IBM Security zSecure V2.1 Service Stream Enhancement for DB2 (and IMS) currency

Documentation updates for User Reference Manuals for ACF2 and Top Secret

IBM Security zSecure V2.1 Service Stream Enhancement for DB2 (and IMS) currency

Documentation updates for User Reference Manuals for ACF2 and Top Secret

Documentation updates for User Reference Manuals for ACF2 and Top Secret

This document contains documentation updates for zSecure V2.1 User Reference User Reference Manuals for ACF2 and Top Secret as a result of the Service Stream Enhancement for DB2 11 (and IMS 13) currency.

- Chapter 4. Resource reports for z/OS
  - "DB2 resource reports," DB2 Resource menu - **GV** option added
  - "DB2 Regions" on page 2:
    - DB2 region security settings panel - Classes used by DB2
    - DB2 region display panel (2) - SAF protection and Other settings
  - "DB2 global variables" on page 5: new topic
- Chapter 13. SELECT/LIST Fields
  - DB2_REGION: DB2 subsystems, "DB2_REGION - Field descriptions" on page 7 - new fields `CLASS_GLOBAL_VARIABLES`, `ZPRM_AUTHCHECK_PRIMARY`, and `ZPRM_CACHEREFRESH_ALL`
  - "DB2_VARIABLE: DB2 global variables" on page 18 - new topic
- Chapter 16. zSecure Collect for z/OS
  - "Selecting data by DB2 subsystem and DB2 object type" on page 22 - new topic
  - "Examples of DB2 selection" on page 23- new topic

Note: Links to other sections in the User Reference Manual that are not included do not work in this document.

DB2 resource reports

You can use the **RE Resource reports** option on the Main menu to select and display DB2 region and resource data.

Select **RE.D** from the Main menu to display the DB2® region and resource reports menu shown in Figure 2 on page 2.

```
 Menu         Options       Info    Commands     Setup           Startpanel
-------------------------------------------------------------------------------
                        zSecure Suite - Resource - DB2
Option ===> ____________________________________________________________________

R    Regions          Region overview and system privileges (DSNADM, MDSNSM)
DB   Databases        Sets of tables, indexes, and table spaces
GV   Variables        Global variables (session scope named memory variables)
JR   Java archives    Sets of files comprising Java applications
PK   Packages         Packages (pre-bound SQL statements)
PN   Plans            Plans (control structures created during BIND)
SG   Storage groups   Sets of storage objects (volumes)
SP   Stored procs     Stored procedure and user function routines
SQ   Sequences        User defined objects defining a numerical sequence
TB   Tables/views     Tables and views
TS   Table spaces     Table spaces (data set name space for storing tables)
```

Figure 1. DB2 Resource menu

Note: In zSecure™ Admin, only the Regions report is available.

DB2 Regions

In the DB2 Resource menu in Figure 1 on page 1, select the **R** menu option to display the DB2 regions selection panel in Figure 2.

Use this panel to enter selection criteria in one or more fields to limit the DB2 region configuration data. When you specify selection criteria, the output includes only those records that match all the selection criteria. You can use filters in some of the selection fields. To find out whether a field supports filters, use the field-sensitive help function (PF1).

You can also select output and run options in the DB2 regions selection panel, or select no options, and report data is processed as soon as you press Enter. The overview panel that is displayed shows a summary of the DB2 region records that match your selection criteria.

```
Menu         Options       Info    Commands     Setup
-------------------------------------------------------------------------------
                         zSecure Suite - DB2
Command ===> ____________________________________________________________________

Show DB2 regions that fit all of the following criteria:
Jobname . . . . . . . . ________          (jobname or filter)
Local LU name . . . . . ________          (luname or filter)
Local site name . . . . ________________  (name or filter)
DB2ID . . . . . . . . . ____              (identifier or filter)
Group attachment name   ____              (name or filter)
Complex . . . . . . . . ________          (complex or filter)
System  . . . . . . . . ____              (system or filter)

Advanced selection criteria
_  Region security settings

Output/run options
_  Show differences
_  Print format                Customize title       Send as e-mail
      Background run           Full page form
```

Figure 2. DB2 Regions selection panel

For a description of **Show differences** options, see Select comparison options.

In Figure 2, you can select advanced selection criteria. When you select **Region security settings**, the following panel is displayed.

```
Menu         Options       Info    Commands     Setup
-------------------------------------------------------------------------------
             zSecure Suite - DB2 - region security settings
Command  ===> ____________________________________________________________

Specify region security criteria
Region userid . . . . . . . ________  (userid or filter)
Classification option . . . _  1. Single-subsystem     2. Multi-subsystem
Class name root . . . . . . ____      (root or filter)
Class name suffix . . . . . _         (0-9, #, @, or $)

Classes used by DB2 (filters allowed)
Buffer pool privileges  . . ________  Sequences . . . . . . . . . ________
Collection privileges . . . ________  Storage group privileges    ________
Database privileges . . . . ________  Stored procedure privileges ________
Global variables class  . . ________  System privileges . . . . . ________
Java archive files  . . . . ________  Table,index,view privileges ________
Package privileges  . . . . ________  Tablespace privileges . . . ________
Plan privileges . . . . . . ________  User function privileges    ________
Schema privileges . . . . . ________  User type privileges  . . . ________
```

Figure 3. DB2 region security settings

To see detailed field information, press **PF1** on the DB2 region display panels or on any field in the display panels. Descriptions of DB2 region field names are also available in DB2_REGION: DB2 subsystems.

A sample overview display panel for the DB2 region display report is shown in Figure 4.

```
                DB2 region display                                Line 1 of 1
Command ===> ____________________________________________________ Scroll===> CSR
All DB2 region records                          6 Jun 2011 02:12
   Pri Jobname  Complex       System   LUNAME   SITENAME         DB2I GRPN RegU
__     DB9GMSTR EEND          SYS1     DB9GLU1  DALLAS9          DB9G
```

Figure 4. DB2 region overview display report

The data for this report is available only if a CKFREEZE file is created during an APF-authorized run of zSecure Collect (the CKFCOLL program). For details about creating a CKFREEZE file, see zSecure Collect for z/OS.

