX_BASE_SERVTIME_PRO_ON_CP	base for service time calculation for special processor work
				(4294967298:562218112)	
					base for service time calculation for special processor work that runs on a regular CP
672	(2A0)	CHARACTER	8	*	reserved
680	(2A8)	UNSIGNED	4	OUCBXPROTRXSERVICEUNITS	accumulator for special processor transaction service units
				(4294967298:562218112)	
688	(2B0)	BITSTRING	8	OUCBXDEPENCPROTIMEFORWM1	special processor time spent for enclaves owned by this space but not yet rolled up by WM1
				(4294967298:562218112)	
704	(2C0)	UNSIGNED	2	OUCBXEXPRESS	express user bits
		1... ..		OUCBCRMP	CRM promotion process is active
704	(2C0)	BITSTRING	1	*	reserved for future
706	(2C2)	BITSTRING	8	OUCBX_TIME_AT_PDP	time at promotion DP
714	(2CA)	BITSTRING	8	OUCBX_TIME_AT_PDP_BASE	Base for time at promotion DP (STCK format)
722	(2D2)	CHARACTER	2	*	reserved for future
724	(2D4)	UNSIGNED	4	OUCBX_TIME_AT_PDP_LEFTOVER	time at prom. DP not yet converted
728	(2D8)	CHARACTER	8	*	Reserved
736	(2E0)	UNSIGNED	2	OUCBNQC_STANDARD	EnqHold counter for standard enqueue promotion
738	(2E2)	UNSIGNED	2	OUCBNQC_SHORTTIME	EnqHold counter for short time enqueue promotion
740	(2E4)	SIGNED	4	OUCBNQT_SHORTTIME	Start time of promotion interval for short time enqueue promotion
744	(2E8)	SIGNED	4	OUCBX403TOTFRAMES	Frame count at the time, the address space was selected to resolve the storage shortage.
744	(2E8)	SIGNED	4	OUCBX203TOTFRAMESLOTS	Frame + slot count at the time, the address space was selected to resolve the axilliary shortage.
748	(2EC)	SIGNED	4	OUCBX403TOTFIXED	Fixed frame count at the time address space was selected to resolve the storage shortage.
748	(2EC)	SIGNED	4	OUCBX203RATE	Slot allocation rate at the time the address space is selected to resolve the AUX shortage.

# IRAUCBX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
752	(2F0)	BITSTRING	1	OUCBX03FLAGS	Flag bits
		1... ..		OUCBX403REQUIRED	Set when the address space is selected to resolve a fixed storage shortage. The message is deferred to swap out complete.
		.1.. ..		OUCBX203REQUIRED	Set when the address space is selected to resolve a fixed storage shortage. The message is deferred to swap out complete.
753	(2F1)	BITSTRING	1	OUCBXFXSREASON	Reason why OUCBFXS and which shortage was already resolved
		1111 ..		OUCBXFXSRSV4	Reserved
		.... 1..		OUCBXFXSBETWEEN16M2G	Between 16M and 2G
		.... .1..		OUCBXFXSBELOW16M	Below 16M
		.... ..1.		OUCBXFXSALL	In all real frames
		.... ...1		OUCBXFXSDREF	In DREF and Fixed
754	(2F2)	CHARACTER	2	*	reserved for future
756	(2F4)	CHARACTER	4	*	reserved for future
760	(2F8)	CHARACTER	8	OUCBXSTEPSTARTTIME	Step start time used to calculate the in storage time
768	(300)	CHARACTER	128	OUCB_CACHELINE9	
768	(300)	CHARACTER	64	OUCBEWLMDATA	Block for EWLM Data
768	(300)	CHARACTER	8	OUCBEWLMTCBTIME	Total TCB time since address space started
776	(308)	CHARACTER	8	OUCBEWLMSRBTIME	Total SRB time since address space started
784	(310)	CHARACTER	16	OUCBEWLMPID	EWLM Process ID
800	(320)	BITSTRING	4	OUCBEWLMLFLAGS	EWLM flag bits
		1... ..		OUCBEWLMISARMREGED	Address space registered with ARM
		.1.. ..		OUCBEWLMISEWLMAGENT	Address space has connected as EWLM managed svr@WLMPEW2
		..1. ....		OUCBEWLARMNOTACTIVE	ARM has been disabled while this address space was registered with ARM
		...1 ....		OUCBEWLMENCCONNYES	The workmanager connected with EWLM=YES
		.... 1..		OUCBEWLMWASDISABLED	ARM disable was issued during the lifetime of this address space while AS was registered with ARM. This bit will never be turned off until AS terminates
804	(324)	CHARACTER	8	OUCBEWLMTASKRM	Task RESMGR token
812	(32C)	CHARACTER	8	OUCBEWLMAARM	AS RESMGR token
820	(334)	CHARACTER	12	OUCBEWLMRESERVED	Reserved for EWLM
832	(340)	BITSTRING	8	OUCBX_BA_AS_TTIME_BASE	Base for balancer AS calculations
840	(348)	BITSTRING	8	OUCBX_BA_AS_IFA_TIME_BASE	Base for balancer AS IFA calculations
848	(350)	BITSTRING	8	OUCBXENCSTIMEQUAL	Qualified SUP time of enclaves owned by this space
856	(358)	BITSTRING	8	OUCBXDEPENCSUPTIMEQUAL	Qualified SUP time of dependent enclaves owned by this space
864	(360)	BITSTRING	8	OUCBX_BA_AS_IOC_TIME_BASE	Base for balancer AS IFA on CP calculations@WLMPECL
872	(368)	BITSTRING	8	OUCBX_BA_AS_SUP_TIME_BASE	Base for balancer AS SUP calculations
880	(370)	BITSTRING	8	OUCBX_BA_AS_SOC_TIME_BASE	Base for balancer AS SUP on CP calculations@LVCMZIA
888	(378)	CHARACTER	8	*	fill up cache line
896	(380)	CHARACTER	128	OUCB_CACHELINE10	
896	(380)	BITSTRING	8	OUCBX_TIME_ON_PRO (4294967298:562230200)	Time spent for work running on special processor, in service units scaled with 2**20
912	(390)	BITSTRING	8	OUCBX_TIME_PRO_ON_CP (4294967298:562230200)	Time spent on CP for special processor work, in service units scaled with 2**20
928	(3A0)	BITSTRING	8	OUCBX_TIME_ON_PRO_BASE (4294967298:562230200)	Base for processor time calculation (STCK format)
944	(3B0)	BITSTRING	8	OUCBX_TIME_PRO_ON_CP_BASE (4294967298:562230200)	



Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
960	(3C0)	BITSTRING	8	OUCBXENCTIMEONPRO (4294967298:562230200)	Base for Processor_On_CP time calculation (STCK format)
976	(3D0)	BITSTRING	8	OUCBXDEPENCTIMEONPRO (4294967298:562230200)	Time of completed enclaves owned by this space
992	(3E0)	BITSTRING	8	OUCBXENCTIMEPROONCP (4294967298:562230200)	Time of completed dependent enclaves owned by this space
1008	(3F0)	BITSTRING	8	OUCBXDEPENCTIMEPROONCP (4294967298:562165800)	Processor_On_CP time of completed enclaves owned by this space
1024	(400)	CHARACTER	128	OUCB_CACHELINE11	Processor_On_CP time of dependent enclaves owned by this space
1024	(400)	BITSTRING	8	OUCBXTASKTIMEONCP	Time of TASK MODE on CP
1032	(408)	BITSTRING	8	OUCBXSRTIMEONCP	Time of SRB MODE on CP
1040	(410)	BITSTRING	8	OUCBCPUL	Accumulate scaled CPU service
1048	(418)	BITSTRING	8	OUCBSRBL	Accumulate scaled SRB service
1056	(420)	BITSTRING	8	OUCBXRSTORFLTIME	Time the last RstorFI occured
1064	(428)	BITSTRING	1	OUCBXRSTORFLTYPE	Rstorfl type information
		1... ..		OUCBXRSTORFLTYPE1	Type=FramesNotRestored
1065	(429)	BITSTRING	1	OUCBXRSTORFLFLAG	Flags
		1... ..		OUCBXRSTORFLREDRIVE	Wait for redrive
1066	(42A)	CHARACTER	1	OUCBXRSTORFLRSV3	reserved
1067	(42B)	BITSTRING	1	OUCBXNSWDPREASON	Flags
		1... ..		OUCBXNSWDPREASONFIXED	Set non dispatchable, because system is in a pageable storage shortage
		.1... ..		OUCBXNSWDPREASONAUX	Set non dispatchable, because system is in a auxillary storage shortage
1068	(42C)	SIGNED	4	OUCBXRSTORFLRSV4	reserved
1072	(430)	CHARACTER	16	OUCBCRMCPUTIME	CRM fields
1072	(430)	SIGNED	4	OUCBCRMCPUTIMECONSUMEDBASE	Reference value to calculate OUCBCrmCPUtimeConsumed. 1.024 milliseconds unit@LENQP3I
1076	(434)	SIGNED	4	OUCBCRMCPUTIMECONSUMED	CPU time consumed for and A/S or Job while promoted due to resource contention. 1.024 milliseconds unit@LENQP3I
1080	(438)	UNSIGNED	4	OUCBXDECRMCPUTIMECONSUMED	Sum of CPU time consumed while promoted due to resource contention for all completed dependent enclaves.
1084	(43C)	UNSIGNED	4	OUCBCRMCPUTIMECONSUMEDI	Interval CPU time consumed while enqueue promoted. 1.024 milliseconds unit@LENQP3I
1088	(440)	BITSTRING	8	OUCBECPL	Accumulate scaled CPU service of completed enclaves owned by this space
1096	(448)	BITSTRING	8	OUCBMSOL	Accumulate scaled MSO service
1104	(450)	BITSTRING	8	OUCBTRSL	Accumulate scaled transaction service
1112	(458)	BITSTRING	8	OUCBWMSL	Interval service Accumulator long
1120	(460)	CHARACTER	16	*	reserved
1136	(470)	BITSTRING	8	OUCBCPUG	Interval CPU Service Accum long
1144	(478)	BITSTRING	8	OUCBSRBG	INTVL SRB SVCE ACCUM long
1152	(480)	CHARACTER	128	OUCB_CACHELINE12	Cache line reserved for Storage Monitoring
1152	(480)	BITSTRING	8	OUCBXSTMA	STMA pointer - 64bit pointer to move the STMA above 2G common
1152	(480)	SIGNED	4	*	Higher half
1156	(484)	ADDRESS	4	OUCBXSTMA31	Pointer to STMA - Lower half
1160	(488)	SIGNED	4	OUCBXFIXEDINCVALUE	Fixed frame inc.
1164	(48C)	SIGNED	4	OUCBXVIRTINCVALUE	Virtual increase
1168	(490)	SIGNED	4	*	
1172	(494)	SIGNED	4	*	
1176	(498)	SIGNED	4	*	
1180	(49C)	SIGNED	4	*	

