

2.6

*IBM Tivoli Advanced Audit for DFSMSHsm
Monitoring Agent
User's Guide*



Note:

Before using this information and the product it supports, read the "Notices" topic at the end of this information.

Sixth Edition (October 2022)

This edition applies to Version 2 Release 6 of IBM Tivoli Advanced Audit for DFSMSHsm (product number 5698-B12) and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this information

IBM Tivoli Advanced Audit for DFSMSHsm is a highly interactive and flexible tool for reporting on IBM DFSMSHsm activity.

These topics provide instructions for installing, configuring, and using the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent.

These topics are designed to help database administrators, system programmers, application programmers, and system operators perform these tasks:

- Customize your Advanced Audit for DFSMSHsm environment
- Diagnose and recover from Advanced Audit for DFSMSHsm problems
- Design and write applications for Advanced Audit for DFSMSHsm Monitoring Agent

Chapter 1. Overview of the Advanced Audit for DFSMSHsm Monitoring Agent

The IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent provides you with the capability to monitor IBM Tivoli Advanced Audit for DFSMSHsm and to perform basic actions with IBM Tivoli Advanced Audit for DFSMSHsm.

This chapter provides a description of the features, components, and interface options for the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent.

IBM Tivoli Monitoring overview

IBM Tivoli Monitoring is the base software for the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent.

IBM Tivoli Monitoring provides a way to monitor the availability and performance of all the systems in your enterprise from one or several designated workstations. It also provides useful historical data that you can use to track trends and to troubleshoot system problems.

You can use IBM Tivoli Monitoring to perform the following tasks:

- Monitor for alerts on the systems that you are managing by using predefined situations or custom situations.
- Establish your own performance thresholds.
- Trace the causes leading to an alert.
- Gather comprehensive data about system conditions.
- Use policies to perform actions, schedule work, and automate manual tasks.

The Tivoli Enterprise Portal is the interface for IBM Tivoli Monitoring products. By providing a consolidated view of your environment, the Tivoli Enterprise Portal permits you to monitor and resolve performance issues throughout the enterprise.

See the IBM Tivoli Monitoring publications that are listed in [“Prerequisite publications” on page 177](#), for complete information about IBM Tivoli Monitoring and Tivoli Enterprise Portal.

Features of the monitoring agent

The IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent software can identify, notify you of, and correct common problems with the application that it monitors.

The software includes the following features:

- Monitoring
- Data gathering
- Event management
- Operations management

Functions of the monitoring agent

The IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent provides TEP enablement for Advanced Audit for DFSMSHsm.

Components of the IBM Tivoli Monitoring environment

After you install and set up the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent, you have an environment that contains the client, server, and monitoring agent implementation for IBM Tivoli Monitoring.

This environment contains the following components:

- Tivoli Enterprise Portal client with a Java-based user interface for viewing and monitoring your enterprise.
- Tivoli Enterprise Portal Server that is placed between the client and the Tivoli Enterprise Monitoring Server and enables retrieval, manipulation, and analysis of data from the monitoring agents. The Tivoli Enterprise Portal Server is the central repository for all user data.
- Tivoli Enterprise Monitoring Server that acts as a collection and control point for alerts received from the monitoring agents, and collects their performance and availability data. The Tivoli Enterprise Monitoring Server is also a repository for historical data.
- Tivoli Enterprise Monitoring Agent, IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent. This monitoring agent collects and distributes data to a Tivoli Enterprise Portal Server.

IBM Tivoli Enterprise Console is an optional component, which acts as a central collection point for events from a variety of sources, including those from other Tivoli software applications. Tivoli partner applications, custom applications, network management platforms, and relational database systems. You can view these events through the Tivoli Enterprise Portal (using the event browser), and you can forward events from IBM Tivoli Monitoring situations to the IBM Tivoli Enterprise Console component.

User interface options

Installation of the base software and other integrated applications provides multiple interfaces that you can use to work with your resources and data.

Tivoli Enterprise Portal browser client interface

The browser client interface is automatically installed with the Tivoli Enterprise Portal Server. To start the Tivoli Enterprise Portal browser client in your Internet browser, enter the URL for a specific Tivoli Enterprise Portal browser client installed on your Web server.

Tivoli Enterprise Portal desktop client interface

The desktop client interface is a Java-based graphical user interface (GUI) on a Windows or Linux workstation.

IBM Tivoli Enterprise Console

An event management application that integrates system, network, database, and application management to help ensure the optimal availability of an IT services for an organization.

Manage Tivoli Enterprise Monitoring Services window

The window for the Manage Tivoli Enterprise Monitoring Services utility is used for configuring the agent and starting Tivoli services not already designated to start automatically.

Chapter 2. Requirements for the monitoring agent

This chapter contains information about the requirements for the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent.

To install and configure the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent, use the procedures for installing monitoring agents that are found in the *IBM Tivoli Monitoring Installation and Setup Guide* and the *IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent Planning and Configuration Guide*, along with the information in this chapter.

If you are performing a silent installation using a response file, see the information about performing a silent installation in the *IBM Tivoli Monitoring Installation and Setup Guide*.

Requirements for the monitoring agent

In addition to the requirements that are described in the *IBM Tivoli Monitoring Installation and Setup Guide*, the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent has requirements that are described in this topic.

- The monitoring agent runs on the z/OS operating system.

Note: For the most current information about the operating systems that are supported, see http://www-01.ibm.com/software/sysmgmt/products/support/Tivoli_Supported_Platforms.html.

- This agent monitors IBM Tivoli Advanced Audit for DFSMSHsm V2.6.
- A single computer that hosts the hub monitoring server, portal server, and a monitoring agent requires approximately 300 MB of space, including the specific enablement code for the monitoring agent. More space is required for each additional monitoring agent on the monitoring computer.
- The monitoring agent must be connected to IBM Tivoli Monitoring V6.3 FP6.

After you install the prerequisite software, install the following software, which is required for the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent to operate:

- IBM Tivoli Advanced Audit for DFSMSHsm
- IBM Tivoli Advanced Audit for DFSMSHsm for Tivoli Enterprise Monitoring Server support
- IBM Tivoli Advanced Audit for DFSMSHsm for Tivoli Enterprise Portal Server support
- IBM Tivoli Advanced Audit for DFSMSHsm for Tivoli Enterprise Portal Desktop Client support
- IBM Tivoli Advanced Audit for DFSMSHsm for Tivoli Enterprise Portal Browser Client support

Installing language packs

To install a language pack, first verify that you have already installed the product in English, then perform the following steps for the operating system that you are using.

Windows systems

Use the procedure that is provided in this section to install a language pack on a Windows system.

Procedure

1. Double-click `Ipinstaller.bat` in the language pack CD to launch the installation program.
2. Select the appropriate language for the installer and click **OK**.
3. Click **Next** on the Introduction panel.
4. Click **Add/Update** and click **Next**.
5. Select the folder in which the National Language Support package (NLSPackage) files are located.

Note: Usually, the NLSPackage files are located in the n1spackage folder where the installer executable is located.

6. For your agent, select the language support and click **Next**.

Note: Hold down the Ctrl key for multiple selections.

7. Select the languages that you want to install and click **Next**.
8. Examine the installation summary page and click **Next** to begin installation.
9. After installation completes, click **Finish** to exit the installer.
10. Restart Tivoli Enterprise Portal Desktop Client, Tivoli Enterprise Portal Server, and Eclipse Help Server if any of these components are installed.

UNIX or Linux systems

Use the procedure that is provided in this section to install a language pack on a UNIX or Linux system.

Procedure

1. Run the following command to create a temporary directory on the computer. Make sure that the full path of the directory does not contain any spaces:

```
mkdir dir_name
```

2. Mount the language pack CD to the temporary directory that you created in step 1.
3. Run the following command to launch the installation program:

```
cd dir_name  
lpinstaller.sh -c ITM Home Directory
```

where *ITM Home Directory* is where you installed IBM Tivoli Monitoring. Usually, it is /opt/IBM/ITM for AIX and Linux.

4. Select the language of the installer and click **OK**.
5. Click **Next** on the Introduction panel.
6. Click **Add/Update** and click **Next**.
7. Select the folder in which the National Language Support package (NLSPackage) files are located.
Note: Usually, the NLSPackage files are located in the n1spackage folder where the installer executable is located.
8. Select the language support for the agent of your choice and click **Next**.
9. Select the languages that you want to install and click **Next**.
10. Examine the installation summary page and click **Next** to begin installation.
11. After installation completes, click **Finish** to exit the installer.
12. Restart Tivoli Enterprise Portal Desktop Client, Tivoli Enterprise Portal Server, and Eclipse Help Server, if any of those components are installed.

Chapter 3. Workspaces reference

This chapter contains an overview of workspaces, references for detailed information about workspaces, and descriptions of the predefined workspaces that are included in this monitoring agent.

About workspaces

A *workspace* is the working area of the Tivoli Enterprise Portal application window. At the left of the workspace is a *Navigator* that you use to select the workspace you want to see. As part of the application window, the right side of the status bar shows the Tivoli Enterprise Portal server name and port number to which the displayed information applies, and the ID of the current user.

When you select an item in the Navigator tree, a default workspace is displayed. When you right-click a Navigator item, a menu that includes a Workspace item is displayed. The Workspace item contains a list of workspaces for that Navigator item. Each workspace has at least one view. Some views have links to other workspaces.

This monitoring agent provides predefined workspaces. You cannot modify or delete the predefined workspaces, but you can create new workspaces by editing them and saving the changes with a different name.

A table view within a workspace corresponds to a group of attributes; the columns in the table view show some or all of the attributes available in the attribute group.

More information about workspaces

For more information about creating, customizing, and working with workspaces, see the *IBM Tivoli Monitoring User's Guide*.

For a list of predefined workspaces for this monitoring agent and a description of each workspace, refer to [“Predefined workspaces” on page 5](#), and the information in that section for each individual workspace.

Some of the attribute groups for this monitoring agent might not be represented in the predefined workspaces or views for this agent. For a full list of the attribute groups, see [Chapter 4, “Attributes reference,” on page 11](#).

Predefined workspaces

The IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent provides many predefined workspaces, which are organized by Navigator item.

- Advanced Audit for DFSMSHsm Navigator item
 - Advanced Audit for DFSMSHsm Overview workspace
- Agent Status Summary Navigator item
 - Advanced Audit for DFSMSHsm
- Auditing Reports Navigator item
 - Errors Cost Report workspace
 - Migration Data Sets Audit Report workspace
 - Migrated Data Sets In Need of Backup Audit Report workspace
 - VSAM Data Sets Changed, Not Backed Up Audit Report workspace
- Backup Control Data Set Error Summary Navigator item
 - Backup Control Data Set Error Summary workspace
- HSEND List Event Information Navigator item

- HSEND List Event Information workspace
- HSM Tape Error Summary Navigator item
 - HSM Tape Error Summary workspace
- LISTCAT Event Information Navigator item
 - LISTCAT Event Information workspace
- Migration Control Data Set Error Summary Navigator item
 - Migration Control Data Set Error Summary workspace
- Offline Control Data Set Error Summary Navigator item
 - Offline Control Data Set Error Summary workspace
- SMS Auditing Reports Navigator item
 - Data Class Error Details workspace
 - Management Class Error Details workspace
 - SMS Auditing Reports workspace
 - Storage Class Error Details workspace
 - Storage Group Error Details workspace

Agent Navigator items

This section contains descriptions of predefined workspaces. The workspaces are organized by the Navigator item to which the workspaces are relevant.

Advanced Audit for DFSMSHsm Navigator item

The Advanced Audit for DFSMSHsm Navigator item provides the Advanced Audit for DFSMSHsm Overview workspace.

Advanced Audit for DFSMSHsm Overview workspace

This workspace provides summary information on error messages reported.

This workspace provides the following views:

HSM Tape Error Summary

Graphical summaries of DFSMSHsm Tape Errors.

BCDS Error Summary

Graphical summaries of DFSMSHsm BCDS Errors.

MCDS Error Summary

Graphical summaries of DFSMSHsm MCDS Errors.

OCDS Error Summary

Graphical summaries of DFSMSHsm OCDS Errors.

Agent Status Summary Navigator item

The Agent Status Summary Navigator item provides the Advanced audit for DFSMSHsm workspace.

Advanced Audit for DFSMSHsm workspace

This workspace provides summary information on error messages reported.

This workspace provides the following views:

BCDS Error IDs

Summary report for DFSMSHsm BCDS errors whose error count is greater than zero.

MCDS Error IDs

Summary report for DFSMSHsm MCDS errors whose error count is greater than zero.

OCDS Error IDs

Summary report for DFSMSHsm OCDS errors whose error count is greater than zero.

HSM Tape Error IDs

Summary report for DFSMSHsm HSM Tape Errors whose error count is greater than zero.

Auditing Reports Navigator item

The Auditing Reports Navigator item provides four different workspaces: Error Cost Report, Migrated Data Sets Audit, Migrated Data Sets in Need of Backup Audit Report, and VSAM Data Sets Changed, Not Backed Up Audit Report.

Errors Cost Report workspace

The Errors Cost Report workspace provides information on resource waste cost due to error found in DFSMSHsm Control Data Set and DFSMSHsm owned and managed tape.

This workspace provides the following views:

Errors Cost Report

Report for cost information for each audit type.

Estimated CPU Cost By Audit Type

Graphical representation of CPU cost for each audit type.

Estimated Tape Cost By Audit Type

Graphical representation of tape cost for each audit type.

Migration Data Sets Audit Report workspace

This workspace provides information on data sets that are considered as thrashing, wasting CPU resource seconds for movement back and forth.

This workspace provides the following views:

Migration Data Sets Audit Report

Report for data set migration information.

Data Set With Thrashing Index > 6

Graphical representation of data sets that have a high thrashing index.

Data Set Migrated > 10 Times

Graphical representation of data sets that have been migrated frequently.

Migrated Data Sets in Need of Backup Audit Report workspace

This workspace provides information on data sets at risk for loss of data due to corruption or loss of data due to human or hardware error or malfunction.

This workspace contains the following view:

Migrated Data Sets In Need of Backup Audit Report

Report for data sets that should be backed up.

VSAM Data Sets Changed, Not Backed Up Audit Report workspace

This workspace provides information on VSAM data sets that have migration copies controlled by DFSMSHsm, but the backup copy is either obsolete or does not exist

This workspace provides the following view:

VSAM Data Sets Changed, Not Backed Up Audit Report

Report for VSAM data sets that have changed but have not been subsequently backed up.

Backup Control Data Set Error Summary Navigator item

The Backup Control Data Set Error Summary Navigator item provides the Backup Control Data Set Error Summary workspace.

Backup Control Data Set Error Summary workspace

Backup Control Data Set Error Summary.

This workspace provides the following views:

Backup Control Data Set Error Summary

Report providing information for DFSMSHsm BCDS Errors.

BCDS Error Summary

Graphical summary of DFSMSHsm BCDS Errors.

HSEND List Event Information Navigator item

The HSEND List Event Information Navigator item provides the HSEND List Event Information workspace.

HSEND List Event Information workspace

HSEND List Event Information workspace provides information on event details.

This workspace provides the following view:

HSEND List Event Information

Shows HSEND commands issued as a result of Take Action.

HSM Tape Error Summary Navigator item

The HSM Tape Error Summary Navigator item provides the HSM Tape Error Summary workspace.

HSM Tape Error Summary workspace

The HSM Tape Error Summary workspace provides summary information for HSM Tape Errors.

This workspace provides the following views:

HSM Tape Error Summary

Report providing information for HSM Tape Error Summary.

HSM Tape Error Summary

Graphical summary of HSM Tape Errors.

LISTCAT Event Information Navigator item

The LISTCAT Event Information Navigator item provides the LISTCAT Event Information workspace.

LISTCAT Event Information workspace

LISTCAT Event Information workspace provides results from the LISTCAT Take Action command.

This workspace provides the following view:

LISTCAT Event Information

Shows LISTCAT commands and their output issued as a result of Take Action.

Migration Control Data Set Error Summary Navigator item

The Migration Control Data Set Error Summary Navigator item provides the Migration Control Data Set Error Summary workspace.

Migration Control Data Set Error Summary workspace

Migration Control Data Set Error Summary.

This workspace provides the following views:

Migration Control Data Set Error Summary

Report providing information for DFSMSHsm MCDS Errors.

MCDS Error Summary

Graphical summary of DFSMSHsm MCDS Errors.

Offline Control Data Set Error Summary Navigator item

The Offline Control Data Set Error Summary Navigator item provides the Offline Control Data Set Error Summary workspace.

Offline Control Data Set Error Summary workspace

Offline Control Data Set Error Summary.

This workspace provides the following views:

Offline Control Data Set Error Summary

Report providing information for DFSMSHsm OCDS Errors.

OCDS Error Summary

Graphical summary of DFSMSHsm OCDS Errors.

SMS Auditing Reports Navigator item

The SMS Auditing Reports Navigator item provides five different workspaces: Data Class Error Details, Management Class Error Details, SMS Auditing Reports, Storage Class Error Details, and Storage Group Error Details.

Data Class Error Details workspace

The Data Class Error Details workspace provides information on potential data class errors detected during an SMS audit.

This workspace provides the following view:

Data Class Error Details

The Data Class Error Details view lists each potential error detected during an SMS audit.

Management Class Error Details workspace

The Management Class Error Details workspace provides information on potential management class errors detected during an SMS audit.

This workspace contains the following view:

Management Class Error Details

The Management Class Error Details view lists each potential error detected during an SMS audit.

SMS Auditing Reports workspace

The SMS Auditing Reports workspace provides a summary and a list of potential SMS errors discovered by the SMS audit.

This workspace contains the following views:

SMS Auditing Reports Summary

Summary of the errors found with the SMS audit.

SMS Auditing Reports Summary

Graphical summary of SMS errors.

Storage Class Error Details workspace

The Storage Class Error Details workspace provides information on potential storage class errors detected during an SMS audit.

This workspace contains the following view:

Storage Class Error Details

The Storage Class Error Details view lists each potential error detected during an SMS audit.

Storage Group Error Details workspace

The Storage Group Error Details workspace provides information on potential storage group errors detected during an SMS audit.

This workspace contains the following view:

Storage Group Error Details

The Storage Group Error Details view lists each potential error detected during an SMS audit.

Chapter 4. Attributes reference

This chapter contains an overview of attributes, references for detailed information about attributes, and descriptions of the attributes for each attribute group that is included in this monitoring agent.

About attributes

Attributes are the application properties being measured and reported by the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent.

Attributes are organized into groups according to their purpose. The attributes in a group can be used in the following two ways:

- Chart or table views

Attributes are displayed in chart and table views. The chart and table views use queries to specify which attribute values to request from a monitoring agent. You use the Query editor to create a new query, modify an existing query, or apply filters and set styles to define the content and appearance of a view based on an existing query.

- Situations

You use attributes to create situations that monitor the state of your operating system, database, or application. A situation describes a condition you want to test. When you start a situation, the Tivoli Enterprise Portal compares the values you have assigned to the situation attributes with the values collected by the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent and registers an event if the condition is met. You are alerted to events by indicator icons that are displayed in the Navigator.

More information about attributes

Information about using attributes and attribute groups can be found in other IBM documentation and elsewhere in this guide.

See the *IBM Tivoli Monitoring User's Guide* for more information about using attributes and attribute groups. See also the [“Attribute groups and attributes for the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent”](#) on page 11 section in this chapter.

Attribute groups and attributes for the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent

This monitoring agent contains the following attribute groups. The table name depends on the maximum table name limits of the target database being used for Tivoli Data Warehouse. If the maximum name is 30 characters, then any warehouse table name longer than 30 characters is shortened to the table name.