The following action commands are available on the DB2 region overview display:

Table 1. Action commands on the DB2 region overview display

Action	Description
DB	Shows databases for region
JR	Shows Java archives for region
PK	Shows packages for region
PN	Shows plans for region
S	Shows additional information
SG	Shows storage groups for region
SP	Shows stored procedures for region
SQ	Shows sequences for region
TB	Shows tables/views for region
TS	Shows table spaces for region

A sample detail display panel for the DB2 region display report is shown in Figure 5 and Figure 6 on page 5.

```
                DB2 region display                              Line 1 of 112
Command ===>                                                  Scroll===> PAGE
All DB2 region records                          3 Jul 2012 08:27

  Region identification
  Complex name                  WLAA
  System name                   PL87
  DB2 System identification     DBA1
  DB2 Region job name           DBA1MSTR Step Jobid STC03935 ASID 0050
  DB2 Region step name          DBA1MSTR
  Local LU name                 DBA1LU
  Local site name               DBA1
  Group attachment name
  Command character             -DBA1
  Linkage table index           00180700
  Region userid                 SYSDSP                        Dfltgrp:
  Startup system zparm module   DBA1PARM
  Active system zparm module    DBA1PARM
  Subsystem startup timestamp    2Jul12 01:45:23
  Last SET SYSPARM timestamp     2Jul12 01:45:23
  DB2 system release level      V10.1

  Region security settings
  DB2 authorization checking    Yes      Return extended fail reason   Yes
  AUTHEXIT check primary                 DBA can create for others     No
  AUTHEXIT cache refresh all
  Authorization exit module     DSN3@ATH Access control module         DSNX@XAC
  Signon exit module            DSN3@SGN
  Classification Option         2 (1=single-subsystem, 2=multi-subsystem)
  Class Name Root               DSN      Class Name suffix             1

  Region user                   Id       Name                 UID
  System administrator id       SYSADM
  System administrator id 2     ROOT
  Console operator id 1         USER1
  Console operator id 2         USER2
  System default id             IBMUSER
  RLF authorization id          SYSIBM
  Security administrator id 1   SECADM
  Security administrator id 2   SECADM
  Separate security tasks       No

  Region auditing settings
  Audit trace start             No
  SMF accounting data           1
  SMF statistics data           1 3 4 5 6
  Compress SMF trace records    No
```

Figure 5. DB2 region display panel (1)

```
SAF  protection settings      Class
Subsystem access class        DSNR
Admin authorization class     DSNADM
Buffer pool privileges class  MDSNBP
Class system privileges       MDSNSM
Collection privileges class   MDSNCL
Database privileges class     MDSNDB
Global variables class        MDSNGV
Java archive files class      MDSNJR
Package privileges class      MDSNPK
Plan privileges class         MDSNPN
Schema privileges class       MDSNSC
Sequences class               MDSNSQ
Storage group privilege class MDSNSG
Stored proc privileges class  MDSNSP
Table/index/view priv. class  MDSNTB
Tablespace privileges class   MDSNTS
User function privilege class MDSNUF
User type privileges class    MDSNUT

Archive log settings
Add timestamp to archive log  No
Archive log 1 dsn prefix      DSN101.ARCHLOG1
Archive log 2 dsn prefix      DSN101.ARCHLOG2

Resource name translation from UTF8
Mixed byte character set       65534   Use mixed character set       No
Single byte character set         37

Miscellaneous settings
IRLM procedure name           DBA1IRLM IRLM subsystem name           IRA1
New version uses BINDADD      Yes      Utility temp storage class

Pri Audit concern
```

Figure 6. DB2 region display panel (2)

DB2 global variables

In the DB2 Resource menu in Figure 1 on page 1, select the **GV** menu option to display the DB2 variables selection panel in Figure 7 on page 6.

Use this panel to enter selection criteria in one or more fields to limit the DB2 variables data. When you specify selection criteria, the output includes only those records that match all the selection criteria. You can use filters in some of the selection fields. To find out whether a field supports filters, use the field-sensitive help function (PF1).

You can also select output and run options in the DB2 variables selection panel or select no options. Report data is processed when you press **Enter**. The overview panel that is displayed shows a summary of the DB2 variable records that match your selection criteria.

```
Menu         Options       Info    Commands     Setup
------------------------------------------------------------------------------
             zSecure Suite - DB2 - variables
Command  ===> ____________________________________________________________________

Show DB2 variables that fit all of the following criteria:
Variable name  . . . . _____________________________________  (name or filter)
Schema name  . . . . . ________                               (schema or filter)
DB2ID  . . . . . . . . ____                                   (identifier or filter
Complex  . . . . . . . ________                               (complex or filter)
System . . . . . . . . ____                                   (system or filter)


Advanced selection criteria
                        _  Other settings

Output/run options
_  0. No summary         2. Summary by variable    4. Summary by owner
   1. Summary by region  3. Summary by schema      5. Summary by data type
_  Show differences
   Print format          _  Customize title        _  Send as e-mail
   _  Background run     _  Full page form
```

Figure 7. DB2 variables selection panel

In Figure 7, you can select advanced selection criteria. When you select **Other settings**, the following panel is displayed:

```
Menu         Options       Info    Commands     Setup
------------------------------------------------------------------------------
             zSecure Suite - DB2 - variables
Command  ===> ____________________________________________________________________

Show DB2 variables that fit all of the following criteria:
Authid of owner  . . . _____________________________________________________
Remarks  . . . . . . . _____________________________________  (scan)
Creation date  . . . . __  _________  ________  (operator+yyyy-mm-dd or
                                                ddMMMyyyy + hh:mm:ss or
                                                hh:mm)
```

Figure 8. DB2 variables selection panel - Other settings

To see detailed field information, press **PF1** on the DB2 variables display panels or on any field in the display panels. You can also find descriptions of DB2 variables field names in "DB2 global variables" on page 5. A sample overview display panel for the DB2 variables display report is shown in Figure 9.

```
                DB2 variables display                          Line 1 of 3
Command ===> ____________________________________________ Scroll===> CSR
All DB2 variable records                    15 Oct 2013 13:22
   Variable                       Complex  DB2I Schema   Owner    O Created
__ CLIENT_IPADDR                  ADCDPL   DBBG SYSIBM   SYSIBM     16May2013
__ GET_ARCHIVE                    ADCDPL   DBBG SYSIBMAD SYSIBM     16May2013
__ MOVE_TO_ARCHIVE                ADCDPL   DBBG SYSIBMAD SYSIBM     16May2013
****************************** Bottom of Data ********************************
```

Figure 9. DB2 variables overview display report

This sample overview display panel lists the DB2 variables settings. The data for this report is available only if a CKFREEZE file is created during an APF-authorized run of zSecure Collect (the CKFCOLL program). For information about creating a CKFREEZE file, see zSecure Collect for z/OS.

