



Updates to: Monitoring Performance from the IBM OMEGAMON Enhanced 3270 User Interface

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Chapter 1. Documentation updated in this techdoc

This update applies to the *Monitoring Performance in the Enhanced 3270 User Interface*, *Monitoring Performance in the OMEGAMON Classic Interface*, and *Parameter Reference* manuals for IBM OMEGAMON for DB2 on z/OS Performance Expert and Performance Monitor, V5.4.0.

Note: PTF PI86238 and the corresponding PARMGEN PTF for thread history, UA93069, are both required in order to implement thread history in the Enhanced 3270 User Interface. These PTFs include HOLDDATA information that contains required installation and post-configuration steps.

Chapter 2. Using thread history

OMEGAMON for DB2 thread history in the Enhanced 3270UI is the equivalent of near-term history in the Classic interface.

Database administrators and systems analysts use thread history to analyze thread performance for recent DB2 application, system, and utility threads. Near-term history (Classic) and thread history (Enhanced 3270UI) data are stored in VSAM data sets. Thread history in the Enhanced 3270UI is approximately equivalent to "thread-related information" in the Classic Interface's near-term history.

An additional distinction is that thread history is different from a snapshot history. Thread history refers to completed thread activities, while snapshot history includes activities currently in progress.

For information on how to set up thread history collection, see *Configuring thread history*.

Several configuration parameters are required in order to enable thread history in the Enhanced 3270UI. See *Parameters updated for thread history* for information on thread history configuration parameters. In addition, the HOLDDATA information for this PTF contains installation instructions and post-configuration steps required to enable thread history.

Viewing thread history

This topic describes how to verify that the thread history data collector is running.

About this task

This task makes the following assumptions:

- Thread history data collector is running
- Tivoli Enterprise Monitoring Agent (TEMA) is running
- Tivoli Enterprise Monitoring Server (TEMS) is running
- Tivoli OMEGAMON Manager is running

Procedure

1. From the KOBSEVTS panel, which appears when you log in, select DB2. The active DB2 subsystems are displayed.
2. Enter R beside the name of the DB2 subsystem you want to verify. Press ENTER. If the thread history data collector is running for the DB2 subsystem you selected, the Thread History Selection panel (KDPHFIL1) is displayed. If the collector is not running, a message indicates that thread history is not active for DB2.

Note: The R option is also available from KOBSTART and KDPSTART.

Filtering thread history by time ranges (timespan)

You can filter your thread history by time range, to identify threads with performance problems.

About this task

This task assumes the thread history data collector is running.

Procedure

1. From the KOBSEVTS panel, which appears when you log in, select DB2. This displays the active DB2 subsystems.
2. Enter R next to the DB2 subsystem you want to verify.
3. From the **Timespan** tab, you can specify that you want to select threads from a span of time counting back from the present, such as (1) five minutes or (2) 100 hours. Or you can specify (3) a historical time range, with a start and end date and time. For example, you can select threads for a time range starting at 09:32:01 on 05/15/2017 and ending at 11:32:01 on 05/19/17. Set the Minute(s), Hour(s), or Time Range specification you want to use, then enter 1, 2, or 3 to the left, where 1 is entered in this example:

```
Timespan
KDPHFIL1      Thread History Timespan Selection

Select an action and then press ENTER

 1  1. M Historical Last 005 Minute(s)
    2. H Historical Last 040 Hour(s)
    3. T Historical Time Range
       Time      Date      (HH:MM:SS MM/DD/YYYY)
Start 14:21:51  02/20/2018 (HH:MM:SS MM/DD/YYYY)
End   14:26:51  02/20/2018 (HH:MM:SS MM/DD/YYYY)

                               OK  Clear  Cancel
```

4. Select **OK**. The thread history summary is displayed.

Filtering thread history by event counts and times

You can filter your thread history by event counts and times, to identify threads with performance problems.

About this task

This task assumes the thread history data collector is running.

Procedure

1. From the KOBSEVTS panel, which appears when you log in, select DB2. This displays the active DB2 subsystems.
2. Enter R next to the DB2 subsystem you want to verify.
3. Select the **Counts/Times** tab. From this tab, you can specify that you want to select threads based on a range of system usage counts and CPU and database elapsed times. The supported operators are EQ (Equal), NE (Not Equal), LT (Less Than), LE (Less Equal), GT (Greater Than), GE (Greater Equal).
4. When you have specified the counts and times you want to monitor, select **OK**. The thread history summary is displayed.

Filtering thread history by thread IDs

You can filter your thread history by thread IDs, to identify threads with performance problems.

About this task

This task assumes the thread history data collector is running.

Procedure

1. From the KOBSEVTS panel, which appears when you log in, select DB2. This displays the active DB2 subsystems.
2. Enter R next to the DB2 subsystem you want to use.
3. From the **Thread ID** tab, you can select threads by ID, using criteria such as Plan Name, Auth ID, Connect, Con Type, Correlation ID, CICS TX, and IMS PSB. Note that Correlation ID is case sensitive. You can use the EQ ("equal") or NE ("not equal") operators to specify that you want to see results that match, or results that do not match, the string you enter. The question mark (?) wildcard can be used to represent one character in a string. For example, you might specify TS12?4 to see threads with Auth IDs such as TS1234 or TS1244.
The asterisk (*) wildcard can be used to specify that you want to see any string. For example, you might specify OMPE* to see threads with Auth IDs such as OMPEADMIN or OMPETEST. When you use the asterisk wildcard, any characters you enter after the asterisk will be ignored. For example, OMPE*TEST would be treated the same as OMPE*. You cannot use the asterisk at the beginning of a string, for example *ABC. This would be treated as just a wildcard, with the ABC being ignored.
4. When you have specified the selection criteria you want to use, select **OK**. The thread history summary is displayed.

Filtering thread history by end user

You can filter your thread history by end user, workstation, transaction, role, trusted context, or accounting string, from the End User tab.

About this task

This task assumes the thread history data collector is running.

Procedure

1. From the KOBSEVTS panel, which appears when you log in, select DB2. This displays the active DB2 subsystems.
2. From KOBSTART or KDPSTART, enter R next to the DB2 subsystem you want to use.
3. Select the End User tab. From this tab, you can specify that you want to select threads based on any of several case sensitive criteria:
 - End User ID (up to 56 bytes)
 - Workstation name (up to 56 bytes)
 - Transaction Name (up to 56 bytes)
 - Role Name (up to 56 bytes if running in a trusted context)
 - Trusted Context (up to 56 bytes if running in a trusted context)
 - Accounting String: up to 56 bytes for the agent. For DSN type, it is the first 56 bytes of QMDAACCT. For JCC/SQL types, it is the first 56 bytes of QMDASUFY. For other types, it is the first 56 bytes of AMDAASTR.You can use the EQ ("equal") or NE ("not equal") operators to specify that you want to see results that match, or results that do not match, the string you enter. The question mark (?) wildcard can be used to represent one

character in a string. For example, you might specify John?Smith to see threads with End User IDs such as JohnBSmith or JohnQSmith.