- Attribute group name: Agent Status Summary
 - Table name: KRGAGTERRM
 - Warehouse table name: KRG_AGENT_STATUS_SUMMARY or KRGAGTERRM
- Attribute group name: Backup Control Data Set Error Summary
 - Table name: KRGBCDSUM
 - Warehouse table name: KRG_BACKUP_CONTROL_DATA_SET_ERROR_SUMMARY or KRGBCDSUM
- Attribute group name: BCDS Error Group 1
 - Table name: KRGBCDEG1
 - Warehouse table name: KRG_BCDS_ERROR_GROUP1 or KRGBCDEG1
- Attribute group name: BCDS Error Group 10

- Table name: KRGBCDEG10
- Warehouse table name: KRG_BCDS_ERROR_GROUP10 or KRGBCDEG10
- Attribute group name: BCDS Error Group 2
 - Table name: KRGBCDEG2
 - Warehouse table name: KRG_BCDS_ERROR_GROUP2 or KRGBCDEG2
- Attribute group name: BCDS Error Group 3
 - Table name: KRGBCDEG3
 - Warehouse table name: KRG_BCDS_ERROR_GROUP3 or KRGBCDEG3
- Attribute group name: BCDS Error Group 4
 - Table name: KRGBCDEG4
 - Warehouse table name: KRG_BCDS_ERROR_GROUP4 or KRGBCDEG4
- Attribute group name: BCDS Error Group 5
 - Table name: KRGBCDEG5
 - Warehouse table name: KRG_BCDS_ERROR_GROUP5 or KRGBCDEG5
- Attribute group name: BCDS Error Group 6
 - Table name: KRGBCDEG6
 - Warehouse table name: KRG_BCDS_ERROR_GROUP6 or KRGBCDEG6
- Attribute group name: BCDS Error Group 7
 - Table name: KRGBCDEG7
 - Warehouse table name: KRG_BCDS_ERROR_GROUP7 or KRGBCDEG7
- Attribute group name: BCDS Error Group 8
 - Table name: KRGBCDEG8
 - Warehouse table name: KRG_BCDS_ERROR_GROUP8 or KRGBCDEG8
- Attribute group name: BCDS Error Group 8 v5
 - Table name: KRGBCDG8V5
 - Warehouse table name: KRG_BCDS_ERROR_GROUP8_V5 or KRGBCDG8V5
- Attribute group name: BCDS Error Group 9
 - Table name: KRGBCDEG9
 - Warehouse table name: KRG_BCDS_ERROR_GROUP9 or KRGBCDEG9
- Attribute group name: Errors Cost Report
 - Table name: KRGECTRPT
 - Warehouse table name: KRG_ERRORS_COST_REPORT or KRGECTRPT
- Attribute group name: Expert Advice
 - Table name: KRGAEXPV
 - Warehouse table name: KRG_EXPERT_ADVICE or KRGAEXPV
- Attribute group name: HSEND List Event Information
 - Table name: KRGZHEVENT
 - Warehouse table name: KRG_HSEND_LIST_EVENT_INFORMATION or KRGZHEVENT
- Attribute group name: HSM Tape Error Summary
 - Table name: KRGTAPSUM
 - Warehouse table name: KRG_HSM_TAPE_ERROR_SUMMARY or KRGTAPSUM
- Attribute group name: HSMTAPE Error Group 1

- Table name: KRGETPDEG1
- Warehouse table name: KRG_HSMETAPE_ERROR_GROUP1 or KRGETPDEG1
- Attribute group name: HSMETAPE Error Group 2
 - Table name: KRGETPDEG2
 - Warehouse table name: KRG_HSMETAPE_ERROR_GROUP2 or KRGETPDEG2
- Attribute group name: LISTCAT Event Information
 - Table name: KRGZLEVENT
 - Warehouse table name: KRG_LISTCAT_EVENT_INFORMATION or KRGZLEVENT
- Attribute group name: MCDS Error Group 1
 - Table name: KRGMCDG1
 - Warehouse table name: KRG_MCDS_ERROR_GROUP1 or KRGMCDG1
- Attribute group name: MCDS Error Group2
 - Table name: KRGMCDG2
 - Warehouse table name: KRG_MCDS_ERROR_GROUP2 or KRGMCDG2
- Attribute group name: MCDS Error Group3
 - Table name: KRGMCDG3
 - Warehouse table name: KRG_MCDS_ERROR_GROUP3 or KRGMCDG3
- Attribute group name: MCDS Error Group4
 - Table name: KRGMCDG4
 - Warehouse table name: KRG_MCDS_ERROR_GROUP4 or KRGMCDG4
- Attribute group name: MCDS Error Group5
 - Table name: KRGMCDG5
 - Warehouse table name: KRG_MCDS_ERROR_GROUP5 or KRGMCDG5
- Attribute group name: MCDS Error Group6
 - Table name: KRGMCDG6
 - Warehouse table name: KRG_MCDS_ERROR_GROUP6 or KRGMCDG6
- Attribute group name: MCDS Error Group7
 - Table name: KRGMCDG7
 - Warehouse table name: KRG_MCDS_ERROR_GROUP7 or KRGMCDG7
- Attribute group name: MCDS Error Group7 v5
 - Table name: KRGMCDG7V5
 - Warehouse table name: KRG_MCDS_ERROR_GROUP7_V5 or KRGMCDG7V5
- Attribute group name: MCDS Error Group8
 - Table name: KRGMCDG8
 - Warehouse table name: KRG_MCDS_ERROR_GROUP8 or KRGMCDG8
- Attribute group name: MCDS Error Group9
 - Table name: KRGMCDG9
 - Warehouse table name: KRG_MCDS_ERROR_GROUP9 or KRGMCDG9
- Attribute group name: Migrated Dsns Need Bkup Audit
 - Table name: KRGMDSBAUD
 - Warehouse table name: KRG_MIGRATED_DSNS_NEED_BKUP_AUDIT or KRGMDSBAUD
- Attribute group name: Migration Control Data Set Error Summary

- Table name: KRGMCDSUM
- Warehouse table name: KRG_MIGRATION_CONTROL_DATA_SET_ERROR_SUMMARY or KRGMCDSUM
- Attribute group name: Migration Data Set Audit
 - Table name: KRGMDSAUD
 - Warehouse table name: KRG_MIGRATION_DATA_SET_AUDIT or KRGMDSAUD
- Attribute group name: OCDS Error Group1
 - Table name: KRGOCDEG1
 - Warehouse table name: KRG_OCDS_ERROR_GROUP1 or KRGOCDEG1
- Attribute group name: OCDS Error Group2
 - Table name: KRGOCDEG2
 - Warehouse table name: KRG_OCDS_ERROR_GROUP2 or KRGOCDEG2
- Attribute group name: OCDS Error Group3
 - Table name: KRGOCDEG3
 - Warehouse table name: KRG_OCDS_ERROR_GROUP3 or KRGOCDEG3
- Attribute group name: OCDS Error Group4
 - Table name: KRGOCDEG4
 - Warehouse table name: KRG_OCDS_ERROR_GROUP4 or KRGOCDEG4
- Attribute group name: OCDS Error Group5
 - Table name: KRGOCDEG5
 - Warehouse table name: KRG_OCDS_ERROR_GROUP5 or KRGOCDEG5
- Attribute group name: OCDS Error Group6
 - Table name: KRGOCDEG6
 - Warehouse table name: KRG_OCDS_ERROR_GROUP6 or KRGOCDEG6
- Attribute group name: Offline Control Data Set Error Summary
 - Table name: KRGOCDSUM
 - Warehouse table name: KRG_OFFLINE_CONTROL_DATA_SET_ERROR_SUMMARY or KRGOCDSUM
- Attribute group name: Performance Object Status
 - Table name: KRGPBJST
 - Warehouse table name: KRG_PERFORMANCE_OBJECT_STATUS or KRGPBJST
- Attribute group name: SMS Errors
 - Table name: KRGSMSERR
 - Warehouse table name: KRG_SMS_ERRORS or KRGSMSERR
- Attribute group name: SMS Errors Data Class
 - Table name: KRGSMSERDC
 - Warehouse table name: KRG_SMS_ERRORS_DATA_CLASS or KRGSMSERDC
- Attribute group name: SMS Errors Storage Class
 - Table name: KRGSMSERSC
 - Warehouse table name: KRG_SMS_ERRORS_STORAGE_CLASS or KRGSMSERSC
- Attribute group name: SMS Errors Storage Group
 - Table name: KRGSMSERSG
 - Warehouse table name: KRG_SMS_ERRORS_STORAGE_GROUP or KRGSMSERSG

- Attribute group name: SMS Errors Summary
 - Table name: KRGSMSUMM
 - Warehouse table name: KRG_SMS_ERRORS_SUMMARY or KRGSMSUMM
- Attribute group name: VSAM Dsns Need Bkup Audit
 - Table name: KRGVDSBAUD
 - Warehouse table name: KRG_VSAM_DSNS_NEED_BKUP_AUDIT or KRGVDSBAUD

The remaining sections of this chapter contain descriptions of these attribute groups, which are listed alphabetically. The following information is provided for each attribute group:

Historical group

Whether the attribute group is a historical type that you can roll off to a data warehouse.

Attribute descriptions

Description, type, and Warehouse name for each attribute in the attribute group.

Some attributes are designated as key attributes. A key attribute that is used in warehouse aggregation to identify rows of data that represent the same object.

Agent Status Summary attribute group

Agent error messages. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the Agent Status Summary attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error Sequence Number attribute - This attribute is a key attribute.

Description

Error sequence number.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

ERRSEQNUM

Attribute Group attribute**Description**

Attribute group to which the message applies.

Type

String

Warehouse name

ERRATTGRP

Error Message attribute**Description**

Error message.

Type

String

Warehouse name

ERRMSG

Backup Control Data Set Error Summary attribute group

Backup Control Data Set Error Summary. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the Backup Control Data Set Error Summary attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

BCSDIAGID

Record Count attribute

Description

Diagnostic record count.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCSRECCNT

Error Message attribute

Description

Diagnostic error message.

Type

String

Warehouse name

BCSDIAGMSG

Error Count attribute

Description

Diagnostic error count.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCSERRCNT

Error Type attribute

Description

Error format type.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCSERRTYP

BCDS Error Group1 attribute group

Backup control data set error group 1. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the BCDS Error Group1 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

BCD1DIAGID

Backup Control Data Set Name attribute

Description

Data set name.

Type

String

Warehouse name

BCD1DSN

HSM Internal Data Set Name attribute

Description

HSM internal data set name.

Type

String

Warehouse name

BCD1HDSN

Backup Date attribute

Description

Backup date.

Type

String

Warehouse name

BCD1BKDATE

VSAM Flag attribute

Description

VSAM or non-VSAM.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Non-VSAM (0)
- VSAM (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD1VSAM

Backup Version attribute

Description

Backup version number.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD1BKVERS

Backup Control Data Set Volser attribute**Description**

Volser.

Type

String

Warehouse name

BCD1VOLSER

Data Set Name attribute**Description**

Data set name.

Type

String

Warehouse name

DSNAME

Volser attribute**Description**

Volser.

Type

String

Warehouse name

VOLSER

VSAM Flag attribute**Description**

VSAM or non-VSAM.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- N/A (0)
- Non-VSAM (1)
- VSAM (2)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD1VSAM2

Generation Number attribute**Description**

Generation number.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)

- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name
BCD1GNUM

BCDS Error Group10 attribute group

Backup control data set error group 10. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the BCDS Error Group10 attribute group:

Node attribute - This attribute is a key attribute.

Description
The managed system name of the agent.

Type
String

Warehouse name
NODE

Timestamp attribute

Description
The local time at the agent when the data was collected.

Type
String

Warehouse name
TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description
Diagnostic error ID.

Type
String

Warehouse name
ERRORNUM

Data Set Name attribute

Description
Data set name.

Type
String

Warehouse name
DSNAME

MCBR Seq Number attribute

Description

MCBR sequence number.

Type

String

Warehouse name

MCBRSEQ

HEX MCBR Key attribute

Description

Hexadecimal MCBR key (hex).

Type

String

Warehouse name

MCBRKEY

Control Data Set Name Prefix attribute

Description

Control data set name prefix.

Type

String

Warehouse name

PREFIX

BCDS Error Group2 attribute group

Backup control data set error group 2. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the BCDS Error Group2 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

BCD2DIAGID

Backup Control Data Set Name attribute

Description

Data set name.

Type

String

Warehouse name

BCD2DSN

HSM Internal Data Set Name attribute

Description

HSM internal data set name.

Type

String

Warehouse name

BCD2HDSN

Backup Control Data Set Volser attribute

Description

Volser.

Type

String

Warehouse name

BCD2VOLSER

Backup Date attribute

Description

Backup date.

Type

String

Warehouse name

BCD2BKDATE

VSAM Flag attribute

Description

VSAM or non-VSAM.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Non-VSAM (0)
- VSAM (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD2VSAM

Tape/DASD attribute**Description**

Tape or DASD.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Tape (0)
- DASD (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD2TP

Backup Version attribute**Description**

Backup version number.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-21474836481)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD2BKVERS

Backup Generation attribute**Description**

Backup generation number.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-21474836481)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD2BKGEN

HSM Tape Type attribute

Description

HSM tape type.

Type

String

Warehouse name

BCD2TAPET

TTOC Extension Number attribute

Description

TTOC extension number.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD2TTXT

Primary Volser attribute

Description

Primary volser.

Type

String

Warehouse name

BCD2PRIVOL

Data Set Name attribute

Description

Data set name.

Type

String

Warehouse name

DSNAME

Volser attribute

Description

Volser.

Type

String

Warehouse name

VOLSER

Backup Generation (String) attribute

Description

Backup generation number.

Type

String

Warehouse name

BCD2BKGES

HSM Tape Type (Extended) attribute**Description**

HSM tape type.

Type

String

Warehouse name

BCD2TAPETE

VSAM Flag attribute**Description**

VSAM or non-VSAM.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- N/A (0)
- Non-VSAM (1)
- VSAM (2)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD2VSAM2

Tape/DASD attribute**Description**

Tape or DASD.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- N/A (0)
- Tape (1)
- DADS (2)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD2TP2

Control Data Set Name Prefix attribute**Description**

Control data set name prefix.

Type

String

Warehouse name

BCD2PFX

BCDS Error Group3 attribute group

Backup control data set error group 3. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the BCDS Error Group3 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

BCD3DIAGID

Backup Control Data Set Name attribute

Description

Data set name.

Type

String

Warehouse name

BCD3DSN

HSM Internal Data Set Name attribute

Description

HSM internal data set name.

Type

String

Warehouse name

BCD3HDSN

Backup Control Data Set Volser attribute**Description**

Volser.

Type

String

Warehouse name

BCD3VOLSER

Backup Date attribute**Description**

Backup date.

Type

String

Warehouse name

BCD3BKDATE

VSAM Flag attribute**Description**

VSAM or non-VSAM.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Non-VSAM (0)
- VSAM (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD3VSAM

Tape/DASD attribute**Description**

Tape or DASD.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Tape (0)
- DASD (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD3TP

VTOC Error attribute**Description**

VTOC error.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD3VTOCER

Data Set Name attribute**Description**

Data set name.

Type

String

Warehouse name

DSNAME

Volser attribute**Description**

Volser.

Type

String

Warehouse name

VOLSER

VSAM Flag attribute**Description**

VSAM or non-VSAM.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- N/A (0)
- Non-VSAM (1)
- VSAM (2)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD3VSAM2

Tape/DASD attribute**Description**

Tape or DASD.

Type

String

Warehouse name

BCD3TP2

BCDS Error Group4 attribute group

Backup control data set error group 4. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the BCDS Error Group4 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

BCD4DIAGID

Backup Control Data Set Name attribute

Description

Data set name.

Type

String

Warehouse name

BCD4DSN

HSM Internal Data Set Name attribute

Description

HSM internal data set name.

Type

String

Warehouse name

BCD4HDSN

Backup Control Data Set Volser attribute**Description**

Volser.

Type

String

Warehouse name

BCD4VOLSER

Backup Date attribute**Description**

Backup date.

Type

String

Warehouse name

BCD4BKDATE

VSAM Flag attribute**Description**

VSAM or non-VSAM.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- N/A (0)
- Non-VSAM (1)
- VSAM (2)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD4VSAM

Tape/DASD attribute**Description**

Tape or DASD.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Tape (0)
- DASD (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD4TP

Backup Version attribute**Description**

Backup version.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD4BKVERS

Backup Owner attribute**Description**

Backup owner.

Type

String

Warehouse name

BCD4BKOWN

Data Set Name attribute**Description**

Data set name.

Type

String

Warehouse name

DSNAME

Volser attribute**Description**

Volser.

Type

String

Warehouse name

VOLSER

VSAM Flag attribute**Description**

VSAM or non-VSAM.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- N/A (0)
- Non-VSAM (1)
- VSAM (2)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD4VSAM2

Tape/DASD attribute

Description

Tape or DASD.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- N/A (0)
- Tape (1)
- DASD (2)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD4TP2

Generation Number attribute**Description**

Generation number.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD4GNUM

BCDS Error Group5 attribute group

Backup control data set error group 5. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the BCDS Error Group5 attribute group:

Node attribute - This attribute is a key attribute.**Description**

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

BCD5DIAGID

Backup Control Data Set Volser attribute

Description

Volser.

Type

String

Warehouse name

BCD5VOLSER

HSM Tape Type attribute

Description

HSM tape type.

Type

String

Warehouse name

BCD5TAPET

Tape Reference Count attribute

Description

Tape reference count.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD5DSNNUM

Volser attribute

Description

Volser.

Type

String

Warehouse name

VOLSER

Control Data Set Name Prefix attribute**Description**

Control data set name prefix.

Type

String

Warehouse name

BCD5PFX

BCDS Error Group6 attribute group

Backup control data set error group 6. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the BCDS Error Group6 attribute group:

Node attribute - This attribute is a key attribute.**Description**

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.**Description**

Diagnostic error ID.

Type

String

Warehouse name

BCD6DIAGID

Backup Control Data Set Volser attribute

Description

Volser.

Type

String

Warehouse name

BCD6VOLSER

HSM Tape Type attribute**Description**

HSM tape type.

Type

String

Warehouse name

BCD6TAPET

Valid Blocks attribute**Description**

Counted valid blocks.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD6BCNT

Block Count attribute**Description**

Block count (TTOC).

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD6BTCNT

TTOC Update Date attribute**Description**

TTOC update date.

Type

String

Warehouse name

BCD6DTUPD

TTOC Create Date attribute

Description

TTOC create date.

Type

String

Warehouse name

BCD6DTCRE

Volser attribute

Description

Volser.

Type

String

Warehouse name

VOLSER

Hex Value of Valid Recs in TTOC attribute

Description

Hexadecimal value of valid records in TTOC.

Type

String

Warehouse name

BCD6XVRECS

Hex Value of Counted Records attribute

Description

Hexadecimal value of counted records.

Type

String

Warehouse name

BCD6XCRECS

BCDS Error Group7 attribute group

Backup control data set error group 7. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the BCDS Error Group7 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.**Description**

Diagnostic error ID.

Type

String

Warehouse name

BCD7DIAGID

Migrate Volser attribute**Description**

Migrate volser.

Type

String

Warehouse name

BCD7MIGVOL

HSM Tape Type attribute**Description**

HSM tape type.

Type

String

Warehouse name

BCD7TAPET

TTOC Extension Number attribute**Description**

TTOC extension number.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD7TTXT

Data Set Name Flag attribute**Description**

Data set name flag.

Type

String

Warehouse name

BCD7DSFLG

Data Set Patch Valid Flag attribute**Description**

Data set patch valid flag.

Type

String

Warehouse name

BCD7DSPTCH

TTOC Data Set Offset attribute**Description**

TTOC update date.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD7DSOFF

TTOC Flag Offset attribute**Description**

Offset to flag byte in TTOC.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD7FGOFF

Alias Name attribute**Description**

Alias name in TTOC.

Type

String

Warehouse name

BCD7ANAME

True Name attribute**Description**

True name from BCD/MCC.

Type

String

Warehouse name

BCD7TNAME

BCDS Error Group8 attribute group

Backup control data set error group 8. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the BCDS Error Group8 attribute group:

Node attribute - This attribute is a key attribute.**Description**

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.**Description**

Diagnostic error ID.

Type

String

Warehouse name

BCD8DIAGID

Duplicate Volser attribute

Description

Volser of duplicate.

Type

String

Warehouse name

BCD8VOL1

Volume Type attribute

Description

Volume type.

Type

String

Warehouse name

BCD8TYPE1

Status attribute

Description

Status.

Type

String

Warehouse name

BCD8STAT1

Conflicting Volser attribute

Description

Conflicting volser.

Type

String

Warehouse name

BCD8VOL2

Volume Type attribute

Description

Volume type.

Type

String

Warehouse name

BCD8TYPE2

Status attribute

Description

Status.

Type

String

Warehouse name

BCD8STAT2

BCDS Error Group8 v5 attribute group

Backup control data set error group 8 v5. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the BCDS Error Group8 v5 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

BCD8DIAGID

Volser attribute

Description

Volser.

Type

String

Warehouse name

VOLSER

Tape Type attribute

Description

Tape type.

Type

String

Warehouse name

BCD8TYPE1

Data Set Count attribute**Description**

Data set count.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

BCD8SCNT

BCDS Error Group9 attribute group

Backup control data set error group 9. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the BCDS Error Group9 attribute group:

Node attribute - This attribute is a key attribute.**Description**

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.**Description**

Diagnostic error ID.

Type

String

Warehouse name

BCD9DIAGID

Duplicate Volser 1 attribute**Description**

Duplicate volser 1.

Type

String

Warehouse name

BCD9VOL1

Tape Type 1 attribute**Description**

Tape type 1.

Type

String

Warehouse name

BCD9TYPE1

Status 1 attribute**Description**

Status 1.

Type

String

Warehouse name

BCD9STAT1

Duplicate Volser 2 attribute**Description**

Duplicate volser 2.

Type

String

Warehouse name

BCD9VOL2

Tape Type 2 attribute**Description**

Tape type 2.

Type

String

Warehouse name

BCD9TYPE2

Status 2 attribute**Description**

Status 2.

Type

String

Warehouse name

BCD9STAT2

Errors Cost Report attribute group

The attribute group provides information on resource waste cost due to error found in DFSMSHsm Control Data Set and DFSMSHsm owned and managed tape. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the Errors Cost Report attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Audit Type attribute - This attribute is a key attribute.

Description

The previous executed audit procedure used.

Type

String

Warehouse name

AUDTYPE

CPU Cost attribute**Description**

Cost being used for calculation of a CPU second for the report.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

CPUCOST

Tape Cost attribute

Description

Cost being used for calculation of an HSM tape second for the report.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

TAPECOST

Error Count attribute

Description

Total errors reported from executed audit procedures.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

ERRCNT

Est # CDS Reads attribute

Description

Estimated number of times errant records were read during report period.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

ESTCDSR

Est # CPU Sec attribute

Description

Estimated number of CPU seconds used for reading errant records during report period.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

ESTCPUS

Tape Vols attribute**Description**

Total tape volumes in error reported from executed audit procedures.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

TAPEVOLS

Estimated CPU Cost attribute**Description**

Estimated CPU cost of the errors discovered under the auditing option and based on the CPU cost specified.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

ECPUCOST

Estimated Tape Cost attribute**Description**

Estimated tape cost based on the CPU cost specified.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

ETPECOST

Expert Advice attribute group

The attribute group provides expert advice for errors reported by Advanced Audit for DFSMSHsm. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the Expert Advice attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Error ID.

Type

String

Warehouse name

ERRID

Expert Advice Heading attribute**Description**

Brief description of the error.

Type

String

Warehouse name

HEADING

Expert Advice attribute

Description

Expert advice for the error.

Type

String

Warehouse name

ADVICE

HSEND List Event Information attribute group

The attribute group provides event information from the HSEND List command. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the HSEND List Event Information attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Command attribute - This attribute is a key attribute.

Description

Command issued.

Type

String

Warehouse name

COMMAND

Timestamp attribute

Description

Time at which the command was issued.

Type

Timestamp

Warehouse name

DATETIME

User ID attribute**Description**

User ID under which the command was issued.

Type

String

Warehouse name

USERID

Request Result attribute**Description**

Result from the command issued.

Type

String

Warehouse name

RESULT

Row Counter attribute**Description**

Should be hidden.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

ROWCNTR

HSM Tape Error Summary attribute group

HSM Tape Error Summary. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the HSM Tape Error Summary attribute group:

Node attribute - This attribute is a key attribute.**Description**

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.**Description**

Diagnostic error ID.

Type

String

Warehouse name

TPSDIAGID

Record Count attribute**Description**

Diagnostic record count.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

TPSRECCNT

Error Message attribute**Description**

Diagnostic error message.

Type

String

Warehouse name

TPSDIAGMSG

Error Count attribute**Description**

Diagnostic error count.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

TPSERRCNT

Error Type attribute

Description

Error format type.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

TAPERRTYP

HSMTAPE Error Group1 attribute group

HSM tape error group 1. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the HSMTAPE Error Group1 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

TPD1DIAGID

Tape Error Volser attribute

Description

Volser.