The following action commands are available on the DB2 variables overview display:

Table 2. Action commands on the DB2 variables overview display

Action	Description
R	Shows region information
S	Shows additional information

Figure"DB2 global variables" on page 5 shows a sample detail display panel for the DB2 variables display report.

```
                DB2 variables display                          Line 1 of 29
Command ===> ____________________________________________________ Scroll===> CSR
All DB2 variable records                        15 Oct 2013 13:22


 Identification
 System name                   AHJB     complex ADCDPL
 DB2 System identification     DBBG
 Schema name                   SYSIBM
 Global variable name          CLIENT_IPADDR
 Authid of variable owner      SYSIBM
 Owner type (L for role)
 Data type schema name         SYSIBM
 Data type name                CHAR
 Creation timestamp            16May2013 14:43
 Global variable remarks

 Variable  attributes
 CCSID                          1208   Data type identifier            452
 Internal environment id           0   Source data type identifier       0
 Maximum variable length          39    Default                        N
 Scale                             0    DB2 release dependency         P
****************************** Bottom of Data ********************************
```

Figure 10. DB2 variables overview detail display report

DB2_REGION - Field descriptions

The DB2_REGION NEWLIST provides the following fields for reporting.

ASID

This field contains the address space ID associated with the DB2 region. The address space ID is a 2-byte hexadecimal number.

AUDITCONCERN

This field indicates the reason for the audit priority. Do not use the exact value of this field as a programming interface. The AUDITCONCERN field can contain one or more concerns that are separated by commas.

AUDITPRIORITY

This numeric field indicates the relative priority of audit concerns. Higher values indicate a higher audit priority. For all NEWLIST types, audit priority values map to the following meanings:

Table 3. DB2_REGION NEWLIST: Audit priority values and descriptions

Priority	Meaning
40 and greater	Immediate attention is required; system security can be circumvented easily.
20 - 39	Review is required; serious security threats might exist.
10 - 19	Review when time permits.

Table 3. DB2_REGION NEWLIST: Audit priority values and descriptions (continued)

Priority	Meaning
1 - 9	Informational warnings.
0	No audit concerns identified.

CHAROPT

This single-character field shows the suffix of the resource classes that are used by the DB2 RACF security module. Its value is ignored for DB2 subsystems that use classification option (CLASSOPT) 2 for multi-subsystems and for DB2 subsystems that use the default value DSN for the class name root (CLASSNMT).

CLASS

This is a repeated field that contains the SAF resource class used if DB2 resource security is passed to SAF by the default IBM-provided exit DSNX@XAC. This field forms a repeat group together with RESOURCE. The default width is 8.

CLASS_ADMIN

This field shows the resource class that is used by the DB2 RACF security module for checking DB2 privileges. The default value is DSNADM.

CLASS_BUFFER_POOL

This field shows the resource class that is used by the DB2 RACF security module for verification of buffer pool privileges.

CLASS_COLLECTION

This field shows the resource class that is used by the DB2 RACF security module for verification of collection privileges.

CLASS_DATABASE

This field shows the resource class that is used by the DB2 RACF security module for verification of database privileges.

CLASS_DSNR

This field shows the resource class that is used for checking DB2 region connection authority. The value is always DSNR, but you can use this field for performing class property lookups like you can do for the other CLASS_* fields.

CLASS_GLOBAL_VARIABLES

This field shows the resource class that is used by the DB2 RACF security module for access to global variables.

CLASS_JAR

This field shows the resource class that is used by the DB2 RACF security module for verification of Java archive privileges.

CLASS_PACKAGE

This field shows the resource class that is used by the DB2 RACF security module for verification of package privileges.

CLASS_PLAN

This field shows the resource class that is used by the DB2 RACF security module for verification of plan privileges.

CLASS_SCHEMA

This field shows the resource class that is used by the DB2 RACF security module for verification of schema privileges.

CLASS_SEQUENCES

This field shows the resource class that is used by the DB2 RACF security module for verification of sequences.

CLASS_STOREDPROC

This field shows the resource class that is used by the DB2 RACF security module for verification of stored procedure privileges.

CLASS_STORGRP

This field shows the resource class that is used by the DB2 RACF security module for verification of storage group privileges.

CLASS_SYSTEM

This field shows the resource class that is used by the DB2 RACF security module for verification of system privileges.

CLASS_TABLE_INDEX_VIEW

This field shows the resource class that is used by the DB2 RACF security module for verification of table, index, and view privileges.

CLASS_TABLESPACE

This field shows the resource class that is used by the DB2 RACF security module for verification of table space privileges.

CLASS_USER_FUNCTION

This field shows the resource class that is used by the DB2 RACF security module for verification of user function privileges.

CLASS_USER_TYPE

This field shows the resource class that is used by the DB2 RACF security module for verification of user type privileges.

CLASSNMT

This four-character field shows the class name root of the resource classes that are used by the DB2 RACF security module. The class name root is the middle part of the resource class name, between the prefix and suffix. Its value is ignored for DB2 subsystems that use classification option (CLASSOPT) 1 for single subsystems.

CLASSOPT

This single-digit number field shows the classification option that is used by the DB2 RACF security module. Possible values are 1 for use of the resource classes by a single DB2 subsystem only, or 2 for shared use of the same resource classes by multiple DB2 subsystems.

COLLECT_DATETIME

This field contains the time stamp that indicates when the CKFREEZE file for this record was created. When CARLa commands are run, if a CKFREEZE file

is not provided for the system, the time that is returned is the current system date and time. This field uses the default output format DATETIME.

COMPLEX

This field identifies the security complex name. The value can come from the ALLOC COMPLEX parameter or default to the security node or sysplex name. The default field length is 8 characters.

If the ALLOC statement for a CKFREEZE data set contains a VERSION= parameter, a blank and the 4-character version are appended to the 8-character complex name. To display the version in the report output, use an output length modifier on the COMPLEX field and specify a value of 13 or greater, or 0. See Modifying output length.

DB2_ACL

This field shows the access list matrix for internal DB2 authorization that is used if the DSNX@XAC RACF interface is not active. The field is enriched with information about the ID in the security database that corresponds with a DB2 authid. The DB2_ACL field is in native UTF-8 format, so it can be used to create XML files, emails, or other output with ENCODING=UTF8 to preserve national language characters in the Grantee and Grantor fields.