## IRAUCBX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
1184	(4A0)	BITSTRING	8	OUCBX_IFA_TIME	IFA time for IRAEVREQ to get in synch. w. OUCBCPU in IRARMWL2
1192	(4A8)	BITSTRING	8	OUCBX_SUP_TIME	SUP time for IRAEVREQ to get in synch. w. OUCBCPU in IRARMWL2
1200	(4B0)	BITSTRING	8	OUCBX_IFACP_TIME	IFA on CP time for IRAEVREQ to get in synch. w. OUCBCPU in IRARMWL2
1208	(4B8)	BITSTRING	8	OUCBX_SUPCP_TIME	SUP on CP time for IRAEVREQ to get in synch. w. OUCBCPU in IRARMWL2
1216	(4C0)	BITSTRING	8	OUCBX_HDLOCKPROMOTION_TIME_AT_PDP	HD lock time at promotion DP
1224	(4C8)	BITSTRING	8	OUCBX_HDLOCK_TIME_AT_PDP_BASE	Base for HD lock time at PDP
1232	(4D0)	UNSIGNED	4	OUCBX_HDLOCK_TIME_AT_PDP_LEFTOVER	HD lock time at promotion DP not yet converted
1236	(4D4)	UNSIGNED	4	OUCBX_PROMOTIONBASE	Start time of A/S promotion in 1.024 millisecs
1240	(4D8)	SIGNED	4	OUCBX_PROMOTIONTIMEACCUM	Accumulated promotion time since last samples gathering invocation in 1.024 millisecs
1244	(4DC)	SIGNED	4	OUCBX_PROMOTIONADJF	Promotion adjustment factor. This is the proportion of the promotion time for the actual samples gathering interval * 1000
1248	(4E0)	UNSIGNED	4	OUCBX_TIMEOFLASTSAMPLESGATHERING	Invocation time of last samples gathering in 1.024 millisecs
1252	(4E4)	CHARACTER	28	*	reserved
1280	(500)	CHARACTER	128	OUCB_CACHELINE13	Cache line 13
1280	(500)	BITSTRING	8	OUCBX_VARTIME_AT_PDP	Time promoted to a variable dispatch priority by supervisor
1288	(508)	BITSTRING	8	OUCBX_VARTIME_AT_PDP_BASE	Base for time promoted to var DP
1296	(510)	BITSTRING	8	OUCBX_VARWEIGHTED_TIME_AT_PDP	Time promoted to variable dispatch priority by supervisor weighted by dispatch priority
1304	(518)	BITSTRING	8	OUCBX_VARWEIGHTED_TIME_AT_PDP_BASE	Base for time promoted to var DP weighted by dispatch priority
1312	(520)	BITSTRING	8	OUCBLPSS	Large page seconds
1320	(528)	BITSTRING	8	OUCBLRST	Large page residency time
1328	(530)	CHARACTER	80	*	reserved
1408	(580)	CHARACTER	0	OUCBXEND	end of OUCBX

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	640	OUCBS	
0	(0)	CHARACTER	128	OUCBS_CACHELINE1	cache line of OUCB
0	(0)	CHARACTER	16	OUCBSHEADER	OUCBS header info
0	(0)	CHARACTER	8	OUCBSNAME	eyecatcher
8	(8)	UNSIGNED	1	OUCBSVER	Version id
9	(9)	CHARACTER	3	*	reserved
12	(C)	UNSIGNED	2	OUCBSLEN	length of OUCBS
14	(E)	CHARACTER	2	*	reserved
16	(10)	UNSIGNED	4	OUCBXIOCUQTTIMEINTVBASE	CUQT sampls.
20	(14)	CHARACTER	1	OUCBFLGX2	More WLM Flags
		1... ....		*	Reserved
		.1... ....		OUCBXSERVTASKSMANAGED	Flag that indicates whether the server instances for this address space are managed.
		..1. ....		*	Reserved
		...1 ....		OUCBXVSDATACOLLECTED	Virtual Storage Data has been successfully collected
		.... 1...		OUCBXENDPERIOD	End of Period
		.... .111		*	Reserved
21	(15)	CHARACTER	3	*	Reserved
24	(18)	UNSIGNED	4	OUCBXIOSQTIME	IOS queue time from DASD. Note this time is converted from samples not directly measured. In 128 microsec units.@PSY0602
28	(1C)	UNSIGNED	4	OUCBXVSAVLBEL16MB	Percent of virtual storage available below 16MB line data is collected for queue servers with the managed tasks bit turned on only

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
32	(20)	UNSIGNED	4	OUCBXVSAVLAV16MB	Percent of virtual storage available above 16MB line data is collected for queue servers with the managed tasks bit turned on only
36	(24)	UNSIGNED	4	OUCBXLLOCKUTIL	Count which indicates how often the local lock was found util. data is collected for queue servers with the managed tasks bit turned on only
40	(28)	UNSIGNED	4	OUCBXINSTVSPLOT	Count which contains the number of active server instances found when the data for the virtual storage plots was obtained
44	(2C)	UNSIGNED	4	OUCBXINSTLLPLOT	Accumulator which is used to collect and calculate the avg. number of active server inst. for plotting local lock util.
48	(30)	UNSIGNED	4	OUCBDISCLLEFTOVER	Remainder in Disc samples cal
52	(34)	UNSIGNED	4	OUCBDISCTIMEBASE	Disc Time Base
56	(38)	UNSIGNED	4	OUCBFDISTIMEBASE	FICON Disc Time Base
60	(3C)	UNSIGNED	4	OUCBDISCLLEFTOVERSM	Remainder in Disc samples cal
64	(40)	UNSIGNED	4	OUCBDISCTIMEBASESM	Disc Time Base for sampling
68	(44)	UNSIGNED	4	OUCBFDISTIMEBASESM	FICON Disc Tm Base for samp
72	(48)	UNSIGNED	4	OUCBFMNOBASE	FMNO base
76	(4C)	UNSIGNED	4	OUCBCONTIMEBASE	connect time base
80	(50)	UNSIGNED	4	OUCBFWAITTIMEBASE	FICON wait time base
84	(54)	UNSIGNED	4	OUCBFMNOBASESM	FMNO base for sampling
88	(58)	UNSIGNED	4	OUCBCONTIMEBASESM	connect time base for sampling
92	(5C)	UNSIGNED	4	OUCBFWAITTIMEBASESM	FICON wait time base for sampling
96	(60)	UNSIGNED	4	OUCBXIOFMNOINTVBASE	FICON fmno interval base
100	(64)	UNSIGNED	4	OUCBXIOFWAITTIMEINTVBASE	FICON I/O wait time interval base
104	(68)	UNSIGNED	4	OUCBXIOFDISTIMEINTVBASE	FICON I/O disc. time interval base
108	(6C)	UNSIGNED	4	OUCBUSINGLELEFTOVERSM	remainder in using samples calculation
112	(70)	UNSIGNED	4	OUCBWAITLEFTOVERSM	remainder in wait samples calculation
116	(74)	UNSIGNED	4	OUCBUSINGLELEFTOVER	remainder in using samples calculation
120	(78)	UNSIGNED	4	OUCBWAITLEFTOVER	remainder in wait samples calculation
124	(7C)	UNSIGNED	4	OUCBXIOFCONTIMEINTVBASE	FICON I/O connect time interval base
128	(80)	CHARACTER	128	OUCBS_CACHELINE2	cache line of OUCB
128	(80)	UNSIGNED	2	OUCBSERVINSTACTIVE	Current number of server instances between IWMSTBGN (Begin) and IWMSTEND (End)
130	(82)	CHARACTER	2	*	reserved
132	(84)	UNSIGNED	4	OUCBWAITTIMEBASESM	Base for I/O wait time, used by sampling
136	(88)	UNSIGNED	4	OUCBUSINGTIMEBASESM	Base for I/O using time, used by sampling
140	(8C)	ADDRESS	4	OUCBESMBPTR	Enclave Storage Management Block anchor or 7FFF000.
144	(90)	ADDRESS	4	OUCBSPTE	Spte pointer. If the address space is a server, this period cannot be found via OucbScte because it is associated with a dynamic internal service class. 7FFF000 if no period is associated with the address space.
148	(94)	ADDRESS	4	OUCBSHBP	Server history block ptr
152	(98)	ADDRESS	4	OUCBSXM1	sampling cross memory OUCB address 1
156	(9C)	ADDRESS	4	OUCBSXM2	sampling cross memory OUCB address 2
160	(A0)	ADDRESS	4	OUCBSXXM	sampling cross memory exclude OUCB address
164	(A4)	CHARACTER	8	OUCBBUFFERPOOLTOKEN1	Buffer pool token whose delay samples are being kept in OucbBufferPool1
172	(AC)	CHARACTER	8	OUCBBUFFERPOOLTOKEN2	Buffer pool token whose delay samples are being kept in OucbBufferPool2
180	(B4)	CHARACTER	8	OUCBBUFFERPOOLTOKENEXCLUDE	

# IRAUCBX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
188	(BC)	BITSTRING 1... .... .1.. .... ..1. .... ...1 1111	1	OUCBWLMF OUCBLSMP * OUCBCPUR *	Buffer pool token whose delay samples are being excluded from individual tracking WLM flags, name used in IPCS formatter Last sample complete Reserved Indicates the state sampler noted this space requesting CPU Reserved
189	(BD)	CHARACTER  1... .... .111 1111	1	OUCBSFLG  OUCBXMSV OUCBRSV8	Flags used by sampling. Note that bits in this byte can be set by sampling without the SRM lock so any user of these flags must ensure proper serialization with sampling Sampling has saved this OUCB address as a target of xmem page faults. The OUCB must not be freeremained while this bit is on Reserved. Note see comment on OUCBSFLG before using
190	(BE)	UNSIGNED	2	OUCBASID	Address space ID
192	(C0)	CHARACTER 1... .... .1.. .... ..1. .... ...1 1111	1	OUCBVALB OUCB_VALID_PB_SEEN OUCB_VALID_REPORTONLY_PB_SEEN OUCB_VALID_BPMGMT_PB_SEEN *	OUCB Valid Bits Valid PB seen bit, old field name is OUCBVAPB Valid report-only PB seen bit Valid buffer pool mgmt PB seen bit @ME21083A Reserved @ME21083C
193	(C1)	CHARACTER	3	*	reserved
196	(C4)	CHARACTER	16	OUCBWCFO	WLM Classification output area
196	(C4)	BITSTRING	4	OUCBWTKN	WLM Classification token
200	(C8)	ADDRESS	4	OUCBNSPT	WLM Service period pointer
204	(CC)	BITSTRING	4	OUCBXSRMTOKEN	IWMCLSFY SRMTOKEN value
208	(D0)	ADDRESS	4	*	Reserved- was OUCBNSCT
212	(D4)	ADDRESS	4	OUCBSCTE	Pointer to the SCTE of the external class the address space is associated with.
216	(D8)	ADDRESS	4	OUCBXDAT	Address of XDAT for the address space or zero
220	(DC)	UNSIGNED	4	OUCBX_SERVTIME_LEFTOVER	service time to small to get converted to CPU usings
224	(E0)	UNSIGNED	4	OUCBX_CPU_SERVTIME_BASE	Base value for captured CPU time use for calculating CPU samples
228	(E4)	UNSIGNED	4	OUCBTEMPAFFINITYEXIST	Indicates whether temporal affinities are set or not.
232	(E8)	UNSIGNED	4	OUCBSERVINSTACTIVERGNWORK	Server instances active, aka between Begin and End for a IWMSSEL request, processing region work.
236	(EC)	UNSIGNED	4	OUCBX_CPUU_AT_JOBEND	CPU using samples found when the step ends
240	(F0)	UNSIGNED	2	OUCBX_CPSRP_SAMP	total samples for this OUCB
242	(F2)	UNSIGNED	2	OUCBX_CPSRP_CUR_FP_SAMP	full pre. samples for this OUCB
244	(F4)	UNSIGNED	2	OUCBX_CPSRP_PREV_FP_SAMP	prev full pre. saml. for OUCB
246	(F6)	CHARACTER	2	*	Reserved
248	(F8)	UNSIGNED	4	OUCBXIEIOCUQTTIME	CUQT sampling
252	(FC)	UNSIGNED	4	OUCBXDEIOCUQTTIME	CUQT sampling
256	(100)	CHARACTER	128	OUCBS_CACHELINE3	Cache line reserved for EWLM samples
256	(100)	UNSIGNED	4	OUCBEWLMTIMESAMPLED	Number of times this address space was sampled for EWLM
260	(104)	UNSIGNED	4	OUCBEWLMSERVTIMELO	Service time left from previous calculalation of CPU using samples
264	(108)	CHARACTER	40	OUCBEWLMTOTSAMPLES	AS total samples array
264	(108)	UNSIGNED	4	OUCBEWLMTOTCPUUSING	Total CPU using samples
268	(10C)	UNSIGNED	4	OUCBEWLMTOTCPUDELAY	Total CPU delay samples
272	(110)	UNSIGNED	4	OUCBEWLMTOTPAGEDELA	Total paging delay samples. This is the sum of private, common, VIO, hiperspace, shared and cross-memory paging from AUX storage
276	(114)	UNSIGNED	4	OUCBEWLMTOTIODELAY	Total DASD I/O Delay samples
280	(118)	UNSIGNED	4	OUCBEWLMTOTIDLE	Total idle samples
284	(11C)	UNSIGNED	4	OUCBEWLMTOTOTHER	Total other unknown samples