Type

String

Warehouse name

TPD1VOLSER

HSM Tape Type attribute

Description

HSM tape type.

Type

String

Warehouse name

TPD1TAPET

Data Set Count attribute

Description

Number of data sets.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

TPD1DSNNUM

Volser attribute

Description

Volser.

Type

String

Warehouse name

VOLSER

HSMTAPE Error Group2 attribute group

HSM tape error group 2. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the HSMTAPE Error Group2 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

TPD2DIAGID

Tape Error Volser attribute

Description

Volser.

Type

String

Warehouse name

TPD2VOLSER

HSM Tape Type attribute

Description

HSM tape type.

Type

String

Warehouse name

TPD2TAPET

Data Set Count attribute**Description**

Number of data sets.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

TPD2DSNNUM

Expire Date attribute**Description**

Expire date.

Type

String

Warehouse name

TPD2EXPIRE

Tape Data Set Name attribute**Description**

Tape data set name.

Type

String

Warehouse name

TPD2TDSN

Create Job Name attribute**Description**

Create job name.

Type

String

Warehouse name

TPD2CRJOB

Volser attribute**Description**

Volser.

Type

String

Warehouse name

VOLSER

Data Set Name attribute**Description**

Tape data set name.

Type

String

Warehouse name

DSNAME

LISTCAT Event Information attribute group

The attribute group provides information from the LISTCAT command. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the LISTCAT Event Information attribute group:

Node attribute - This attribute is a key attribute.**Description**

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Command attribute - This attribute is a key attribute.**Description**

Command issued.

Type

String

Warehouse name

COMMAND

Timestamp attribute

Description

Time at which the command was issued.

Type

Timestamp

Warehouse name

DATETIME

User ID attribute**Description**

User ID under which the command was issued.

Type

String

Warehouse name

USERID

Request Result attribute**Description**

Result from the command that was issued.

Type

String

Warehouse name

RESULT

Row Counter attribute**Description**

Should be hidden.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

ROWCOUNTER

MCDS Error Group1 attribute group

Migration control data set error group 1. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the MCDS Error Group1 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.**Description**

Diagnostic error ID.

Type

String

Warehouse name

MCD1DIAGID

Migration Control Data Set Name attribute**Description**

Data set name.

Type

String

Warehouse name

MCD1DSN

HSM Internal Data Set Name attribute**Description**

HSM internal data set name.

Type

String

Warehouse name

MCD1HDSN

HSM Volser attribute**Description**

HSM volser.

Type

String

Warehouse name

MCD1HVOL

VSAM Flag attribute

Description

VSAM or non-VSAM.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Non-VSAM (0)
- VSAM (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD1VSAM

HSM Level attribute**Description**

HSM level.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD1HLVL

Cataloged Volser attribute**Description**

Cataloged volser.

Type

String

Warehouse name

MCD1CATVOL

Catalog Data Set Name attribute**Description**

Catalog data set name.

Type

String

Warehouse name

MCD1CATLG

Data Set Name attribute**Description**

Data set name.

Type

String

Warehouse name

DSNAME

HSM Level (String) attribute

Description

HSM level.

Type

String

Warehouse name

MCD1HLVS

VSAM Flag attribute

Description

VSAM or non-VSAM.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- N/A (0)
- Non-VSAM (1)
- VSAM (2)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD1VSAM2

MCDS Error Group2 attribute group

Migration control data set error group 2. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the MCDS Error Group2 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.**Description**

Diagnostic error ID.

Type

String

Warehouse name

MCD2DIAGID

VSAM Cluster Data Set Name attribute**Description**

VSAM cluster data set name.

Type

String

Warehouse name

MCD2CLUST

VSAM Component Name attribute**Description**

VSAM component name.

Type

String

Warehouse name

MCD2COMP

HSM Alias Data Set Name attribute**Description**

HSM generated alias data set name.

Type

String

Warehouse name

MCD2HALIAS

Migrated Control Data Set Volser**Description**

Cataloged volser.

Type

String

Warehouse name

MCD2CATVOL

Data Set Name attribute**Description**

VSAM cluster data set name.

Type

String

Warehouse name

DSNAME

Cataloged Volser attribute**Description**

Cataloged volser.

Type

String

Warehouse name

VOLSER

Catalog Name attribute**Description**

Catalog name.

Type

String

Warehouse name

MCD2MCAT

MCDS Error Group3 attribute group

Migration control data set error group 3. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the MCDS Error Group3 attribute group:

Node attribute - This attribute is a key attribute.**Description**

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

MCD3DIAGID

Migrated Control Data Set Volser attribute**Description**

Volser.

Type

String

Warehouse name

MCD3VOLSER

HSM Tape Type attribute**Description**

HSM tape type.

Type

String

Warehouse name

MCD3TAPET

Tape Reference Count attribute**Description**

Number of data sets referencing tape.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD3DSNNUM

Volser attribute**Description**

Volser.

Type

String

Warehouse name

VOLSER

MCDS Error Group4 attribute group

Migration control data set error group 4. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the MCDS Error Group4 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

MCD4DIAGID

Migrated Control Data Set Name attribute

Description

Data set name.

Type

String

Warehouse name

MCD4DSN

HSM Volser attribute

Description

HSM volser.

Type

String

Warehouse name

MCD4HVOL

Catalog Data Set Name attribute**Description**

Catalog data set name.

Type

String

Warehouse name

MCD4CATLG

Create Date attribute**Description**

Create date.

Type

String

Warehouse name

MCD4CREATE

Data Set Name attribute**Description**

Data set name.

Type

String

Warehouse name

DSNAME

Catalog Name attribute**Description**

Catalog name.

Type

String

Warehouse name

MCD4MCAT

MCDS Error Group5 attribute group

Migration control data set error group 5. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the MCDS Error Group5 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.**Description**

Diagnostic error ID.

Type

String

Warehouse name

MCD5DIAGID

Migrated Control Data Set Volser attribute**Description**

Volser.

Type

String

Warehouse name

MCD5VOLSER

HSM Tape Type attribute**Description**

HSM tape type.

Type

String

Warehouse name

MCD5TAPET

Valid Blocks attribute**Description**

Counted valid blocks.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD5BCNT

Block Count attribute

Description

Block count (TTOC).

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD5BTCNT

TTOC Update Date attribute

Description

TTOC update date.

Type

String

Warehouse name

MCD5DTUPD

TTOC Create Date attribute

Description

TTOC create date.

Type

String

Warehouse name

MCD5DTCRE

Valid TTOC Records (Hex) attribute

Description

Hexadecimal value of valid TTOC records.

Type

String

Warehouse name

MCD5BTCNTX

Counted Records (Hex) attribute

Description

Hexadecimal value of counted records.

Type

String

Warehouse name

MCD5BCNTX

Volser attribute

Description

Volser.

Type

String

Warehouse name

VOLSER

MCDS Error Group6 attribute group

Migration control data set error group 6. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the MCDS Error Group6 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

MCD6DIAGID

Migrate Volser attribute

Description

Migrate volser.

Type

String

Warehouse name

MCD6MIGVOL

HSM Tape Type attribute**Description**

HSM tape type.

Type

String

Warehouse name

MCD6TAPET

TTOC Extension Number attribute**Description**

TTOC extension number.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD6TTXT

Data Set Name Flag attribute**Description**

Data set name flag.

Type

String

Warehouse name

MCD6DSFLG

Data Set Patch Valid Flag attribute**Description**

Data set patch valid flag.

Type

String

Warehouse name

MCD6DSPTCH

TTOC Data Set Offset attribute**Description**

Offset to data set in TTOC.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD6DSOFF

TTOC Flag Offset attribute

Description

Offset to flag byte in TTOC.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD6FGOFF

Alias Name attribute

Description

Alias name in TTOC.

Type

String

Warehouse name

MCD6ANAME

True Name attribute

Description

True name from MCD/MCC.

Type

String

Warehouse name

MCD6TNAME

MCDS Error Group7 attribute group

Migration control data set error group 7. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the MCDS Error Group7 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.**Description**

Diagnostic error ID.

Type

String

Warehouse name

MCD7DIAGID

Migrated Control Data Set Name attribute**Description**

Data set name.

Type

String

Warehouse name

MCD7DSN

HSM Internal Data Set Name attribute**Description**

HSM internal data set name.

Type

String

Warehouse name

MCD7HDSN

HSM Volser attribute**Description**

HSM volser.

Type

String

Warehouse name

MCD7HVOL

VSAM Flag attribute

Description

VSAM or non-VSAM.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Non-VSAM (0)
- VSAM (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD7VSAM

HSM Level attribute**Description**

HSM level.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD7HLVL

Cataloged Volser attribute**Description**

Cataloged volser.

Type

String

Warehouse name

MCD7CATVOL

Catalog Data Set Name attribute**Description**

Catalog data set name.

Type

String

Warehouse name

MCD7CATLG

Data Set Name attribute**Description**

Data set name.

Type

String

Warehouse name

DSNAME

HSM Level (String) attribute

Description

HSM level.

Type

String

Warehouse name

MCD7HLVS

MCDS Error Group7 v5 attribute group

Migration control data set error group 7 v5. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the MCDS Error Group7 v5 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

MCD7DIAGID

MCD True Name attribute

Description

MCD true name.

Type

String

Warehouse name

DSNAME

Alias Name attribute**Description**

Alias name.

Type

String

Warehouse name

MCD7EMCA

HSM Volser attribute**Description**

HSM volser.

Type

String

Warehouse name

VOLSER

VSAM Flag attribute**Description**

VSAM or non-VSAM.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Non-VSAM (0)
- VSAM (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD7VSAM

HSM Level attribute**Description**

HSM level.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD7HLVL

Catalog Other Volume attribute

Description

Cataloged other volume.

Type

String

Warehouse name

MCD7CVOL

Control Data Set Name Prefix attribute**Description**

Control data set name prefix.

Type

String

Warehouse name

MCD7PFX

MCDS Error Group8 attribute group

Migration control data set error group 8. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the MCDS Error Group8 attribute group:

Node attribute - This attribute is a key attribute.**Description**

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.**Description**

Diagnostic error ID.

Type

String

Warehouse name

MCD8DIAGID

MCD True Name attribute**Description**

MCD true name.

Type

String

Warehouse name

DSNAME

Alias Name attribute**Description**

Alias name.

Type

String

Warehouse name

MCD8EMCA

HSM Volser attribute**Description**

HSM volser.

Type

String

Warehouse name

VOLSER

HSM Level attribute**Description**

HSM level.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD8HLVL

Error in Data Collection attribute**Description**

Error in data collection.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)

- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD8VTOCE

Control Data Set Name Prefix attribute

Description

Control data set name prefix.

Type

String

Warehouse name

MCD8PFX

MCDS Error Group9 attribute group

Migration control data set error group 9. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the MCDS Error Group9 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

MCD9DIAGID

MCD True Name attribute

Description

MCD true name.

Type

String

Warehouse name

DSNAME

Alias Name attribute

Description

Alias name.

Type

String

Warehouse name

MCD9MCA

HSM Volser attribute

Description

HSM volser.

Type

String

Warehouse name

VOLSER

VSAM Flag attribute

Description

VSAM or non-VSAM.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- N/A (0)
- Non-VSAM (1)
- VSAM (2)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD9VSAM

HSM Level attribute

Description

HSM level.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- U (0)
- 1 (1)
- 2 (2)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCD9HLVL

Correct Alias Name attribute

Description

Correct alias name.

Type

String

Warehouse name

MCD9CALIAS

Migrated Dsns Need Bkup Audit attribute group

The attribute group provides information about data sets that are at risk for loss of data due to corruption or loss of data due to human error or hardware error or malfunction. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the Migrated Dsns Need Bkup Audit attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Data Set Name attribute - This attribute is a key attribute.

Description

Data set full name.

Type

String

Warehouse name

DSNAME

MgmtClas Name attribute

Description

SMS management class in which the data set is managed.

Type

String

Warehouse name

MGMTCLAS

Chng Flag attribute

Description

Flag set by HSM when the data set is backed up.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- No (0)
- Yes (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

CHNGFLAG

Date Created attribute

Description

Date on which the data set was originally created.

Type

String

Warehouse name

DATECREA

Date Last Used attribute

Description

Date on which the data set was last referenced on L0 DASD.

Type

Timestamp

Warehouse name

DATELUSE

Date Last Backup attribute

Description

Date on which the data set was last backed up.

Type

Timestamp

Warehouse name

DATELBKU

Date Migrated attribute

Description

Date on which this migration copy was made.

Type

Timestamp

Warehouse name

DATEMIG

Mig Lvl attribute**Description**

Migration level on which the data set currently resides.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MIGLVL

SMS Managed attribute**Description**

Status if the data set is SMS managed.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- No (0)
- Yes (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

SMSMNGD

Date Created attribute**Description**

Date on which the data set was originally created.

Type

String

Warehouse name

DATECREA2

Date Last Used attribute**Description**

Date on which the data set was last referenced on L0 DASD.

Type

String

Warehouse name

DATELUSE2

Date Last Backup attribute

Description

Date on which the data set was last backed up.

Type

String

Warehouse name

DATELBKU2

Date Migrated attribute**Description**

Date on which this migration copy was made.

Type

String

Warehouse name

DATEMIG2

Migration Control Data Set Error Summary attribute group

Migration control data set error summary. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the Migration Control Data Set Error Summary attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

MCSDIAGID

Record Count attribute**Description**

Diagnostic record count.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCSRECCNT

Error Message attribute**Description**

Diagnostic error message.

Type

String

Warehouse name

MCSDIAGMSG

Error Count attribute**Description**

Diagnostic error count.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCSERRCNT

Error Type attribute**Description**

Error format type.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MCSERRTYP

Migration Data Set Audit attribute group

The attribute group provides information about data sets that are considered to be thrashing, wasting CPU resource seconds for movement back and forth. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the Migration Data Set Audit attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Data Set Name attribute - This attribute is a key attribute.

Description

Data set full name.

Type

String

Warehouse name

DSNAME

Thr Idx attribute**Description**

Recorded thrashing index for data set.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)

- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

THRIDX

Times Migrtd attribute

Description

Number of times that the data set has been migrated since the current MCDS record was created.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

TIMESMIG

MgMtClas Name attribute

Description

DFSMS Management class that was assigned to the data set.

Type

String

Warehouse name

MGMTCLAS

Date Migrated attribute

Description

Date on which the migration copy was made.

Type

Timestamp

Warehouse name

DATMIG

Date Recalled attribute

Description

Date on which the data set was last recalled.

Type

Timestamp

Warehouse name

DATERECL

Date Created attribute

Description

Date on which the data set was originally created.

Type

String

Warehouse name

DATECRTE

Mig Lvl attribute**Description**

Migration level on which the data set currently resides.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MIGLVL

Val Ds attribute**Description**

Reports whether the data set has a valid migration copy.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- N (0)
- Y (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

VALDS

SMS Mngd attribute**Description**

Reports whether the data set is SMS managed.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- No (0)
- Yes (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

SMSMNGD

Date Migrated attribute**Description**

Date on which the migration copy was made.

Type

String

Warehouse name

DATEMIG2

Date Recalled attribute

Description

Date on which the data set was last recalled.

Type

String

Warehouse name

DATERECL2

Date Created attribute

Description

Date on which the data set was originally created.

Type

String

Warehouse name

DATECRTE2

OCDS Error Group1 attribute group

Offline control data set error group 1. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the OCDS Error Group1 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

OCD1DIAG

Offline Control Data Set Volser attribute**Description**

Volser.

Type

String

Warehouse name

OCD1VOLSER

HSM Tape Type attribute**Description**

HSM tape type.

Type

String

Warehouse name

OCD1TAPET

Create Date attribute**Description**

Create date.

Type

String

Warehouse name

OCD1CRDATE

Previous Volume in OCDS attribute**Description**

Previous volume in OCDS.

Type

String

Warehouse name

OCD1PVOL

Correct Previous Volume attribute**Description**

Correct previous volume (hex).

Type

String

Warehouse name

OCD1CPVOL

First Data Set attribute**Description**

First data set on tape.

Type

String

Warehouse name

OCD1FDSN

Volser attribute**Description**

volser.

Type

String

Warehouse name

VOLSER

Data Set Name attribute**Description**

First data set on tape.

Type

String

Warehouse name

DSNAME

Correct Previous Volume attribute**Description**

Correct previous volume (hex).

Type

String

Warehouse name

OCD1CPVOL2

Existing Volume in Hex attribute**Description**

Existing volume (hex).

Type

String

Warehouse name

OCD1XVOL

Control Data Set Name Prefix attribute**Description**

Control data set name prefix.

Type

String

Warehouse name

OCD1PFX

OCDS Error Group2 attribute group

Offline control data set error group 2. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the OCDS Error Group2 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

OCD2DIAGID

Offline Control Data Set Volser attribute

Description

Volser.

Type

String

Warehouse name

OCD2VOLSER

HSM Tape Type attribute

Description

HSM tape type.

Type

String

Warehouse name

OCD2TAPET

Create Date attribute**Description**

Create date.

Type

String

Warehouse name

OCD2CRDATE

Successor Volume in OCDS attribute**Description**

Previous volume in OCDS.

Type

String

Warehouse name

OCD2SVOL

Correct Successor Volume attribute**Description**

Correct successor volume (hex).

Type

String

Warehouse name

OCD2CSVOL

Last Data Set attribute**Description**

Last data set on tape.

Type

String

Warehouse name

OCD2LDSN

Volser attribute**Description**

Volser.

Type

String

Warehouse name

VOLSER

Correct Successor Volume attribute**Description**

Correct successor volume (hex).

Type

String

Warehouse name

OCD2CSVOL2

Control Data Set Name Prefix attribute**Description**

Control data set name prefix.

Type

String

Warehouse name

OCD2PFX

OCDS Error Group3 attribute group

Offline control data set error group 3. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the OCDS Error Group3 attribute group:

Node attribute - This attribute is a key attribute.**Description**

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.**Description**

Diagnostic error ID.

Type

String

Warehouse name

OCD3DIAGID

Offline Control Data Set Volser attribute

Description

Volser.

Type

String

Warehouse name

OCD3VOLSER

HSM Tape Type attribute**Description**

HSM tape type.

Type

String

Warehouse name

OCD3TAPET

Create Date attribute**Description**

Create date.

Type

String

Warehouse name

OCD3CRDATE

Expected Sequence Number attribute**Description**

Expected sequence number.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

OCD3EXPSEQ

Encountered Sequence Number attribute**Description**

Encountered sequence number.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

OCD3ENCSEQ

Volser attribute

Description

Volser.

Type

String

Warehouse name

VOLSER

Control Data Set Name Prefix attribute

Description

Control data set name prefix.

Type

String

Warehouse name

OCD3PFX

OCDS Error Group4 attribute group

Offline control data set error group 4. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the OCDS Error Group4 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

OCD4DIAGID

Offline Control Data Set Volser attribute**Description**

Volser.

Type

String

Warehouse name

OCD4VOLSER

HSM Tape Type attribute**Description**

HSM tape type.

Type

String

Warehouse name

OCD4TAPET

Create Date attribute**Description**

Create date.

Type

String

Warehouse name

OCD4CRDATE

Expected Extension Number attribute**Description**

Expected extension number.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

OCD4EXPEXT

Encountered Extension Number attribute**Description**

Encountered extension number.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

OCD4ENCEXT

Volser attribute

Description

Volser.

Type

String

Warehouse name

VOLSER

Control Data Set Name Prefix attribute

Description

Control data set name prefix.

Type

String

Warehouse name

OCD4PFX

OCDS Error Group5 attribute group

Offline control data set error group 5. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the OCDS Error Group5 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

OCD5DIAGID

Offline Control Data Set Volser attribute

Description

Volser.

Type

String

Warehouse name

OCD5VOLSER

HSM Tape Type attribute

Description

HSM tape type.

Type

String

Warehouse name

OCD5TAPET

Create Date attribute

Description

Create date.

Type

String

Warehouse name

OCD5CRDATE

Expected Block Count attribute

Description

Expected block count.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

OCD5EXPBLK

Encountered Block Count attribute

Description

Encountered block count.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

OCD5ENCBK

Volser attribute**Description**

Volser.

Type

String

Warehouse name

VOLSER

Control Data Set Name Prefix attribute**Description**

Control data set name prefix.

Type

String

Warehouse name

OCD5PFX

OCDS Error Group6 attribute group

Offline control data set error group 6. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the OCDS Error Group6 attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

OCD6DIAGID

Tape Copy Needed Volser attribute

Description

Tape copy needed volser.

Type

String

Warehouse name

OCD6TVOL

Tape Copy Needed Type attribute

Description

Tape copy needed type (M or B)

Type

String

Warehouse name

OCD6TTYPE

Tape Copy Needed in TTOC attribute

Description

Tape copy needed in TTOC (Y or N).

Type

String

Warehouse name

OCD6TTOC

Tape Copy Needed in CDS attribute

Description

Tape copy needed in CDS (Y or N).

Type

String

Warehouse name

OCDT6CDS

Tape Copy Needed Create Date attribute

Description

Tape copy needed create date.

Type

String

Warehouse name

OCD6TDATE

Tape Copy Needed Create Time attribute**Description**

Tape copy needed create time.

Type

String

Warehouse name

OCD6TTIME

Offline Control Data Set Error Summary attribute group

Offline Control Data Set Error Summary. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the Offline Control Data Set Error Summary attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

OCSDIAGID

Record Count attribute**Description**

Diagnostic record count.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

OCSRECCNT

Error Message attribute**Description**

Diagnostic error message.

Type

String

Warehouse name

OCSDIAGMSG

Error Count attribute**Description**

Diagnostic error count.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

OCSERRCNT

Error Type attribute**Description**

Error format type.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name
OCSERRTY

Performance Object Status attribute group

The Performance Object Status attribute group contains information that reflects the status of other attribute groups so that you can see the status of the performance objects that make up this application, all at once.

Each of these other performance attribute groups is represented by a row in this table (or other type of view). The status for an attribute group reflects the result of the last attempt to collect data for that attribute group, which allows you to see whether the agent is performing correctly.

Unlike other attribute groups, the Performance Object Status attribute group does not reflect the state of the monitored application. This attribute group is most often used to determine why data is not available for one of the performance attribute groups. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the Performance Object Status attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Query Name attribute - This attribute is a key attribute.

Description

The name of the attribute group.

Type

String

Warehouse name

QUERY_NAME or ATTRGRP

Object Name attribute

Description

The name of the performance object.