The asterisk (*) wildcard can be used to specify that you want to see any string. For example, you might specify John* to see threads with End User IDs such as JohnSmith or JohnJones. When you use the asterisk wildcard, any characters you enter after the asterisk will be ignored. For example, John*Smith would be treated the same as John*.

4. When you have specified the selection criteria you want to use, select **OK**. The thread history summary is displayed.

The thread history summary

You can view a list of threads that meet your selection criteria.

To view the thread history summary, the thread history collector must be running, and you must have identified one or more selection criteria you want to use to identify current or recent threads that may have performance problems.

For information on how to specify the criteria, see *Using thread history*.

Once you have specified the criteria, the thread summary is displayed. The summary shows columns of information that identify the workstation, transaction, user, usage, and other characteristics you can use to determine which threads need attention to improve system performance.

Viewing thread history detail accounting

The thread history accounting detail helps you diagnose performance problems.

About this task

This task assumes the thread history collector is running and you have identified one or more selection criteria you want to use to identify current or recent threads that may have performance problems.

For information on how to specify the criteria, see *Using thread history*.

Procedure

1. In the Thread History Summary, select the thread you want accounting detail on, by typing S next to it and pressing ENTER. The DB2 Thread History Detail Accounting panel is displayed.
2. The Accounting (Acct) and Class3 tabs present information about the thread, which you can use to diagnose performance problems.

Viewing thread history wait times

The Class 3 Wait Times information helps you diagnose performance problems.

About this task

This task assumes the thread history collector is running and you have identified one or more selection criteria you want to use to identify current or recent threads that may have performance problems.

For information on how to specify the criteria, see *Using thread history*.

Procedure

1. From the Thread History Summary, select the thread you want accounting detail on, by entering W next to it and pressing **ENTER**. The DB2 Thread History Detail Wait Times panel is displayed.
2. Examine the information in the Class 3 tab to diagnose performance problems.

Configuring thread history

Several parameters are required to configure PARMGEN.

About this task

For information about PARMGEN, see the Implementation scenarios in the IBM® Knowledge Center.

Procedure

1. Log into PARMGEN.
2. Use the instructions in the "Customizing the configuration profiles" step in the implementation scenario to edit the LPAR RTE configuration profile in the RTE's %RTE_HILEV%.%RTE_NAME% dataset and enable the following thread history parameters:
 - Verify that KD2_PFn_HIS_START is set to Y.
 - Set KD2_PFn_HIS_STORE to the value that includes THVSAM. If other options (for example, VSAM, SEQ) are included, make sure to set the dependent parameters such as KD2_PFn_HIS_LOGn.
3. Set the following parameters to YES:
 - KD2_PFn_THRDHIS_LOG_NUM
 - KD2_PFn_THRDHIS_DYN_SQL
 - KD2_PFn_THRDHIS_LOCK_CNTN
 - KD2_PFn_THRDHIS_LOCK_SUSP
 - KD2_PFn_THRDHIS_SCAN_SUMM
 - KD2_PFn_THRDHIS_SORT_SUMM

Note: These parameters can be configured in PARMGEN, but they are not yet implemented for use with thread history in the Enhanced 3270UI.

4. Run the PARMGEN \$PARSE and SUBMIT steps. The jobs that need to run will depend on your SMP/E maintenance and upgrade scenario. For example, you might just need to run the KCIJPW2R job, or you might need to run allocation jobs such as ALLOCDS, TCRV&dbid, and/or HCRV&dbid. Consult the IBM Knowledge Center page on SMP/E maintenance and upgrade scenarios.
5. Verify that the COPT&dbid file is generated correctly. Check that the THRD parameters are set according to the values you set in KD2_PFn_THRDHIS_* in PARMGEN:

```
THRDLOG(7)
THRDDATASET(D010MPE.VTS5815.DBA9.RKTH*)
THRDSQL(YES)
THRDCONT(YES)
THRDSUSP(YES)
THRDSOFT(YES)
THRDSCAN(YES)
THRDSORT(YES)
```

6. Verify that all data sets mentioned in COPT&dbid member have been generated.

Thread history parameters

New PARMGEN parameters have been added, and existing parameters have new defaults or have been updated.

Parameter Reference - Enhanced 3270UI thread history

This section lists the parameters added or updated for thread history.

Note: You can start thread history collection by default when you start OMEGAMON® for DB2® PE, or you can use operator commands to start and stop thread history collection.

There are several new parameters introduced to support the Enhanced 3270UI thread history:

- KD2_PFn_n_THRDHIS_LOG_NUM
- KD2_PFn_n_THRDHIS_DYN_SQL
- KD2_PFn_n_THRDHIS_LOCK_CNTN
- KD2_PFn_n_THRDHIS_LOCK_SUSP
- KD2_PFn_n_THRDHIS_SCAN_SUMM
- KD2_PFn_n_THRDHIS_SORT_SUMM

Note: These parameters can be configured in PARMGEN, but they are not yet implemented for use with thread history in the Enhanced 3270UI.

Change to KD2_PFn_n_HIS_STORE parameter

The following field has the same default value but now has additional options that support thread history:

KD2_PFn_n_HIS_STORE now allows values with the THVSAM option (VSAMTHVSAM, VSAMSEQTHVSAM, SEQTHVSAM, THVSAM). This option activates Enhanced 3270UI thread history collection.

The following sections detail the parameters that have been updated to facilitate thread history in the Enhanced 3270UI.

KD2_OMPE_VSAM_DSHLQ

Use the KD2_OMPE_VSAM_DSHLQ parameter to specify the high-level qualifier for the VSAM data sets that the thread history collector allocates.

Description

This parameter specifies the high-level qualifier for the VSAM data sets allocated by the OMEGAMON Collector.

The default value is generated from the high-level qualifier and the mid-level qualifier that you specified for your RTE.

This parameter is also the basis of the THRDDATASET() parameter in the RKD2PAR(COPT&dbid) for the Enhanced 3270UI thread history VSAM data sets.

Required or optional

Required

Default value

%RTE_VSAM_HILEV%.%RTE_NAME%

Locations where the parameter value is stored**Location 1**

In the OMPEMSTR member of the %RTE_HILEV%.%RTE_NAME
%.RKD2PAR library

Output line

VDATASERVERHLQ=<value>

Location 2

In the OMDDssid member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

DEFINE CLUSTER(NAME(<value>..%DB%.HISTORY) -

Location 3

In the OMDDssid member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

DELETE (<value>..%DB%.HISTORY) CLUSTER

PARMGEN name

KD2_OMPE_VSAM_DSHLQ

PARMGEN classification

OMPE

KD2_PFn_HIS_ACCTG_CLAS

Use the KD2_PFn_HIS_ACCTG_CLAS parameter to specify one or more types of accounting data to collect.

Description

Specifies the type of accounting data to collect.

Class 1 IFCID 3 no In-DB2 or I/O and lock wait times.

Class 2 IFCID 3 In-DB2 time.