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
288	(120)	UNSIGNED	4	OUCBEWLMTOTIOUSING	Total DASD I/O Using samples
292	(124)	UNSIGNED	4	*	Reserved for array
304	(130)	CHARACTER	70	OUCBEHIS	Enclave History
304	(130)	UNSIGNED	4	OUCBEHIS_QTIME	Queue Time and
308	(134)	UNSIGNED	4	OUCBEHIS_ETIME	Elapsed Time of all ended enclaves of this space in the PA Int.
312	(138)	UNSIGNED	1	OUCBEHIS_LOW	index of entry with lowest long term average or of the first unused if not all in use
313	(139)	UNSIGNED	1	OUCBEHIS_HI	index of entry with highest long term average
314	(13A)	CHARACTER	6	OUCBEHIS_ENTRY (4294967306:562145624)	One entry per service class if the space owned enclaves in that service class. Maximum the 10 SCs with the most enclaves
314	(13A)	SIGNED	2	OUCBEHIS_SC	Serv. Cl. number
316	(13C)	UNSIGNED	2	OUCBEHIS_A	# of enclaves this PA interval
318	(13E)	UNSIGNED	2	OUCBEHIS_LTA	long term average of enclaves
374	(176)	UNSIGNED	1	OUCBHEALTHIND	Health Indicator
375	(177)	CHARACTER	9	*	Reserved
384	(180)	CHARACTER	128	OUCBS_CACHELINE4	Cache line reserved for special processor sampling

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Comment  
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-- Special processor (IFA,SUP) fields used to calculate  
processor usings from captured service times -----  
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End of Comment  
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384	(180)	UNSIGNED	4	OUCBX_PRO_SERVTIME_LEFTOVER (4294967298:562146936)	Time on processor that is not yet converted to usings
392	(188)	UNSIGNED	4	OUCBX_PRO_SERVTIME_BASE (4294967298:562146936)	Base value for captured service time
400	(190)	UNSIGNED	4	OUCBX_PROCP_SERVTIME_LEFTOVER (4294967298:562146936)	Time_on_cp that is not yet converted processor_on_CP usings
408	(198)	UNSIGNED	4	OUCBX_PROCP_SERVTIME_BASE (4294967298:562146936)	Base value for captured processor_on_cp time

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Comment  
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-- Special processor (IFA,SUP) samples found when jobstep  
ends -----  
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End of Comment  
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416	(1A0)	UNSIGNED	4	OUCBX_PROU_AT_JOBEND (4294967298:562146936)	processor using samples
424	(1A8)	UNSIGNED	4	OUCBX_PROCPU_AT_JOBEND (4294967298:562146936)	processor_on_CP using samples

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Comment  
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-- Blocked workloads (trickle) support -----  
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End of Comment  
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432	(1B0)	UNSIGNED	4	OUCBX_AT_PDP_SERVTIME_LEFTOVER	time at promotion DP not yet converted to usings
436	(1B4)	UNSIGNED	4	OUCBX_AT_PDP_SERVTIME_BASE	Base value for time at PDP
440	(1B8)	UNSIGNED	4	OUCBX_TIME_AT_PDP_USING	time at prom. DP - samples

# IRAUCBX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
444	(1BC)	UNSIGNED	4	OUCBX_TIME_AT_PDP_USING_JOBEND	time at prom. DP - samples
448	(1C0)	UNSIGNED	4	OUCBX_AT_PDP_DELTA_TIME	time at prom. DP - delta
Comment					
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-- HD lock time at promotion DP -----					
-----					
End of Comment					
452	(1C4)	UNSIGNED	4	OUCBX_HDLOCK_AT_PDP_SERVTIME_LEFTOVER	HD lock time at promotion DP not yet converted to usings
456	(1C8)	UNSIGNED	4	OUCBX_HDLOCK_AT_PDP_SERVTIME_BASE	Base value for HD lock time at PDP
460	(1CC)	UNSIGNED	4	OUCBX_HDLOCK_TIME_AT_PDP_USING	HD lock time at promotion DP - samples
464	(1D0)	UNSIGNED	4	OUCBX_HDLOCK_TIME_AT_PDP_USING_JOBEND	HD lock time at promotion DP - jobend
468	(1D4)	UNSIGNED	4	OUCBX_HDLOCK_AT_PDP_DELTA_TIME	HD lock time at promotion - DP - delta
Comment					
-----					
-- Time promoted to a variable dispatch priority by supervisor -----					
-----					
End of Comment					
472	(1D8)	UNSIGNED	4	OUCBX_VARTIME_AT_PDP_SERVTIME_LEFTOVER	Time promoted to a variable dispatch priority by supervisor
476	(1DC)	UNSIGNED	4	OUCBX_VARTIME_AT_PDP_SERVTIME_BASE	Base value for variable time at PDP
480	(1E0)	UNSIGNED	4	OUCBX_VARTIME_AT_PDP_DELTA_TIME	Variable time at promotion DP - delta
484	(1E4)	UNSIGNED	4	OUCBX_VARTIME_AT_PDP_USING_JOBEND	Variable time at promotion DP - usings
488	(1E8)	UNSIGNED	4	OUCBX_VARWEIGHTED_AT_PDP_SERVTIME_BASE	Base value for variable time at PDP
492	(1EC)	UNSIGNED	4	OUCBX_VARWEIGHTED_AT_PDP_DELTA_TIME	Variable time at promotion DP - delta
496	(1F0)	UNSIGNED	4	OUCBCUQTTIMEBASE	CUQT sampling
500	(1F4)	UNSIGNED	4	OUCBCUQTLEFTOVER	CUQT sampling
504	(1F8)	UNSIGNED	4	OUCBCUQTTIMEBASESM	CUQT sampling
508	(1FC)	UNSIGNED	4	OUCBCUQTLEFTOVERSM	CUQT sampling
Comment					
-----					
-- New cacheline for future extensions in OucbS -----					
-----					
End of Comment					
512	(200)	CHARACTER	128	OUCBS_CACHELINE5	
512	(200)	UNSIGNED	4	OUCBXIOTHROTIVBASE	Interval Bas
516	(204)	UNSIGNED	4	OUCBXIEIOTHROTIV	Independent
520	(208)	UNSIGNED	4	OUCBXDEIOTHROTIV	Dependent En
524	(20C)	UNSIGNED	4	OUCBTHROTIMEBASE	Time Base
528	(210)	UNSIGNED	4	OUCBTHROLEFTOVER	Left Overs
532	(214)	UNSIGNED	4	OUCBTHROTIMEBASESM	TB for sampl

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
536	(218)	UNSIGNED	4	OUCBTHROLEFTOVERSM	LO for sampl
540	(21C)	UNSIGNED	4	OUCBXIOCNTDIMEINTVBASE	Interval Bas
544	(220)	UNSIGNED	4	OUCBXIEIOCNTDIME	Independent
548	(224)	UNSIGNED	4	OUCBXDEIOCNTDIME	Dependent En
552	(228)	UNSIGNED	4	OUCBCNTDIMEBASE	Time Base
556	(22C)	UNSIGNED	4	OUCBCNTDLEFTOVER	Left Overs
560	(230)	UNSIGNED	4	OUCBCNTDIMEBASESM	TB for sampl
564	(234)	UNSIGNED	4	OUCBCNTDLEFTOVERSM	LO for sampl
568	(238)	CHARACTER	72	*	Reserved
640	(280)	CHARACTER	0	OUCBSEND	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	128	OUCBSAMPLES	
0	(0)	CHARACTER	128	OUCBSAMPLES_CACHELINE1	
0	(0)	CHARACTER	124	OUCBSOS	cache line of OUCB, set of state samples. Note new delays must be added before oucbxmo
0	(0)	UNSIGNED	4	OUCBIS	idle state
4	(4)	UNSIGNED	4	OUCBOUS	other unknown state
8	(8)	UNSIGNED	4	OUCBCU	cpu using
12	(C)	UNSIGNED	4	OUCBDASDIIOUSING	DASD I/O using samples
16	(10)	UNSIGNED	4	OUCBIFAU	IFA using count
20	(14)	UNSIGNED	4	OUCBSUPU	SUP using count
24	(18)	UNSIGNED	4	OUCBCD	cpu delay
28	(1C)	UNSIGNED	4	OUCBAPPD	primary private area paging delay from aux
32	(20)	UNSIGNED	4	OUCBAPCD	common area paging delay from aux
36	(24)	UNSIGNED	4	OUCBAVD	vio delay from aux
40	(28)	UNSIGNED	4	OUCBASHD	scroll hiperspace delay from aux
44	(2C)	UNSIGNED	4	OUCBACHD	cache hiperspace delay from aux
48	(30)	UNSIGNED	4	OUCBASWD	Aux swap delay
52	(34)	UNSIGNED	4	OUCBMD	mpl delay
56	(38)	UNSIGNED	4	OUCBCCD	Address space delayed because it is in a resource group being capped
60	(3C)	UNSIGNED	4	OUCBASPD	Shared area paging delay from aux
64	(40)	UNSIGNED	4	OUCBDASDIODELAY	DASD I/O delay samples
68	(44)	UNSIGNED	4	OUCBWLQUEUEDELAY	Delay samples experienced while on WLM-managed work queue
72	(48)	UNSIGNED	4	OUCBENCLAVEPVTPAGING	Aux private paging delay samples experienced by enclave work units known to be associated with an address space
76	(4C)	UNSIGNED	4	OUCBENCLAVEVIOAPAGING	Aux VIO paging delay samples experienced by enclave work units known to be associated with an address space
80	(50)	UNSIGNED	4	OUCBENCLAVEHSPAPAGING	Aux hiperspace paging delay samples experienced by enclave work units known to be associated with an address space
84	(54)	UNSIGNED	4	OUCBENCLAVEMPLDELAY	MPL delay samples experienced by enclaves known to be associated with an address space
88	(58)	UNSIGNED	4	OUCBENCLAVESWAPDELAY	Swap-in delay samples experienced by enclaves known to be associated with an address space
92	(5C)	UNSIGNED	4	OUCBIFADL	IFA delay count
96	(60)	UNSIGNED	4	OUCBSUPDL	SUP delay count

Comment

----- Add new non-xmem-type delays before OucbPxmo ----

End of Comment

100	(64)	UNSIGNED	4	OUCBPXMO	cross memory other address space paging delay from aux.
104	(68)	UNSIGNED	4	OUCBBUFFERPOOLOTHERDELAY	