The layout of the DB2_ACL varies depending on the maximum length of any GRANTEE used in the DB2 internal authorization tables, and is extended where the header shows >>. The general layout is as follows:

```
Userid ACOS AC DP QD SACSLT ARB BA TMN DES Grantee>>LastGranted H L Grantor
```

For information about the *Userid, Grantee>>, LastGranted, H, L, and Grantor* column, see the DB2_ACL description in DB2 access list display - DB2 internal access.

The privileges are displayed as one column for each DB2 object privilege:

```
A=SYSADM, C=SYSCTRL, O=SYSOPR, S=SECADM, A=DATACCESS,
C=ACCESSCTRL, D=DISPLAY, P=STOP, Q=SQLADM, D=SDBADM,
S=CREATESECUREOBJECT, A=CREATEDBA, C=CREATEDBC,
S=CREATESG, L=CREATEALIAS, T=CREATETMTAB, A=ARCHIVE,
R=RECOVER, B=BSDS, B=BINDAGENT, A=BINDADD, T=TRACE,
M=MONITOR1, N=MONITOR2, D=DEBUGSESSION, E=EXPLAIN,
S=STOSPACE.
```

Possible values that are shown in these columns are:

- Uppercase character (for example "S"). This indicates that the privilige is granted with the GRANT option.
- Lowercase character (for example "s"). This indicates that the privilege has been granted without the GRANT option.
- Dash (-) to indicate that the privilege can not be granted at this level of DB2.
- Period (.) to indicate that the privilege is not set for the current ID, but that the ID might have the privilege via some other means.

See also the description of the RACF_DB2_ACL field in DB2_REGION: DB2 subsystems for the effect of RACF. If the DSNX@XAC exit is active for the DB2 subsystem, the RACF_DB2_ACL field shows more complete and accurate information.

DB2_LEVEL

This field indicates the DB2 version and release of the active DB2 subsystem.

DB2ID

This field shows the DB2 subsystem identification. The maximum length is 4 characters.

GROUP_NAME

This field shows the DB2 group attachment name if the DB2 subsystem is part of a data sharing group. If the DB2 subsystem is not part of a data sharing group, the field is missing (not applicable).

JOBID

This field contains the JES job ID of the DB2 subsystem. The maximum length is 8 characters.

JOBNAME

This field contains the JES job name of the DB2 subsystem. The maximum length is 8 characters.

LU_NAME

This field contains the VTAM LU-name by which this DB2 subsystem is known. It is also used as the VTAM APPL name. The maximum length is 8 characters.

PC_LX

This 4-byte hexadecimal field shows the linkage index (LX) and program call (PC) number that is used to connect to the DB2 subsystem.

RACF_DB2_ACL

This field is a compound, repeating field that reflects authorizations if RACF (SAF) protection is done (through the standard DSNX@XAC authorization exit). This field displays authorizations in a way similar to the way they are displayed for native authorization: it shows, for each user or group ID, columns with individual authorizations. Each individual authorization is a different resource name in SAF. The access level that is required is UPDATE for actions that involve writing if MLS is active, and READ if MLS is not active. The general layout of the field is:

```
Userid   ACOS AC DP QD SACSLT ARB BA TMN DES Id
```

For information about the *Userid* and *Id* columns, see the RACF_DB2_ACL description in DB2 access list display - DB2 internal access.

The *privileges* have the same meaning as shown for DB2_ACL. The columns reflect the access that a certain ID has to the individual privileges. Possible values that are shown in these columns are:

- A dash (-) in a privilege column means the privilege does not yet exist in the DB2 release.
- An uppercase letter is used to show that the ID has the privilege using regular RACF access to the applicable resource as shown in the CLASS and RESOURCE fields.
- A lowercase letter is used to show that the ID has the privilege using DB2 internal security.
- A period (.) is used to indicate that the privilege is not set for the current ID, but that the ID might have the privilege through some other means.
- A plus (+) is used to indicate that the current ID is the owner of a profile that describes access to the privilege, or has potentially sufficient authority to create such a profiles using the CLAUTH authorization.
- A blank is shown if the ID does not have any access.

For additional details about the possible values, see the RACF_DB2_ACL description in DB2 access list display - DB2 internal access.

The RACF_DB2_ACL field is sensitive to the field modifiers EXPLODE, RESOLVE, EFFECTIVE, UNIVERSAL, SCOPE, TRUST, and SORT.

In a display this can be changed interactively with the ACL primary command on the detail display.

REGION_USER, REGION_USERID

This field contains the user ID associated with the DB2 subsystem. The maximum length is 8 characters.

RESOURCE

This is a repeated field with the SAF resource names that are used if DB2 resource security is passed to SAF by the default IBM-provided exit DSNX@XAC. This field forms a repeat group together with CLASS. The resource name that is checked is *ssid.privilege* in the DSNADM or MDSNSM resource class, depending on the privilege. The default width is 64. The maximum length is 246.

SITE_NAME

This field contains the name by which other systems in the network can recognize the DB2 subsystem. In DB2, this field is also known as the location name. The maximum length is 16 characters.

START_DATETIME

This field indicates the timestamp when the DB2 region was started.

STEPNAME

This field contains the step name that is associated with the DB2 region. The maximum length is 8 characters.

SUBSYS_CHAR

This field specifies the console command prefix that is used to enter commands from a console. The maximum length is 8 characters.

SYSPARM_ACTIVE

This field shows the name of the parameter member (default name DSNZPARM) last set through a SET SYSPARM command. The maximum length is 8 characters.

SYSPARM_ACTIVE_DATETIME

This field indicates the timestamp when the SYSPARM_ACTIVE parameter member was last loaded or reloaded.

SYSPARM_STARTUP

This field shows the name of the parameter member ("DSNZPARM member") loaded at DB2 region startup time (JCL procedure parameter ZPARM). The maximum length is 8 characters.

SYSTEM

The field is the name of the system. For MVS systems, this field is equal to the SMF system ID. The field length is 8 characters for compatibility with other NEWLIST types. The maximum length is 8 characters.

VER

This field can be used on a SUMMARY statement together with COMPLEX and SYSTEM to assure that sufficient information is present to use properties of the complex/system. This field can also be used to report and select on the ALLOC VERSION parameter, though that generally is not the best way to use versions.