Class 3 IFCID 3 I/O and lock wait times.

Class 7 IFCID 3,239 Package/DBRM In-DB2 time.

Class 8 IFCID 3,239 Package/DBRM I/O and lock wait times.

Class 10 IFCID 239 Package detail

Class 11 IFCID 3,200 No package info. For DB2 v11 and above only.

Enter a list of the accounting classes that you want to collect data from.
For example "1 2 3"

NOTE: In order to reduce the number of IFCIDs collected and not
collect the IFCID 239, class 11 should be requested

without classes 7, 8 and 10. Class 11 supported in DB2 v11 and above.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to Y)

Default value

1

KD2_PF_HIS_ACCTG_CLAS

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

ACCTG(<value>Y)

PARMGEN name

KD2_PFn_HIS_ACCTG_CLAS

PARMGEN classification

NTH

KD2_PFn_HIS_DYN_DSNAME

This parameter lets you specify a base dataset name that is used to create the sequential datasets for storing Near-Term History trace data.

Description

Specify a base dataset name that is used to create the sequential datasets that store Near-Term History trace data. Use the following variables to construct the sequential dataset name. To ensure unique dataset names, you must use at least @DB2, @DATE and @TIME:

@DB2 Inserts the DB2 subsystem ID of the data being collected into the name of the dataset.

@DATE

Inserts the date of the first record in the dataset into the name of the dataset.

@TIME

Inserts the time of the first record in the dataset into the name of the dataset.

This field is applicable only if the storage type is VSAMSEQ, VSAMSEQTHVSAM, or SEQTHVSAM and the storage mechanism is DYNAMIC.

Required or optional

Optional (Required if KD2_PF_HIS_START is set to C,Y and KD2_PF_HIS_SEQ_TYP is set to D)

Default value

None

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

<value>

PARMGEN name

KD2_PFn_HIS_DYN_DSNAME

PARMGEN classification

NTH

KD2_PFn_HIS_DYN_PRIMARY

Primary space for sequential datasets

Description

KD2_PF_HIS_DYN_PRIMARY

Specify the primary space allocation used for the sequential data sets created by the Near-Term History Data Collector. The default is 10 cylinders.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, or SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional (Required if KD2_PF_HIS_START is set to C,Y and KD2_PF_HIS_SEQ_TYP is set to D)

Default value

10

Valid values

Any number in the range 3-9999

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

SPACE(CYL,<value>,<KD2_PFnn_HIS_DYN_SECONDARY>)

PARMGEN name

KD2_PFnn_HIS_DYN_PRIMARY

PARMGEN classification

NTH

KD2_PFnn_HIS_DYN_SECONDARY

Secondary space for sequential datasets

Description

Specify the secondary space allocation used for the sequential data sets created by the Near-Term History Data Collector. The default is 2 cylinders.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, or SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional (Required if KD2_PF_HIS_START is set to C,Y and KD2_PF_HIS_SEQ_TYP is set to D)

Default value

2

Valid values

Any number in the range 0-9999

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

SPACE(CYL,<KD2_PFnn_HIS_DYN_PRIMARY>,<value>)

PARMGEN name

KD2_PFnn_HIS_DYN_SECONDARY

PARMGEN classification

NTH

KD2_PF_HIS_DYN_SQL

KD2_PFn_HIS_DYN_SQL

The KD2_PFn_HIS_DYN_SQL parameter specifies whether to collect dynamic SQL data.

Valid values

This specifies whether dynamic SQL text and access path information is collected.

Y: the collector activates IFCIDs 22, 63, 105, and 107.

F: the collector activates IFCIDs 22, 350, 105, and 107. IFCID 350 records the complete text of a parsed SQL statement, while IFCID 63 is limited to the first 5000 bytes of a SQL statement.

Required or optional

Optional (Required if KD2_PF_HIS_START is set to Y.)

Default value

N

Valid values

Y, N, F

Locations where the parameter value is stored

Location 1

In the DB2PROF member of the %RTE_HILEV%.%RTE_NAME
%.RKD2PRF library

Output line

DB2_DSNTIAD=<value>NTIA

Location 2

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME
%.RKD2PAR library

Output line

DYNAMICSQL(<value>Y)

PARMGEN name

KD2_PFn_HIS_DYN_SQL

PARMGEN classification

NTH

KD2_PFn_HIS_GDG_LIM

The KD2_PFn_HIS_GDG_LIM parameter specifies the number of GDG generations to be used for this GDG.

Valid values

Any number in the range 1-255.

This field is only applicable if the storage type is VSAMSEQ,
VSAMSEQTHVSAM, or SEQTHVSAM and the storage mechanism is GDG.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to C,Y and
KD2_PF_HIS_SEQ_TYP is set to G)

Default value

7

Locations where the parameter value is stored

Location 1

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

LIMIT(<value>))

Location 2

In the HCRVssid member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

LIMIT(<value>))

PARMGEN name

KD2_PFn_HIS_GDG_LIM

PARMGEN classification

NTH

KD2_PFn_HIS_GDG_PRIMARY

The KD2_PFn_HIS_GDG_PRIMARY parameter specifies the primary space allocation used for the GDG.

Required or optional

Optional (Required in case KD2_PFn_HIS_START is set to C,Y and
KD2_PFn_HIS_SEQ_TYP is set to G)

This field is only applicable if the storage type is VSAMSEQ,
VSAMSEQTHVSAM, or SEQTHVSAM and the storage mechanism is
STATIC SEQUENTIAL.

Default value

10

Valid values

Any number in the range 3-9999

Location where the parameter value is stored

In the COPtssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR
library

Output line

SPACE(CYL,<value>,<KD2_PFn_HIS_GDG_SECONDARY>)

PARMGEN name

KD2_PFn_HIS_GDG_PRIMARY

PARMGEN classification

NTH

KD2_PFn_HIS_GDG_SECONDARY

The KD2_PFn_HIS_GDG_SECONDARY parameter specifies the secondary space allocation used for the GDG.

Default value

2 cylinders

This field is only applicable if the storage type is VSAMSEQ,
VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC
SEQUENTIAL.

KD2_PF_HIS_GDG_SECONDARY

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to C,Y and KD2_PF_HIS_SEQ_TYP is set to G)

Valid values

Any number in the range 0-9999

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

SPACE(CYL,<KD2_PFnn_HIS_GDG_PRIMARY>,<value>)

PARMGEN name

KD2_PFnn_HIS_GDG_SECONDARY

PARMGEN classification

NTH

KD2_PFnn_HIS_LOCK_CNTN

The KD2_PFnn_HIS_LOCK_CNTN parameter specifies whether lock timeout and deadlock information is collected.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to Y)

Default value

N

Valid values

Y: Collector activates IFCIDs 172, 196, 105, and 107

N

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

LOCKCONT(<value>Y)

PARMGEN name

KD2_PFnn_HIS_LOCK_CNTN

PARMGEN classification

NTH

KD2_PFnn_HIS_LOCK_SUSP

The KD2_PFnn_HIS_LOCK_SUSP parameter specifies whether to collect lock wait information for local resources.