## IRAUCBX Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
108	(6C)	UNSIGNED	4	OUCBPXM1	Buffer pool delay samples not due to the buffer pools that are being individually tracked
112	(70)	UNSIGNED	4	OUCBPXM2	cross memory address space 1 paging delay from aux
116	(74)	UNSIGNED	4	OUCBBUFFERPOOL1DELAY	cross memory address space 2 paging delay from aux
120	(78)	UNSIGNED	4	OUCBBUFFERPOOL2DELAY	Buffer pool delay samples due to the buffer pool identified by OucbBufferPoolToken1
124	(7C)	CHARACTER	4	OUCBSOS_NAME	Buffer pool delay samples due to the buffer pool identified by OucbBufferPoolToken2 eyecatcher 'SOS '

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	128	OUCBREPTSAMPLES	
0	(0)	CHARACTER	128	OUCBREPTSAMPLES_CACHELINE1	cache line of OUCB
0	(0)	CHARACTER	88	OUCBRSOS	Set of state samples used by reporting. Cleared every policy interval (must be consistent with IRACONST)
0	(0)	UNSIGNED	4	OUCBRQCT	Count of times the address space was found in quiesce state during policy interval
4	(4)	UNSIGNED	4	OUCBCAP	Number of times during the policy interval that the address space was found capped during sampling
8	(8)	UNSIGNED	4	OUCBASMP	Count of times sampling saw this address space
12	(C)	UNSIGNED	4	OUCBNONDASDIO	Non-DASD I/O delay+using samples
16	(10)	UNSIGNED	4	OUCBDASDIODISC	DASD I/O disconnect samples. These should actually be reported in OUCBSamples, but there's no more place
20	(14)	UNSIGNED	4	OUCBCAMU	Asynchronous CAM using samples
24	(18)	UNSIGNED	4	OUCBCAMD	Asynchronous CAM delay samples
28	(1C)	UNSIGNED	4	OUCBAPU	Asynchronous AP using samples
32	(20)	UNSIGNED	4	OUCBAPD	Asynchronous AP delay samples
36	(24)	UNSIGNED	4	OUCBFQD	Feature queue delay samples
40	(28)	CHARACTER	16	*	Reserved for future crypto hardware
56	(38)	UNSIGNED	4	OUCBDASDIOPEND	DASD I/O pending samples
60	(3C)	UNSIGNED	4	OUCBDASDIOTHRO	DASD I/O induced throttle samples.
64	(40)	UNSIGNED	4	OUCBDASDIOCNTD	DASD I/O Contention Delta samples.
68	(44)	UNSIGNED	4	OUCBDASDIOCUQT	DASD I/O control unit queue samples.
72	(48)	UNSIGNED	4	OUCBRCSO	Contention delay sample count of work waiting for resources as reported to WLM on the IWMCNTN interface by the resource manager
76	(4C)	UNSIGNED	4	OUCBRCSU	Contention delay sample count of work holding resources as reported to WLM on the IWMCNTN interface by the resource manager
80	(50)	UNSIGNED	4	OUCBIFACU	using count of IFA work running on regular CPs
84	(54)	UNSIGNED	4	OUCBSUPCU	using count of SUP work running on regular CPs
88	(58)	UNSIGNED	4	OUCB_NORMAL_COMPLETIONS_PA	Normal Completions last PA Interval if reported by IWMRPT
92	(5C)	UNSIGNED	4	OUCB_ABNORMAL_COMPLETIONS_PA	Abnormal Completions last PA Interval if reported by IWMRPT
96	(60)	UNSIGNED	2	OUCB_ABNORMAL_COMP_RATE_LTA	Abnormal Completions Rate, long term average
98	(62)	UNSIGNED	1	OUCB_ABNORMCOUNT_SKIPCLOCK_1	Skipclock counter for high abnormal rate level 1
99	(63)	UNSIGNED	1	OUCB_ABNORMCOUNT_SKIPCLOCK_2	Skipclock counter for high abnormal rate level 2
100	(64)	CHARACTER	24	*	unused
124	(7C)	CHARACTER	4	OUCBRSOS_NAME	eyecatcher 'RSOS'

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	256	OUCBJAFB	Job Accounting Sect. There is room between each jafb to allow for easy expansion of the Jafb. When the Jafb gets too big we'll get a compile error
0	(0)	CHARACTER	128	OUCBJAFB_ENCLAVE	
128	(80)	CHARACTER	128	OUCBJAFB_DEPENC	
256	(100)	CHARACTER	0	OUCBJAFB_END	



**IRAUCBX Constants**

Len	Type	Value	Name	Description
8	CHARACTER	OUCBS	OUCBSNAME_VAL	
1	DECIMAL	1	OUCBSVER_VAL	OUCBS Version
4	DECIMAL	1408	OUCBXLEN_VAL	
2	DECIMAL	640	OUCBSLEN_VAL	
4	CHARACTER	SOS	OUCBSOS_NAME_VAL	
4	DECIMAL	128	OUCBSAMPLESLEN_VAL	
4	CHARACTER	RSOS	OUCBRSOS_NAME_VAL	
4	DECIMAL	128	OUCBREPTSAMPLESLEN_VAL	
4	DECIMAL	256	OUCBJAFBLEN_VAL	

Comment

Dcl constants to make sure length of oucbx is equal to space allocated for it. Fixed 32 fields cannot contain negative values so the only way for both declares to work is if both expressions evaluate to 0 (the two are equal). @WLMPEM

End of Comment

4	DECIMAL	0	OUCBXLESSTHANEQUALOUCB1
4	DECIMAL	0	OUCB1LESSTHANEQUALOUCBX

**IRAUCBX Cross Reference**

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
OUCB_ABNORMAL_COMP_RATE_LTA	60		OUCBAPRQ	0	
OUCB_ABNORMAL_COMPLETIONS_PA	5C		OUCBAPU	1C	
OUCB_ABNORMCOUNT_SKIPCLOCK_1	62		OUCBASHD	28	
OUCB_ABNORMCOUNT_SKIPCLOCK_2	63		OUCBASID	BE	
OUCB_BPAH	188		OUCBASMP	8	
OUCB_CACHELINE10	380		OUCBASPD	3C	
OUCB_CACHELINE11	400		OUCBASST	1A0	
OUCB_CACHELINE12	480		OUCBASWD	30	
OUCB_CACHELINE13	500		OUCBAUXB	3C	
OUCB_CACHELINE3	0		OUCBAVD	24	
OUCB_CACHELINE4	80		OUCBAXPU	D0	
OUCB_CACHELINE5	100		OUCBBKIA	58	
OUCB_CACHELINE6	180		OUCBBKIE	5C	
OUCB_CACHELINE7	200		OUCBBPIN	4C	
OUCB_CACHELINE8	280		OUCBBPNE	50	
OUCB_CACHELINE9	300		OUCBBUFFERPOOLOTHERDELAY	68	
OUCB_NORMAL_COMPLETIONS_PA	58		OUCBBUFFERPOOLTOKENEXCLUDE	B4	
OUCB_RAW_SERVICE_ACCUM	184		OUCBBUFFERPOOLTOKEN1	A4	
OUCB_VALID_BPMGMT_PB_SEEN	C0	20	OUCBBUFFERPOOLTOKEN2	AC	
OUCB_VALID_PB_SEEN	C0	80	OUCBBUFFERPOOL1DELAY	74	
OUCB_VALID_REPORTONLY_PB_SEEN	C0	40	OUCBBUFFERPOOL2DELAY	78	
OUCBACFL	131	80	OUCBCAMD	18	
OUCBACHD	2C		OUCBCAMU	14	
OUCBAPCD	20		OUCBCAP	4	
OUCBAPD	20		OUCBCAPB	248	
OUCBAPDS	E0		OUCBCCD	38	
OUCBAPPD	1C		OUCBCD	18	
			OUCBCFCT	2C	
			OUCBCNTDLEFTOVER		
			OUCBCNTDLEFTOVERSM	22C	
			OUCBCNTDTIMEBASE	234	
			OUCBCNTDTIMEBASESM	228	
			OUCBCONTEXTQUEUE	230	
			OUCBCONTEXTQUEUEHEAD	178	
			OUCBCONTEXTQUEUEHEAD	178	
			OUCBCONTEXTQUEUETAIL		



Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
OUCBEWLMTOTCPUUSING			OUCBNQT_SHORTTIME		
	108			2E4	
OUCBEWLMTOTIDLE			OUCBNSPT	C8	
	118		OUCBOUS	4	
OUCBEWLMTOTIODELAY			OUCBOUTT	1C	
	114		OUCBPGIB	44	
OUCBEWLMTOTIOUSING			OUCBPGTB	38	
	120		OUCBPINB	10C	
OUCBEWLMTOTOTHER			OUCBPINE	54	
	11C		OUCBPINT	110	
OUCBEWLMTOTPAGEDELA			OUCBPLAB	D4	
	110		OUCBPQID	109	
OUCBEWLMTOTSAMPLES			OUCBPROA	168	40
	108		OUCBPROE	168	20
OUCBEWLMWASDISABLED			OUCBPROPAGATEDENQHOLDCOUNT		
	320	08		132	
OUCBEXIB	124		OUCBPSO	10	
OUCBEXOB	128		OUCBPSRB	148	01
OUCBFDISTIMEBASE			OUCBPSRV	149	80
	38		OUCBPU2B	48	
OUCBFDISTIMEBASESM			OUCBPXMO	64	
	44		OUCBPXM1	6C	
OUCBFIX	20		OUCBPXM2	70	
OUCBFLGX	131		OUCBQID	108	
OUCBFLGX2	14		OUCBRCSA	48	
OUCBFMNOBASE	48		OUCBRCSU	4C	
OUCBFMNOBASESM			OUCBREALSAPINRSM		
	54			1F4	40
OUCBFQD	24		OUCBREALSAPREDRIVE		
OUCBFRAMESTOBESTOLENBYRSM				1F4	04
	18C		OUCBREALSAPRSMFAILEDTIME		
OUCBFWAITTIMEBASE				1FC	
	50		OUCBREPTSAMPLES		
OUCBFWAITTIMEBASESM				0	
	5C		OUCBREPTSAMPLES_CACHELINE1		
OUCBGENERICIRS				0	
	1F4	80	OUCBREPTSAMPLESPTR		
OUCBGFRR	148	20		78	
OUCBGRLU	180		OUCBRESB	40	
OUCBHEALTHIND			OUCBRQCT	0	
	176		OUCBRSNS	148	02
OUCBHOLD	18		OUCBRSSOS	0	
OUCBHSUM	24		OUCBRSSOS_NAME		
OUCBIATK	100			7C	
OUCBIFACU	50		OUCBRSTB	4	
OUCBIFADL	5C		OUCBRSV8	BD	7F
OUCBIFAU	10		OUCBS	0	
OUCBIQFL	10A		OUCBS_CACHELINE1		
OUCBIRSFLAGS	1F4			0	
OUCBIRST	1F8		OUCBS_CACHELINE2		
OUCBIS	0			80	
OUCBJAFB	0		OUCBS_CACHELINE3		
OUCBJAFB_DEPENC				100	
	80		OUCBS_CACHELINE4		
OUCBJAFB_ENCLAVE				180	
	0		OUCBS_CACHELINE5		
OUCBJAFB_END	100			200	
OUCBLPSS	520		OUCBSAMPLES	0	
OUCBLRPS	104		OUCBSAMPLES_CACHELINE1		
OUCBLRST	528			0	
OUCBLSMP	BC	80	OUCBSAMPLESPTR		
OUCBMD	34			74	
OUCBMDAC	148	08	OUCBSCLS	1B0	
OUCBMDEL	B4		OUCBSMPI	1C4	
OUCBMSOL	448		OUCBSCTE	D4	
OUCBMTRM	66		OUCBSDAC	DC	
OUCBNONDASDIO			OUCBSEEC	64	
	C		OUCBSEND	280	
OUCBNQC	16A		OUCBSERVINSTACTIVE		
OUCBNQC_SHORTTIME				80	
	2E2		OUCBSERVINSTACTIVERGNWORK		
OUCBNQC_STANDARD				E8	
	2E0		OUCBSERVINSTCAPACITY		
OUCBNQT	16C			94	