Type

String

Warehouse name

OBJECT_NAME or OBJNAME

Object Type attribute**Description**

The type of the performance object.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- WMI (0)
- PERFMON (1)
- WMI_ASSOCIATION_GROUP (2)
- JMX (3)
- SNMP (4)
- SHELL_COMMAND (5)
- JOINED_GROUPS (6)
- CIMOM (7)
- CUSTOM (8)
- ROLLUP_DATA (9)
- WMI_REMOTE_DATA (10)
- LOG_FILE (11)
- JDBC (12)
- CONFIG_DISCOVERY (13)
- NT_EVENT_LOG (14)
- FILTER (15)
- SNMP_EVENT (16)
- PING (17)
- DIRECTOR_DATA (18)
- DIRECTOR_EVENT (19)
- SSH_REMOTE_SHELL_COMMAND (20)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

OBJECT_TYPE or OBJTYPE

Object Status attribute**Description**

The status of the performance object.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- ACTIVE (0)
- INACTIVE (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

OBJECT_STATUS or OBJSTTS

Error Code attribute

Description

The error code that is associated with the query.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- NO_ERROR (0)
- GENERAL_ERROR (1)
- OBJECT_NOT_FOUND (2)
- COUNTER_NOT_FOUND (3)
- NAMESPACE_ERROR (4)
- OBJECT_CURRENTLY_UNAVAILABLE (5)
- COM_LIBRARY_INIT_FAILURE (6)
- SECURITY_INIT_FAILURE (7)
- PROXY_SECURITY_FAILURE (9)
- NO_INSTANCES_RETURNED (10)
- ASSOCIATOR_QUERY_FAILED (11)
- REFERENCE_QUERY_FAILED (12)
- NO_RESPONSE_RECEIVED (13)
- CANNOT_FIND_JOINED_QUERY (14)
- CANNOT_FIND_JOIN_ATTRIBUTE_IN_QUERY_1_RESULTS (15)
- CANNOT_FIND_JOIN_ATTRIBUTE_IN_QUERY_2_RESULTS (16)
- QUERY_1_NOT_A_SINGLETON (17)
- QUERY_2_NOT_A_SINGLETON (18)
- NO_INSTANCES_RETURNED_IN_QUERY_1 (19)
- NO_INSTANCES_RETURNED_IN_QUERY_2 (20)
- CANNOT_FIND_ROLLUP_QUERY (21)
- CANNOT_FIND_ROLLUP_ATTRIBUTE (22)
- FILE_OFFLINE (23)
- NO_HOSTNAME (24)
- MISSING_LIBRARY (25)
- ATTRIBUTE_COUNT_MSMATCH (26)
- ATTRIBUTE_NAME_MISMATCH (27)
- COMMON_DATA_PROVIDER_NOT_STARTED (28)
- CALLBACK_REGISTRATION_ERROR (29)
- MDL_LOAD_ERROR (30)
- AUTHENTICATION_FAILED (31)
- CANNOT_RESOLVE_HOST_NAME (32)
- SUBNODE_UNAVAILABLE (33)
- SUBNODE_NOT_FOUND_IN_CONFIG (34)

- ATTRIBUTE_ERROR (35)
- CLASSPATH_ERROR (36)
- CONNECTION_FAILURE (37)
- FILTER_SYNTAX_ERROR (38)
- FILE_NAME_MISSING (39)
- SQL_QUERY_ERROR (40)
- SQL_FILTER_QUERY_ERROR (41)
- SQL_DB_QUERY_ERROR (42)
- SQL_DB_FILTER_QUERY_ERROR (43)
- PORT_OPEN_FAILED (44)
- ACCESS_DENIED (45)
- TIMEOUT (46)
- NOT_IMPLEMENTED (47)
- REQUESTED_A_BAD_VALUE (48)
- RESPONSE_TOO_BIG (49)
- GENERAL_RESPONSE_ERROR (50)
- SCRIPT_NONZERO_RETURN (51)
- SCRIPT_NOT_FOUND (52)
- SCRIPT_LAUNCH_ERROR (53)
- CONF_FILE_DOES_NOT_EXIST (54)
- CONF_FILE_ACCESS_DENIED (55)
- INVALID_CONF_FILE (56)
- EIF_INITIALIZATION_FAILED (57)
- CANNOT_OPEN_FORMAT_FILE (58)
- FORMAT_FILE_SYNTAX_ERROR (59)
- REMOTE_HOST_UNAVAILABLE (60)
- EVENT_LOG_DOES_NOT_EXIST (61)
- PING_FILE_DOES_NOT_EXIST (62)
- NO_PING_DEVICE_FILES (63)
- PING_DEVICE_LIST_FILE_MISSING (64)
- SNMP_MISSING_PASSWORD (65)
- DISABLED (66)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

ERROR_CODE or ERRCODE

SMS Errors attribute group

The attribute group contains information about the errors that are discovered by the SMS audit. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the SMS Errors attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

SMSDID

Data Set Name attribute

Description

Data set full name.

Type

String

Warehouse name

DSNAME

Management Class on VTOC attribute

Description

Management class on the VTOC.

Type

String

Warehouse name

SMSDMCV

Management Class from Active ACS attribute

Description

Management class from the active ACS.

Type

String

Warehouse name

SMSDMCA

Control Data Set Name attribute**Description**

Control data set name.

Type

String

Warehouse name

SMSDCDS

SMS Errors Data Class attribute group

The attribute group provides information about data class errors that are discovered by the SMS audit. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the SMS Errors Data Class attribute group:

Node attribute - This attribute is a key attribute.**Description**

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.**Description**

Diagnostic error ID.

Type

String

Warehouse name

SMSDID

Data Set Name attribute

Description

Data set full name.

Type

String

Warehouse name

DSNAME

Current Data Class attribute**Description**

The current data class name on the VTOC.

Type

String

Warehouse name

SMSDDCV

Data Class from ACS attribute**Description**

Data class from the active ACS.

Type

String

Warehouse name

SMSDDCA

Control Data Set Name attribute**Description**

Control data set name.

Type

String

Warehouse name

SMSDCDS

SMS Errors Storage Class attribute group

The attribute group provides information about storage class errors that are discovered by the SMS audit. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the SMS Errors Storage Class attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.**Description**

Diagnostic error ID.

Type

String

Warehouse name

SMSDID

Data Set Name attribute**Description**

Data set full name.

Type

String

Warehouse name

DSNAME

Current Storage Class attribute**Description**

The current storage class name on the VTOC.

Type

String

Warehouse name

SMSDSCV

Storage Class from ACS attribute**Description**

Storage class from the active ACS.

Type

String

Warehouse name

SMSDSCA

Control Data Set Name attribute**Description**

Control data set name.

Type

String

Warehouse name

SMSDCDS

SMS Errors Storage Group attribute group

The attribute group provides information about storage group errors that are discovered by the SMS audit. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the SMS Errors Storage Group attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute**Description**

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

SMSDID

Data Set Name attribute**Description**

Data set full name.

Type

String

Warehouse name

DSNAME

Current Storage Group attribute**Description**

The current storage group.

Type

String

Warehouse name

SMSDSGV

Storage Group from ACS attribute**Description**

Storage group from the active ACS.

Type

String

Warehouse name

SMSDDCA

Control Data Set Name attribute**Description**

Control data set name.

Type

String

Warehouse name

SMSDCDS

SMS Errors Summary attribute group

The attribute group provides a summary of SMS errors. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the SMS Errors Summary attribute group:

Node attribute - This attribute is a key attribute.**Description**

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Error ID attribute - This attribute is a key attribute.

Description

Diagnostic error ID.

Type

String

Warehouse name

SMSYID

Error Count attribute

Description

Number of errors.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

SMSYCNT

Error Description attribute

Description

Description of the error.

Type

String

Warehouse name

SMSYDESC

VSAM Dsns Need Bkup Audit attribute group

The attribute group provides information about VSAM data sets that have migration copies that are controlled by DFSMSHsm, but the backup copy either is obsolete or does not exist. If the warehouse default setting is enabled, data for this attribute group is stored in Tivoli Data Warehouse.

Historical group

This attribute group is part of the default historical group, and is eligible for use with Tivoli Data Warehouse.

Attribute descriptions

The following lists contains information about each attribute in the VSAM Dsns Need Bkup Audit attribute group:

Node attribute - This attribute is a key attribute.

Description

The managed system name of the agent.

Type

String

Warehouse name

NODE

Timestamp attribute

Description

The local time at the agent when the data was collected.

Type

String

Warehouse name

TIMESTAMP

Data Set Name attribute - This attribute is a key attribute.

Description

Data set full name.

Type

String

Warehouse name

DSNAME

Data Set Last Backup attribute

Description

Date on which the data set was last backed up.

Type

Timestamp

Warehouse name

DATELBKU

Data Last Updated(VSAM) attribute

Description

Date on which the data set was last updated.

Type

Timestamp

Warehouse name

DATELUPD

MgmtClas Name attribute

Description

Management class to which the data set is defined.

Type

String

Warehouse name

MGMTCLAS

Chng Flag attribute

Description

Flag set by HSM when the data set is backed up.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- No (0)
- Yes (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

CHNGFLAG

Date Created attribute

Description

Date on which the data set was originally created.

Type

String

Warehouse name

DATECREA

Date Last Used attribute

Description

Date on which the data set was last referenced on L0 DASD.

Type

Timestamp

Warehouse name

DATELUSE

Date Migrated attribute

Description

Date on which this migration copy was made.

Type

Timestamp

Warehouse name

DATMIG

Mig Lvl attribute

Description

Migration level on which the data set currently resides.

Type

Integer (Counter) with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- Value_Exceeds_Maximum (2147483647)
- Value_Exceeds_Minimum (-2147483648)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

MIGLVL

SMS Managed attribute**Description**

Status if the data set is SMS managed.

Type

Integer with enumerated values. The strings are displayed in the Tivoli Enterprise Portal. The warehouse and queries return the values shown in parentheses. The following values are defined:

- No (0)
- Yes (1)

Any other values will display the actual value returned by the agent in the Tivoli Enterprise Portal.

Warehouse name

SMSMNGD

Date Last Backup attribute**Description**

Date on which the data set was last backed up.

Type

String

Warehouse name

DATELBKU2

Date Last Updated(VSAM) attribute**Description**

Date on which the VSAM data set was last updated.

Type

String

Warehouse name

DATELUPD2

Date Created attribute**Description**

Date on which the data set was originally created.

Type

String

Warehouse name

DATECREA2

Date Last Used attribute**Description**

Date on which the data set was last referenced on L0 DASD.

Type

String

Warehouse name

DATELUSE2

Date Migrated attribute

Description

Date on which this migration copy was made.

Type

String

Warehouse name

DATEMIG2

Disk capacity planning for historical data

Disk capacity planning for a monitoring agent is a prediction of the amount of disk space to be consumed for each attribute group whose historical data is being collected. Required disk storage is an important factor to consider when you are defining data collection rules and your strategy for historical data collection.

The table in this chapter provides the following information required to calculate disk space for this monitoring agent:

- Table is the table name as it is displayed in the warehouse database, if the attribute group is configured to be written to the warehouse.
- Attribute group is the name of the attribute group as it is displayed in the warehouse configuration panel.
- Bytes per instance (agent) is an estimate of the record length for each row or instance written to the agent disk for historical data collection. This estimate can be used for agent disk space planning purposes.
- Database bytes per instance (warehouse) is an estimate of the record length for detailed records written to the warehouse database, if the attribute group is configured to be written to the warehouse. Detailed records are those that have been uploaded from the agent for long-term historical data collection. This estimate can be used for warehouse disk space planning purposes.
- Aggregate bytes per instance (warehouse) is an estimate of the record length for aggregate records written to the warehouse database, if the attribute group is configured to be written to the warehouse. Aggregate records are created by the Summarization agent for attribute groups that have been configured for summarization. This estimate can be used for warehouse disk space planning purposes.

In addition to the information in the tables, you must know the number of instances of data that you plan to collect. An attribute group can have single or multiple instances of data depending on the application environment that is being monitored. For example, if your attribute group is monitoring each processor in your computer and you have a dual processor computer, the number of instances is two.

The following table contains capacity planning information for data logged by IBM Tivoli Advanced Audit for DFSMSHsm.

<i>Table 1. Capacity planning for historical data logged by component Advanced Audit for DFSMSHsm</i>				
Table	Attribute group	Bytes per instance (agent)	Database bytes per instance (warehouse)	Aggregate bytes per instance (warehouse)
KRGAGTERM	KRG_AGENT_STATUS_SUMMARY	230	229	266
KRGBCDSUM	KRG_BACKUP_CONTROL_DATA_SET_ERROR_SUMMARY	153	154	236
KRGBCDEG1	KRG_BCDS_ERROR_GROUP1	248	255	322
KRGBCDEG2	KRG_BCDS_ERROR_GROUP2	306	321	403
KRGBCDEG3	KRG_BCDS_ERROR_GROUP3	249	257	309
KRGBCDEG4	KRG_BCDS_ERROR_GROUP4	300	310	377

Table 1. Capacity planning for historical data logged by component Advanced Audit for DFSMSHsm (continued)

Table	Attribute group	Bytes per instance (agent)	Database bytes per instance (warehouse)	Aggregate bytes per instance (warehouse)
KRGBCDEG5	KRG_BCDS_ERROR_GROUP5	129	131	183
KRGBCDEG6	KRG_BCDS_ERROR_GROUP6	133	139	206
KRGBCDEG7	KRG_BCDS_ERROR_GROUP7	197	203	285
KRGBCDEG8	KRG_BCDS_ERROR_GROUP8	99	102	139
KRGBCDG8V5	KRG_BCDS_ERROR_GROUP8_V5	93	93	145
KRGBCDEG9	KRG_BCDS_ERROR_GROUP9	99	102	139
KRGBCDEG10	KRG_BCDS_ERROR_GROUP10	245	246	283
KRGECSTRPT	KRG_ERRORS_COST_REPORT	116	121	278
KRGAAEXPAV	KRG_EXPERT_ADVICE	2169	2172	2209
KRGZHEVENT	KRG_HSEND_LIST_EVENT_INFORMATION	238	239	291
KRGTPDEG1	KRG_HSMTAPE_ERROR_GROUP1	99	100	152
KRGTPDEG2	KRG_HSMTAPE_ERROR_GROUP2	202	207	259
KRGTPSUM	KRG_HSM_TAPE_ERROR_SUMMARY	153	154	236
KRGZLEVENT	KRG_LISTCAT_EVENT_INFORMATION	245	246	298
KRGMCDG1	KRG_MCDS_ERROR_GROUP1	282	289	341
KRGMCDG2	KRG_MCDS_ERROR_GROUP2	313	317	354
KRGMCDG3	KRG_MCDS_ERROR_GROUP3	99	100	152
KRGMCDG4	KRG_MCDS_ERROR_GROUP4	270	273	310
KRGMCDG5	KRG_MCDS_ERROR_GROUP5	133	139	206
KRGMCDG6	KRG_MCDS_ERROR_GROUP6	197	203	285
KRGMCDG7	KRG_MCDS_ERROR_GROUP7	278	284	336
KRGMCDG7V5	KRG_MCDS_ERROR_GROUP7_V5	219	223	275
KRGMCDG8	KRG_MCDS_ERROR_GROUP8	213	216	283
KRGMCDG9	KRG_MCDS_ERROR_GROUP9	227	230	267
KRGMDSBAUD	KRG_MIGRATED_DSNS_NEED_BKUP_AUDIT	236	245	297
KRGMCDSUM	KRG_MIGRATION_CONTROL_DATA_SET_ERROR_SUMMARY	153	154	236
KRGMDSAUD	KRG_MIGRATION_DATA_SET_AUDIT	218	227	309
KRGOCDEG1	KRG_OCDS_ERROR_GROUP1	264	272	309
KRGOCDEG2	KRG_OCDS_ERROR_GROUP2	208	214	251
KRGOCDEG3	KRG_OCDS_ERROR_GROUP3	140	144	211
KRGOCDEG4	KRG_OCDS_ERROR_GROUP4	140	144	211

Table 1. Capacity planning for historical data logged by component Advanced Audit for DFSMSHsm (continued)

Table	Attribute group	Bytes per instance (agent)	Database bytes per instance (warehouse)	Aggregate bytes per instance (warehouse)
KRGOCDEG5	KRG_OCDS_ERROR_GROUP5	140	144	211
KRGOCDEG6	KRG_OCDS_ERROR_GROUP6	106	109	146
KRGOCDSUM	KRG_OFFLINE_CONTROL_DATA_SET_ERROR_SUMMARY	153	154	236
KRGPOBJST	KRG_PERFORMANCE_OBJECT_STATUS	288	289	326
KRGSMSERR	KRG_SMS_ERRORS	185	186	223
KRGMSERDC	KRG_SMS_ERRORS_DATA_CLASS	185	186	223
KRGMSERSC	KRG_SMS_ERRORS_STORAGE_CLASS	185	186	223
KRGMSERSG	KRG_SMS_ERRORS_STORAGE_GROUP	185	186	223
KRGSMSSUMM	KRG_SMS_ERRORS_SUMMARY	145	144	196
KRGVDSBAUD	KRG_VSAM_DSNS_NEED_BKUP_AUDIT	262	273	325

For more information about historical data collection, see the *IBM Tivoli Monitoring Administrator's Guide*.

Chapter 5. Situations reference

This section contains an overview of situations, references for detailed information about situations, and descriptions of the predefined situations that are included in this monitoring agent.

About situations

A *situation* is a logical expression involving one or more system conditions. Situations are used to monitor the condition of the systems on your network. You can manage situations from the Tivoli Enterprise Portal using the Situation Editor.

The monitoring agents that you use to monitor your system environment are delivered with a set of predefined situations that you can use as-is or you can create new situations to meet your requirements. Predefined situations contain attributes that check for system conditions common to many enterprises.

Using predefined situations can improve the speed with which you can begin using the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent. You can examine and, if necessary, change the conditions or values being monitored by a predefined situation to those best suited to your enterprise.

You can display predefined situations and create your own situations using the Situation Editor. The left frame of the Situation editor initially lists the situations associated with the Navigator item that you selected. When you click a situation name or create a new situation, the right frame opens with the following tabs:

Formula

Formula describing condition being tested.

Distribution

List of managed systems (operating systems, subsystems, or applications) to which the situation can be distributed. All of the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent managed systems are assigned by default.

Expert advice

Comments and instructions to be read in the event workspace.

Action

Command to be sent to the system.

Until

Options to close the event after a period of time, or when another situation becomes true.

The *IBM Tivoli Monitoring User's Guide* contains more information about predefined and custom situations and how to use them to respond to alerts.

For a list of the predefined situations for this monitoring agent and a description of each situation, see [“Predefined situations” on page 119](#).

Predefined situations

This monitoring agent contains the following predefined situations, which are organized by Navigator item.

- Backup Control Data Set Error Summary
 - KRG_BCDS_Critical_Error
- HSM Tape Error Summary
 - KRG_HSM_Tape_Critical_Errors
- Migration Control Data Set Error Summary
 - KRG_MCDS_Critical_Error
- Offline Control Data Set Error Summary

- KRG_OCDS_Critical_Error

The remaining sections of this chapter contain descriptions of each of these situations. The situations are organized by Navigator item. The following information is provided about each situation:

Description

Information about the conditions that the situation tests.

Attribute groups

Names of the attribute groups that contain the attributes from which the situation retrieves data samples.

Formula

Syntax that contains one or more logical expressions describing the conditions for the situation to monitor.

Run at startup

Whether the situation is automatically distributed to instances of the agent or is available for manual distribution.

Sampling interval

Number of seconds that elapses between one sample of data that the monitoring agent collects for the server and the next sample.

Situation persistence

Whether the conditions specified in the situation evaluate to "true" for the defined number of occurrences in a row before the situation is raised. The default of 1 means no persistence checking takes place.

Severity

Severity of the predefined events: Warning, Informational, or Critical.

Clearing conditions

Controls when a true situation closes: after a period of time, when another situation is true, or whichever occurs first if both are selected.

Backup Control Data Set Error Summary Navigator item

This Navigator item has one predefined situation.

KRG_BCDS_Critical_Error situation

Description

BCDS discrepancies found.

The situation will be evaluated for each distinct value of the BCSDIAGID attribute.

Formula

```
*IF ( ( *VALUE KRG_BACKUP_CONTROL_DATA_SET_ERROR_SUMMARY.BCSERRCNT *GT 0
*AND *STR KRG_BACKUP_CONTROL_DATA_SET_ERROR_SUMMARY.BCSDIAGID *EQ 5, 'C' )
*OR ( *VALUE KRG_BACKUP_CONTROL_DATA_SET_ERROR_SUMMARY.BCSERRCNT *GT 0 *AND
*STR KRG_BACKUP_CONTROL_DATA_SET_ERROR_SUMMARY.BCSDIAGID *EQ 5, 'V' ) )
```

See “Attribute groups and attributes for the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent” on [page 11](#) for descriptions of the attributes in this formula.

Run at startup

This situation is available for distribution.

Sampling interval

One minute.

Situation persistence

The number of times that the conditions of the situation must occur for the situation to be true is 1.

Severity

Critical

Clearing conditions

This situation clears when the condition becomes false.

HSM Tape Error Summary Navigator item

This Navigator item has one predefined situation.

KRG_HSM_Tape_Critical_Errors situation**Description**

HSM Tape Inventory discrepancies found.

The situation will be evaluated for each distinct value of the TPSDIAGID attribute.

Formula

```
*IF ( ( *VALUE KRG_HSM_TAPE_ERROR_SUMMARY.TPSERRCNT *GT 0
*AND *STR KRG_HSM_TAPE_ERROR_SUMMARY.TPSDIAGID *EQ 5, 'C' ) *OR
( *VALUE KRG_HSM_TAPE_ERROR_SUMMARY.TPSERRCNT *GT 0 *AND *STR
KRG_HSM_TAPE_ERROR_SUMMARY.TPSDIAGID *EQ 5, 'V' ) )
```

See [“Attribute groups and attributes for the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent” on page 11](#) for descriptions of the attributes in this formula.

Run at startup

This situation is available for distribution.

Sampling interval

One minute.

Situation persistence

The number of times that the conditions of the situation must occur for the situation to be true is 1.

Severity

Critical

Clearing conditions

This situation clears when the condition becomes false.

Migration Control Data Set Error Summary Navigator item

This Navigator item has one predefined situation.