ZPRM_ACCESS_CNTL_MODULE

The value of this field specifies the member name of the load module that is to be used for the DB2 access control exit routine. Use of a member name other than DSNX@XAC for the access control exit routine requires DB2 Version 10 new-function mode and DB2 Version 10 early (ERLY) code.

ZPRM_ARCPFX1

The ARCPFX1 subsystem parameter specifies the prefix that is to be used for the first copy of the archive log data set. It is a data set name prefix of 1 to 35 characters. The maximum and default length is 35 characters.

If ZPRM_TSTAMP=YES, the maximum length of ARCPFX1 is 19; if ZPRM_TSTAMP=EXT, the maximum length of ARCPFX1 is 17.

ZPRM_ARCPFX2

The ARCPFX2 subsystem parameter specifies the prefix that is to be used for the second copy of the archive log data set. It is a data set name prefix of 1 to 35 characters. The maximum and default length is 35 characters.

If ZPRM_TSTAMP=YES, the maximum length of ARCPFX2 is 19; if ZPRM_TSTAMP=EXT, the maximum length of ARCPFX2 is 17.

ZPRM_AUTHCHECK_PRIMARY

This flag field reflects the AUTHEXIT_CHECK PRIMARY subsystem setting. This setting controls the authorization IDs to be used for authorization checks when the access control authorization exit is active.

If the flag is true, DB2 uses the primary authorization ID to perform all authorization checks. If the flag is false, DB2 uses different authorization IDs depending on the command and DYNAMICRULES setting.

ZPRM_AUDITST

This field is a repeated field with the audit trace classes that are to be started automatically when DB2 is started.

A value of `No` indicates that there is to be no automatic start of the audit trace when the DB2 subsystem is started.

ZPRM_AUTH

This flag field defines whether DB2 checks authorization. If it is false, every privilege is granted to PUBLIC.

ZPRM_BINDNV_BINDADD

This flag field indicates whether BINDNV=BINDADD is set.

If true, only users with the BINDADD system privilege are allowed to create a package.

If false, the BINDADD privilege check is bypassed and users with the BIND privilege on a package or collection are allowed to create a version of an existing package when they bind it. Users with PACKADM authority are also allowed to add a package or a new version of a package to a collection.

ZPRM_CACHEREFRESH_ALL

This flag field reflects the AUTHEXIT_CACHEREFRESH ALL subsystem setting. This setting controls whether authorization caches are refreshed when the access control authorization exit is active and the user's RACF profile was changed.

If the flag is true, DB2 refreshes the package authorization cache, the routine authorization cache, and the dynamic statement cache entries for the user. If the flag is false, these caches will not be refreshed.

ZPRM_DBACRVW

The DBACRVW subsystem parameter controls whether an authorization ID with DBADM authority on a database is to be allowed to complete certain tasks.

If true, DB2 allows authorization IDs with DBADM authority on a database to complete the following tasks:

- Create a view for another authorization ID on tables in that database.
- Create a materialized query table or alter a table to become a materialized query table for another authorization ID. This action requires that DBADM authority is held on the database in which the tables of the fullselect reside. This action also requires that the authorization ID has DBADM authority on the database in which the materialized query table is to reside.
- Create an alias for itself or another authorization ID for a table in that database.

If false, DB2 does not allow authorization IDs with DBADM authority on a database to complete the following tasks:

- Create a view for another authorization ID on tables in that database.
- Create a materialized query table or alter a table to become a materialized query table for another authorization ID.
- Create an alias for itself or another authorization ID for a table in that database.

ZPRM_DEFLTID

The DEFLTID subsystem parameter specifies the authorization ID that is to be used if RACF is not available for batch access and USER= is not specified in the JOB statement. The maximum length is 8 characters.

ZPRM_EXTSEC

This flag field reflects whether EXTSEC=YES is specified. The EXTSEC subsystem parameter specifies how two related security options are to be set. These settings control what happens when a DDF connection has security errors and whether RACF users can change their passwords through the DRDA change password function.

If true, detailed reason codes are returned to a DRDA level 3 client when a DDF connection request fails because of security errors. When SNA protocols are used, the requester must include a product that supports the extended security sense codes. One such product is DB2 Connect. RACF users can change their passwords by using the DRDA change password function. This support is only for DRDA requesters that implemented support for changing passwords.

If false, generic error codes are returned to the clients and RACF users are prevented from changing their passwords.

Setting this field to YES allows properly enabled DRDA clients to determine the cause of security failures without requiring DB2 operator support. A value of YES also allows RACF users on properly enabled DB2 clients to change their passwords. But it also allows malicious attackers to learn information that can be used in more directed malicious attacks.

ZPRM_IDAUTH_MODULE

The value of this field specifies the member name of the load module that is to be used for the DB2 connection authorization exit routine. Use of a member name other than DSN3@ATH for the connection authorization exit routine requires DB2 Version 10 new-function mode and DB2 Version 10 early (ERLY) code. The maximum length is 8 characters.

ZPRM_IRLMPRC

The IRLMPRC subsystem parameter specifies the name of the IRLM procedure that z/OS is to invoke if the AUTO START field is set to YES. This value is usually different from the value of ZPRM_IRLMSID. The maximum length is 8 characters.

ZPRM_IRLMSID

The IRLMSID subsystem parameter specifies the name by which z/OS is to know the IRLM subsystem. This value is usually different from the value of ZPRM_IRLMPRC. The maximum length is 4 characters.

ZPRM_MCCSID

The value of the EBCDIC CCSID field specifies the default CCSID for EBCDIC-encoded character data that is stored in your DB2 subsystem or data sharing system. MCCSID is used in case MIXED=YES is set (use SO-SI characters to shift between SBCS and DBCS).

This field is of interest for security because it defines how UTF8 object names in DB2 are translated to EBCDIC resource names that DB2 passes to an external security monitor (ESM) like RACF.

ZPRM_MIXED

For EBCDIC data, specifies whether the code points X'0E' and X'0F' have special meaning as the shift-out and shift-in controls for character strings that include double-byte characters.

If the flag is false (MIXED=NO), it indicates that these code points have no special meaning. Therefore, all character strings are single-byte character set (SBCS) data.

If the flag is true (MIXED=YES), it indicates that these code points have the special meaning that is described earlier in this section. Therefore, character strings can be either SBCS or MIXED data.

This flag also implies whether MCCSID or SCCSID is used in translating UTF8 DB2 object names to EBCDIC resource names passed to RACF.

ZPRM_RLFAUTH

The RLFAUTH subsystem parameter specifies the authorization ID that is to be used if you plan to use the Resource Limit Facility (governor). The maximum length is 8 characters.