## IRAUCBX Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
OUCBSFEC	62		OUCBWAITTIMEBASESM		
OUCBSFLG	BD			84	
OUCBSHBP	94		OUCBWCFO	C4	
OUCBSHEADER	0		OUCBWKTM	30	
OUCBSLEN	C		OUCBWLMF	A4	
OUCBSMSK	10B		OUCBWLMF	BC	
OUCBSNAME	0		OUCBWLQUEUEDELAY		
OUCBSONA	B3			44	
OUCBSOS	0		OUCBWL2M	148	
OUCBSOS_NAME	7C		OUCBWL2F	149	
OUCBSPSS	190		OUCBWMSL	458	
OUCBSPTE	90		OUCBWORKQTOKEN		
OUCBSPTR	70			98	
OUCBSQBP	6C		OUCBWSMT	148	10
OUCBSQFP	68		OUCBWSS	14	
OUCBSRBG	478		OUCBWTKN	C4	
OUCBSRBL	418		OUCBX	0	
OUCBSRCI	1B2		OUCBX_AT_PDP_DELTA_TIME		
OUCBSRRC	34			1C0	
OUCBSRST	1A8		OUCBX_AT_PDP_SERVTIME_BASE		
OUCBSSCI	1B0			1B4	
OUCBSSPS	148	04	OUCBX_AT_PDP_SERVTIME_LEFTOVER		
OUCBSUPCU	54			1B0	
OUCBSUPDL	60		OUCBX_BA_AS_IFA_TIME_BASE		
OUCBSUPU	14			348	
OUCBSVER	8		OUCBX_BA_AS_IOC_TIME_BASE		
OUCBSWCB	2E			360	
OUCBSWFC	60		OUCBX_BA_AS_SOC_TIME_BASE		
OUCBSWPC	10			370	
OUCBSWSA	B8		OUCBX_BA_AS_SUP_TIME_BASE		
OUCBSWSC	BC			368	
OUCBSXMX	A0		OUCBX_BA_AS_TTIME_BASE		
OUCBSXM1	98			340	
OUCBSXM2	9C		OUCBX_BASE_SERVTIME_ON_PRO		
OUCBTAXB	114			280	
OUCBTEMPAFFINITYEXIST			OUCBX_BASE_SERVTIME_PRO_ON_CP		
	E4			290	
OUCBTHROLEFTOVER			OUCBX_CONNTIME_BASE		
	210			264	
OUCBTHROLEFTOVERSM			OUCBX_CPSRP_CUR_FP_SAMP		
	218			F2	
OUCBTHROTIMEBASE			OUCBX_CPSRP_PREV_FP_SAMP		
	20C			F4	
OUCBTHROTIMEBASESM			OUCBX_CPSRP_SAMP		
	214			F0	
OUCBTMC	F4		OUCBX_CPU_SERVTIME_BASE		
OUCBTMCT	E8			E0	
OUCBTMF	134		OUCBX_CPUU_AT_JOBEND		
OUCBTMPS	E4			EC	
OUCBTMRD	F0		OUCBX_GMI_F1	270	
OUCBTMSD	EC		OUCBX_HDLOCK_AT_PDP_DELTA_TIME		
OUCBTRANSWAPINRSM				1D4	
	1F4	20	OUCBX_HDLOCK_AT_PDP_SERVTIME_BASE		
OUCBTRANSWAPREDRIVE				1C8	
	1F4	02	OUCBX_HDLOCK_AT_PDP_SERVTIME_LEFTOVER		
OUCBTRSL	450			1C4	
OUCBUSINGLELEFTOVER			OUCBX_HDLOCK_TIME_AT_PDP_BASE		
	74			4C8	
OUCBUSINGLELEFTOVERSM			OUCBX_HDLOCK_TIME_AT_PDP_LEFTOVER		
	6C			4D0	
OUCBUSINGTIMEBASE			OUCBX_HDLOCK_TIME_AT_PDP_USING		
	A0			1CC	
OUCBUSINGTIMEBASESM			OUCBX_HDLOCK_TIME_AT_PDP_USING_JOBEND		
	88			1D0	
OUCBVALB	C0		OUCBX_HDLOCKPROMOTION_TIME_AT_PDP		
OUCBVHDB	118			4C0	
OUCBVHPB	11C		OUCBX_IFA_TIME		
OUCBVHUB	120			4A0	
OUCBWAITLEFTOVER			OUCBX_IFACP_TIME		
	78			4B0	
OUCBWAITLEFTOVERSM			OUCBX_PA_PCS_TAR		
	70			270	20
OUCBWAITTIMEBASE			OUCBX_PA_PPS_TAR		
	9C			270	10

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
OUCBX_PCS_CHANGETIME			OUCBX_VARWEIGHTED_TIME_AT_PDP_BASE	518	
OUCBX_PPS_CHANGETIME	278		OUCBXARRIVALTIMESTCKWORD1	260	
OUCBX_PRO_SERVTIME_BASE	274		OUCBXCANCEL	1EA	01
OUCBX_PRO_SERVTIME_LEFTOVER	188		OUCBXCLSFPRIORITY	200	
OUCBX_PROCP_SERVTIME_BASE	180		OUCBXCRRAS	244	
OUCBX_PROCP_SERVTIME_LEFTOVER	198		OUCBXCRRB	240	
OUCBX_PROCPU_AT_JOBEND	190		OUCBXDAT	D8	
OUCBX_PROMOTIONADJF	1A8		OUCBXDECPUTIMEFORWM1	88	
OUCBX_PROMOTIONBASE	4DC		OUCBXDECRMCPUTIMECONSUMED	438	
OUCBX_PROMOTIONTIMEACCUM	4D4		OUCBXDEENQCPUTIMECONSUMED	1EC	
OUCBX_PROU_AT_JOBEND	4D8		OUCBXDEIOCNTDIME	224	
OUCBX_QSCEST_TIME	1A0		OUCBXDEIOCONNECTIME	1D8	
OUCBX_RSTORCMP_TIME	27C		OUCBXDEIOCUQTTIME	FC	
OUCBX_SERVTIME_LEFTOVER	19C		OUCBXDEIODISCONNECTIME	1DC	
OUCBX_STCR_CHSK	DC		OUCBXDEIOTHROTIME	208	
OUCBX_STCR_PHSK	270	80	OUCBXDEIOWAITIME	1E0	
OUCBX_SUP_TIME	270	40	OUCBXDEPENCLCOUNT	14A	
OUCBX_SUPCP_TIME	4A8		OUCBXDEPENCLTIMEEXISTS	149	40
OUCBX_TIME_AT_PDP	4B8		OUCBXDEPENCPROTIMEFORWM1	2B0	
OUCBX_TIME_AT_PDP_BASE	2C2		OUCBXDEPENCSUPTIMEQUAL	358	
OUCBX_TIME_AT_PDP_LEFTOVER	2CA		OUCBXDEPENCTIMEONPRO	3D0	
OUCBX_TIME_AT_PDP_USING	2D4		OUCBXDEPENCTIMEPROONCP	3F0	
OUCBX_TIME_AT_PDP_USING_JOBEND	1B8		OUCBXDESSCHCOUNT	1E4	
OUCBX_TIME_ON_PRO	1BC		OUCBXDETOTALCPUTIME	1BC	
OUCBX_TIME_ON_PRO_BASE	380		OUCBXENCSSCHCOUNT	A8	
OUCBX_TIME_PRO_ON_CP	3A0		OUCBXENC SUPTIMEQUAL	350	
OUCBX_TIME_PRO_ON_CP_BASE	390		OUCBXENCTIMEONPRO	3C0	
OUCBX_TIMEOFLASTSAMPLESGATHERING	3B0		OUCBXENCTIMEPROONCP	3E0	
OUCBX_VARTIME_AT_PDP	4E0		OUCBXEND	580	
OUCBX_VARTIME_AT_PDP_BASE	500		OUCBXENDPERIOD	14	08
OUCBX_VARTIME_AT_PDP_DELTA_TIME	508		OUCBXEQUBATCHQDELAY	224	
OUCBX_VARTIME_AT_PDP_SERVTIME_BASE	1E0		OUCBXEXPRESS	2C0	
OUCBX_VARTIME_AT_PDP_SERVTIME_LEFTOVER	1DC		OUCBXFIX_B2G	AC	
OUCBX_VARTIME_AT_PDP_USING_JOBEND	1D8		OUCBXFIXEDINCVLUE	488	
OUCBX_VARWEIGHTED_AT_PDP_DELTA_TIME	1E4		OUCBXFLAGS	1EA	
OUCBX_VARWEIGHTED_AT_PDP_SERVTIME_BASE	1EC		OUCBXFXSALL	2F1	02
OUCBX_VARWEIGHTED_AT_PDP_SERVTIME_LEFTOVER	1E8		OUCBXFXSBELOW16M	2F1	04
OUCBX_VARWEIGHTED_TIME_AT_PDP	510		OUCBXFXSBETWEEN16M2G	2F1	08
			OUCBXFXSDREF	2F1	01
			OUCBXFXSREASON	2F1	
			OUCBXFXSRSV4	2F1	F0
			OUCBXHASREMOTESYSTEMDATA	1EA	04
			OUCBXIEIOCNTDIME		