KRG_MCDS_Critical_Error situation**Description**

MCDS discrepancies found.

The situation will be evaluated for each distinct value of the MCSDIAGID attribute.

Formula

```
*IF ( ( *VALUE KRG_MIGRATION_CONTROL_DATA_SET_ERROR_SUMMARY.MCSERRCNT *GT
0 *AND *STR KRG_MIGRATION_CONTROL_DATA_SET_ERROR_SUMMARY.MCSDIAGID *EQ
5, 'C' ) *OR ( *VALUE KRG_MIGRATION_CONTROL_DATA_SET_ERROR_SUMMARY.MCSERRCNT
*GT 0 *AND *STR KRG_MIGRATION_CONTROL_DATA_SET_ERROR_SUMMARY.MCSDIAGID *EQ
5, 'V' ) )
```

See [“Attribute groups and attributes for the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent” on page 11](#) for descriptions of the attributes in this formula.

Run at startup

This situation is available for distribution.

Sampling interval

One minute.

Situation persistence

The number of times that the conditions of the situation must occur for the situation to be true is 1.

Severity

Critical

Clearing conditions

This situation clears when the condition becomes false.

Offline Control Data Set Error Summary Navigator item

This Navigator item has one predefined situation.

KRG_OCDS_Critical_Error situation**Description**

OCDS discrepancies found.

The situation will be evaluated for each distinct value of the OCSDIAGID attribute.

Formula

```
*IF ( ( *VALUE KRG_OFFLINE_CONTROL_DATA_SET_ERROR_SUMMARY.OCSEERRCNT *GT 0
*AND *STR KRG_OFFLINE_CONTROL_DATA_SET_ERROR_SUMMARY.OCSDIAGID *EQ 5, 'C' )
*OR ( *VALUE KRG_OFFLINE_CONTROL_DATA_SET_ERROR_SUMMARY.OCSEERRCNT *GT 0 *AND
*STR KRG_OFFLINE_CONTROL_DATA_SET_ERROR_SUMMARY.OCSDIAGID *EQ 5, 'V' ) )
```

See [“Attribute groups and attributes for the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent” on page 11](#) for descriptions of the attributes in this formula.

Run at startup

This situation is available for distribution.

Sampling interval

One minute.

Situation persistence

The number of times that the conditions of the situation must occur for the situation to be true is 1.

Severity

Critical

Clearing conditions

This situation clears when the condition becomes false.

Chapter 6. Take Action commands reference

This section contains an overview of Take Action commands, references for detailed information about Take Action commands, and descriptions of the Take Action commands that are included in this monitoring agent.

About Take Action commands

Take Action commands can be run from the portal client or included in a situation or policy.

Take Action commands can be run from the portal client or included in a situation or a policy.

When included in a situation, the command runs when the situation becomes true. A Take Action command in a situation is also referred to as reflex automation. When you enable a Take Action command in a situation, you automate a response to system conditions. For example, you can use a Take Action command to send a command to restart a process on the managed system or to send a text message to a cell phone.

Advanced automation uses *policies* to perform actions, schedule work, and automate manual tasks. A policy comprises a series of automated steps called activities that are connected to create a workflow. After an activity is completed, Tivoli Enterprise Portal receives return code feedback, and advanced automation logic responds with subsequent activities prescribed by the feedback.

A basic Take Action command displays the return code of the operation in a message box that is displayed after the action completes or in a log file. After you close this window, no further information is available for this action.

For more information about working with Take Action commands, see the *IBM Tivoli Monitoring User's Guide*.

For a list of Take Action commands for this monitoring agent and description of each command, see [“Predefined Take Action commands” on page 123](#) section.

Predefined Take Action commands

The Advanced Audit for DFSMSHsm Monitoring Agent provides three predefined Take Action commands.

- HSEND_LIST_DSNAME
- HSEND_LIST_TTOC
- LISTCAT_ENT

The remaining sections of this chapter contain descriptions of these Take Action commands, which are listed alphabetically. For each Take Action command, a description of the command and a description of the information that is returned by the command is provided.

HSEND_LIST_DSNAME action

Use the HSEND_LIST_DSNAME action to list data set information from the MCDS and BCDS.

System command

To include the Take Action command in a situation or workflow policy, use the following syntax for the system command:

```
HSEND_LIST_DSNAME \  
    [DSNAME]  
    [WAIT]
```

You can use attribute substitution to supply the Take Action command arguments from the situation, for example:

```
SEND_LIST_DSNAME \  
[&{DSNAME}] \  
[&{WAIT}]
```

You can also use attribute substitution in a workflow policy though the format is slightly different:

```
HSEND_LIST_DSNAME \  
[&WaitOnSituation:DSNAME] \  
[&WaitOnSituation:WAIT]
```

Arguments

Name: DSNAME

Description: Required - Request a listing of the data set entry for the particular data set.

Default: None

Name: WAIT

Description: Optional - Indicates whether you want to wait for the command to complete.

Default: NO

Return codes

Return code: 0000

Return code type: OK

Operating systems: Linux 2.4 (Intel), Windows

Message ID: KRG0000

Message: Take Action was successfully issued.

Return code: 0004

Return code type: INSUFFICIENT_USER_AUTHORITY

Operating systems: Linux 2.4 (Intel), Windows

Message ID: KRG0004

Message: User ID Translation failed.

Return code: 0008

Return code type: GENERAL_ERROR

Operating systems: Linux 2.4 (Intel), Windows

Message ID: KRG0008

Message: Bad Parameter List.

Return code: 0012

Return code type: NOT_RUNNING

Operating systems: Linux 2.4 (Intel), Windows

Message ID: KRG0012

Message: Bad KRS Environment.

HSEND_LIST_TTOC action

Use the HSEND_LIST_TTOC action to list DFSMSHsm primary and backup volume information from the BCDS.

System command

To include the Take Action command in a situation or workflow policy, use the following syntax for the system command:

```
HSEND_LIST_TTOC \  
    [VOLSER]  
    [WAIT]
```

You can use attribute substitution to supply the Take Action command arguments from the situation, for example:

```
HSEND_LIST_TTOC \  
    [&{VOLSER}] \  
    [&{WAIT}]
```

You can also use attribute substitution in a workflow policy though the format is slightly different:

```
HSEND_LIST_DSNAME \  
    [&WaitOnSituation:DSNAME] \  
    [&WaitOnSituation:WAIT]
```

Arguments

Name: VOLSER

Description: Required - Request a listing of the volume for the particular volume.

Default: None

Name: WAIT

Description: Optional - Indicates whether you want to wait for the command to complete.

Default: NO

Return codes

Return code: 0000

Return code type: OK

Operating systems: Linux 2.4 (Intel), Windows

Message ID: KRG0000

Message: Take Action was successfully issued.

Return code: 0004

Return code type: INSUFFICIENT_USER_AUTHORITY

Operating systems: Linux 2.4 (Intel), Windows

Message ID: KRG0004

Message: User ID Translation failed.

Return code: 0008

Return code type: GENERAL_ERROR

Operating systems: Linux 2.4 (Intel), Windows

Message ID: KRG0008

Message: Bad Parameter List.

Return code: 0012

Return code type: NOT_RUNNING

Operating systems: Linux 2.4 (Intel), Windows

Message ID: KRG0012

Message: Bad KRS Environment.

LISTCAT_ENT action

Use the LISTCAT_ENT action to list entries from a catalog.

System command

To include the Take Action command in a situation or workflow policy, use the following syntax for the system command:

```
LISTCAT_ENT \  
[DSNAME]
```

You can use attribute substitution to supply the Take Action command arguments from the situation, for example:

```
LISTCAT_ENT \  
[&{DSNAME}]
```

You can also use attribute substitution in a workflow policy though the format is slightly different:

```
LISTCAT_ENT \  
[&WaitOnSituation:DSNAME]
```

Arguments

Name: DSNAME

Description: Required - Name of the data set to process.

Default: None

Return codes

Return code: 0000

Return code type: OK

Operating systems: Linux 2.4 (Intel), Windows

Message ID: KRG0000

Message: Take Action was successfully issued.

Return code: 0004

Return code type: INSUFFICIENT_USER_AUTHORITY

Operating systems: Linux 2.4 (Intel), Windows

Message ID: KRG0004

Message: User ID Translation failed.

Return code: 0008

Return code type: GENERAL_ERROR

Operating systems: Linux 2.4 (Intel), Windows

Message ID: KRG0008

Message: Bad Parameter List.

Return code: 0012

Return code type: NOT_RUNNING

Operating systems: Linux 2.4 (Intel), Windows

Message ID: KRG0012

Message: Bad KRS Environment.

Chapter 7. Policies reference

This section contains an overview of policies, references for detailed information about policies, and descriptions of the predefined policies that are included in this monitoring agent.

About policies

Policies are an advanced automation technique for implementing more complex workflow strategies than you can create through simple automation.

A *policy* is a set of automated system processes that can perform actions, schedule work for users, or automate manual tasks. You use the Workflow Editor to design policies. You control the order in which the policy executes a series of automated steps, which are also called activities. Policies are connected to create a workflow. After an activity is completed, Tivoli Enterprise Portal receives return code feedback and advanced automation logic responds with subsequent activities prescribed by the feedback.

This monitoring agent does not provide predefined policies. For more information about working with policies, see the *IBM Tivoli Monitoring User's Guide*.

For information about using the Workflow Editor, see the *IBM Tivoli Monitoring Administrator's Guide* or the Tivoli Enterprise Portal online help.

Predefined policies

The IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent does not provide predefined policies.

Chapter 8. Troubleshooting

This section provides agent-specific troubleshooting information.

See the *IBM Tivoli Monitoring Troubleshooting Guide* for general troubleshooting information. Also see [“Support information” on page 151](#) for other problem-solving options.

Note: You can resolve some problems by ensuring that your system matches the system requirements listed in [Chapter 2, “Requirements for the monitoring agent,” on page 3](#).

Built-in troubleshooting features

The primary troubleshooting feature in the IBM Tivoli Advanced Audit for DFSMSHsm is logging. *Logging* refers to the text messages and trace data generated by the IBM Tivoli Advanced Audit for DFSMSHsm. Messages and trace data are sent to a file.

Trace data captures transient information about the current operating environment when a component or application fails to operate as designed. IBM Software Support personnel use the captured trace information to determine the source of an error or unexpected condition. See [“Trace logging” on page 131](#) for more information.

Problem classification

There are four general types of problems that might occur with the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent.

- Installation and configuration
- General usage and operation
- Display of monitoring data
- Take Action commands

This chapter provides symptom descriptions and detailed workarounds for these problems and describes the logging capabilities of the monitoring agent. See the *IBM Tivoli Monitoring Troubleshooting Guide* for general troubleshooting information.

Trace logging

Trace logs capture information about the operating environment when component software fails to operate as intended.

The principal log type is the RAS (Reliability, Availability, and Serviceability) trace log. These logs are in the English language only. The RAS trace log mechanism is available for all components of IBM Tivoli Monitoring. Most logs are located in a `logs` subdirectory on the host computer. See the following sections to learn how to configure and use trace logging:

- [“Principal trace log files” on page 133](#)
- [“Setting RAS trace parameters” on page 137](#)

Note: The documentation refers to the RAS facility in IBM Tivoli Monitoring as “RAS1”.

IBM Software Support uses the information captured by trace logging to trace a problem to its source or to determine why an error occurred. All components in the IBM Tivoli Monitoring environment have a default tracing level. The tracing level can be changed on a per-component level to adjust the type of trace information collected, the degree of trace detail, the number of trace logs to be kept, and the amount of disk space used for tracing.

Overview of log file management

This section provides the names, locations, and descriptions of RAS1 log files.

The log file names adhere to the following naming convention:

Windows systems

```
hostname_productcode_program_HEXtimestamp-nn.log
```

Linux and UNIX systems

```
hostname_productcode_HEXtimestamp-nn.log
```

where:

- *hostname* is the host name of the computer where the monitoring component is running.
- *productcode* is the two-character product code. For IBM Tivoli Advanced Audit for DFSMSHsm, the product code is `rg`.
- *program* is the name of the program being run.
- *HEXtimestamp* is a hexadecimal time stamp representing the time at which the program started.
- *nn* is a rolling log suffix. See the *Examples of trace logging* section for detailed information about log rolling.

Principal trace log files

This topic explains the purpose and location of the principal log trace files.

Table 2. Trace log files for troubleshooting agents		
System where log is located	File name and path	Description
On the Tivoli Enterprise Monitoring Server	<ul style="list-style-type: none"> Windows: The file in the <i>install_dir</i>\InstallITM path UNIX: The <i>candle_installation.log</i> file in the <i>install_dir</i>/logs path 	<p>Provides details about products that are installed.</p> <p>Note: Trace logging is enabled by default. A configuration step is not required to enable this tracing.</p>
	The Warehouse_Configuration.log file is in the following location on Windows systems: <i>install_dir</i> \InstallITM	Provides details about the configuration of data warehousing for historical reporting.
	<p>The name of the RAS log file is as follows:</p> <ul style="list-style-type: none"> Windows: <i>install_dir</i>\logs\hostname_ms_timestamp-<i>nn</i>.log UNIX: <i>install_dir</i>/logs/hostname_productcode_timestamp.log <p>Note: File names for RAS1 logs include a hexadecimal time stamp.</p> <p>Also on UNIX, a log with a decimal time stamp is provided: <i>hostname_productcode_timestamp.log</i> and <i>hostname_productcode_timestamp.pidnnnnn</i> in the <i>install_dir</i>/logs path, where <i>nnnnn</i> is the process ID number.</p>	Traces activity on the monitoring server.

Table 2. Trace log files for troubleshooting agents (continued)

System where log is located	File name and path	Description
On the Tivoli Enterprise Portal Server	<p>The name of the RAS log file is as follows:</p> <ul style="list-style-type: none"> Windows: <i>install_dir\logs\hostname_cq_HEXtimestamp-nn.log</i> UNIX: <i>install_dir/logs/hostname_cq_HEXtimestamp-nn.log</i> <p>Note: File names for RAS1 logs include a hexadecimal time stamp.</p> <p>Also on UNIX, a log with a decimal time stamp is provided: <i>hostname_productcode_timestamp.log</i> and <i>hostname_productcode_timestamp.pidnnnnn</i> in the <i>install_dir/logs</i> path, where <i>nnnnn</i> is the process ID number.</p>	Traces activity on the portal server.
	<p>The teps_odbc.log file is located in the following path:</p> <ul style="list-style-type: none"> Windows: <i>install_dir\InstallITM</i> path. UNIX: <i>install_dir/logs</i> 	When you enable historical reporting, this log file traces the status of the warehouse proxy agent.

Table 2. Trace log files for troubleshooting agents (continued)

System where log is located	File name and path	Description
On the computer that hosts the monitoring agent	<p>The RAS1 log files are as follows:</p> <ul style="list-style-type: none"> • Windows: <i>hostname_rg_krgagent_HEXtimestamp-nn.log</i> in the <i>install_dir\tmaitm6\logs</i> directory • UNIX: <i>hostname_rg_HEXtimestamp-nn.log</i> in the <i>install_dir/logs</i> directory <p>These logs are in the following directories:</p> <ul style="list-style-type: none"> • Windows: <i>install_dir\tmaitm6\logs</i> • UNIX: <i>install_dir/logs</i> 	Traces activity of the monitoring agent.
	<p>These are the agent operations log files:</p> <ul style="list-style-type: none"> • <i>instance_hostname_RG.LG0</i> is the current log created when the agent was started • <i>instance_hostname_RG.LG1</i> is the backup of the previous log <p>These logs are in the following directory depending on the operating system that you are using:</p> <ul style="list-style-type: none"> • Windows: <i>install_dir\tmaitm6\logs</i> • UNIX: <i>install_dir/logs</i> 	<p>Shows whether the agent was able to connect to the monitoring server. Shows which situations are started and stopped, and shows other events while the agent is running. A new version of this file is generated every time the agent is restarted.</p> <p>IBM Tivoli Monitoring generates one backup copy of the *.LG0 file with the tag .LG1. View .LG1 to learn the following details regarding the previous monitoring session:</p> <ul style="list-style-type: none"> • Status of connectivity with the monitoring server. • Situations that were running. • The success or failure status of Take Action commands.
	<p>The Take Action command log files are as follows:</p> <ul style="list-style-type: none"> • <i>host_rg_takeactioncommand.log</i> <p>The logs are in the following directories:</p> <ul style="list-style-type: none"> • Windows: <i>install_dir\tmaitm6\logs</i> • UNIX: <i>install_dir/logs</i> • Linux: <i>install_dir/logs</i> 	Traces activity each time a Take Action command runs. For example, when a hypothetical start_command Take Action command runs, IBM Tivoli Monitoring generates a <i>start_command.log</i> file.

Table 2. Trace log files for troubleshooting agents (continued)

System where log is located	File name and path	Description
<p>Definitions for variables:</p> <ul style="list-style-type: none"> • <i>timestamp</i> is time stamp whose format includes year (y), month (m), day (d), hour (h), and minute (m), as follows: <code>yyyymmdd hhmm</code> • <i>HEXtimestamp</i> is a hexadecimal representation of the time at which the process was started. • <i>install_dir</i> represents the directory path where you installed the IBM Tivoli Monitoring component. <i>install_dir</i> can represent a path on the computer that host the monitoring system, the monitoring agent, or the portal. • <i>instance</i> refers to the name of the database instance that you are monitoring. • <i>hostname</i> refers to the name of the computer on which the IBM Tivoli Monitoring component runs. • <i>nn</i> represents the circular sequence in which logs are rotated. Ranges from 1-5, by default, although the first is always retained because it includes configuration parameters. • <i>productcode</i> specifies the product codes, for example, <code>um</code> for Universal Agent or <code>nt</code> for Windows. 		

See the *IBM Tivoli Monitoring Installation and Setup Guide* for more information on the complete set of trace logs that are maintained on the monitoring server.

Examples: using trace logs

You can open trace logs in a text editor to learn some basic facts about your IBM Tivoli Monitoring environment. The following examples are from the Tivoli Enterprise Monitoring Server log.

Example one

This excerpt shows the typical log for a failed connection between a monitoring agent and a monitoring server with the host name `server1a`.

```
(Thursday, August 11, 2005, 08:21:30-{94C}kdcl0c1.c,105,"KDCL0_ClientLookup") status=1c020006,
"location server unavailable", ncs/KDC1_STC_SERVER_UNAVAILABLE
(Thursday, August 11, 2005, 08:21:35-{94C}kraarreg.cpp,1157,"LookupProxy") Unable to connect to
broker at ip.pipe:: status=0, "success", ncs/KDC1_STC_OK
(Thursday, August 11, 2005, 08:21:35-{94C}kraarreg.cpp,1402,"FindProxyUsingLocalLookup") Unable
to find running CMS on CT_CMSLIST <IP.PIPE:#server1a>
```

Example two

The following excerpts from the trace log *for the monitoring server* show the status of an agent, identified here as `Remote node`. The name of the computer where the agent is running is `SERVER5B`.

```
(42C039F9.0000-6A4:kpxreqhb.cpp,649,"HeartbeatInserter") Remote node SERVER5B:RG is ON-LINE.
. . .
(42C3079B.0000-6A4:kpxreqhb.cpp,644,"HeartbeatInserter") Remote node SERVER5B:RG is OFF-LINE.
```

Key points regarding the preceding excerpt:

- The monitoring server appends the RG product code to the server name to form a unique name (`SERVER5B:RG`) for this instance of the IBM Tivoli Advanced Audit for DFSMSshm Monitoring Agent. This unique name enables you to distinguish multiple monitoring products that might be running on `SERVER5B`.
- The log shows when the agent started (ON-LINE) and later stopped (OFF-LINE) in the environment.
- For the sake of brevity an ellipsis (. . .) represents the series of trace log entries that were generated while the agent was running.
- Between the ON-LINE and OFF-LINE log entries, the agent was communicating with the monitoring server.

- The ON-LINE and OFF-LINE log entries are always available in the trace log. All trace levels that are described in [“Setting RAS trace parameters” on page 137](#) provide these entries.

On Windows, you can use the following alternative method to view trace logs:

1. Choose **Start > Program Files > IBM Tivoli Monitoring > Manage Tivoli Enterprise Monitoring Services**. The **Manage Tivoli Enterprise Monitoring Services** window is displayed.
2. Right-click a component and select **Advanced > View Trace Log** from the pop-up menu. For example, if you want to view the trace log of the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent, right-click the name of the that agent in the window. You can also use the viewer to access remote logs.

Note: The viewer converts time stamps in the logs to a format that is easier to read.

Setting RAS trace parameters

You can pinpoint a problem by setting detailed tracing of individual components of the monitoring agent and modules.

Task background

The IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent uses RAS1 tracing and generates the logs described in [“Principal trace log files” on page 133](#). The default RAS1 trace level is ERROR.

To ensure that you understand log rolling and can reference the correct log files when you manage log file generation, review the information that is provided in [“Overview of log file management” on page 132](#).

Monitor the size of the logs directory. Default behavior can generate a total of 45 to 60 MB for each agent that is running on a computer. For example, each database instance that you monitor can generate 45 to 60 MB of log data. See the *Using the graphical user interface to set trace options* section to learn how to adjust file size and numbers of log files to prevent logging activity from occupying too much disk space.

Unlike the RAS1 log files that are pruned automatically, other log types in the logs directory can grow indefinitely, for example, the logs that are described in [“Principal trace log files” on page 133](#) that include a process ID number (PID). Prune these non-RAS1 log files regularly.

Consider using collector trace logs as an additional source of troubleshooting information.

Note: The KDC_DEBUG setting and the Maximum error tracing setting can generate a large amount of trace logging. Use them only temporarily, while you are troubleshooting problems. Otherwise, the logs can occupy excessive amounts of hard disk space.

Using the graphical user interface to set trace options

1. Open the Manage Tivoli Enterprise Monitoring Services window.
2. Right-click the icon of the monitoring agent whose logging you want to modify.
3. Select **Advanced > Edit Trace Parm**s. The Tivoli Enterprise Monitoring Server Trace Parameters window is displayed.
4. Select a new trace setting in the pull-down menu in the **Enter RAS1 Filters** field or type a valid string.

Trace option statement	Description
KBB_RAS1=ERROR	General error tracing
KBB_RAS1=ERROR (UNIT:kqz ALL)	Intensive error tracing
KBB_RAS1=ERROR (UNIT:kqz ALL) (UNIT:kra ALL)	Maximum error tracing Note: As this example shows, you can set multiple RAS tracing options in a single statement.