ZPRM_SCCSID

The value of the EBCDIC CCSID field specifies the default CCSID for EBCDIC-encoded character data that is stored in your DB2 subsystem or data sharing system. SCCSID is used in case MIXED=NO is set.

This field is of interest for security because it defines how UTF8 object names in DB2 are translated to EBCDIC resource names that DB2 passes to an external security monitor (ESM) like RACF.

ZPRM_SECADM1

A user that has SECADM authority can manage security-related objects such as trusted contexts, roles, and column masks. The user can also grant privileges and revoke privileges that are granted by others.

The default length is 8 characters. The maximum length is 128 characters (for a role).

If the access control authorization exit routine (DSNX@XAC) is active, then the exit routine is called to check for SECADM authorization and this system parameter is not checked.

Use of the SECADM1 subsystem parameter requires DB2 version 10 or a later release.

ZPRM_SECADM1_IS_ROLE

This flag specifies whether the SECADM1 parameter is an authorization ID (AUTHID) or a role (ROLE). It is true if SECAMD1_TYPE=ROLE.

Use of the SECADM1 subsystem parameter requires DB2 version 10 or a later release.

ZPRM_SECADM2

A user that has SECADM authority can manage security-related objects such as trusted contexts, roles, and column masks. The user can also grant privileges and revoke privileges that are granted by others.

The default length is 8 characters. The maximum length is 128 characters (for a role).

If the access control authorization exit routine (DSNX@XAC) is active, then the exit routine is called to check for SECADM authorization and this system parameter is not checked.

Use of the SECADM2 subsystem parameter requires DB2 version 10 or a later release.

ZPRM_SECADM2_IS_ROLE

This flag specifies whether the SECADM2 parameter is an authorization ID (AUTHID) or a role (ROLE). It is true if SECAMD2_TYPE=ROLE.

Use of the SECADM2 subsystem parameter requires DB2 version 10 or a later release.

ZPRM_SEPARATE_SECURITY

If false, DB2 security administrator duties and system administrator duties overlap. Users with SYSADM authority can manage all security objects, perform grants, and revoke privileges that are granted by others. Users with SYSCTRL authority can manage roles, perform most grants, and revoke privileges that are granted by others.

If true, DB2 security administrator duties are separate from system administrator duties. Users with SYSADM authority cannot manage security

objects (such as roles and trusted contexts), perform grants, or revoke privileges that are granted by others. Users with SYSCTRL authority cannot manage roles, perform grants, or revoke privileges that are granted by others. However, existing grants that are made by users with SYSADM or SYSCTRL authority are unchanged. SECADM or ACCESSCTRL authority is required for security administration.

Use of the SEPARATE_SECURITY subsystem parameter requires DB2 version 10 or a later release.

ZPRM_SIGNON_MODULE

The value of this field specifies the member name of the load module that is to be used for the DB2 sign-on exit routine. Use of a member name other than DSN3@SGN for the sign-on exit routine requires DB2 Version 10 new-function mode and DB2 Version 10 early (ERLY) code. The maximum length is 8 characters.

ZPRM_SMFACCT

This field is a repeated field with trace classes that reflect what records are written to SMF accounting records.

A value of `No` indicates that no SMF accounting data is sent to SMF when the DB2 subsystem is started.

ZPRM_SMFCOMP

This field is a flag field that indicates that SMF records are compressed with the z/OS compression service CSRCESRV.

ZPRM_SMFSTAT

This field is a repeated field with trace classes that reflect what records are written to SMF statistics records.

A value of `No` indicates that no SMF statistical data is sent to SMF when the DB2 subsystem is started.

ZPRM_SYSADM

The authorization ID that is specified for this parameter can manage the DB2 subsystem even when the DB2 catalog is unavailable. This authorization ID can access all user data and can run any application. The authorization ID can be a RACF user or a RACF group. The maximum length is 8 characters.

ZPRM_SYSADM2

The authorization ID that is specified for this parameter can manage the DB2 subsystem even when the DB2 catalog is unavailable. This authorization ID can access all user data and can run any application. The authorization ID can be a RACF user or a RACF group. The maximum length is 8 characters.

ZPRM_SYSOPR1

The authorization ID that is specified for this parameter can issue most of the DB2 commands such as BIND QUERY, CANCEL THREAD, and STOP DB2. This ability might provide the authorization ID with information about user data. Also, the authorization ID can run the DSN1SDMP utility and terminate any utility job. The maximum length is 8 characters.

ZPRM_SYSOPR2

The authorization ID that is specified for this parameter can issue most of the DB2 commands such as BIND QUERY, CANCEL THREAD, and STOP DB2.

This ability might provide the authorization ID with information about user data. Also, the authorization ID can run the DSN1SDMP utility and terminate any utility job. The maximum length is 8 characters.

ZPRM_TSTAMP

This character field TSTAMP subsystem parameter specifies whether the DB2 archive log data set name is to contain the date and time when the archive log data set was created.

If NO, the archive data set name does not contain a timestamp.

If YES, the maximum allowable length of the user-controlled portion of the archive log prefix is then reduced from 35 characters to 19 characters. This reduction in size permits the 16-character date and time qualifiers (timestamp) to be added to the archive log data set prefix. The timestamp format is as follows:

`.D`*`yyddd`*`.T`*`hhmmsst`*

where:

D is the letter D.
yy is the last two digits of the year.
ddd is the day of the year.
T is the letter T.
hh is the hour.
mm is the minutes.
ss is the seconds.
t is tenths of a second.

If EXT, the archive data set name contains a timestamp with an extended date component in the format:

`.D`*`yyyyddd`*`.`

A value of EXT in this field causes the lengths of the values that are entered for field ARCPFX1 and field ARCPFX2 to be limited to 17.

ZPRM_UTIL_TEMP_STORCLAS

The UTIL_TEMP_STORCLAS subsystem parameter specifies the storage class that the CHECK INDEX, CHECK DATA, and CHECK LOB utilities use when they allocate temporary shadow data sets. (These utilities allocate shadow data sets when you specify the SHRLEVEL CHANGE option.)

The default value of `blank` indicates that the shadow data sets are to be defined in the same storage class as the production page set. The maximum length is 8 characters.

Use of the UTIL_TEMP_STORCLAS subsystem parameter requires DB2 version 10 or a later release.