## IRAUCBX Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
	220		OUCBXOUCBSRCSAVE		
OUCBXIEIOCONNECTTIME				1F5	
	1C8		OUCBXPERFORMVALUE		
OUCBXIEIOCUQTTIME				1E8	
	F8		OUCBXPERIODSTARTREMOTESERVICE		
OUCBXIEIODISCONNECTTIME				25C	
	1CC		OUCBXPROTRXSERVICEUNITS		
OUCBXIEIOTHROTIME				2A8	
	204		OUCBXQUEUEUTIME		
OUCBXIEIOWAITTIME				204	
	1D0		OUCBXRAXSWAPREASON		
OUCBXIESSCHCOUNT				1F7	
	1D4		OUCBXREGISTRATIONCOUNT		
OUCBXIGNORETRXNSSPECIFIED				F8	
	131	02	OUCBXREMOTESERVICE		
OUCBXINELIGIBLETIME				250	
	210		OUCBXREMOTESYSTEMDATAINCOMPLETE		
OUCBXINSTLLPLOT				1EA	02
	2C		OUCBXREMOTESYSTEMDATAPTR		
OUCBXINSTVSPLOT				254	
	28		OUCBXRESETAFTERINITIATION		
OUCBXIOCNTDIMEINTVBASE				1EA	40
	21C		OUCBXRESETBEFOREINITIATION		
OUCBXIOCONTIMEINTVBASE				1EA	80
	230		OUCBXRESTARTTRANATSWAPIN		
OUCBXIOCOUNTERINTVBASE				A4	04
	234		OUCBXRSTORFLFLAG		
OUCBXIOCQUQTTIMEINTVBASE				429	
	10		OUCBXRSTORFLREDRIVE		
OUCBXIODISCTIMEINTVBASE				429	80
	238		OUCBXRSTORFLRSV3		
OUCBXIOFCONTIMEINTVBASE				42A	
	7C		OUCBXRSTORFLRSV4		
OUCBXIOFDISTIMEINTVBASE				42C	
	68		OUCBXRSTORFLTIME		
OUCBXIOFMNOINTVBASE				420	
	60		OUCBXRSTORFLTYPE		
OUCBXIOFWAITTIMEINTVBASE				428	
	64		OUCBXRSTORFLTYPE1		
OUCBXIOSQTIME				428	80
	18		OUCBXSCHEDENV		
OUCBXIOSQTIMEINTVBASE				214	
	23C		OUCBXSERVINSTINITIAL		
OUCBXIOTHROTIMEINTVBASE				92	
	200		OUCBXSERVINSTLIMIT		
OUCBXIOWAITTIMEINTVBASE				90	
	22C		OUCBXSERVTASKSMANAGED		
OUCBXJAFBADDR				14	40
	198		OUCBXSMP30EXPPAGERESIDENCYTIME		
OUCBXJCLCONVERSIONTIME				80	
	208		OUCBXSPECIALFULLPREEMPT		
OUCBXJOBREINCARNATED				A4	80
	1EA	10	OUCBXSPECIALFULLPREEMPTTIME		
OUCBXLATCHCOUNT				7C	
	258		OUCBXSRTIMEONCP		
OUCBXLLOCKUTIL				408	
	24		OUCBXSRTOKEN		
OUCBXMFT	A4	40		CC	
OUCBXMSV	BD	80	OUCBXSTEPSTARTTIME		
OUCBXNOIARYBLSWCALL				2F8	
	1F4	08	OUCBXSTGCRIT_SPECIFIED_EXPLICIT		
OUCBXNONCANCELABLE				131	04
	1EB	80	OUCBXSTGPROTNOW		
OUCBXNOPR	A4	20		131	08
OUCBXNSWDPREASON			OUCBXSTMA		
	42B			480	
OUCBXNSWDPREASONAUX			OUCBXSTMA31		
	42B	40	OUCBXSUBSYSTEMCOLLECTIONNAME		
OUCBXNSWDPREASONFIXED				268	
	42B	80	OUCBXSYSORRESAFFTIME		
OUCBXOLDPREEMPTION				20C	
	A4	01	OUCBXSYSY	1EA	08
OUCBXOPERATORFORCEDINITIATION			OUCBXTASKTIMEONCP		
	1EA	20		400	
			OUCBXTOTALSERVICEBASE		

Name	Hex Offset	Hex Value
OUCBXTRXMGMTBOTH	228	
OUCBXVIRTINCVLUE	131	01
OUCBXVSAVLAV16MB	48C	
OUCBXVSAVLBEL16MB	20	
OUCBXVSDATACOLLECTED	1C	
OUCBXWASHIDP	14	10
OUCBXWASPRIV	A4	08
OUCBX03FLAGS	A4	02
OUCBX203RATE	2F0	
OUCBX203REQUIRED	2EC	
OUCBX203TOTFRAMESLOTS	2F0	40
OUCBX403REQUIRED	2E8	
OUCBX403TOTFIXED	2F0	80
OUCBX403TOTFRAMES	2EC	
OUCBX403TOTFRAMES	2E8	





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## IRAQVS Information

### IRAQVS Programming Interface information

Programming Interface information

IRAQVS

End of Programming Interface information

## IRAQVS Heading Information • IRAQVS Map

### IRAQVS Heading Information

**Common Name:** Sysevent QVS parameter list  
**Macro ID:** IRAQVS  
**DSECT Name:** QVS  
**Owning Component:** System Resource Manager (SC1CX)  
**Eye-Catcher ID:** None  
**Storage Attributes:** Subpool: Anywhere  
 Key: Caller key  
 Residency: Anywhere  
**Size:** See assembly listing  
**Created by:** Caller of SYSEVENT QVS  
**Pointed to by:** Register 1 on entry to SYSEVENT QVS  
**Serialization:** None  
**Function:** Maps data returned by SYSEVENT QVS (Query Virtual Server).  
 The caller is required to set field QvsLen to the length of the entire parameter list before invoking the SYSEVENT. On return the caller can inspect fields QvsVer and QvsFlags to determine which fields have been filled in.

### IRAQVS Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	QVS	
0	(0)	CHARACTER	4	QVSIN (0)	IRAQVS.185: Input fields
0	(0)	SIGNED	4	QVSLLEN	IRAQVS.219: Length of area
4	(4)	CHARACTER	92	QVSOUT (0)	IRAQVS.191: Output fields for version 1
4	(4)	BITSTRING	1	QVSVVER	IRAQVS.22: Version
5	(5)	BITSTRING	1	QVSFLAGS (0)	IRAQVS.188: Flags
		1... ....		QVSCECVVALID	"X'80" IRAQVS.72: Fields prefixed by QvsCec contain valid information
		.1.. ....		QVSIMGVALID	"X'40" IRAQVS.84: Fields prefixed by QvsImg contain valid information. This flag is off if MVS is not running in a logical partition.
		..1. ....		QVSMVVALID	"X'20" IRAQVS.81: Fields prefixed by QvsVm contain valid information. This flag is off if MVS is not running in a virtual machine.
6	(6)	BITSTRING	1		IRAQVS.265: Reserved
7	(7)	BITSTRING	1	QVSCECCAPACITYSTATUS	IRAQVS.307: indicating if machine is running at nominal or reduced capacity
8	(8)	CHARACTER	4	QVSCECMACHINETYPE	IRAQVS.34: CEC machine type number in EBCDIC
12	(C)	CHARACTER	16	QVSCECMODELID	IRAQVS.276: CEC model identification in EBCDIC
28	(1C)	CHARACTER	16	QVSCECSEQUENCECODE	IRAQVS.77: CEC sequence code in EBCDIC. The sequence code is the portion of the CPU serial number that remains when the plant-of-manufacture portion of the serial number is excluded.
44	(2C)	CHARACTER	16	QVSCECMANUFACTURERNAME	IRAQVS.321: CEC manufacturer name
60	(3C)	CHARACTER	4	QVSCECPLANTOFMANUFACTURE	IRAQVS.262: Code that identifies the plant of manufacture
64	(40)	SIGNED	4	QVSCECCAPACITY	IRAQVS.41: CEC CPU capacity in millions of service units per hour
68	(44)	CHARACTER	8	QVSIMGLOGICALPARTITIONNAME	IRAQVS.317: Logical partition name
76	(4C)	SIGNED	2	QVSIMGLOGICALPARTITIONID	IRAQVS.207: Logical partition identifier in binary
78	(4E)	SIGNED	2		IRAQVS.213: Reserved
80	(50)	SIGNED	4	QVSIMGCAPACITY	IRAQVS.202: Logical partition CPU capacity in millions of service units per hour
84	(54)	CHARACTER	8	QVSMVNAME	IRAQVS.30: Virtual machine name
92	(5C)	SIGNED	4	QVSMVCAPACITY	IRAQVS.141: Virtual machine CPU capacity in millions of service units per hour
96	(60)	CHARACTER	1	QVSEND1 (0)	IRAQVS.21: End of version 1
Comment					
IRAQVS.228: Version 1					
End of Comment					
96	(60)	X'1'	0	QVSVVER1	"1"

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
Comment					
IRAQVS.370: Version 2 (includes QvsCecCapacityStatus)					
96	(60)	X'2'	0	QVSVER2	End of Comment "2"
Comment					
IRAQVS.246: Service completed successfully					
96	(60)	X'0'	0	QVSRCOK	End of Comment "0"
Comment					
IRAQVS.234: Parameter list is too small to contain version 1 data					
96	(60)	X'4'	0	QVSRCTOOSMALL	End of Comment "4"
Comment					
IRAQVS.292: QvsCecCapacityStatus is undefined (not supported by hardware)					
96	(60)	X'0'	0	QVSCECCAPSTATUNDEF	End of Comment "0"
Comment					
IRAQVS.304: Machine is running at nominal capacity					
96	(60)	X'1'	0	QVSCECCAPSTATNOMINAL	End of Comment "1"
Comment					
IRAQVS.331: Machine is running with reduced capacity due to a manual control setting. (e.g. power saving mode, customer initiated)					
96	(60)	X'2'	0	QVSCECCAPSTATREDMANUAL	End of Comment "2"
Comment					
IRAQVS.340: Machine is running with reduced capacity due to a machine exception condition (e.g. cooling problem)					
96	(60)	X'3'	0	QVSCECCAPSTATREDMACHEX	End of Comment "3"
Comment					
IRAQVS.349: Machine is running with reduced capacity due to a non-exception machine condition (e.g. firmware update)					
96	(60)	X'4'	0	QVSCECCAPSTATREDMACHNONEX	End of Comment "4"

## IRAQVS Cross Reference

Offsets		Type/Value	Len	Name (Dim)	Description
Dec	Hex				
Comment					
IRAQVS.358: Machine is running with reduced capacity due to an exception condition external to the machine (e.g. ambient temperature exceeded specified maximum)					
End of Comment					
96	(60)	X'5'	0	QVSCECCAPSTATREDEXTCOND	"5"
96	(60)	X'60'	0	QVS_LEN	"*-QVS"

## IRAQVS Cross Reference

Name	Hex Offset	Hex Value
QVS	0	
QVS_LEN	60	60
QVSCECCAPACITY	40	
QVSCECCAPACITYSTATUS	7	
QVSCECCAPSTATNOMINAL	60	1
QVSCECCAPSTATREDEXTCOND	60	5
QVSCECCAPSTATREDMACHEX	60	3
QVSCECCAPSTATREDMACHNONEX	60	4
QVSCECCAPSTATREDMANUAL	60	2
QVSCECCAPSTATUNDEF	60	0
QVSCECMACHINETYPE	8	
QVSCECMANUFACTURERNAME	2C	
QVSCECMODELID	C	
QVSCECPLANTOFMANUFACTURE	3C	
QVSCECSEQUENCECODE	1C	
QVSCECVALID	5	80
QVSEND1	60	
QVSFLAGS	5	
QVSIMGCAPACITY	50	
QVSIMGLOGICALPARTITIONID	4C	
QVSIMGLOGICALPARTITIONNAME	44	
QVSIMGVALID	5	40
QVSIN	0	
QVSLEN	0	
QVSOUT	4	
QVSRCOK	60	0
QVSRCTOOSMALL	60	4
QVSVER	4	
QVSVER1	60	1
QVSVER2	60	2
QVSVMCAPACITY	5C	
QVSVMNAME	54	
QVSVMVALID	5	20

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## IRARASC Information

### IRARASC Programming Interface information

Programming Interface information

IRARASC

End of Programming Interface information

## IRARASC Heading Information • IRARASC Map

### IRARASC Heading Information

**Common Name:** Request Address Space Classification Information  
**Macro ID:** IRARASC  
**DSECT Name:** RASC  
**Owning Component:** SYSTEMS RESOURCE MANAGER (SC1CX)  
**Eye-Catcher ID:** RASC  
 Offset: 0  
 Length: 4

**Storage Attributes:** Main Storage: Must be fixed or DREF  
 Virtual Storage: n/a  
 Auxiliary Storage: n/a  
 Subpool: n/a  
 Key: sysevent caller's key  
 Residency: n/a

**Size:** See assembler listing  
**Created by:** issuer of the REQASCL sysevent  
**Pointed to by:** Register 1 on sysevent invocation  
**Serialization:** none

**Function:** The RASC is the parameter list which is used when invoking the REQASCL sysevent. This sysevent returns classification information pertaining to a particular address space.

The caller must set the RASC\_Acro, Rasc\_Version, and Rasc\_Length fields. This macro defines constants for this purpose. The following minimum MVS or OS/390 release is required to support each version:  
 Version 1 - MVS/SP 5.2.0  
 Version 2 - OS/390 1.3.0  
 Version 3 - OS/390 1.4.0  
 Version 4 - OS/390 3.1.0

The sysevent returns only the classification information that applies to the specified version. This may not be all of the available classification information if the specified version is less than the highest supported version.