Description

If Y is entered, the collector activates IFCIDs 44,45,213,214,105,107.

Required or optional

Optional (Required if KD2_PF_HIS_START is set to Y)

Default value

N

Valid values

Y, N

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

LOCKSUSP(<value>Y)

PARMGEN name

KD2_PFn_HIS_LOCK_SUSP

PARMGEN classification

NTH

KD2_PFn_HIS_LOG2

The KD2_PFn_HIS_LOG2 parameter specifies a name for the VSAM log data set to be created

Specify at least two data sets to allow for log switching. The Near-Term History Data Collector will automatically switch to a free log data set when the current data set is full. Near-Term History VSAM data set names must be unique for each DB2 subsystem.

Required or optional

Optional (Required if KD2_PF_HIS_START is set to Y)

Default value

%RTE_VSAM_HILEV%.%RTE_NAME%.%DB%.RKD2VS02

Locations where the parameter value is stored**Location 1**

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME%.RKD2SAM library

Output line

ENTRIES('<value>') -

Location 2

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME%.RKD2SAM library

Output line

(NAME(<value>) -

Location 3

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

<value>

Location 4

In the HCRVssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2SAM library

Output line

DEFINE CLUSTER(NAME(<value>) -

PARMGEN name

KD2_PFn_HIS_LOG2

PARMGEN classification

NTH

KD2_PF_HIS_SCAN_SUMM

KD2_PFn_HIS_SCAN_SUMM

The KD2_PFn_HIS_SCAN_SUMM parameter specifies whether to collect scan summary data.

Description

If Y is entered, the collector activates IFCIDs 15,16,17,18.

Required or optional

Optional (Required if KD2_PF_HIS_START is set to Y)

Default value

N

Valid values

Y, N

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

SCAN(<value>Y)

PARMGEN name

KD2_PFn_HIS_SCAN_SUMM

PARMGEN classification

NTH

KD2_PFn_HIS_SEQLOG1

The KD2_PFn_HIS_SEQLOG1 parameter specifies names for up to 7 sequential data sets that will be created for trace data collection.

Description

A minimum of 2 data sets is required. Ensure that the set of historical sequential data sets is unique for each DB2 subsystem.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, or SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional (Required if KD2_PF_HIS_START is set to C,Y and KD2_PF_HIS_SEQ_TYP is set to S)

Default value

None

Locations where the parameter value is stored

Location 1

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME%.RKD2SAM library

Output line

LISTCAT ENTRIES('<value>') NAME

Location 2

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME%.RKD2SAM library

Output line

ALLOC DSNAME('<value>') -

PARMGEN name
KD2_PFn_HIS_SEQLOG1

PARMGEN classification
NTH

KD2_PFn_HIS_SEQ_ARC_DS

The KD2_PFn_HIS_SEQ_ARC_DS parameter specifies the name of the archive data set.

Description

If you selected GDG, specify the following parameters:

Specify the name for the base data set of the Generation Data Group GDG. For the GDG type, the data set name can have a maximum of 35 characters.

If you selected DYN, specify the following parameters:

Use the following variables to construct the sequential data set name. To ensure unique data set names, you must use at least @DB2, @DATE and @TIME:

@DB2 Inserts the DB2 subsystem ID of the data being collected into the name of the data set.

@DATE
Inserts the date of the first record in the data set into the name of the data set.

@TIME
Inserts the time of the first record in the data set into the name of the data set.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to C,Y and KD2_PF_HIS_SEQ_TYP is set to S)

Default value
None

Locations where the parameter value is stored

Location 1

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

(NAME ('<value>') -

Location 2

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

ENTRIES('<value>') -

PARMGEN name
KD2_PFn_HIS_SEQ_ARC_DS

KD2_PF_HIS_SEQ_ARC_DS

PARMGEN classification

NTH

KD2_PFnn_HIS_SEQ_ARC_MCLAS

The KD2_PFnn_HIS_SEQ_ARC_MCLAS parameter specifies the management class for archive data sets.

Description

If the data set is SMS-managed, specify the SMS management class to use on the allocation. If your installation does not use the SMS MGMTCLAS parameter, you can leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, or SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional

Default value

%RTE_SMS_MGMTCLAS%

Locations where the parameter value is stored

Location 1

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

MGMTCLAS(<value>)

Location 2

In the HCRVssid member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

MGMTCLAS(<value>)

PARMGEN name

KD2_PFnn_HIS_SEQ_ARC_MCLAS

PARMGEN classification

NTH

KD2_PFnn_HIS_SEQ_ARC_SCLAS

Storage class for the archive datasets

Description

If the dataset is SMS-managed, then specify the SMS storage class to be used on the allocation. If your installation does not use the SMS STORCLAS parameter, you can leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional

Default value

%RTE_SMS_STORCLAS%

Locations where the parameter value is stored

Location 1

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

STORCLAS(<value>)

Location 2

In the HCRVssid member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

STORCLAS(<value>)

PARMGEN name

KD2_PFnHIS_SEQ_ARC_SCLAS

PARMGEN classification

NTH

KD2_PFnHIS_SEQ_ARC_TYP

The KD2_PFnHIS_SEQ_ARC_TYP parameter specifies the storage mechanism for archive data sets.

Description

You configured the Near-Term History Data Collector to store the trace data to VSAM data sets and sequential data sets VSAMSEQ, VSAMSEQTHVSAM, or SEQTHVSAM and you specified the storage mechanism.

On this panel you can specify the information used to create the archive data sets that are generated by the Near-Term History Data Collector. There are two choices:

GDG Generation Data Group

DYN the Near-Term History Data Collector always allocates a new data set when the currently used data set is full.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to C,Y and KD2_PF_HIS_SEQ_TYP is set to S)

Default value

GDG

Permissible values

GDG, DYN

Location where the parameter value is stored

This value is not stored in a configuration member.

PARMGEN name

KD2_PFnHIS_SEQ_ARC_TYP

PARMGEN classification

NTH

KD2_PFn_HIS_SEQ_ARC_UNIT

The KD2_PFn_HIS_SEQ_ARC_UNIT parameter specifies the unit for the archive data sets.

Description

Specify the unit name for the allocation of the data set. If the data set is not SMS-managed, this parameter is required. If your installation does not use unit name, leave this field blank.

Required or optional

Optional

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Default value

%RTE_SMS_UNIT%

Locations where the parameter value is stored

Location 1

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

UNIT(<value>)

Location 2

In the HCRVssid member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

UNIT(<value>)

PARMGEN name

KD2_PFn_HIS_SEQ_ARC_UNIT

PARMGEN classification

NTH

KD2_PFn_HIS_SEQ_ARC_VOLUME

The KD2_PFn_HIS_SEQ_ARC_VOLUME parameter specifies the volume serial (volser) range for the archive data sets.

Description

If the data set is not to be SMS-managed, this is required. If your installation does not use volume serial number, leave this field blank.