5. Modify the value for **Maximum Log Size Per File (MB)** to change the log file size (changes LIMIT value).
 6. Modify the value for **Maximum Number of Log Files Per Session** to change the number of log files per startup of a program (changes COUNT value).
 7. Modify the value for **Maximum Number of Log Files Total** to change the number of log files for all startups of a program (changes MAXFILES value).
 8. If you want to log information that can help you diagnose communications and connectivity problems between the monitoring agent and the monitoring server, click **Y (Yes)** in the **KDC_DEBUG Setting**. Otherwise, ignore this step.
- Note:** The **KDC_DEBUG** setting and the maximum error tracing setting can generate a large amount of trace logging. Use them only temporarily, while you are troubleshooting problems. Otherwise, the logs can occupy excessive amounts of hard disk space.
9. Click **OK**. You see a message reporting a restart of the monitoring agent so that your changes take effect.

Using manual edits to set trace options

As an alternative to using the graphical user interface, you can perform manual edits to set the trace options.

1. Open the trace options file:
 - Windows: *install_dir\tmaitm6\KRGENV*
 - UNIX: *install_dir/config/rg.ini*
2. Edit the line that begins with KBB_RAS1= to set trace logging preferences. For example, if you want detailed trace logging, set the Maximum Tracing option: KBB_RAS1=ERROR (UNIT:kqz ALL) (UNIT:kra ALL)
3. Edit the line that begins with KBB_RAS1_LOG= to manage the generation of log files:

Parameter	Description
MAXFILES	Total number of files that are to be kept for all startups of a given program. When this value is exceeded, the oldest log files are discarded. Default value is 9.
LIMIT	The maximum size, in megabytes (MB), of a RAS1 log file. Default value is 5.

Note: The KBB_RAS1_LOG parameter also provides for the specification of the log file directory, log file name, and the inventory control file directory and name. Do not modify these values or log information can be lost.

4. Restart the monitoring agent so that your changes take effect.

Problems and workarounds

This section describes agent-specific troubleshooting information.

These topics provide information about an agent-specific problem category:

- [“Installation and configuration troubleshooting” on page 139](#)
- [“Remote deployment troubleshooting” on page 141](#)
- [“Agent troubleshooting” on page 142](#)
- [“Workspace troubleshooting” on page 144](#)
- [“Situation troubleshooting” on page 146](#)

Note: You can resolve some problems by ensuring that your system matches the system requirements that are listed in [Chapter 2, “Requirements for the monitoring agent,”](#) on page 3.

For general troubleshooting information, refer to the *IBM Tivoli Monitoring Troubleshooting Guide*.

Installation and configuration troubleshooting

This section provides tables that show solutions for installation, configuration, and uninstallation problems.

Problems and solutions for installation and configuration

Table 3. Problems and solutions for installation and configuration	
Problem	Solution
<p>(UNIX only) During a command-line installation, you choose to install a component that is already installed, and you see the following warning: WARNING - you are about to install the SAME version of <i>component_name</i>, where <i>component_name</i> is the name of the component that you are attempting to install.</p> <p>Note: This problem affects UNIX command-line installations. If you monitor only Windows environments, you see this problem if you choose to install a product component (for example, a monitoring server) on UNIX.</p>	<p>You must exit and restart the installation process. You cannot return to the list where you selected components to install. When you run the installer again, do not attempt to install any component that is already installed.</p>
<p>A problem can arise when you install and configure a new monitoring agent on a computer where other agents are running, as described in this example:</p> <ul style="list-style-type: none">• Agents are running on computer and communicating with a Tivoli Enterprise Monitoring Server, called TEMS1.• You install a new agent on the same computer and you want this agent to communicate with a different monitoring server, called TEMS2.• When you configure the new agent to communicate with TEMS2, all the existing agents are re-configured to communicate with TEMS2.	<p>You must reconfigure the previously existing agents to restore their communication connection with TEMS1. For example, you can right-click the row for a specific agent in the Manage Tivoli Enterprise Monitoring Services, and select Reconfigure. See the <i>IBM Tivoli Monitoring Installation and Setup Guide</i> for more information on reconfiguration.</p>

Table 3. Problems and solutions for installation and configuration (continued)

Problem	Solution
Diagnosing problems with product browse settings (Windows systems only)	<p>When you have problems with browse settings, perform the following steps:</p> <ol style="list-style-type: none"> 1. Click Start > Programs > IBM Tivoli Monitoring > Manage Tivoli Enterprise Monitoring Services. The Manage Tivoli Enterprise Monitoring Services window is displayed. 2. Right-click the Windows agent and select Browse Settings. A text window is displayed. 3. Click Save As and save the information in the text file.
A message similar to Unable to find running CMS on CT_CMSLIST is displayed in the log file.	<p>If a message similar to Unable to find running CMS on CT_CMSLIST is displayed in the Log file, the agent is not able to connect to the monitoring server. Confirm the following points:</p> <ul style="list-style-type: none"> • Do multiple network interface cards (NICs) exist on the system? • If multiple NICs exist on the system, find out which one is configured for the monitoring server. Ensure that you specify the correct host name and port settings for communication in the IBM Tivoli Monitoring environment.
The system is experiencing high CPU usage.	<p>Agent process: View the memory usage of the KRGCM process. If CPU usage seems to be excessive, recycle the monitoring agent.</p> <p>Network Cards: The network card configurations can decrease the performance of a system. Each of the stream of packets that a network card receives (assuming it is a broadcast or destined for the under-performing system) must generate a CPU interrupt and transfer the data through the I/O bus. If the network card in question is a bus-mastering card, work can be offloaded and a data transfer between memory and the network card can continue without using CPU processing power. Bus-mastering cards are generally 32-bit and are based on PCI or EISA bus architectures.</p>

Table 4. General problems and solutions for uninstallation

Problem	Solution
On Windows, uninstallation of IBM Tivoli Monitoring fails to uninstall the entire environment.	<p>Be certain that you follow the general uninstallation process that is described in the <i>IBM Tivoli Monitoring Installation and Setup Guide</i>:</p> <ol style="list-style-type: none"> 1. Remove Tivoli Enterprise Monitoring Server Application support by completing the following steps: <ol style="list-style-type: none"> a. Use Manage Tivoli Enterprise Monitoring Services. b. Select Tivoli Enterprise Monitoring Server. c. Right-click and select Advanced. d. Select Remove TEMS application support. e. Select the agent to remove its application support. 2. Uninstall monitoring agents first, using one of the following methods: <ul style="list-style-type: none"> • Uninstall a single monitoring agent for a specific database. • Uninstall all instances of a monitoring product, such as IBM Tivoli Monitoring for Databases. 3. Uninstall IBM Tivoli Monitoring.
It is not obvious how to remove inactive managed systems (systems whose status is OFFLINE) from the Navigator tree in the portal.	<p>Use the following steps to remove, but not uninstall, an offline managed system from the Navigator tree:</p> <ol style="list-style-type: none"> 1. Click the Enterprise icon in the Navigator tree. 2. Right-click, then click Workspace > Managed System Status. 3. Right-click the offline managed system, and select Clear offline entry. <p>If you also want to uninstall the monitoring agent, use the procedure described in the <i>IBM Tivoli Monitoring Installation and Setup Guide</i>.</p>

Remote deployment troubleshooting

This section provides information about troubleshooting remote deployment of the monitoring agent. The information includes problem descriptions and solutions for remote deployment and using Agent Remote Deploy for removal of agent software.

See the *IBM Tivoli Monitoring Troubleshooting Guide* for general troubleshooting information.

Table 5. Remote deployment problems and solutions

Problem	Solution
While you are using the remote deployment feature to install the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent, an empty command window is displayed on the target computer. This problem occurs when the target of remote deployment is a Windows computer. (See the <i>IBM Tivoli Monitoring Installation and Setup Guide</i> for more information on the remote deployment feature.)	Do not close or modify this window. It is part of the installation process and is dismissed automatically.

Table 5. Remote deployment problems and solutions (continued)

Problem	Solution
The removal of a monitoring agent fails when you use the remote removal process in the Tivoli Enterprise Portal desktop or browser.	This problem might occur when you attempt the remote removal process immediately after you have restarted the Tivoli Enterprise Monitoring Server. You must allow time for the monitoring agent to refresh its connection with the Tivoli Enterprise Monitoring Server before you begin the remote removal process.

Agent troubleshooting

This section describes problems that might occur with agents and provides possible solutions.

This section discusses agent-specific troubleshooting information. For general troubleshooting information, see the *IBM Tivoli Monitoring Troubleshooting Guide*.

Table 6. Agent problems and solutions

Problem	Solution
Log data accumulates too rapidly.	Check the RAS trace option settings, which are described in “Setting RAS trace parameters” on page 137. The trace options settings that you set on the BKK_RAS1= and KDC_DEBUG= lines potentially generate large amounts of data.
When you use the F1 key or select Help > Contents and Index , you receive a message in your Microsoft Internet Explorer browser which states, It seems javascript is disabled in your browser, please enable it and reload again, or click here to view without javascript. If you click the here link, the Tivoli Enterprise Portal V6.3 Help is displayed, but the agent help is not.	Ensure that the local site is added to the trusted site for the browser, and then enable the JavaScript.
If you want to receive multiple trace logs for separate invocations of the same Take Action command, leaving this setting on permanently fills the available disk space.	Do not leave this setting on permanently. By doing so, you create a new log file for each invocation of the Take Action command and <i>all</i> of them are left on the agent system.

Table 6. Agent problems and solutions (continued)

Problem	Solution
<p>A configured and running instance of the monitoring agent is not displayed in the Tivoli Enterprise Portal, but other instances of the monitoring agent on the same system do appear in the portal.</p>	<p>Tivoli Monitoring products use Remote Procedure Call (RPC) to define and control product behavior. RPC is the mechanism that allows a client process to make a subroutine call (such as GetTimeOfDay or ShutdownServer) to a server process somewhere in the network. Tivoli processes can be configured to use TCP/UDP, TCP/IP, SNA, and SSL as the desired protocol (or delivery mechanism) for RPCs.</p> <p>IP . PIPE is the name given to Tivoli TCP/IP protocol for RPCs. The RPCs are socket-based operations that use TCP/IP ports to form socket addresses. IP.PIPE implements virtual sockets and multiplexes all virtual socket traffic across a single physical TCP/IP port (visible from the netstat command).</p> <p>A Tivoli process derives the physical port for IP.PIPE communications based on the configured, well-known port for the HUB Tivoli Enterprise Monitoring Server. (This well-known port or BASE_PORT is configured using the PORT: keyword on the KDC_FAMILIES / KDE_TRANSPORT environment variable and defaults to '1918'.)</p> <p>The physical port allocation method is defined as $(BASE_PORT + 4096 * N)$, where $N=0$ for a Tivoli Enterprise Monitoring Server process and $N=\{1, 2, \dots, 15\}$ for a non-Tivoli Enterprise Monitoring Server. Two architectural limits result as a consequence of the physical port allocation method:</p> <ul style="list-style-type: none"> • No more than one Tivoli Enterprise Monitoring Server reporting to a specific Tivoli Enterprise Monitoring Server HUB can be active on a system image. • No more than 15 IP.PIPE processes can be active on a single system image. <p>A single system image can support any number of Tivoli Enterprise Monitoring Server processes (address spaces) provided that each Tivoli Enterprise Monitoring Server on that image reports to a different HUB. By definition, there is one Tivoli Enterprise Monitoring Server HUB per monitoring Enterprise, so this architecture limit has been simplified to one Tivoli Enterprise Monitoring Server per system image.</p> <p>No more than 15 IP.PIPE processes or address spaces can be active on a single system image. With the first limit expressed above, this second limitation refers specifically to Tivoli Enterprise Monitoring Agent processes: no more than 15 agents per system image.</p>

Table 6. Agent problems and solutions (continued)

Problem	Solution
A configured and running instance of the monitoring agent is not displayed in the Tivoli Enterprise Portal, but other instances of the monitoring agent on the same system do appear in the portal. (continued)	This limitation can be circumvented (at current maintenance levels, IBM Tivoli Monitoring V6.3 Fix Pack 4 and later) if the Tivoli Enterprise Monitoring Agent process is configured to use EPHEMERAL IP.PIPE. (This is IP.PIPE configured with the EPHEMERAL : Y keyword in the KDC_FAMILIES / KDE_TRANSPORT environment variable). There is no limitation to the number of ephemeral IP.PIPE connections per system image. If ephemeral endpoints are used, the Warehouse Proxy Agent is accessible from the Tivoli Enterprise Monitoring Server associated with the agents using ephemeral connections either by running the Warehouse Proxy Agent on the same computer or by using the Firewall Gateway feature. (The Firewall Gateway feature relays the Warehouse Proxy Agent connection from the Tivoli Enterprise Monitoring Server computer to the Warehouse Proxy Agent computer if the Warehouse Proxy Agent cannot coexist on the same computer.)

Workspace troubleshooting

This section provides agent-specific troubleshooting information for workspaces.

See the *IBM Tivoli Monitoring Troubleshooting Guide* for general troubleshooting information.

The following table shows problems that might occur with workspaces and proposes possible solutions for each.

Table 7. Workspace problems and solutions

Problem	Solution
The process application components are available, but the Availability status shows PROCESS_DATA_NOT_AVAILABLE.	<p>This problem occurs because the PerfProc performance object is disabled. When this condition exists, IBM Tivoli Monitoring cannot collect performance data for this process. Do the following to confirm that this problem exists and resolve it:</p> <ol style="list-style-type: none"> 1. Choose Run from the Windows Start menu. 2. Type <code>perfmon.exe</code> in the Open field of the Run window. The Performance window is displayed. 3. Click the plus sign (+) in the tool bar located above the right pane. The Add Counters window is displayed. 4. Look for Process in the Performance Object pull-down menu. 5. Perform one of the following actions: <ul style="list-style-type: none"> • If you see Process in the Performance Object pull-down menu, the PerfProc performance object is enabled and the problem is coming from a different source. You might need to contact IBM Software Support. • If you do not see Process in the Performance Object pull-down menu, use the troubleshooting information from this web site to enable the PerfProc performance object: http://www.ibm.com/support/knowledgecenter/SSTFXA_6.3.0/com.ibm.itm.doc_6.3/oswin/agent_pd_nt_ug.htm. <p>The Process performance object becomes visible in the Performance object pull-down menu of the Add Counters windows, and IBM Tivoli Monitoring is able to detect Availability data.</p> 6. Restart the monitoring agent.
The name of the attribute does not display in a bar chart or graph view.	<p>When a chart or graph view that includes the attribute is scaled to a small size, a blank space is displayed instead of a truncated name. To see the name of the attribute, expand the view of the chart until there is sufficient space to display all characters of the attribute name.</p>
You start collection of historical data but the data cannot be seen.	<p>Managing options for historical data collection:</p> <ul style="list-style-type: none"> • Basic historical data collection populates the Warehouse with raw data. This type of data collection is turned off by default. See the <i>IBM Tivoli Monitoring Administrator's Guide</i> for information about managing this feature, including how to set the interval at which data is collected. By setting a more frequent interval for data collection, you reduce the load on the system that is incurred every time that data is uploaded. • You use the Summarization and Pruning monitoring agent to collect specific amounts and types of historical data. Be aware that historical data is not displayed until the Summarization and Pruning monitoring agent begins collecting the data. By default, this agent begins collection at 2 AM daily. At that point, data is visible in the workspace view. See the <i>IBM Tivoli Monitoring Administrator's Guide</i> to learn how to modify the default collection settings.

Table 7. Workspace problems and solutions (continued)

Problem	Solution
Historical data collection is unavailable because of incorrect queries in the Tivoli Enterprise Portal.	<p>The column, Sort By, Group By, and First/Last functions are not compatible with the historical data collection feature. Use of these advanced functions makes a query ineligible for historical data collection.</p> <p>Even if data collection has been started, you cannot sue the time space feature if the query for the chart of table includes column functions or advanced query options (Sort By, Group By, First/Last).</p> <p>To ensure support of historical data collection, do not use the Sort By, Group By, or First/Last functions in your queries.</p> <p>See the <i>IBM Tivoli Monitoring Administrator's Guide</i> or the Tivoli Enterprise Portal online help for information about the Historical Data Collection function.</p>
When you use a long process name in the situation, the process name is truncated.	Truncation of process or service names for situations in the Availability table in the portal display is the expected behavior. 100 bytes is the maximum name length.
Regular (non-historical) monitoring data fails to be displayed.	Check the formation of the queries you use to gather data. For example, look for invalid SQL statements.
Navigator items and workspace titles are labeled with internal names, such as kr6:KR60000 or Knt:KNT0000, rather than the correct names (such as Disk).	<p>Ensure that application support has been added on the monitoring server, portal server, and portal client.</p> <p>For more information and instruction on installing application support, see <i>Installing and enabling application support</i> in the <i>IBM Tivoli Monitoring Installation and Setup Guide</i>.</p>

Situation troubleshooting

This section provides information about both general situation problems and problems with the configuration of situations.

For more information about situation troubleshooting, see the *IBM Tivoli Monitoring Troubleshooting Guide*.

General situation problems

Table 8. General situation problems and solutions

Problem	Solution
Monitoring activity requires too much disk space.	Check the RAS trace logging settings that are described in “Setting RAS trace parameters” on page 137. For example, trace logs grow rapidly when you apply the ALL logging option.
Monitoring activity requires too many system resources.	“Disk capacity planning for historical data” on page 116 describes the performance impact of specific attribute groups. If possible, decrease your use of the attribute groups that require greater system resources.

Table 8. General situation problems and solutions (continued)

Problem	Solution
<p>A formula that uses mathematical operators appears to be incorrect. For example, if you were monitoring Linux, a formula that calculates when Free Memory falls under 10 percent of Total Memory does not work:</p> <pre>LT #'Linux_VM_Stats.Total_Memory' / 10</pre>	<p>This formula is incorrect because situation predicates support only logical operators. Your formulas cannot have mathematical operators.</p> <p>Note: The Situation Editor provides alternatives to math operators. Regarding the example, you can select % Memory Free attribute and avoid the need for math operators.</p>
<p>You want to change the appearance of situations when they are displayed in the Navigation tree.</p>	<ol style="list-style-type: none"> 1. Right-click an item in the Navigation tree. 2. Select Situations in the pop-up menu. The Situation Editor window is displayed. 3. Select the situation that you want to modify. 4. Use the State pull-down menu in the lower right of the window to set the status and appearance of the Situation when it triggers. <p>Note: The State setting is not related to severity settings in IBM Tivoli Enterprise Console.</p>
<p>When a situation is triggered in the Event Log attribute group, it remains in the Situation Event Console as long as the event ID entry is present in the Event Log workspace. When this event ID entry is removed from the Event Log workspace on the Tivoli Enterprise Portal, the situation is also cleared even if the actual problem that caused the event is not resolved, and the event ID entry is also present in the Windows Event Viewer.</p>	<p>There is a timeout on the cache of events for the NT Event Log group. Increase the cache time of Event Log collection to meet your requirements by adding the following variable and timeout value to the KXXENV file for the agent:</p> <pre>CDP_NT_EVENT_LOG_CACHE_TIMEOUT=3600</pre> <p>This variable determines how long events from the NT Event Log are kept.</p>

Problems with configuration of situations

This section provides information for troubleshooting situation configuration problems. For more general troubleshooting information, see the *IBM Tivoli Monitoring Troubleshooting Guide*.

Table 9. Problems with configuring situations that you can resolve in the Situation Editor

Problem	Solution
<p>Note: To get started with the solutions that are provided in this section, perform these steps:</p> <ol style="list-style-type: none"> 1. Launch the Tivoli Enterprise Portal. 2. Click Edit > Situation Editor. 3. In the tree view, choose the agent whose situation you want to modify. 4. Choose the situation from the list to display the Situation Editor view. 	
<p>The situation for a specific agent is not visible in the Tivoli Enterprise Portal.</p>	<p>Open the Situation Editor. Access the All managed servers view. If the situation is absent, confirm that the monitoring server has been seeded for the agent. If not, seed the server, as described in the <i>IBM Tivoli Monitoring Installation and Setup Guide</i>.</p>
<p>The monitoring interval is too long.</p>	<p>Access the Situation Editor view for the situation that you want to modify. Check the Sampling interval area on the Formula tab. Adjust the time interval as needed.</p>

Table 9. Problems with configuring situations that you can resolve in the Situation Editor (continued)

Problem	Solution
The situation does not activate at startup.	<p>Manually recycle the situation as follows:</p> <ol style="list-style-type: none"> 1. Right-click the situation and choose Stop Situation. 2. Right-click the situation and choose Start Situation. <p>Note: You can permanently avoid this problem by placing a check mark in the Run at Startup option of the Situation Editor view for a specific situation.</p>
The situation is not displayed.	Click the Action tab and check whether the situation has an automated corrective action. This action can occur directly or through a policy. The situation might be resolving so quickly that you do not see the event or the update in the graphical user interface.
An Alert event has not occurred even though the predicate has been properly specified.	Check the logs, reports, and workspaces.
A situation fires on an unexpected managed object.	Confirm that you have distributed and started the situation on the correct managed system.
The product did not distribute the situation to a managed system.	Click the Distribution tab and check the distribution settings for the situation.