The sysevent issuer must set register 1 to the address of the RASC parameter list.

### IRARASC Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	RASC	
0	(0)	CHARACTER	8	RASC_INPUTS (0)	
0	(0)	CHARACTER	4	RASC_ACRO	Acronym
4	(4)	BITSTRING	1	RASC_VERSION	Version
5	(5)	CHARACTER	1		Reserved.
6	(6)	SIGNED	2	RASC_LENGTH	Total size of RASC
8	(8)	CHARACTER	180	RASC_OUTPUTS (0)	
8	(8)	CHARACTER	8	RASCTRXN	Transaction program name
16	(10)	CHARACTER	8	RASCUSER	Userid
24	(18)	CHARACTER	8	RASCTRXC	Transaction class
32	(20)	CHARACTER	4	RASCSTBT	Subsystem Type
36	(24)	CHARACTER	8	RASCSTBN	Subsystem Name
44	(2C)	CHARACTER	144	RASC_ACCT_AREA (0)	
					Account Information area
44	(2C)	BITSTRING	1	RASCACCL	Account Information length (length of RASCACCT)
45	(2D)	CHARACTER	143	RASCACCT	Account Information
188	(BC)	CHARACTER	16	RASC_END_VERSION1 (0)	
188	(BC)	CHARACTER	8	RASCSTPERF	PERFORM value in EBCDIC. Blanks if there is no PERFORM value for this address space.
196	(C4)	CHARACTER	4	RASC_VERSION3_DATA (0)	
					The following field is returned only when the version is 3 or higher.
196	(C4)	SIGNED	4	RASCSTPRIO	Subsystem priority in binary format. Contains hexadecimal 80000000 if the subsystem did not provide a priority.
200	(C8)	CHARACTER	4	RASCSTRSV1	Reserved for future use
204	(CC)	CHARACTER	1	RASC_END_VERSION2 (0)	

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
204	(CC)	CHARACTER	1	RASC_END_VERSION3 (0)	
204	(CC)	CHARACTER	28	RASC_VERSION4_DATA (0)	
204	(CC)	CHARACTER	16	RASCSENV	The following field is returned only when the version is 4 or higher. Scheduling environment value for this address space
220	(DC)	CHARACTER	8	RASCSSCL	Subsystem collection name for this address space
228	(E4)	SIGNED	4	RASCSTRK	IWMCLSFY SRMTOKEN value for this address space
232	(E8)	CHARACTER	1	RASC_END_VERSION4 (0)	
232	(E8)	X'C1E2C3'	0	RASC_ID_CONSTANT	"C'RASC" RASC eye catcher
232	(E8)	X'1'	0	RASC_VERSION1	"1" RASC version 1.
232	(E8)	X'2'	0	RASC_VERSION2	"2" RASC version 2.
232	(E8)	X'3'	0	RASC_VERSION3	"3" RASC version 3.
232	(E8)	X'4'	0	RASC_VERSION4	"4" RASC version 4.
232	(E8)	X'4'	0	RASC_CURRENTVERSION	"4" Current Version
232	(E8)	X'BC'	0	RASC_VERSION1_LEN	"188" Length of version 1 ASC.
232	(E8)	X'CC'	0	RASC_VERSION2_LEN	"204" Length of version 2 ASC.
232	(E8)	X'CC'	0	RASC_VERSION3_LEN	"204" Length of version 3 ASC.
232	(E8)	X'E8'	0	RASC_VERSION4_LEN	"232" Length of version 4 ASC.
232	(E8)	X'E8'	0	RASC_CURRENTVERSION_LEN	"232"
232	(E8)	X'E8'	0	RASC_LEN	"*-RASC"

**IRARASC Cross Reference**

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
RASC	0		RASC_VERSION3_LEN	E8	CC
RASC_ACCT_AREA	2C		RASC_VERSION4	E8	4
RASC_ACRO	0		RASC_VERSION4_DATA	CC	
RASC_CURRENTVERSION	E8	4	RASC_VERSION4_LEN	E8	E8
RASC_CURRENTVERSION_LEN	E8	E8	RASCACCL	2C	
RASC_END_VERSION1	BC		RASCACCT	2D	
RASC_END_VERSION2	CC		RASCAPRF	BC	
RASC_END_VERSION3	CC		RASCPRIO	C4	
RASC_END_VERSION4	E8		RASCRSV1	C8	
RASC_ID_CONSTANT	E8	C1E2C3	RASCSENV	CC	
RASC_INPUTS	0		RASCSTRK	E4	
RASC_LEN	E8	E8	RASCSSCL	DC	
RASC_LENGTH	6		RASCSSUBN	24	
RASC_OUTPUTS	8		RASCSSUBT	20	
RASC_VERSION	4		RASCSTRXC	18	
RASC_VERSION1	E8	1	RASCSTRXN	8	
RASC_VERSION1_LEN	E8	BC	RASCUSER	10	
RASC_VERSION2	E8	2			
RASC_VERSION2_LEN	E8	CC			
RASC_VERSION3	E8	3			
RASC_VERSION3_DATA	C4				





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## IRARASD Information

### IRARASD Programming Interface information

Programming Interface information

IRARASD

End of Programming Interface information

## IRARASD Heading Information • IRARASD Map

### IRARASD Heading Information

**Common Name:** Request Address Space Data Parameter List  
**Macro ID:** IRARASD  
**DSECT Name:** RASD  
**Owning Component:** SYSTEMS RESOURCE MANAGER (SC1CX)  
**Eye-Catcher ID:** RASD  
 Offset: 0  
 Length: 4

**Storage Attributes:** Main Storage: n/a  
 Virtual Storage: n/a  
 Auxiliary Storage: n/a  
 Subpool: For REQASD, fixed or DREF. For REQFASD, any.  
 Key: sysevent caller's key  
 Residency: n/a

**Size:** See assembly listing  
**Created by:** issuer of the REQASD sysevent  
**Pointed to by:** Register 1 on sysevent invocation  
**Serialization:** None

**Function:** The RASD is the parameter list which is used when invoking the REQASD or REQFASD sysevent. These sysevents return workload management information pertaining to a particular address space. The sysevents require the RASDLEN field to be filled in with the length of the RASD parameter list area that is to be used by the sysevent. The constant RASDSIZE can be used to fill in the RASDLEN field. Also, the sysevent issuer must set register 1 to the address of the RASD parameter list. For REQFASD sysevent issuers, register 13 must contain the address of a workarea which is necessary for the unserialized REQFASD processing. The size of the workarea required for REQFASD processing can be found in the constant RQFASDWA. Upon return from the sysevent, the bit RASDMODE indicates whether the system is running in goal mode (bit is off) or the system is running in compatibility mode (bit is on). The components of the structure which corresponds to the system mode will be filled in with data (the sub-structure for the other mode will be zeroed).

### IRARASD Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	RASD	
0	(0)	CHARACTER	4	RASDACRO	IRARASD.46: Eyecatcher - RASD
4	(4)	CHARACTER	4	RASDIN (0)	IRARASD.52: RASD input fields
4	(4)	SIGNED	2	RASDLEN	IRARASD.55: Length of RASD
6	(6)	SIGNED	2	RASDWALEN	IRARASD.61: Length of Workarea
8	(8)	CHARACTER	64	RASDOUT (0)	IRARASD.67: RASD output fields
8	(8)	BITSTRING	1	RASDPER#	IRARASD.70: Current period
9	(9)	BITSTRING	1	RASDBITS (0)	IRARASD.76: System mode indicators
		1... ....		RASDMODE	"X'80" IRARASD.82: System mode indicators. Indicates workload management mode in effect. OFF - the system is operating in goal mode, ON - the system is operating in compatibility mode
10	(A)	CHARACTER	2	RASDRSV2	IRARASD.88: Reserved
12	(C)	CHARACTER	40	RASDGINF (0)	IRARASD.94: Goal mode information
12	(C)	CHARACTER	8	RASDSCL	IRARASD.97: Service class name
20	(14)	CHARACTER	8	RASDWKLD	IRARASD.103: Workload name
28	(1C)	CHARACTER	8	RASDRGRP	IRARASD.109: Resource group name. NOTE: This field will contain blanks if the address space does not belong to a resource group.
36	(24)	CHARACTER	8	RASDRCL	IRARASD.115: Report class name. NOTE: This field will contain blanks if the address space does not belong to a report class.
44	(2C)	BITSTRING	1	RASDSTAT (0)	IRARASD.121: Address space status
		1... ....		RASDSRV	"X'80" IRARASD.127: Address space is a server (WLM goal is not being honored for this address space because it is a server)
		.1.. ....		RASDQSC	"X'40" IRARASD.133: Address space was quiesced by a RESET command or IWMRESET macro
		..1. ....		RASDRESET	"X'20" IRARASD.414: Address space was reset to the service class or performance group by the RESET command or IWMRESET macro. NOTE: Although this flag is in the goal mode section of the output, it is set when appropriate in compatibility mode too.
		...1 ....		RASDTAF	"X'10" IRARASD.572: Address space has temporal affinities