Required or optional

Optional

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, or SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Default value

%RTE_SMS_VOLUME%

Locations where the parameter value is stored

Location 1

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

VOLUME(<value>)

Location 2

In the HCRVssid member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

VOLUME(<value>)

PARMGEN name

KD2_PFn_HIS_SEQ_ARC_VOLUME

PARMGEN classification

NTH

KD2_PFn_HIS_SEQ_MCLAS1

The KD2_PFn_HIS_SEQ_MCLAS1 parameter specifies the SMS management class for sequential data set 1.

Description

If the historical sequential data sets are SMS-managed, then specify the SMS management class to use on the allocation. If your installation does not use the SMS MGMTCLAS parameter, leave this field blank.

Required or optional

Optional

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Default value

%RTE_SMS_MGMTCLAS%

Location where the parameter value is stored

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

MGMTCLAS(<value>) +

PARMGEN name

KD2_PFn_HIS_SEQ_MCLAS1

PARMGEN classification

NTH

KD2_PFn_HIS_SEQ_MCLAS2

The KD2_PFn_HIS_SEQ_MCLAS2 parameter specifies the SMS management class for sequential data set 2.

Description

If the historical sequential data sets are SMS-managed, then specify the SMS management class to use on the allocation. If your installation does not use the SMS MGMTCLAS parameter, leave this field blank.

KD2_PF_HIS_SEQ_MCLAS2

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, or SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional

Default value

%RTE_SMS_MGMTCLAS%

Location where the parameter value is stored

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

MGMTCLAS(<value>) +

PARMGEN name

KD2_PFn_HIS_SEQ_MCLAS2

PARMGEN classification

NTH

KD2_PFn_HIS_SEQ_MCLAS3

The KD2_PFn_HIS_SEQ_MCLAS3 parameter specifies the SMS management class for sequential data set 3.

Description

If the historical sequential data sets are SMS-managed, then specify the SMS management class to use on the allocation. If your installation does not use the SMS MGMTCLAS parameter, leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional

Default value

%RTE_SMS_MGMTCLAS%

Location where the parameter value is stored

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

MGMTCLAS(<value>) +

PARMGEN name

KD2_PFn_HIS_SEQ_MCLAS3

PARMGEN classification

NTH

KD2_PFn_HIS_SEQ_MCLAS4

The KD2_PFn_HIS_SEQ_MCLAS4 parameter specifies the management class for sequential data set 4

Description

If the historical sequential data sets are SMS-managed, specify the SMS management class to use on the allocation. If your installation does not use the SMS MGMTCLAS parameter, leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional

Default value

%RTE_SMS_MGMTCLAS%

Location where the parameter value is stored

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

MGMTCLAS(<value>) +

PARMGEN name

KD2_PFn_HIS_SEQ_MCLAS4

PARMGEN classification

NTH

KD2_PFn_HIS_SEQ_MCLAS5

The KD2_PFn_HIS_SEQ_MCLAS5 parameter specifies the management class for sequential data set 5.

Description

If the historical sequential data sets are SMS-managed, specify the SMS management class to use on the allocation. If your installation does not use the SMS MGMTCLAS parameter, leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional

Default value

%RTE_SMS_MGMTCLAS%

Location where the parameter value is stored

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

MGMTCLAS(<value>) +

PARMGEN name

KD2_PFn_HIS_SEQ_MCLAS5

PARMGEN classification

NTH

KD2_PFn_HIS_SEQ_MCLAS6

The KD2_PFn_HIS_SEQ_MCLAS6 parameter specifies the management class for sequential data set 6.

Description

If the historical sequential data sets are SMS-managed, specify the SMS management class to use on the allocation. If your installation does not use the SMS MGMTCLAS parameter, leave this field blank.

KD2_PFn_HIS_SEQ_MCLAS6

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional

Default value

%RTE_SMS_MGMTCLAS%

Location where the parameter value is stored

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

MGMTCLAS(<value>) +

PARMGEN name

KD2_PFn_HIS_SEQ_MCLAS6

PARMGEN classification

NTH

KD2_PFn_HIS_SEQ_MCLAS7

Mgmt Class for sequential dataset 7

Description

If the historical sequential datasets are SMS-managed, then specify the SMS management class to be used on the allocation. If your installation does not use the SMS MGMTCLAS parameter, you can leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional

Default value

%RTE_SMS_MGMTCLAS%

Location where the parameter value is stored

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

MGMTCLAS(<value>) +

PARMGEN name

KD2_PFn_HIS_SEQ_MCLAS7

PARMGEN classification

NTH

KD2_PFn_HIS_SEQ_PRIMARY_CYL

Primary space for sequential datasets

Description

Specify the primary space allocation used for the sequential datasets. The default is 10 cylinders.

KD2_PFn_HIS_SEQ_PRIMARY_CYL

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional (Required in case KD2_PFn_HIS_START is set to C,Y and KD2_PFn_HIS_SEQ_TYP is set to S)

Default value

10

Minimum

3

Maximum

9999

Locations where the parameter value is stored

Location 1

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

DSORG(PS) SPACE(<value>
<KD2_PFn_HIS_SEQ_SECONDARY_CYL>) CYLINDERS

Location 2

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME
%.RKD2PAR library

Output line

SPACE(CYL,<value>,<KD2_PFn_HIS_SEQ_SECONDARY_CYL>)

PARMGEN name

KD2_PFn_HIS_SEQ_PRIMARY_CYL

PARMGEN classification

NTH

KD2_PFn_HIS_SEQ_SCLAS1

Storage class for sequential dataset 1

Description

If the historical sequential datasets are SMS-managed, then specify the SMS storage class to be used on the allocation. If your installation does not use the SMS STORCLAS parameter, you can leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional

Default value

%RTE_SMS_STORCLAS%

Location where the parameter value is stored

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

STORCLAS(<value>) +

KD2_PF_HIS_SEQ_SCLAS1

PARMGEN name
KD2_PFnn_HIS_SEQ_SCLAS1

PARMGEN classification
NTH

KD2_PFnn_HIS_SEQ_SCLAS2

Storage class for sequential dataset 2

Description

If the historical sequential datasets are SMS-managed, then specify the SMS storage class to be used on the allocation. If your installation does not use the SMS STORCLAS parameter, you can leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional
Optional

Default value
%RTE_SMS_STORCLAS%

Location where the parameter value is stored
In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line
STORCLAS(<value>) +

PARMGEN name
KD2_PFnn_HIS_SEQ_SCLAS2

PARMGEN classification
NTH

KD2_PFnn_HIS_SEQ_SCLAS3

Storage class for sequential dataset 3

Description

If the historical sequential datasets are SMS-managed, then specify the SMS storage class to be used on the allocation. If your installation does not use the SMS STORCLAS parameter, you can leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional
Optional

Default value
%RTE_SMS_STORCLAS%

Location where the parameter value is stored
In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line
STORCLAS(<value>) +