DB2_VARIABLE: DB2 global variables

Alert	Insight Enabler	Visual	Admin	Audit for RACF®	Audit for ACF2	Audit for TSS
•				•	•	•

This section describes the fields for the `DB2_VARIABLE NEWLIST`. This `NEWLIST` type shows one entry per DB2 global variable that is found in the active DB2 subsystems for which data is available in allocated CKFREEZE data sets. An entry is uniquely identified by the fields `COMPLEX`, `SYSTEM`, `DB2ID`, `SCHEMA`, `NAME`. The

information comes from the SYSIBM.SYSVARIABLES and SYSIBM.SYSVARIABLEAUTH DB2 catalog tables. DB2 global variables were introduced in DB2 V11.

Field descriptions

The DB2_VARIABLE NEWLIST provides the following fields for reporting:

CCSID
The CCSID of the global variable. The default width of this numerical field is 6.

CLASS
This repeated field contains the SAF resource class that is used if DB2 resource security is passed to SAF by the default exit DSNX@XAC that IBM provides. This field forms a repeat group with RESOURCE. The default width is 8.

CREATE_TIMESTAMP
This field contains the date and time when this variable was created. This is field CREATEDTS in DB2 catalog SYSIBM.SYSVARIABLES. The default width is 15. The CREATE_TIMESTAMP field uses a DATETIME format that can be used in date and time comparisons. The CREATE_TIMESTAMP_DB2 field uses a character format.

CREATE_TIMESTAMP_DB2
This field contains the date and time when this variable was created. It is obtained from DB2 in the character format that is used by DB2 UNLOAD. This field is the CREATEDTS field in DB2 catalog SYSIBM.SYSVARIABLES. The default width is 19. The CREATE_TIMESTAMP_DB2 field uses a character format. The CREATE_TIMESTAMP field uses a DATETIME format that can be used in date and time comparisons.

COLLECT_DATETIME
This field contains the date and time when the CKFREEZE file for this record was created. This field uses the default output format DATETIME.

COMPLEX
This field identifies the security complex name. The value can come from the ALLOC COMPLEX parameter or default to the security node or sysplex name. The default field length is 8 characters. This field is part of the record key.

If the ALLOC statement for a CKFREEZE data set contains a VERSION= parameter, a blank and the 4-character version are appended to the 8-character complex name. To display the version in the report output, use an output length modifier on the COMPLEX field and specify a value of 13 or greater, or 0. For more information, see Modifying output length.

DATATYPEID
For a built-in data type, this is the internal ID of the built-in type. For a distinct type, this is the internal ID of the distinct type. The default width of this numerical field is 5.

DB2ID
Name of the DB2 subsystem (four characters). This field is part of the record key. For more information about the DB2 subsystem, see DB2_REGION: DB2 subsystems.

DB2_ACL
This field shows the access list matrix for internal DB2 authorization that is used if the DSNX@XAC RACF interface is not active. The field is enriched with information about the type of ID that corresponds with a DB2 authorization ID (authid). The DB2_ACL field is in native UTF-8 format, so that

it can be used to create XML files, emails, or other output with ENCODING=UTF8 to preserve national language characters in the Grantee and Grantor fields. The layout of the DB2_ACL varies depending on the maximum length of any GRANTEE that is used in the DB2 internal authorization tables, and is extended where the header shows >>. The general layout is as follows:

```
Userid RW Grantee LastGranted H L Grantor
```

For information about the **Userid**, **Grantee>>**, **LastGranted**, **H**, **L**, and **Grantor** columns, see DB2 access list display - DB2 internal access. The *privileges* are displayed as one column for each DB2 object privilege:

```
R=READ, W=WRITE
```

Possible values shown in these columns are:

- An uppercase character (for example "S") indicates that the privilege is granted with the GRANT option.
- A lowercase character (for example "s") indicates that the privilege has been granted without the GRANT option.
- A dash (-) indicates that the privilege cannot be granted at this level of DB2.
- A period (.) indicates that the privilege is not set for the current ID, but the ID might have the privilege through some other means.

DEFAULT
The default clause that is specified for the global variable. The default width of this field is 3.

ENVID
An internal environment identifier. This default width of the decimal field is 6.

LENGTH
This field shows the maximum length of the global variable. The default width of this numerical field is 5.

NAME
Name of the variable. The maximum length is 128 characters. The default width is 32.

OWNER
This field is the authorization ID of the owner of the global variable. The maximum length is 128 characters. The default width is 8.

OWNERTYPE
This one-character field indicates the type of owner:

blank
Authorization ID

L Role

RACF_DB2_ACL
This field is a compound repeating field that reflects authorizations if RACF (SAF) protection is achieved (through the standard DSNX@XAC authorization exit. This field displays authorizations in a way similar to the way they are displayed for native authorization: it shows columns with individual authorizations for each user or group ID. Each individual authorization is a different resource name in SAF. The access level required is UPDATE for actions that involve writing if MLS is active or READ if MLS is not active. The general layout of the field is:

```
Userid RW Id
```

For information about the *Userid* and *Id* column, see the RACF_DB2_ACL description in DB2 access list display - DB2 internal access.

The *privileges* have the same meaning as shown for DB2_ACL. The columns reflect the access that a certain ID has to the individual privileges. Possible values shown in these columns are:

- A dash ('-') in a privilege column means that the privilege does not yet exist in the DB2 release.
- An uppercase letter shows that the ID has the privilege using regular RACF access to the applicable resource, as shown in the CLASS and RESOURCE fields.
- A lowercase letter shows that the ID has the privilege using DB2 internal security.
- A period (.) indicates that the privilege is not set for the current ID, but the ID might have the privilege through some other means.
- A plus (+) indicates that the current ID is the owner of a profile that describes access to the privilege, or has potentially sufficient authority to create such a profiles using the CLAUTH authorization.
- A blank is shown if the ID does not have any access.

For additional details about the possible values, see DB2 access list display - DB2 internal access.

The RACF_DB2_ACL field is sensitive to the field modifiers EXPLODE, RESOLVE, EFFECTIVE, UNIVERSAL, SCOPE, TRUST, and SORT.

In a display this can be changed interactively with the ACL primary command on the detail display.

RELCREATED
This one character field reflects the release that the variable was created. For DB2 version 11, the value of RELCREATED is P.

REMARKS
This field contains a character string that is provided by the user with the COMMENT statement. The maximum length is 762. The default width is 64.