Table 9. Problems with configuring situations that you can resolve in the Situation Editor (continued)

Problem	Solution
The situation does not fire.	<p>This problem can be caused when incorrect predicates are present in the formula that defines the situation. For example, the managed object shows a state that normally triggers a monitoring event, but the situation is not true because the wrong attribute is specified in the formula.</p> <p>In the Formula tab, analyze predicates as follows:</p> <ol style="list-style-type: none"> Click the fx icon in the upper-right corner of the Formula area. The Show formula window is displayed. <ol style="list-style-type: none"> Confirm the following details in the Formula area at the top of the window: <ul style="list-style-type: none"> The attributes that you intend to monitor are specified in the formula. The situations that you intend to monitor are specified in the formula. The logical operators in the formula match your monitoring goal. The numerical values in the formula match your monitoring goal. Click the Show detailed formula check box in the lower left of the window to see the original names of attributes in the application or operating system that you are monitoring. Click OK to dismiss the Show formula window. (Optional) In the Formula area of the Formula tab, temporarily assign numerical values that immediately trigger a monitoring event. The triggering of the event confirms that other predicates in the formula are valid. <p>Note: After you complete this test, you must restore the numerical values to valid levels so that you do not generate excessive monitoring data based on your temporary settings.</p> <p>See the <i>IBM Tivoli Monitoring Troubleshooting Guide</i> for additional information about situations that do not fire.</p>

Table 10. Problems with configuration of situations that you can resolve in the Workspace area

Problem	Solution
Situation events are not displayed in the Events Console view of the workspace.	<p>Associate the situation with a workspace.</p> <p>Note: The situation does not need to be displayed in the workspace. It is sufficient that the situation be associated with any workspace.</p>

Table 10. Problems with configuration of situations that you can resolve in the Workspace area (continued)

Problem	Solution
You do not have access to a situation.	<p>Note: You must have administrator privileges to perform these steps.</p> <ol style="list-style-type: none"> 1. Select Edit > Administer Users to access the Administer Users window. 2. In the Users area, select the user whose privileges you want to modify. 3. In the Permissions tab, Applications tab, and Navigator Views tab, select the permissions or privileges that correspond to the user role. 4. Click OK.
A managed system seems to be offline.	<ol style="list-style-type: none"> 1. Select Physical View and highlight the Enterprise Level of the navigator tree. 2. Select View > Workspace > Managed System Status to see a list of managed systems and the status of each. 3. If a system is offline, check network connectivity and the status of the specific system or application.

Take Action commands troubleshooting

This section describes general problems that might occur with Take Action commands and provides information about the log files that are generated by Take Action commands.

This section provides agent-specific troubleshooting information. For general troubleshooting information, see the *IBM Tivoli Monitoring Troubleshooting Guide*.

Table 11. Take Action command problems and solutions

Problem	Solution
Take Action commands often require several minutes to complete.	Allow several minutes. If you do not see a pop-up message advising you that the action has been completed, try to run the command manually.
Situations fail to trigger Take Action commands.	Attempt to manually run the Take Action command in the Tivoli Enterprise Portal. If the Take Action command works, look for configuration problems in the situation. See “Situation troubleshooting” on page 146. If the Take Action command fails, see the <i>IBM Tivoli Monitoring Troubleshooting Guide</i> for general information on troubleshooting Take Action commands.

Tivoli Common Reporting troubleshooting

This section describes the problems that might occur with the Tivoli Common Reporting predefined reports for IBM Tivoli Advanced Audit for DFSMSHsm.

At present, there are no known problems with the Tivoli Common Reporting predefined reports for IBM Tivoli Advanced Audit for DFSMSHsm.

Support information

If you have a problem with your IBM software, you want to resolve it quickly. This section describes the ways that IBM provides the support that you need.

Online

Go to the IBM Software Support site at <http://www.ibm.com/software/support/probsub.html> and follow the instructions.

IBM Support Assistant

The IBM Support Assistant (ISA) is a free local software serviceability workbench that helps you resolve questions and problems with IBM software products. The ISA provides quick access to support-related information and serviceability tools for problem determination. To install the ISA software, go to <http://www.ibm.com/software/support/isa>

Informational, warning, and error messages

This section introduces message logging and explains how to gather information from those logs.

Message logging refers to the text and numeric messages created by the software. These messages relay information about how the system or application is performing and can alert you to exceptional conditions when they occur. Messages are sent to an output destination, such as a file, database, or console screen.

If you receive a warning or error message, you can do one of the following:

- Follow the instructions listed in the Detail window of the message if this information is included there.
- Consult the message details listed in this chapter to see what action you can take to correct the problem.
- Consult the message log for message ID and text, time and date of the message, as well as other data you can use to diagnose the problem.

Messages

IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent messages have a specific format.

All messages contain the following types of information:

- Message identifier
- Message text
- Explanation
- User response

The message identifier has the following format:

```
CCC####severity
```

where:

CCC

A prefix that indicates to which component the message applies. For the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent, that prefix is always KRG.

####

Message number.

severity

The severity of the message. There are four levels of severity:

I

Informational messages provide feedback about something that happened in the product or system that might be important. These messages can provide guidance when you are requesting a specific action from the product.

W

Warning messages call your attention to an exception condition. The condition might not be an error but can cause problems if the condition is not resolved.

E

Error messages indicate that an action cannot be completed because of a user or system error. These messages require user response.

S

Severe messages indicate a situation that is probably not user correctable and that could cause the process to fail. Consult the User Response information for a recommended course of action.

The text of the message provides a general statement regarding the problem or condition that occurred. The explanation provides additional information about the message and what might have caused the condition. The user response provides actions to take in response to the condition, particularly for error messages (messages with the *E* suffix).

Note: Many message texts and explanations contain variables, such as the specific name of a server or application. Those variables are represented in this chapter as symbols, such as &1. Actual messages contain values for these variables.

KRG0010E	Agent Initialization task - storage obtain failed for RSVT.
-----------------	--

Explanation:

The Rocket Agent Initialization task was unable to obtain storage for the RSVT (Rocket System Vector Table).

User response:

Contact Technical Support.

KRG0013E	Agent Initialization task - another copy of this product is already executing.
-----------------	---

Explanation:

The Rocket Agent Initialization task discovered that another copy of this product is already executing. The copy that was just started will terminate.

User response:

If the copy of the product was started in error, no further action is required. Otherwise, stop the product that is already running and start the new copy again.

KRG0020E	Dataspace <i>dspname</i> DSPSERV failed. RC=<i>retcode</i>, RSN=<i>reason</i>.
-----------------	---

Explanation:

The DSPSERV macro returned a non-zero return code while attempting to create a data space in which to store data records. The return and reason codes from the DSPSERV macro are contained within the message.

User response:

Contact Technical Support.

KRG0021I	Dataspace <i>dspname</i> created successfully. ALET=<i>alet</i>.
-----------------	---

Explanation:

The data space (which is used to store data records) was created successfully.

User response:

This is an informational message. No response is required.

KRG0022E	Dataspace <i>dspname</i> ALESERV failed. RC=<i>retcode</i>.
-----------------	--

Explanation:

The ALESERV macro returned a non-zero return code while attempting to create a data space in which to store data records. The return and reason codes from the ALESERV macro are contained within the message.

User response:

Contact Technical Support.

KRG0025E	No SMF Exit module passed to create resource.
-----------------	--

Explanation:

The name of the SMF module was not passed to the create resource service.

User response:

Contact Technical Support.

KRG0026E	No SMF Exit name passed to create resource.
-----------------	--

Explanation:

The name of the SMF Exit was not passed to the create resource service.

User response:

Contact Technical Support.

KRG0027E	SMF Exit <i>smfexit</i> failed to load. R15=<i>retcode</i>, R1=<i>reason</i>
-----------------	---

Explanation:

The SMF Exit could not be loaded by the create resource service.

User response:

Contact Technical Support.

KRG0028I **SMF Exit *smfexit* added successfully.**

Explanation:

The SMF Exit module was loaded and registered.

User response:

This is an informational message. No response is required.

KRG0029E **SMF Exit *smfexit* not defined.
RC=*retcode*, RSN=*reason*.**

Explanation:

An attempt to define the SMF Exit, using the CSVDYNEX macro, resulted in an error. The return and reason codes from the CSVDYNEX macro are displayed.

User response:

Contact Technical Support.

KRG0030W **SMF Exit *smfexit* already exists.
RC=*retcode*, RSN=*reason*.**

Explanation:

A copy of the SMF Exit already been loaded and registered, probably during a previous start of a TEMA.

User response:

This is an informational message. No response is required.

KRG0035E **Intercept module *module* load failed.**

Explanation:

The SMF Intercept module could not be loaded by the create resource service.

User response:

Contact Technical Support.

KRG0036I **Intercept module *module* loaded successfully.**

Explanation:

The SMF Intercept module was loaded and registered.

User response:

This is an informational message. No response is required.

KRG0040E **Unable to locate Dealer resource.**

Explanation:

The resource entry for SMF Dealer cannot be found on the resource queue.

User response:

Contact Technical Support.

KRG0041I **Agent task name *taskname* initialization complete.**

Explanation:

The TEMA has completed initialization and is waiting for requests.

User response:

This is an informational message. No response is required.

KRG0042I **Dealt SMF record type *type*.**

Explanation:

An SMF Record has been passed to the SMF Agent for processing. This is a diagnostic message that appears only when tracing is turned on.

User response:

This is an informational message. No response is required.

KRG0043W **Discarded SMF record type *type*.**

Explanation:

An SMF record has not been passed to the SMF Agent for processing because the record type is not required. This is a diagnostic message that appears only when tracing is turned on.

User response:

This is an informational message. No response is required.

KRG0044E **Agent task name *atask* data collection failed. RC=*retcode* ,
RSN=*reason*.**

Explanation:

While attempting to copy all requested records from the dataspace to local storage, an error occurred in the data collector.

User response:

Contact Technical Support.

KRG0045E **ATTACH failed for *module*.
RC=*retcode*.**

Explanation:

The Agent attempted to ATTACH a service module, however the return code from the ATTACH macro indicates that the ATTACH was not successful.

User response:

Contact Technical Support.

KRG0050E **Agent *atask* service *service* failed.
RC=*retcode*.**

Explanation:

An Agent service task has terminated with an error.

User response:

Stop and then restart the TEMA. If the problem persists, contact Technical Support.

KRG0051E **Required product *product* missing.**

Explanation:

The RSVT control block for the requested product could not be found.

User response:

Try stopping and then restarting the TEMA. If this is not successful, contact your service representative.

KRG0052I **TaskRequest *task request* was sent to base product.**

Explanation:

This message displays the command sent to the base product API. This is a diagnostic message that appears only when tracing is turned on.

User response:

This is an informational message. No response is required.

KRG0053I ***datatype* refreshed successfully
reccount records.**

Explanation:

Current data from the cache has been copied to the data collector. This is a diagnostic message that appears only when tracing is turned on.

User response:

This is an informational message. No response is required.

KRG0054I **Interface established to
messagename.**

Explanation:

An interface has been established with the base product API.

User response:

This is an informational message. No response is required.

KRG0055I **SMF record number for *api* is
smfnumber.**

Explanation:

The base product API is using the SMF record number specified for its SMF records.

User response:

This is an informational message. No response is required.

KRG0056E **Required *api* record number is
missing.**

Explanation:

The base product API has not returned an SMF record type to be used for its SMF records.

User response:

Contact Technical Support.

KRG0060I **Agent task name *task* heartbeat
established.**

Explanation:

A heartbeat message has been established between the data collector and the base product API.

User response:

This is an informational message. No response is required.

KRG0061I **Required data set *dsname* is
missing.**

Explanation:

A data set that is required for product operation was not found.

User response:

Check the installation instructions for additional data sets that might need to be added to the TEMA JCL. If all required data sets are present in the JCL, contact Technical Support.

KRG0063E **Unable to load *api*.**

Explanation:

The system was unable to load the module specified.

User response:

Contact Technical Support.

KRG0064E ***api* Load failed for module.
RC=*retcode*, RSN=*reason*.**

Explanation:

The system was unable to load the module specified. The return and reason codes from the LOAD macro are displayed in the message.

User response:

Contact Technical Support.

KRG0065I **Module *module* was loaded
successfully.**

Explanation:

The API module named in the message was successfully loaded.

User response:

This is an informational message. No response is required.

KRG0066E **Unable to create *IDC* Task
Resources.**

Explanation:

The Data Collector Tasks could not be created.

User response:

Contact Technical Support.

KRG0067I ***resource* Data Collector is active.**

Explanation:

The Resource named in the message was successfully initialized.

User response:

This is an informational message. No response is required.

KRG0068E *resource is stopping.*

Explanation:

The Resource named in the message is stopping due to a system shutdown in progress.

User response:

This is an informational message. No response is required.

KRG0070I *API returned retcode.*

Explanation:

The return code displayed in the message was returned from the API module.

User response:

This is an informational message. No response is required.

**KRG0080I *Record not added-
R5=errorcode. Queue_Lock=lock,
Queue_Max=qmax.***

Explanation:

A data record could not be added to the process queue because the queue is full. In the message, R5 is the record pointer, Queue_Lock is the current number of records in the queue, and Queue_Max is the maximum number of records allowed in the queue. This condition might be caused by a temporary storage problem.

User response:

Try restarting the TEMA. If restarting the TEMA does not resolve the problem, contact Technical Support.

**KRG0107I *iagent intercepted product DSN
Action Log Record.***

Explanation:

An SMF record has been intercepted for processing by the SMF Agent. This is a diagnostic message that appears only when tracing is turned on.

User response:

This is an informational message. No response is required.

KRG0111E *Cannot locate RSAG.*

Explanation:

The resource entry for a data collector cannot be found on the resource queue.

User response:

Contact Technical Support.

**KRG0112E *Create dataspace resource failed.
RC=retcode.***

Explanation:

The data storage dataspace could not be created.

User response:

Contact Technical Support.

**KRG0113E *Unable to create dataspace
resource.***

Explanation:

The data storage data space could not be created.

User response:

Contact Technical Support.

**KRG0115E *Unable to attach SMF Agent
resource.***

Explanation:

The SMF Agent resource could not be loaded using the ATTACH macro.

User response:

Contact Technical Support.

**KRG0116E *Unable to create SMF Exit
resource.***

Explanation:

The SMF Exit resource could not be created.

User response:

Contact Technical Support.

**KRG0117E *Unable to create Intercept
resource.***

Explanation:

The SMF Intercept resource could not be created.

User response:

Contact Technical Support.

**KRG0119E *Unable to create Data Collector
resource.***

Explanation:

The data collector resource could not be created.

User response:

Contact Technical Support.

**KRG0127I *Agent task name task initialization
complete.***

Explanation:

The Agent task completed initialization and is waiting for data to process.

User response:

This is an informational message. No response is required.

**KRG0151E *Required keyword keyword is
missing from filter.***

Explanation:

While processing the initial filter XML data, one or more required tags were not found.

User response:

Contact Technical Support.

KRG0153E	Agent task name <i>task storage</i> obtain failed.
Explanation: An attempt to obtain memory failed.	
User response: Determine whether there is a restrictive region size on the TEMA JCL. If this is not the case, contact Technical Support.	
KRG0160E	\$PAM function <i>function</i> failed. R15=retcode, R0=reason, R1=error.
Explanation: The \$PAM PDS access framework function has terminated with an error. The registers, which point to the cause of the error, are displayed.	
User response: Contact Technical Support.	
KRG0198E	Service <i>service</i> failed. RC=retcode, RSN=reason.
Explanation: An Agent service task has terminated with an error.	
User response: Stop and then restart the TEMA. If restarting the TEMA does not resolve the issue, contact Technical Support.	
KRG0199E	<i>message.</i>
Explanation: This is a generic diagnostic message.	
User response: The user response depends on the contents of the message. Contact Technical Support.	
KRG0200I	Incoming parameter[parmnum]=parm.
Explanation: This message displays the parameter information passed to the TEMA code.	
User response: This is an informational message. No response is required.	
KRG0201E	Error <i>error</i> processing product parameters, agent terminating.
Explanation: An error occurred during parameter processing.	
User response: Contact Technical Support.	
KRG0202E	Unable to set product to <i>prm1</i>, <i>prm2</i>, RC=retcode.
Explanation: An attempt to issue a framework SetProduct call has failed to complete.	

User response:
Contact Technical Support.

KRG0203I	Set product to <i>prm1</i>, <i>prm2</i>, RC=retcode.
Explanation: An attempt to issue a framework SetProduct was successful.	
User response: This is an informational message. No response is required.	
KRG0204E	Unable to set Hostname to <i>host</i>, RC=retcode.
Explanation: An attempt to issue a framework SetHost has failed to complete.	
User response: Contact Technical Support.	
KRG0205I	Set Hostname to <i>host</i>, RC=retcode.
Explanation: An attempt to issue a framework SetHost was successful.	
User response: This is an informational message. No response is required.	
KRG0206E	Error setting NodeType to <i>type</i>, RC=retcode.
Explanation: An attempt to issue a framework SetNodeType call has failed to complete.	
User response: Contact Technical Support.	
KRG0207I	SetNodeType to <i>type</i>, RC=retcode.
Explanation: An attempt to issue a framework SetNodeType was successful.	
User response: This is an informational message. No response is required.	
KRG0208E	Unable to set affinity <i>affinity</i>, RC=retcode.
Explanation: An attempt to issue a framework SetAffinity can has failed to complete.	
User response: Contact Technical Support.	
KRG0209E	SetAffinity <i>affinity</i>, RC=retcode.
Explanation:	

An attempt to issue a framework SetAffinity was successful.

User response:

This is an informational message. No response is required.

KRG0210E **Unable to set affinity version *affver*, RC=*retcode*.**

Explanation:

An attempt to issue a framework SetAffinityVersion has failed to complete.

User response:

Contact Technical Support.

KRG0211I **SetAffinity version *affver*, RC=*retcode*.**

Explanation:

An attempt to issue a framework SetAffinityVersion was successful.

User response:

This is an informational message. No response is required.

KRG0212E **Init table *table* failed. RC=*retcode*.**

Explanation:

An attempt to issue a framework table initialization has failed to complete.

User response:

Contact Technical Support.

KRG0220W **Unrecognized command *command*.**

Explanation:

A modify command that was issued to the TEMA task contained an unrecognized or unsupported command.

User response:

Verify that the command format is correct, and if it is not, correct the format error and reissue the command. If reissuing the command does not resolve the problem, contact Technical Support.

KRG0225I **Changing trace value from *fromval* to *toval*.**

Explanation:

A command to reset the trace level was executed successfully.

User response:

This is an informational message. No response is required.

KRG0226E **Trace value *trace* too large; trace value must in the range 0-255.**

Explanation:

A command to reset the trace level was not executed due to an incorrect value.

User response:

Verify that the command format is correct, and if it is not, correct the format error and reissue the command. If reissuing the command does not resolve the problem, contact Technical Support.

KRG0227E **Invalid trace command *commandoperand*.**

Explanation:

A command to reset the trace level was not executed due to an incorrect keyword or value.

User response:

Verify that the command format is correct, and if it is not, correct the format error and reissue the command. If reissuing the command does not resolve the problem, contact Technical Support.

KRG0228I **Trace is set to 0x *trace*.**

Explanation:

A command to reset the trace level was executed OK.

User response:

This is an informational message. No response is required.

KRG0229E **Error reading line *line* from member *member*.**

Explanation:

An error occurred trying to read a line from the RKANPAR Configuration member.

User response:

Verify that the data format in the member is correct, and if it is not, correct the format errors. If correcting the data format does not resolve the problem, contact Technical Support.

KRG0230I **Keyword=*keyword* Value=*value*.**

Explanation:

A line was read from the RKANPAR configuration member.

User response:

This is an informational message. No response is required.

KRG0231I **Replaced *oldvalue* value with *newvalue*.**

Explanation:

A value read from the RKANPAR configuration member was successfully applied.

User response:

This is an informational message. No response is required.

KRG0232E **Configuration member *member* could not be opened.**

Explanation:

The RKANPAR configuration member could not be opened.

User response:

Verify that the configuration member is present in the RKANPAR data set. If the configuration member is present in the RKANPAR data set, contact Technical Support.

KRG0235W **EXTDATA column *column* is not known.**

Explanation:

A value in the initial XML Filter EXTDATA column is unknown or unsupported.

User response:

Verify that the initial XML Filter data is correct and make the necessary corrections. If correcting the filter data does not resolve the problem, contact Technical Support.

KRG0236W **Filter column *column* not known.**

Explanation:

A column in the initial XML Filter EXTDATA column is unknown or unsupported.

User response:

Verify that the initial XML Filter data is correct; if necessary, make corrections to the filter data. If the filter data is correct and the problem persists, contact Technical Support.

KRG0237E **The SetCurrency call failed with RC=*retcode*.**

Explanation:

An attempt to issue a framework SetCurrency call has failed to complete.

User response:

Contact Technical Support.

KRG0238E **The RegisterCommandCallback call failed with RC=*retcode*.**

Explanation:

An attempt to issue a framework RegisterCommandCallback call has failed to complete.

User response:

Contact Technical Support.

KRG0239I **kramain RC=*retcode*.**

Explanation:

On shutdown, the TEMA Framework passed a return code to the cleanup routines.

User response:

This is an informational message. No response is required.

KRG0240E **IRA_Subnode_Register error, RC=*retcode*, Node=*node*.**

Explanation:

An attempt to issue a framework registerSubnode call has failed to complete.

User response:

Contact Technical Support.

KRG0241E **IRA_Subnode_SendRequest error, RC=*retcode*, Node=*node*.**

Explanation:

An attempt to issue a framework Subnode_sendRequest call has failed to complete.

User response:

Contact Technical Support.

KRG0250E **Error error processing product parameters, agent terminating.**

Explanation:

An error occurred while processing the product parameters. Other error messages issued prior to this message identify specific causes.

User response:

Contact Technical Support.

KRG0251E **RegisterAgents max RC=*retcode*.**

Explanation:

Errors were found while attempting to register the Agents. Other error messages issued prior to this message identify specific causes for this error.

User response:

Contact Technical Support.

KRG0252E ***queuenam* queue not set up.**

Explanation:

Either the requested error log queue has not yet been created or an incorrect name has been entered.

User response:

Verify that the error log requested exists and that is named correctly. If everything appears to be correct, contact Technical Support.

KRG0253E ***apiquery* Returned RC=*retcode*.**

Explanation:

A call to the base product API has terminated with an error. Other error messages issued prior to this message might identify specific causes for this error.

User response:

Contact Technical Support.

KRG0255E **Unable to allocate *bytes* bytes of memory.**

Explanation:

An attempt to obtain storage resulted in an error because no free storage was found.

User response:

Contact Technical Support.

KRG0260I *agent Entered - Built: date : time*

Explanation:

This is an Agent startup message that gives the date and time at which the Agent was built. This information is required by Technical Support if errors should occur.

User response:

This is an informational message. No response is required.

KRG0270W **Filter file *ddname* member *membername* could not be opened.**

Explanation:

The XML Filter Data File could not be opened. This is a warning message.

User response:

If you have not supplied any filter data, this message can safely be ignored. If you have supplied filter data, verify that the *ddname* is present in the Agent Proc and that the required member is present in that data set. If everything appears to be correct, contact Technical Support.

KRG0271E **Filter file *ddname* member *membername*: Error processing type before record *recnum*.**

Explanation:

While processing the Filter Data File, a syntax error was found in the data.