PARMGEN name
KD2_PFn_HIS_SEQ_SCLAS3

PARMGEN classification
NTH

KD2_PFn_HIS_SEQ_SCLAS4

Storage class for sequential dataset 4

Description

If the historical sequential datasets are SMS-managed, then specify the SMS storage class to be used on the allocation. If your installation does not use the SMS STORCLAS parameter, you can leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional

Default value

%RTE_SMS_STORCLAS%

Location where the parameter value is stored

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

STORCLAS(<value>) +

PARMGEN name
KD2_PFn_HIS_SEQ_SCLAS4

PARMGEN classification
NTH

KD2_PFn_HIS_SEQ_SCLAS5

Storage class for sequential dataset 5

Description

If the historical sequential datasets are SMS-managed, then specify the SMS storage class to be used on the allocation. If your installation does not use the SMS STORCLAS parameter, you can leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional

Default value

%RTE_SMS_STORCLAS%

Location where the parameter value is stored

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

STORCLAS(<value>) +

KD2_PF_HIS_SEQ_SCLAS5

PARMGEN name
KD2_PFn_HIS_SEQ_SCLAS5

PARMGEN classification
NTH

KD2_PFn_HIS_SEQ_SCLAS6

Storage class for sequential dataset 6

Description

If the historical sequential datasets are SMS-managed, then specify the SMS storage class to be used on the allocation. If your installation does not use the SMS STORCLAS parameter, you can leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional
Optional

Default value
%RTE_SMS_STORCLAS%

Location where the parameter value is stored
In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line
STORCLAS(<value>) +

PARMGEN name
KD2_PFn_HIS_SEQ_SCLAS6

PARMGEN classification
NTH

KD2_PFn_HIS_SEQ_SCLAS7

The KD2_PFn_HIS_SEQ_SCLAS7 parameter specifies the storage class for sequential dataset 7

Description

If the historical sequential datasets are SMS-managed, then specify the SMS storage class to be used on the allocation. If your installation does not use the SMS STORCLAS parameter, you can leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional
Optional

Default value
%RTE_SMS_STORCLAS%

Location where the parameter value is stored
In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line
STORCLAS(<value>) +

PARMGEN name
KD2_PFnn_HIS_SEQ_SCLAS7

PARMGEN classification
NTH

KD2_PFnn_HIS_SEQ_SECONDARY_CYL

Secondary space for sequential datasets

Description

Specify the secondary space allocation used for the sequential datasets. The default is 2 cylinders.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to C,Y and KD2_PF_HIS_SEQ_TYP is set to S)

Default value

2

Minimum

0

Maximum

9999

Locations where the parameter value is stored

Location 1

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

DSORG(PS) SPACE(<KD2_PFnn_HIS_SEQ_PRIMARY_CYL>
<value>) CYLINDERS

Location 2

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME
%.RKD2PAR library

Output line

SPACE(CYL,<KD2_PFnn_HIS_SEQ_PRIMARY_CYL>,<value>)

PARMGEN name
KD2_PFnn_HIS_SEQ_SECONDARY_CYL

PARMGEN classification
NTH

KD2_PFnn_HIS_SEQ_TYP

Storage mechanism

Description

If you specified VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM you can choose one of the following 3 alternatives to store trace data in sequential files:

Static sequential S

You may specify 2 to 7 sequential datasets for trace data collection.

KD2_PF_HIS_SEQ_TYP

When the first dataset is full the Near-Term History Data Collector switches to the next available dataset. When the last available dataset in the sequence is full, the Near-Term History Data Collector switches to the first dataset in the sequence again and overwrites the data in the first dataset. Each time the Near-Term History Data Collector switches to a full sequential dataset to overwrite it, you can archive its content to additional sequential datasets.

Dynamic sequential D

The Near-Term History Data Collector always allocates a new dataset when the currently used dataset becomes full. As a result, the collected data is not overwritten.

GDG G

In this case a Generation Data Group GDG is used. The mechanism is similar to the one described for the storage type Static sequential. When all datasets are full the Near-Term History Data Collector overwrites the trace data in the first dataset. However, in a GDG, the z/OS, not the Near-Term History Data Collector, switches between the different datasets generations. For this alternative archiving is not supported.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to C,Y and KD2_PF_HIS_STORE is set to VSAMSEQ,VSAMSEQTHVSAM,SEQTHVSAM)

Default value

S

Permissible values

S, D, G

Location where the parameter value is stored

This value is not stored in a configuration member.

PARMGEN name

KD2_PFn_HIS_SEQ_TYP

PARMGEN classification

NTH

KD2_PFn_HIS_SEQ_VOLUME1

Volser for sequential dataset 1

Description

Specify the volume serial number for the allocation of the historical sequential dataset. If the historical sequential datasets are not to be SMS-managed, then this is a required entry. If your installation does not use the volume serial number, you can leave this field blank.

This field is only applicable if the storage type is VSAMSEQ, VSAMSEQTHVSAM, SEQTHVSAM and the storage mechanism is STATIC SEQUENTIAL.

Required or optional

Optional

Default value

%RTE_SMS_VOLUME%

Location where the parameter value is stored

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

VOLUME(<value>) +

PARMGEN name

KD2_PFn_HIS_SEQ_VOLUME1

PARMGEN classification

NTH

KD2_PFn_HIS_SORT_SUMM

Collect sort summary data

Description

This specifies whether sort data is collected.

If Y is entered, the collector activates IFCIDs 95 and 96.

Required or optional

Optional (Required in case KD2_PFn_HIS_START is set to Y)

Default value

N

Permissible values

Y, N

Location where the parameter value is stored

In the COPtssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR
library

Output line

SORT(<value>Y)

PARMGEN name

KD2_PFn_HIS_SORT_SUMM

PARMGEN classification

NTH

KD2_PFn_HIS_STORE

Storage type

Description

The data collected by Near-Term History is stored in VSAM datasets. If you want to make the data available for long-term history analysis with the Batch Reporter component, it has to be stored in sequential files in addition to VSAM datasets. If you want to collect Thread history data for Enhanced 3270UI, THVSAM should be specified. Specify one of the following values for storage type:

VSAM

Store the data to VSAM datasets for OMEGAMON DB2 Classic near-term-history (NTH) support.

VSAMSEQ

Store the data to VSAM datasets and sequential files for OMEGAMON DB2 Classic NTH support.

KD2_PF_HIS_STORE

THVSAM

Store the data to VSAM datasets for Enhanced 3270UI Thread history support.

VSAMSEQTHVSAM

Store the data to VSAM datasets, sequential files for OMEGAMON DB2 Classic NTH support and VSAM datasets for Enhanced 3270UI Thread history support.

SEQTHVSAM

Store the data to sequential files for OMEGAMON DB2 Classic NTH support and VSAM datasets for Enhanced 3270UI Thread history support.