RESOURCE
This field is a repeated field with the SAF resource names used if DB2 resource security is passed to SAF by the default exit DSNX@XAC that IBM provides. This field forms a repeat group with CLASS. The resource name that is checked is *ssid.schema-name.variable-name.action* in the GV-type resource class, where *action* is READ or WRITE. The default width is 64. The maximum length is 246.

SCALE
The scale of the global variable. The default width of this numerical field is 5.

SCHEMA
Schema of the variable. The maximum length is 128 characters. The default width is 8.

SOURCETYPEID
For a built-in data type, this is 0. For a distinct type, this is the internal ID of the built-in data type on which the distinct type is based. This default width of this numerical field is 5.

SYSTEM
This field contains the name of the system where the DB2 region runs. For MVS systems, this field is equal to the SMF system ID. The field length is 8

characters for compatibility with other NEWLIST types. The maximum length is 8 characters. This field is part of the record key.

TYPENAME
The unqualified name of the data type of the variable. The maximum length is 128 characters. The default width is 32.

TYPESCHEMA
The schema name of the data type of the variable. For built-in data types, this value is SYSIBM. The maximum length is 128 characters. The default width is 8.

Selecting data by DB2 subsystem and DB2 object type

You can use keywords to select for which DB2 subsystems and for which DB2 object types you want to collect DB2 catalog data. This selection method only applies to information from the DB2 catalog. Information about the DB2 subsystem itself is always collected if the subsystem is active at the time of running the CKFCOLL program. You can disable collection of all DB2 information by specifying DB2=NO. You can disable collection of all DB2 catalog information by specifying DB2CAT=NO.

You can select and exclude DB2 subsystems based on the subsystem name or the Group Attachment Name. You can specify a list of names. The special value %%%% (four % signs) can be used to refer to all subsystems or all group names. You can also specify for which DB2 object types data is collected from the DB2 catalog. If you specify the DB2 subsystem and the DB2 object type in the same statement, the conditions are combined in an AND relation. This means that the select or exclude only applies to the object types in the specified subsystem. Other object types in other subsystems are unaffected. If a criterion is not specified, it is not used. If multiple criteria are specified, they need to be enclosed in parenthesis. The following keywords and parameters can be specified:

DB2ID=(*name*, ...)
Specifies that you want to select or exclude DB2 object information for the specified subsystems by name. If only one name is specified, the parentheses can be omitted. The special value %%%% can be used to refer to all subsystems. In a single SELECT or EXCLUDE statement, DB2ID cannot be combined with DB2GRP.

DB2GRP=(*name*, ...)
Specifies that you want to select or exclude DB2 object information for the specified subsystems based on the Group Attachment Name. If a DB2 subsystem is not a member of the group, it is considered to not match the specified value. If only one name is specified, the parentheses can be omitted. The special value %%%% can be used to refer to all groups. For example, you can use X=DB2GRP=%%%% to exclude all DB2 subsystems that are part of any group. Only data for "single system" subsystems is collected. In a single SELECT or EXCLUDE statement, DB2GRP cannot be combined with DB2ID. For the specified group, data is obtained only once from one of the DB2 subsystems in the group. Which DB2 subsystem is used is unpredictable. If the chosen DB2 subsystem is excluded through an explicit or generic EXCLUDE statement, no data for the group is collected.

DB2OBJTYPE=(*type*, ...)
Specifies that you want to select or exclude data about the specified object types. If only one type is specified, the parentheses can be omitted. The following table shows the object types you can specify and which DB2 catalog tables are affected.

Table 4. Possible values for type

Object type	Short name	DB2 catalog table
DATABASE	DB	SYSDATABASE, SYSDBAUTH
JAR	JR	SYSJAROBJECTS, SYSRESAUTH
PACKAGE	PK	SYSPACKAGE, SYSPACKAUTH
PLAN	PN	SYSPLAN, SYSPLANAUTH
ROUTINE	SP	SYSROUTINES, SYSROUTINEAUTH
SEQUENCE	SQ	SYSSEQUENCE, SYSSEQUENCEAUTH
STOGROUP	SG	SYSSTOGROUP, SYSRESAUTH
TABLE	TB	SYSTABLES, SYSTABAUTH, SYSVIEWS, SYSINDEXES, SYSTRIGGERS
TABLESPACE	TS	SYSTABLESPACE, SYSTABLEPART, SYSRESAUTH
DATATYPE	DT	SYSDATATYPES, SYSRESAUTH
VARIABLE	GV	SYSVARIABLES, SYSVARIABLEAUTH

Information from catalog table SYSUSERAUTH is always collected. Information from catalog table SYSSCHEMAAUTH is collected if information about any schema is collected.

Examples of DB2 selection

SELECT and EXCLUDE statements can have a combination of DB2ID and DB2OBJTYPE statements. To include only information about TABLES from the DB2 subsystem named DB91, you can include the following SELECT statement:

```
S=(DB2ID=DB91,DB2OBJTYPE=TABLE)
```

The following statement results in omitting all PACKAGE and PLAN information from all DB2 subsystems:

```
X=DB2OBJTYPE=(PACKAGE,PLAN)
```

You could also have coded the shortform

```
X=DB2OBJTYPE=(PK,PN)
```

To include information only from the DBAG data sharing group, specify a SELECT statement as follows:

```
S=DB2GRP=DBAG
```

To exclude information for all DB2 data sharing groups, specify an EXCLUDE statement like this:

```
X=DB2GRP=%%%%
```

You cannot combine the DB2ID and DB2GRP keywords in a single statement. However, you can combine these keyword in multiple statements. An example is the combination of a SELECT statement for a DB2GRP with an EXCLUDE statement for a DB2ID:

```
S=DB2GRP=DBAG
X=DB2ID=DBA1
```

The EXCLUDE statements are always evaluated after the SELECT statements. If the CKFCOLL program chooses the DBA1 subsystem for the catalog data collection from the DBAG group, the EXCLUDE statement prevents data collecting from the DBAG group.

You can use the IF statement to conditionally execute SELECT and EXCLUDE statements. The following example shows how you can use the IF statement to only collect information from data sharing group DB8G when running on system SYSA, and from data sharing group DB9G when running on system SYSB:

```
IF SMFID<>SYSA : X=(DB2GRP=DB8G)
IF SMFID<>SYSB : X=(DB2GRP=DB9G)
```

In this example, the EXCLUDE statement is used to skip the group on all other systems.

Data from those DB2 subsystems that are not a member of any data sharing group is always collected.

Printed in USA