User response:

For the entry type preceding the record indicated in the message text, look for errors and make all necessary corrections, and then restart the TEMA. If everything appears to be correct and restarting the TEMA does not resolve the problem, contact Technical Support.

KRG0272W **Filter file *ddname* member *membername* maximum entries records exceeded.**

Explanation:

The maximum number of Filter Data Entries has been exceeded. The maximum is currently set at 100 entries.

User response:

Remove excessive entries from the data file.

Appendix A. IBM Tivoli Enterprise Console event mapping

Each event class corresponds to an attribute group in the IBM Tivoli Enterprise Console. For a description of the event slots for each event class, see the lists in this appendix.

For more information about mapping attribute groups to event classes, see the *IBM Tivoli Monitoring Administrator's Guide*.

Generic event mapping provides useful event class and attribute information for situations that do not have specific event mapping defined. BAROC files are found on the Tivoli Enterprise Monitoring Server in the installation directory in TECLIB (that is, *install_dir/cms/TECLIB* for Windows systems and *install_dir/tables/TEMS_hostname/TECLIB* for UNIX systems). IBM Tivoli Enterprise Console event synchronization provides a collection of ready-to-use rule sets that you can deploy with minimal configuration. Be sure to install IBM Tivoli Enterprise Console event synchronization to access the correct Sentry .baroc, which is automatically included during base configuration of IBM Tivoli Enterprise Console rules if you indicate that you want to use an existing rulebase. See the *IBM Tivoli Monitoring Installation and Setup Guide* for details.

Each of the event classes is a child of KRG_Base and is defined in the krg .baroc file. The KRG_Base event class can be used for generic rules processing for any event from the IBM Tivoli Advanced Audit for DFSMSshm Monitoring Agent.

For events generated by situations in the Agent Status Summary attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_AGENT_STATUS_SUMMARY class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- errseqnum: INTEGER
- errattgrp: STRING
- errmsg: STRING

For events generated by situations in the Backup Control Data Set Error Summary attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_BACKUP_CONTROL_DATA_SET_ERROR_SUMMARY class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- bcsdiagid: STRING
- bcsreccnt: INTEGER
- bcsdiagmsg: STRING
- bcserrcnt: INTEGER
- bcserrtyp: INTEGER

For events generated by situations in the BCDS Error Group1 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_BCDS_ERROR_GROUP1 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- bcd1diagid: STRING
- bcd1dsn: STRING
- bcd1hdsn: STRING
- bcd1bkdate: STRING

- bcd1vsam: INTEGER
- bcd1vsam_enum: STRING
- bcd1bkvers: INTEGER
- bcd1volser: STRING
- dsname: STRING
- volser: STRING
- bcd1vsam2: INTEGER
- bcd1vsam2_enum: STRING
- bcd1gnum: INTEGER

For events generated by situations in the BCDS Error Group10 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_BCDS_ERROR_GROUP10 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- errornum: STRING
- dsname: STRING
- mcbrseq: STRING
- mcbrkey: STRING
- prefix: STRING

For events generated by situations in the BCDS Error Group2 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_BCDS_ERROR_GROUP2 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- bcd2diagid: STRING
- bcd2dsn: STRING
- bcd2hdsn: STRING
- bcd2volser: STRING
- bcd2bkdate: STRING
- bcd2vsam: INTEGER
- bcd2vsam_enum: STRING
- bcd2tp: INTEGER
- bcd2tp_enum: STRING
- bcd2bkvers: INTEGER
- bcd2bkgen: INTEGER
- bcd2tapet: STRING
- bcd2ttxt: INTEGER
- bcd2privol: STRING
- dsname: STRING
- volser: STRING
- bcd2bkges: STRING
- bcd2tapete: STRING
- bcd2vsam2: INTEGER
- bcd2vsam2_enum: STRING
- bcd2tp2: INTEGER

- bcd2tp2_enum: STRING
- bcd2pfx: STRING

For events generated by situations in the BCDS Error Group3 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_BCDS_ERROR_GROUP3 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- bcd3diagid: STRING
- bcd3dsn: STRING
- bcd3hdsn: STRING
- bcd3volser: STRING
- bcd3bkdate: STRING
- bcd3vsam: INTEGER
- bcd3vsam_enum: STRING
- bcd3tp: INTEGER
- bcd3tp_enum: STRING
- bcd3vtocer: INTEGER
- dsname: STRING
- volser: STRING
- bcd3vsam2: INTEGER
- bcd3vsam2_enum: STRING
- bcd3tp2: STRING

For events generated by situations in the BCDS Error Group4 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_BCDS_ERROR_GROUP4 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- bcd4diagid: STRING
- bcd4dsn: STRING
- bcd4hdsn: STRING
- bcd4volser: STRING
- bcd4bkdate: STRING
- bcd4vsam: INTEGER
- bcd4vsam_enum: STRING
- bcd4tp: INTEGER
- bcd4tp_enum: STRING
- bcd4bkvers: INTEGER
- bcd4bkown: STRING
- dsname: STRING
- volser: STRING
- bcd4vsam2: INTEGER
- bcd4vsam2_enum: STRING
- bcd4tp2: INTEGER
- bcd4tp2_enum: STRING
- bcd4gnum: INTEGER

For events generated by situations in the BCDS Error Group5 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_BCDS_ERROR_GROUP5 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- bcd5diagid: STRING
- bcd5volser: STRING
- bcd5tapet: STRING
- bcd5dsnum: INTEGER
- volser: STRING
- bcd5pfx: STRING

For events generated by situations in the BCDS Error Group6 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_BCDS_ERROR_GROUP6 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- bcd6diagid: STRING
- bcd6volser: STRING
- bcd6tapet: STRING
- bcd6bcnt: INTEGER
- bcd6btcnt: INTEGER
- bcd6dtupd: STRING
- bcd6dtcre: STRING
- volser: STRING
- bcd6xvrecs: STRING
- bcd6xcrecs: STRING

For events generated by situations in the BCDS Error Group7 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_BCDS_ERROR_GROUP7 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- bcd7diagid: STRING
- bcd7migvol: STRING
- bcd7tapet: STRING
- bcd7ttxt: INTEGER
- bcd7dsflg: STRING
- bcd7dsptch: STRING
- bcd7dsoff: INTEGER
- bcd7fgoff: INTEGER
- bcd7aname: STRING
- bcd7tname: STRING

For events generated by situations in the BCDS Error Group8 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_BCDS_ERROR_GROUP8 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- bcd8diagid: STRING

- bcd8vol1: STRING
- bcd8type1: STRING
- bcd8stat1: STRING
- bcd8vol2: STRING
- bcd8type2: STRING
- bcd8stat2: STRING

For events generated by situations in the BCDS Error Group8 v5 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_BCDS_ERROR_GROUP8_V5 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- bcd8diagid: STRING
- volser: STRING
- bcd8type1: STRING
- bcd8cnt: INTEGER

For events generated by situations in the BCDS Error Group9 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_BCDS_ERROR_GROUP9 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- bcd9diagid: STRING
- bcd9vol1: STRING
- bcd9type1: STRING
- bcd9stat1: STRING
- bcd9vol2: STRING
- bcd9type2: STRING
- bcd9stat2: STRING

For events generated by situations in the Errors Cost Report attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_ERRORS_COST_REPORT class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- audtype: STRING
- cpucost: INTEGER
- tapecost: INTEGER
- errcnt: INTEGER
- estcdsr: INTEGER
- estcpus: INTEGER
- tapevols: INTEGER
- ecpcost: INTEGER
- etpecost: INTEGER

For events generated by situations in the Expert Advice attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_EXPERT_ADVICE class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- errid: STRING

- heading: STRING
- advice: STRING

For events generated by situations in the HSEND List Event Information attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_HSEND_LIST_EVENT_INFORMATION class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- command: STRING
- datetime: STRING
- userid: STRING
- result: STRING
- rowcnter: INTEGER

For events generated by situations in the HSM Tape Error Summary attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_HSM_TAPE_ERROR_SUMMARY class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- tpsdiagid: STRING
- tpsreccnt: INTEGER
- tpsdiagmsg: STRING
- tpserrcnt: INTEGER
- taperrtyp: INTEGER

For events generated by situations in the HSMTAPE Error Group1 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_HSMTAPE_ERROR_GROUP1 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- tpd1diagid: STRING
- tpd1volser: STRING
- tpd1tapet: STRING
- tpd1dsnum: INTEGER
- volser: STRING

For events generated by situations in the HSMTAPE Error Group2 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_HSMTAPE_ERROR_GROUP2 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- tpd2diagid: STRING
- tpd2volser: STRING
- tpd2tapet: STRING
- tpd2dsnum: INTEGER
- tpd2expire: STRING
- tpd2tdsn: STRING
- tpd2crjob: STRING

- volser: STRING
- dsname: STRING

For events generated by situations in the LISTCAT Event Information attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_LISTCAT_EVENT_INFORMATION class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- command: STRING
- datetime: STRING
- userid: STRING
- result: STRING
- rowcnter: INTEGER

For events generated by situations in the MCDS Error Group1 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_MCDS_ERROR_GROUP1 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- mcd1diagid: STRING
- mcd1dsn: STRING
- mcd1hdsn: STRING
- mcd1hvol: STRING
- mcd1vsam: INTEGER
- mcd1vsam_enum: STRING
- mcd1hlvl: INTEGER
- mcd1catvol: STRING
- mcd1catlg: STRING
- dsname: STRING
- mcd1hlvs: STRING
- mcd1vsam2: INTEGER
- mcd1vsam2_enum: STRING

For events generated by situations in the MCDS Error Group2 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_MCDS_ERROR_GROUP2 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- mcd2diagid: STRING
- mcd2clust: STRING
- mcd2comp: STRING
- mcd2halias: STRING
- mcd2catvol: STRING
- dsname: STRING
- volser: STRING
- mcd2mcat: STRING

For events generated by situations in the MCDS Error Group3 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_MCDS_ERROR_GROUP3 class. This class contains the following slots:

- node: STRING

- timestamp: STRING
- mcd3diagid: STRING
- mcd3volser: STRING
- mcd3tapet: STRING
- mcd3dsnum: INTEGER
- volser: STRING

For events generated by situations in the MCDS Error Group4 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_MCDS_ERROR_GROUP4 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- mcd4diagid: STRING
- mcd4dsn: STRING
- mcd4hvol: STRING
- mcd4catlg: STRING
- mcd4create: STRING
- dsname: STRING
- mcd4mcat: STRING

For events generated by situations in the MCDS Error Group5 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_MCDS_ERROR_GROUP5 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- mcd5diagid: STRING
- mcd5volser: STRING
- mcd5tapet: STRING
- mcd5bcnt: INTEGER
- mcd5btcnt: INTEGER
- mcd5dtupd: STRING
- mcd5dtcre: STRING
- mcd5btcntx: STRING
- mcd5bcntx: STRING
- volser: STRING

For events generated by situations in the MCDS Error Group6 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_MCDS_ERROR_GROUP6 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- mcd6diagid: STRING
- mcd6migvol: STRING
- mcd6tapet: STRING
- mcd6ttxt: INTEGER
- mcd6dsflg: STRING
- mcd6dsptch: STRING
- mcd6dsoff: INTEGER
- mcd6fgoff: INTEGER

- mcd6aname: STRING
- mcd6tname: STRING

For events generated by situations in the MCDS Error Group7 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_MCDS_ERROR_GROUP7 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- mcd7diagid: STRING
- mcd7dsn: STRING
- mcd7hdsn: STRING
- mcd7hvol: STRING
- mcd7vsam: INTEGER
- mcd7vsam_enum: STRING
- mcd7hlvl: INTEGER
- mcd7catvol: STRING
- mcd7catlg: STRING
- dsname: STRING
- mcd7hlvs: STRING

For events generated by situations in the MCDS Error Group7 v5 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_MCDS_ERROR_GROUP7_V5 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- mcd7diagid: STRING
- dsname: STRING
- mcd7emca: STRING
- volser: STRING
- mcd7vsam: INTEGER
- mcd7vsam_enum: STRING
- mcd7hlvl: INTEGER
- mcd7cvol: STRING
- mcd7pfx: STRING

For events generated by situations in the MCDS Error Group8 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_MCDS_ERROR_GROUP8 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- mcd8diagid: STRING
- dsname: STRING
- mcd8emca: STRING
- volser: STRING
- mcd8hlvl: INTEGER
- mcd8vtoce: INTEGER
- mcd8pfx: STRING

For events generated by situations in the MCDS Error Group9 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_MCDS_ERROR_GROUP9 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- mcd9diagid: STRING
- dsname: STRING
- mcd9mca: STRING
- volser: STRING
- mcd9vsam: INTEGER
- mcd9vsam_enum: STRING
- mcd9hvl: INTEGER
- mcd9hvl_enum: STRING
- mcd9calias: STRING

For events generated by situations in the Migrated Dsns Need Bkup Audit attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_MIGRATED_DSNS_NEED_BKUP_AUDIT class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- dsname: STRING
- mgmtclas: STRING
- chngflag: INTEGER
- chngflag_enum: STRING
- datecrea: STRING
- dateluse: STRING
- datelbku: STRING
- datemig: STRING
- miglvl: INTEGER
- smsmngd: INTEGER
- smsmngd_enum: STRING
- datecrea2: STRING
- dateluse2: STRING
- datelbku2: STRING
- datemig2: STRING

For events generated by situations in the Migration Control Data Set Error Summary attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_MIGRATION_CONTROL_DATA_SET_ERROR_SUMMARY class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- mcsdiagid: STRING
- mcsreccnt: INTEGER
- mcsdiagmsg: STRING
- mcserrcnt: INTEGER
- mcserrtyp: INTEGER

For events generated by situations in the Migration Data Set Audit attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_MIGRATION_DATA_SET_AUDIT class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- dsname: STRING
- thridx: INTEGER
- timesmig: INTEGER
- mgmtclas: STRING
- datemig: STRING
- daterecl: STRING
- datecrte: STRING
- miglvl: INTEGER
- valds: INTEGER
- valds_enum: STRING
- smsmngd: INTEGER
- smsmngd_enum: STRING
- datemig2: STRING
- daterecl2: STRING
- datecrte2: STRING

For events generated by situations in the OCDS Error Group1 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_OCDS_ERROR_GROUP1 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- ocd1diagid: STRING
- ocd1volser: STRING
- ocd1tapet: STRING
- ocd1crdate: STRING
- ocd1pvol: STRING
- ocd1cpvol: STRING
- ocd1fdsn: STRING
- volser: STRING
- dsname: STRING
- ocd1cpvol2: STRING
- ocd1xvol: STRING
- ocd1pfx: STRING

For events generated by situations in the OCDS Error Group2 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_OCDS_ERROR_GROUP2 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- ocd2diagid: STRING
- ocd2volser: STRING
- ocd2tapet: STRING
- ocd2crdate: STRING

- ocd2svol: STRING
- ocd2csvol: STRING
- ocd2ldsn: STRING
- volser: STRING
- ocd2csvol2: STRING
- ocd2pfx: STRING

For events generated by situations in the OCDS Error Group3 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_OCDS_ERROR_GROUP3 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- ocd3diagid: STRING
- ocd3volser: STRING
- ocd3tapet: STRING
- ocd3crdate: STRING
- ocd3expseq: INTEGER
- ocd3encseq: INTEGER
- volser: STRING
- ocd3pfx: STRING

For events generated by situations in the OCDS Error Group4 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_OCDS_ERROR_GROUP4 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- ocd4diagid: STRING
- ocd4volser: STRING
- ocd4tapet: STRING
- ocd4crdate: STRING
- ocd4expext: INTEGER
- ocd4encext: INTEGER
- volser: STRING
- ocd4pfx: STRING

For events generated by situations in the OCDS Error Group5 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_OCDS_ERROR_GROUP5 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- ocd5diagid: STRING
- ocd5volser: STRING
- ocd5tapet: STRING
- ocd5crdate: STRING
- ocd5expblk: INTEGER
- ocd5encblk: INTEGER
- volser: STRING
- ocd5pfx: STRING

For events generated by situations in the OCDS Error Group6 attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_OCDS_ERROR_GROUP6 class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- ocd6diagid: STRING
- ocd6tvol: STRING
- ocd6ttype: STRING
- ocd6ttoc: STRING
- ocd6tcds: INTEGER
- ocd6tdate: INTEGER
- ocd6ttime: STRING

For events generated by situations in the Offline Control Data Set Error Summary attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_OFFLINE_CONTROL_DATA_SET_ERROR_SUMMARY class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- ocsdiagid: STRING
- ocsrecnt: INTEGER
- ocsdiagmsg: STRING
- ocserrcnt: INTEGER
- ocserrtyp: INTEGER

For events generated by situations in the Performance Object Status attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_PERFORMANCE_OBJECT_STATUS class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- query_name: STRING
- object_name: STRING
- object_type: INTEGER
- object_type_enum: STRING
- object_status: INTEGER
- object_status_enum: STRING
- error_code: INTEGER
- error_code_enum: STRING

For events generated by situations in the SMS Errors attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_SMS_ERRORS class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- smsdid: STRING
- dsname: STRING
- smsdmcv: STRING
- smsdmca: STRING
- smsdcds: STRING

For events generated by situations in the SMS Errors Summary attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_SMS_ERRORS_SUMMARY class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- smsyid: STRING
- smsycnt: INTEGER
- smsydesc: STRING

For events generated by situations in the SMS Errors Data Class attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_SMS_ERRORS_DATA_CLASS class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- smsdid: STRING
- dsname: STRING
- smsddcv: STRING
- smsddca: STRING
- smsdcds: STRING

For events generated by situations in the SMS Errors Storage Class attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_SMS_ERRORS_STORAGE_CLASS class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- smsdid: STRING
- dsname: STRING
- smsdscv: STRING
- smsdsca: STRING
- smsdcds: STRING

For events generated by situations in the SMS Errors Storage Group attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_SMS_ERRORS_STORAGE_GROUP class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- smsdid: STRING
- dsname: STRING
- smsdsgv: STRING
- smsdsga: STRING
- smsdcds: STRING

For events generated by situations in the VSAM Dsns Need Bkup Audit attribute group, Tivoli Enterprise Console events are sent using the ITM_KRG_VSAM_DSNS_NEED_BKUP_AUDIT class. This class contains the following slots:

- node: STRING
- timestamp: STRING
- dsname: STRING
- datelbku: STRING

- datelupd: STRING
- mgmtclas: STRING
- chngflag: INTEGER
- chngflag_enum: STRING
- datecrea: STRING
- dateluse: STRING
- datemig: STRING
- miglvl: INTEGER
- smsmngd: INTEGER
- smsmngd_enum: STRING
- datelbku2: STRING
- datelupd2: STRING
- datecrea2: STRING
- dateluse2: STRING
- datemig2: STRING

Appendix B. Documentation library

This appendix contains information about the publications related to the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent.

These publications are listed in the following categories:

- IBM Tivoli Advanced Audit for DFSMSHsm library
- Prerequisite publications
- Related publications

See the *IBM Tivoli Monitoring and OMEGAMON XE products: Documentation Guide*, SC23-8816, for information about accessing publications. You can find the *Documentation Guide* in the IBM Knowledge Center at <https://www.ibm.com/support/knowledgecenter/>.

To find a list of new and changed publications, click **New in this release** on the Welcome page of the IBM Knowledge Center for IBM Tivoli Monitoring. To find publications from the previous version of a product, click the appropriate link in the Table of Contents pane on the Welcome page.

IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent library

Two documents are specific to the IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent.

IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent User's Guide

This publication provides agent-specific information for configuring, using, and troubleshooting the Advanced Audit for DFSMSHsm Monitoring Agent.

IBM Tivoli Advanced Audit for DFSMSHsm Monitoring Agent Planning and Configuration Guide

This publication provides agent-specific information for configuring the Advanced Audit for DFSMSHsm Monitoring Agent.

Use the configuration guide with the *IBM Tivoli Monitoring Installation and Setup Guide* to set up the software.

Prerequisite publications

To use the information in this publication effectively, you must have some prerequisite knowledge.

- *Exploring IBM Tivoli Monitoring*
- *IBM Tivoli Monitoring Administrator's Guide*
- *IBM Tivoli Monitoring Agent Builder User's Guide*
- *IBM Tivoli Monitoring Command Reference*
- *IBM Tivoli Monitoring:Configuring IBM Tivoli Enterprise Monitoring Server on z/OS*
- *IBM Tivoli Monitoring Installation and Setup Guide*
- *IBM Tivoli Monitoring: Messages*
- *IBM Tivoli Monitoring Troubleshooting Guide*
- *IBM Tivoli Monitoring: Upgrading from Tivoli Distributed Monitoring*
- *IBM Tivoli Monitoring: Upgrading from V5.1.2*
- *IBM Tivoli Monitoring User's Guide*
- *IBM Tivoli Monitoring: i5/OS Agent User's Guide*
- *IBM Tivoli Monitoring: Linux OS Agent User's Guide*
- *IBM Tivoli Monitoring: UNIX Log OS Agent User's Guide*
- *IBM Tivoli Monitoring: UNIX OS Agent User's Guide*

- *IBM Tivoli Monitoring: Windows OS Agent User's Guide*
- *IBM Tivoli Monitoring: Universal Agent User's Guide*
- *IBM Tivoli Monitoring: Universal Agent API and Command Programming Reference Guide*

Related publications

IBM provides some additional publications that contain information that you might find to be useful.

- *IBM Tivoli Enterprise Console Adapters Guide*
- *IBM Tivoli Enterprise Console Event Integration Facility User's Guide*
- *IBM Tivoli Enterprise Console Reference Manual*
- *IBM Tivoli Enterprise Console Rule Builder's Guide*

Other sources of documentation

You can also obtain technical documentation about Tivoli Monitoring and OMEGAMON XE products from various sources.

- IBM Tivoli Open Process Automation Library (OPAL)

http://pic.dhe.ibm.com/infocenter/tivihelp/v15r1/index.jsp?topic=%2Fcom.ibm.omegamon_mancon.doc%2Fhlpdg09.htm

OPAL is an online catalog that contains integration documentation as well as other downloadable product extension. The library is updated daily.

- Redbooks

<http://www.redbooks.ibm.com/>

IBM Redbooks, Redpapers, and Redbooks Technotes provide information about products from platform and solution perspectives.

- Technotes

You can find Technotes at <https://www.ibm.com/developerworks/community/blogs/home/tags/technotes?lang=en>.

Technotes provide the latest information about known product limitations and workarounds.

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