VSAMTHVSAM

Store the data to VSAM datasets for OMEGAMON DB2 Classic NTH support and VSAM datasets for Enhanced 3270UI Thread history support.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to Y)

Default value

VSAM

Permissible values

VSAM, VSAMSEQ, THVSAM, VSAMSEQTHVSAM, SEQTHVSAM, VSAMTHVSAM

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

WRITEOPTION(<value>)

PARMGEN name

KD2_PFn_HIS_STORE

PARMGEN classification

NTH

KD2_PFn_HIS_VSAM_MB

Primary space for the VSAM log datasets

Description

Specify the primary space allocation used for the VSAM log data sets. Please refer to the Configuration and Customization Guide for information about VSAM dataset space requirements.

This parameter depends on the unit for the primary log space set in KD2_PFn_HIS_VSAM_SU.

CYLS Specify the primary space for the VSAM log datasets in cylinders. The minimum is 3 and the maximum is 9999 cylinders.

MB Specify the primary space for the VSAM log datasets in megabytes. The minimum is 1 and the maximum is 2048 megabytes.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to Y)

Default value

900

Minimum

1

Maximum

9999

Locations where the parameter value is stored**Location 1**

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library.

Note: Also used in the standalone version of the thread history allocation jobs (TCRV&dbid thread history to allocate the %KD2_OMPE_VSAM_DSHLQ%.%DB%.RKTH* VSAMs for thread history), and HCRV&dbid Classic near-term history VSAMs %KD2_PF_HIS_LOGn%, which is the RKD2VSnn VSAMs for near-term history in the Classic interface).

Output line

CYLINDERS(<value> 0) -

Location 2

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

MEGABYTES(<value> 0) -

Location 3

In the HCRVssid member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

Output line

<KD2_PFnn_HIS_VSAM_SU>(<value> 0) -

PARMGEN name

KD2_PFnn_HIS_VSAM_MB

PARMGEN classification

NTH

KD2_PFnn_HIS_VSAM_SU

Space units used for VSAM log datasets

Description

Specify the space units used for the VSAM log datasets allocation. The allowable values are MB - megabytes and CYLS - cylinders.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to Y)

Default value

MB

Permissible values

MB, CYLS

Locations where the parameter value is stored**Location 1**

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME
%.RKD2SAM library

KD2_PF_HIS_VSAM_SU

Output line

CYLINDERS(<value> 0) -

Location 2

In the ALLOCDS member of the %RTE_HILEV%.%RTE_NAME%.RKD2SAM library

Output line

MEGABYTES(<value> 0) -

Location 3

In the HCRVssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2SAM library

Output line

<value>(<KD2_PFnn_HIS_VSAM_MB> 0) -

PARMGEN name

KD2_PFnn_HIS_VSAM_SU

PARMGEN classification

NTH

KD2_PFnn_THRDHIS_DYN_SQL

Collect dynamic SQL data

Description

This specifies whether dynamic SQL text and access path information is collected.

If Y is entered, the collector activates IFCIDs 22,63,105,107.

If F is entered, the collector activates IFCIDs 22,350,105,107. IFCID 350 records the complete text of a parsed SQL statement, while IFCID 63 is limited to the first 5000 bytes of a SQL statement.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to Y)

Default value

N

Permissible values

Y, N, F

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

THRDSQL(<value>Y)

PARMGEN name

KD2_PFnn_THRDHIS_DYN_SQL

PARMGEN classification

NTH

KD2_PFnn_THRDHIS_LOCK_CNTN

Collect Lock contention data

Description

This specifies whether lock timeout and deadlock information is collected.

If Y is entered, the collector activates IFCIDs 172,196,105,107.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to Y)

Default value

N

Permissible values

Y, N

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

THRDCONT(<value>Y)

PARMGEN name

KD2_PFn_THRDHIS_LOCK_CNTN

PARMGEN classification

NTH

KD2_PFn_THRDHIS_LOCK_SUSP

Collect lock suspension data

Description

This specifies whether lock wait information for local resources is collected.

If Y is entered, the collector activates IFCIDs 44,45,213,214,105,107.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to Y)

Default value

N

Permissible values

Y, N

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

THRDSUSP(<value>Y)

PARMGEN name

KD2_PFn_THRDHIS_LOCK_SUSP

PARMGEN classification

NTH

KD2_PFn_THRDHIS_LOG_NUM

Number of Thread History VSAM datasets

Description

Specify the number of VSAM datasets to be used for Thread History collection for Enhanced 3270UI. You can specify 3 to 60. The default is 7.

This field is only applicable if you specified THVSAM, VSAMSEQTHVSAM, SEQTHVSAM, VSAMTHVSAM as the storage mechanism to be used for Near Term History.

KD2_PF_THRDHIS_LOG_NUM

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to Y)

Default value

7

Minimum

3

Maximum

60

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

THRDL0G(<value>)

PARMGEN name

KD2_PFnN_THRDHIS_LOG_NUM

PARMGEN classification

NTH

KD2_PFnN_THRDHIS_SCAN_SUMM

Collect scan summary data

Description

This specifies whether scan data is collected.

If Y is entered, the collector activates IFCIDs 15,16,17,18.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to Y)

Default value

N

Permissible values

Y, N

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

THRDSKAN(<value>Y)

PARMGEN name

KD2_PFnN_THRDHIS_SCAN_SUMM

PARMGEN classification

NTH

KD2_PFnN_THRDHIS_SORT_SUMM

Collect sort summary data

Description

This specifies whether sort data is collected.

If Y is entered, the collector activates IFCIDs 95 and 96.

Required or optional

Optional (Required in case KD2_PF_HIS_START is set to Y)

Default value

N

Permissible values

Y, N

Location where the parameter value is stored

In the COPTssid member of the %RTE_HILEV%.%RTE_NAME%.RKD2PAR library

Output line

THRDSORT(<value>Y)

PARMGEN name

KD2_PFn_THRDHIS_SORT_SUMM

PARMGEN classification

NTH

Saving disk space if thread history is not in use

If you don't need thread history, there are several ways you can save disk resources by disabling collection and storage of unnecessary data.

About this task

You can disable near term history data collection, sequential data collection, or Enhanced 3270UI thread history collection to save disk space.

By default, the thread history parameter (KD2_PFn_HIS_START) is set to N. In such a case, the WRITEOPTION parameter is set to NONE and no data sets are allocated. If you change KD2_PFn_HIS_START to Y, the WRITEOPTION parameter is set to VSAM, SEQ, THVSAM, or any combination of these, based on the value of the KD2_PFn_HIS_STORE parameter. Corresponding data sets will be allocated as well.

Note: These space-saving steps will work only for new runtime environments (RTEs), as PARMGEN does not delete any thread history data sets allocated earlier.

If you are a new PARMGEN user, see Implementation scenarios in the OMEGAMON shared publications. This will explain how to use PARMGEN to configure OMEGAMON for DB2. The steps that follow assume that you have some knowledge of PARMGEN.