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
45	(2D)	CHARACTER	3	RASDRSV3	IRARASD.139: Reserved
48	(30)	CHARACTER	4	RASDSCTK	IRARASD.409: Service class token
52	(34)	CHARACTER	4	RASDCINF (0)	IRARASD.145: Compatibility mode information
52	(34)	SIGNED	2	RASDPGN	IRARASD.148: Performance group number
54	(36)	SIGNED	2	RASDDMN	IRARASD.154: Domain number
56	(38)	BITSTRING	8	RASDIECPUTIME	IRARASD.250: Cumulative CPU time for all completed independent enclaves owned by the address space. Same units as AscbEjst.
64	(40)	BITSTRING	8	RASDDECPUTIME	IRARASD.271: Cumulative CPU time for all completed dependent and monenv enclaves owned by the address space. Same units as AscbEjst.
72	(48)	CHARACTER	1	RASDEND1 (0)	IRARASD.160: end for version 1
72	(48)	CHARACTER	8	RASDOUT2 (0)	IRARASD.383: RASD output fields added for version 2
72	(48)	CHARACTER	4	RASDSUBT	IRARASD.404: Subsystem type that owns the work
76	(4C)	CHARACTER	2	RASDMAXLEN	IRARASD.420: Length of highest version of RASD. When versions beyond 2 are added, a caller who has assembled at version 2 can use this field to dynamically obtain storage for the highest version of the RASD. Although the caller won't know what the extra fields are, the caller can include them in a raw dump or trace.
78	(4E)	CHARACTER	2	RASDRSV4	IRARASD.426: Reserved for future use
80	(50)	CHARACTER	1	RASDEND2 (0)	IRARASD.395: end for version 2
80	(50)	CHARACTER	20	RASDOUT3 (0)	IRARASD.386: RASD output fields added for version 3
80	(50)	SIGNED	4	RASDWSS	IRARASD.389: Number of primary working set pages
84	(54)	SIGNED	4	RASDTWSS	IRARASD.440: Target working set size
88	(58)	SIGNED	4	RASDPSO	IRARASD.433: Number of pages swapped at last swap out
92	(5C)	SIGNED	4	RASDFIX	IRARASD.439: Number of fixed frames
96	(60)	SIGNED	4	RASDTRR	IRARASD.446: Transaction residency time in 1024-microsecond units
100	(64)	CHARACTER	1	RASDEND3 (0)	IRARASD.373: end for version 3
100	(64)	CHARACTER	12	RASDOUT4 (0)	IRARASD.337: RASD output fields added for version 4
100	(64)	BITSTRING	4	RASDFLAGS1 (0)	IRARASD.340: Flags
100	(64)	BITSTRING	1	RASDFLG1 (0)	IRARASD.752: First flag byte
		1... ....		RASDCPROTCPU	"X'80" IRARASD.747: Service class assigned by classification or RESET SRVCLASS was designated CPU-critical in the active policy
		.1.. ....		RASDCPROTSTG	"X'40" IRARASD.763: Address space is serving transactions which belong to a service class that was designated storage-critical in the active policy's classification rules
		..1. ....		RASDASPROTSTG	"X'20" IRARASD.764: Address space matched a classification rule in the active policy which was designated storage-critical
		...1 ....		RASDTRXNMGMTXEMPT	"X'10" IRARASD.770: Address space matched a classification rule in the active policy which prevents managing the region based on the response time goals of its served transactions
		.... 1...		RASDCPUPROTECTED	"X'08" IRARASD.776: CPU protection was assigned either to the address space (see RasdCProtCpu) or to transaction service classes being served by the space, and SRM is honoring the protection
		.... .1..		RASDSTGPROTECTED	"X'04" IRARASD.782: Storage protection was assigned either to the address space (see RasdASProtStg) or to transaction service classes being served by the space (see RasdCProtStg), and SRM is honoring the protection
		.... ..1.		RASDTRXNMGMTBOTH	"X'02" IRARASD.788: Address space matched a classification rule which specified "Manage Region Using Goals Of BOTH". Which means it is managed towards the velocity goal of the region. But, transaction completions are reported and used for management of the transaction service classes with response time goals. This option should only be used with CICS TORs, the associated AORs should remain at the default "Manage Region Using Goals Of TRANSACTION".
101	(65)	BITSTRING	1	RASDFLG2 (0)	IRARASD.524: Second flag byte
		1... ....		RASDCIOPRIORGROUP	"X'80" IRARASD.485: Service class assigned by classification or RESET SRVCLASS belongs to I/O priority group HIGH in the active policy
		.1.. ....		RASDIOPRIORITYGROUP	"X'40" IRARASD.491: I/O priority group HIGH was assigned either to the address space (see RasdCioPrioGroup) or to transaction service classes served by the space
104	(68)	BITSTRING	4	RASDSRMTOKEN	IRARASD.552: IWMCLSFY SRMTOKEN output value
108	(6C)	CHARACTER	4		IRARASD.582: Reserved
112	(70)	CHARACTER	1	RASDEND4 (0)	IRARASD.513: end for version 4
112	(70)	CHARACTER	32	RASDOUT5 (0)	IRARASD.341: RASD output fields added for version 5
112	(70)	BITSTRING	8	RASDENCTIMEONIFA	IRARASD.615: Cumulative IFA time for all completed independent enclaves owned by the address space (STCK format)
120	(78)	BITSTRING	8	RASDDEPENCTIMEONIFA	

# IRARASD Map

Offsets						
Dec	Hex	Type/Value	Len	Name (Dim)	Description	
128	(80)	BITSTRING	8	RASDENCTIMEIFAONCP	IRARASD.621: Cumulative IFA time for all completed dependent enclaves owned by the address space (STCK format)	
136	(88)	BITSTRING	8	RASDDEPENCTIMEIFAONCP	IRARASD.627: Cumulative IFA_on_CP time for all completed independent enclaves owned by the address space (STCK format)	
144	(90)	CHARACTER	1	RASDEND5 (0)	IRARASD.633: Cumulative IFA_On_CP time for all completed independent enclaves owned by the address space (STCK format)	
144	(90)	CHARACTER	48	RASDOUT6 (0)	IRARASD.606: end for version 5	
144	(90)	BITSTRING	8	RASDENCTIMEONSUP	IRARASD.642: RASD output fields added for version 6	
152	(98)	BITSTRING	8	RASDDEPENCTIMEONSUP	IRARASD.598: Cumulative SUP time for all completed independent enclaves owned by the address space (STCK format)	
160	(A0)	BITSTRING	8	RASDENCTIMESUPONCP	IRARASD.595: Cumulative SUP time for all completed dependent enclaves owned by the address space (STCK format)	
168	(A8)	BITSTRING	8	RASDDEPENCTIMESUPONCP	IRARASD.645: Cumulative SUP_on_CP time for all completed independent enclaves owned by the address space (STCK format)	
176	(B0)	BITSTRING	8	RASDENCTIMESUPQUAL	IRARASD.652: Cumulative SUP_On_CP time for all completed independent enclaves owned by the address space (STCK format)	
184	(B8)	BITSTRING	8	RASDDEPENCTIMESUPQUAL	IRARASD.670: Cumulative time of independent enclave owned by the address space that was qualified for SUP (STCK format)	
192	(C0)	CHARACTER	1	RASDEND6 (0)	IRARASD.676: Cumulative time of dependent enclave owned by the address space that was qualified for SUP (STCK format)	
192	(C0)	CHARACTER	1	RASDEND (0)	IRARASD.658: end for version 6 IRARASD.563: insert new sections before thispoint	
Comment						
IRARASD.181: size of rasd						
End of Comment						
192	(C0)	X'C0'	0	RASDSIZE	"192"	
Comment						
IRARASD.13: size of workarea for REQFASD						
End of Comment						
192	(C0)	X'200'	0	RQFASDWA	"512"	
Comment						
IRARASD.334: size of IRARMF81's dynamic area						
End of Comment						
192	(C0)	X'E8'	0	F81DSIZE	"232"	
Comment						
IRARASD.32: size of IRARMASD's dynamic area						
End of Comment						
192	(C0)	X'A2'	0	ASDDSIZE	"162"	
Comment						
IRARASD.712: size of IRARMASD's dynamic area without savearea size						
End of Comment						
192	(C0)	X'12'	0	ASDDSIZE_DYN	"18"	
192	(C0)	X'C0'	0	RASD_LEN	**-RASD"	

## IRARASD Cross Reference

Name	Hex Offset	Hex Value	Name	Hex Offset	Hex Value
ASDDSIZE	C0	A2	RASDRSV2	A	
ASDDSIZE_DYN	C0	12	RASDRSV3	2D	
F81DSIZE	C0	E8	RASDRSV4	4E	
RASD	0		RASDSCL	C	
RASD_LEN	C0	C0	RASDSCTK	30	
RASDACRO	0		RASDSIZE	C0	C0
RASDASPROTSTG			RASDSRMTOKEN	68	
	64	20	RASDSRV	2C	80
RASDBITS	9		RASDSTAT	2C	
RASDCINF	34		RASDSTGPROTECTED		
RASDCIOPRIORGROUP				64	4
	65	80	RASDSUBT	48	
RASDCPROTCPU	64	80	RASDTAF	2C	10
RASDCPROTSTG	64	40	RASDTRR	60	
RASDCPUPROTECTED			RASDTRXNMGMTBOTH		
	64	8		64	2
RASDDECPUTIME			RASDTRXNMGMTXEMPT		
	40			64	10
RASDDEPENCTIMEIFAONCP			RASDTWSS	54	
	88		RASDWALEN	6	
RASDDEPENCTIMEONIFA			RASDWKLD	14	
	78		RASDWSS	50	
RASDDEPENCTIMEONSUP			RQFASDWA	C0	200
	98				
RASDDEPENCTIMESUPONCP					
	A8				
RASDDEPENCTIMESUPQUAL					
	B8				
RASDDMN	36				
RASDENCTIMEIFAONCP					
	80				
RASDENCTIMEONIFA					
	70				
RASDENCTIMEONSUP					
	90				
RASDENCTIMESUPONCP					
	A0				
RASDENCTIMESUPQUAL					
	B0				
RASDEND	C0				
RASDEND1	48				
RASDEND2	50				
RASDEND3	64				
RASDEND4	70				
RASDEND5	90				
RASDEND6	C0				
RASDFIX	5C				
RASDFLAGS1	64				
RASDFLG1	64				
RASDFLG2	65				
RASDGINF	C				
RASDIECPUTIME					
	38				
RASDIN	4				
RASDIOPRIORITYGROUP					
	65	40			
RASDLEN	4				
RASDMAXLEN	4C				
RASDMODE	9	80			
RASDOUT	8				
RASDOUT2	48				
RASDOUT3	50				
RASDOUT4	64				
RASDOUT5	70				
RASDOUT6	90				
RASDPER#	8				
RASDPGN	34				
RASDPSO	58				
RASDQSC	2C	40			
RASDRCL	24				
RASDRESET	2C	20			
RASDRGRP	1C				



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## IRARENF1 Information

### IRARENF1 Programming Interface information

Programming Interface information

**IRARENF1**

End of Programming Interface information

## IRARENF1 Heading Information • IRARENF1 Cross Reference

### IRARENF1 Heading Information

**Common Name:** ENF signal 42 qualifiers  
**Macro ID:** IRARENF1  
**DSECT Name:** N/A  
**Owning Component:** SRM (SC1CX)  
**Eye-Catcher ID:** N/A  
 Offset: N/A  
 Length: N/A  
**Storage Attributes:** Subpool: Any  
 Key: 0  
 Residency: Above 16M line  
**Size:** 4 bytes  
**Created by:** Caller  
**Pointed to by:** N/A  
**Serialization:** None  
**Function:** Contains qualifiers for ENF signal 42

### IRARENF1 Map

Offsets					
Dec	Hex	Type/Value	Len	Name (Dim)	Description
0	(0)	STRUCTURE	0	SRMENF1	ENF signal 42 qualifiers
0	(0)	BITSTRING	1	SRME1	Byte 1
1	(1)	BITSTRING	1	SRME2	Byte 2
2	(2)	BITSTRING	1	SRME3	Byte 3
3	(3)	BITSTRING	1	SRME4	Byte 4
		.... ..		SRMENF11	"X'80000000" MODIFY WLM, MODE=COMPAT command issued
		.... ..		SRMENF12	"X'40000000" MODIFY WLM, MODE=COMPAT command completed
		.... ..		SRMENF13	"X'20000000" MODIFY WLM, MODE=COMPAT command failed
		.... ..		SRMENF14	"X'10000000" MODIFY WLM, MODE=GOAL command issued
		.... ..		SRMENF15	"X'08000000" MODIFY WLM, MODE=GOAL command completed
		.... ..		SRMENF16	"X'04000000" MODIFY WLM, MODE=GOAL command failed
3	(3)	BITSTRING	0	SRMENF21	"X'00800000" SET IPS command issued
3	(3)	BITSTRING	0	SRMENF22	"X'00400000" SET IPS command completed
3	(3)	BITSTRING	0	SRMENF23	"X'00200000" SET IPS command failed
3	(3)	BITSTRING	0	SRMENF24	"X'00100000" SET ICS command issued
3	(3)	BITSTRING	0	SRMENF25	"X'00080000" SET ICS command completed
3	(3)	BITSTRING	0	SRMENF26	"X'00040000" SET ICS command failed

### IRARENF1 Cross Reference

Name	Hex Offset	Hex Value
SRMENF1	0	
SRMENF11	3	0
SRMENF12	3	0
SRMENF13	3	0
SRMENF14	3	0
SRMENF15	3	0
SRMENF16	3	0
SRMENF21	3	800000
SRMENF22	3	400000
SRMENF23	3	200000
SRMENF24	3	100000
SRMENF25	3	80000
SRMENF26	3	40000
SRME1	0	
SRME2	1	
SRME3	2	
SRME4	3	



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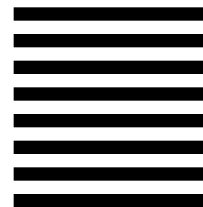
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