Procedure

1. Log into PARMGEN.
2. Create a new runtime environment (RTE).
3. Set the KD2_PFn_HIS_STORE parameter to, for example, THVSAM.
4. Set the KD2_PFn_HIS_START parameter to Y.
5. Update dependent parameters: data set number, since you selected the THVSAM option.
6. Run the \$PARSE and SUBMIT steps in PARMGEN. The jobs that need to be run will depend on your SMP/E maintenance and upgrade scenario. For example, you may just need to run the KCIJPW2R job, or you may need to run allocation jobs such as ALLOCDS, TCRV&dbid, and HCRV&dbid. Consult the IBM Knowledge Center topic SMP/E maintenance and upgrade scenarios for more information.

7. Verify that the COPT&dbid file has been generated correctly.
8. Verify that all data sets mentioned in the COPT&dbid member have been generated.

Update to Monitoring Performance from the IBM OMEGAMON Classic Interface

The display of COPT&dbid member parameters in the Classic interface includes settings related to Enhanced 3270UI thread history.

History data collection options

This panel shows the specifications for the currently active Near-Term History Data Collector and Enhanced 3270UI thread history Data Collector. For example, you can see which DB2 subsystem is being monitored, which DB2 traces are turned on, and where the data is being stored. The values shown in this panel are determined by the content of the collection options data set member RKD2PAR(COPT&dbid), where &dbid specifies the DB2 subsystem being monitored. The values are applied when the Near-Term History Data Collector or Enhanced 3270UI thread history Data Collector is started. More information about the content of the RKD2PAR(COPT&dbid) member is described in Configuration and Customization.

The following is an example of the new panel display:

```

_____ ZH2IN   VTM   02       V540./C OBC4 06/07/17 14:40:03  2
>  Help PF1      Back PF3          Up PF7          Down PF8
> H.C.A
>   NEAR-TERM HISTORY INFORMATION: Enter a selection letter on the top line.

> *-COLLECTION OPTIONS          B-RECORD INFORMATION          C-DATASET STATUS
=====
>          NEAR-TERM HISTORY DATA COLLECTION OPTIONS
COPT
+          H2 Collection Options
+
+ DB2sys      = OBC4          Writeoption   = VSAM,THVSAM,SEQ
+ ArchiveSEQ  = N/A          Tracebufsz   = 2048K      Ifireadtime = 010000
+ NTAInterval = 1 Minutes    Suspcoll    = Yes        PostPCT     = 70
+ Interval    = 5
+
+ Statistics  = Yes
+ Accounting  = (1 2 3 7 8 10 )
+
+          Sort summary = Yes          Lock contention = Yes
+          Scan summary = Yes          Lock suspension = Yes
+          Dynamic SQL  = Yes          Negative SQL    = Yes
+
+ H2 Data Sets :
+          D010MPE.VTS5815.DBA6.OBC4.RKD2VS01
+          D010MPE.VTS5815.DBA6.OBC4.RKD2VS02
+          D010MPE.VTS5815.DBA6.OBC4.RKD2VS03
+
+ SEQ Data Sets :
+          D010MPE.VTS5815.QA540.OBC4.@DATE.@TIME
+
+ Filtering   :
+ Authid     = OMPEUSER
+ Planname    = DISTSERV DYNSELP1
=====

```

FIELDS

DB2sys

The identifier (1 to 4 characters) of the DB2 subsystem that is being monitored by the Near-Term History Data Collector.

WRITEOPTION

The specified storage medium for trace data. Possible values are as follows:

- **VSAM**

The Near-Term History Data Collector stores the trace data in VSAM data sets.

- **VSAM,SEQ**

The Near-Term History Data Collector stores the trace data in VSAM data sets *and* sequential data sets. Sequential data sets are either regular sequential data sets or Generation Data Group (GDG) data sets.

- **THVSAM**

Store the data to VSAM datasets for Enhanced 3270UI thread history support.

- **VSAM,SEQ,THVSAM**

Store the data to VSAM datasets, sequential files for OMEGAMON DB2 Classic NTH support and VSAM datasets for Enhanced 3270UI thread history support.

- **SEQ,THVSAM**

Store the data to sequential files for OMEGAMON DB2 Classic NTH support and VSAM datasets for Enhanced 3270UI thread history support.

- **VSAM,THVSAM**

Store the data to VSAM datasets for OMEGAMON DB2 Classic NTH support and VSAM datasets for Enhanced 3270UI Thread history support.

Interval

The time interval for data collection.

ArchiveSEQ

If sequential data sets were specified as storage medium for trace data (WRITEOPTION(VSAM,SEQ) keyword in collection options member RKD2PAR(COPT&dbid)), this entry displays the name of the data set member

RKD2PAR(ARCS&*dbid*) that contains the JCL to archive the sequential data sets, where *dbid* specifies the DB2 subsystem being monitored.

Tracebufsz

The size of the buffer on the START TRACE command.

Ifireadtime

The frequency of IFI reads on lightly loaded DB2s. The value is *mmssh*, where *mm* stands for minutes, *ss* for seconds, and *hh* for 1/100s of a second.

Suspcoll

Flag indicating whether the data collection is to be suspended at times the VSAM data set is not available. A near-term history VSAM data set is considered to be unavailable from the time all allocated file space is used until the end of a successful execution of the archive job. Possible values:

- Yes: the Near-Term History Data Collector is requested to discard all collected data in memory until a VSAM data set becomes available again for use.
- No: the Near-Term History Data Collector is requested to accumulate all collected data in memory until a VSAM data set becomes available again for use.

PostPCT

A percentage value that determines when the Near-Term History Data Collector drains its IFI buffer on behalf of DB2. Use this information to tune the Near-Term History Data Collector, if you often see the DB2 message DSNW133I. This value is used to compute a "high water mark" or threshold, which is a percentage of the total number of bytes in the IFI buffer. When this threshold is exceeded, DB2 posts the Near-Term History Data Collector to drain the buffer.

NTAInterval

Displays the Near-Term History sub-interval time. This value may be specified as minutes or seconds. This value is used to provide a secondary display of thread accounting data from a smaller period of time. Sub-Interval periods may be displayed by entering F next to an interval of time on the THREAD HISTORY BY REPORT INTERVAL screen.

Statistics

Indicates whether a Statistics trace is active.

Accounting

The Accounting trace classes that were turned on with PARMGEN.

Sort summary

Indicates whether sort processing is active.

Lock contention

Indicates whether lock timeout and deadlock information is being collected.

Scan summary

Indicates whether scan processing is active.

Lock suspension

Indicates whether lock wait information is being collected.

Dynamic SQL

Indicates whether SQL text and access path information for dynamic SQL is being collected.

Negative SQL

Indicates whether information about SQL statements returning negative SQLCODE is being collected. This entry is only shown if Negative SQL is specified in the Near-Term History configuration.

H2 Data Sets

The fully qualified names of the data sets that hold the trace data. The list of names varies depending on what media were specified with the Configuration Tool.

SEQ Data Sets

The fully qualified names of the sequential data sets that hold the trace data. The list of names varies depending on what media were specified with the Configuration Tool.

Filtering

Displays the specified filtering values. An asterisk (*) at the end of the filtering value means that all collected data begins with the characters that precede the asterisk. A question mark (?) at any position in the filtering value serves as a wildcard for a single character.

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