

Hitachi Device Manager

8.1.4-00 Release Notes

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About this document

This document (RN-00HS266-88, May 2015) provides late-breaking information about the Hitachi Device Manager 8.1.4-00. It includes information that was not available at the time the technical documentation for this product was published, as well as a list of known problems and solutions.

Note that system requirements have been moved into a separate document, *Hitachi Command Suite System Requirements*(MK-92HC209-18).

Intended audience

This document is intended for customers and Hitachi Data Systems partners who license and use Hitachi Device Manager

Getting help

The Hitachi Data Systems Support Center staff is available 24 hours a day, seven days a week. To reach us, please visit the support website at <https://portal.hds.com> for current telephone numbers and other contact information. If you purchased this product from an authorized HDS reseller, contact that reseller for support.

About this release

This release is a major release that adds new features and resolves multiple known problems.

Product package contents

Medium	DVD-ROM	Revision	Release Type
Software	Device Manager Server	8.1.4-00	Full Package
Documents	Hitachi Command Suite User Guide	MK-90HC172-20	
	Hitachi Command Suite CLI Reference Guide	MK-90HC176-20	
	Hitachi Command Suite Messages	MK-90HC178-20	
	Hitachi Command Suite Audit Log Reference Guide	MK-92HC213-06	
	Hitachi Command Suite Installation and Configuration Guide	MK-90HC173-20	
	Hitachi Command Suite Administrator Guide	MK-90HC175-20	

New features and important enhancements

For 8.1.4-00

#	New Features and Enhancements	Applied products	Applied OS
1.	Device Manager can now configure a highly available system (3DC delta resync) by using the following copy pairs in Virtual Storage Platform G1000 storage systems: [Copy pairs] <ul style="list-style-type: none">- Global-active device- Universal Replicator- Delta resync of Universal Replicator	Device Manager Server Device Manager CLI	All*
2.	Device Manager agent now supports guest operating systems running on the virtualization	Device Manager Agent	All*

	server product VMware vSphere ESXi 6.0.		
3.	<p>Device Manager agent now supports the following operating systems:</p> <ul style="list-style-type: none"> - Red Hat Enterprise Linux 7.1 - Oracle Linux 7.1 UEK R3 	Device Manager Agent	All*
4.	Host Data Collector now supports the virtualization server product VMware vSphere ESXi 6.0, and guest operating systems running on this virtualization server product as target hosts.	Host Data Collector	All*
5.	Host Data Collector now supports guest operating systems running on the virtualization server product VMware vSphere ESXi 6.0 as a server.	Host Data Collector	All*
6.	<p>Host Data Collector now supports the following operating systems as a target host:</p> <ul style="list-style-type: none"> - Red Hat Enterprise Linux 7.1 - Oracle Linux 7.1 UEK R3 	Host Data Collector	All*
7.	<p>Host Data Collector now supports the following operating system as a server:</p> <ul style="list-style-type: none"> - Red Hat Enterprise Linux 7.1 - SUSE Linux Enterprise Server 12 	Host Data Collector	All*
8.	<p>Device Manager can now perform pool tasks by using pool volumes in Virtual Storage Platform G1000 storage systems that meet the following conditions:</p> <p>HDT pools</p> <ul style="list-style-type: none"> - External volumes for which the cache mode is disabled. <p>HDP pools</p> <ul style="list-style-type: none"> - A mix of (a) internal volumes and (b) external volumes for which the cache mode is disabled. - A mix of (a) external volumes for which the cache mode is enabled and (b) external volumes for which the cache mode is disabled. <p>Micro version from which this enhancement applies: 80-02-4X-XX/XX</p>	Device Manager Server Device Manager GUI Device Manager CLI	All*
9.	The Device Manager server, GUI and CLI now support SUSE Linux Enterprise Server 12.	Device Manager Server Device Manager GUI Device Manager CLI	Linux
10.	The Device Manager server, GUI and CLI now	Device Manager	-

	support the virtualization server product VMware vSphere ESXi 6. For information about guest operating systems, see <i>the Hitachi Command Suite System Requirements</i> (MK-92HC209).	Server Device Manager GUI Device Manager CLI	
11.	For the Device Manager dialog boxes and commands listed, you can now use basic volumes(internal volumes/external volumes) for a global-active device pair in Virtual Storage Platform G1000.	Device Manager Server Device Manager GUI Device Manager CLI	All*
12.	The Analysis tab now supports performance analysis of pair volumes of a global-active device that are configured from basic volumes of Virtual Storage Platform G1000 (internal volumes and external volumes).	Device Manager GUI	All*
13.	The SSL 3.0 protocol, which has a security vulnerability, is no longer used by Host Data Collector for secure communication.	Host Data Collector	All*
14.	The Device Manager server, GUI, and CLI now support Red Hat Enterprise Linux 7.1.	Device Manager Server Device Manager GUI Device Manager CLI	All*
15.	Device Manager now supports Hitachi NAS Platform 12.3.	Device Manager Server Device Manager GUI Device Manager CLI	All*
16.	The Device Manager GUI now supports Adobe Flash Player 17.	Device Manager GUI	Windows
17.	The SSL 3.0 protocol, which has a security vulnerability, is no longer used by Device Manager for secure communication.	Device Manager Server	All*
18.	The Analysis tab now supports Identify Performance Problems for virtual machines.	Device Manager GUI	All*
19.	Device Manager adds "process-ID" to the audit events that are output to audit logs.	Device Manager Server	All*
20.	GAD I/O mode of a volume is now displayed on Device Manager GUI.	Device Manager GUI	All*

Note: See System Requirements for details.

*: Applies to all supported operating systems in Device Manager.

System requirements

System requirements have been integrated into the document "Hitachi Command Suite System Requirements" (MK-92HC209-17). In this document, system requirements are presented in the form of requirements for each type of server, rather than the requirements for individual Hitachi Command Suite products.

Upgrading Hitachi Command Suite products from version 7.6.1 or earlier

If the following products are installed, upgrade them to 8.0.0 or later.

- Device Manager
- Tiered Storage Manager
- Replication Manager
- Tuning Manager
- Compute Systems Manager
- Global Link Manager

Resolved problems

From 8.1.3-01 to 8.1.4-00

#	Corrected Problems	Applied products	Applied OS
1	The following problem has been corrected: When allocating volumes by using hosts and storage systems that have both an FC and iSCSI interface, the paths displayed automatically are only the paths of the FC interface.	Device Manager GUI	All*
2	The following problem has been corrected: When you use the <code>hdvmagt_setting</code> command of the Device Manager agent for Windows to set information for a Device Manager server, the KAIC28203-W, KAIC28311-E, or KAIC28312-E error may occur.	Device Manager Agent	Windows
3	The following problem has been corrected: The following problems sometimes occur on a host that is managed by a Device Manager agent: <ul style="list-style-type: none">- The process used by the Device Manager agent does not end, and the CPU usage rate increases.- The process used by the Device Manager agent causes a memory access violation and is forcibly terminated.	Device Manager Agent	Windows
4	The following problem has been corrected: When you execute the <code>hdc_ssltool</code> command of Host Data Collector for Windows with a string that contains a percentage sign (%) or a caret (^) in an argument, the command may not work properly.	Host Data Collector	Windows
5	The following problem has been corrected: When the Device manager CLI command <code>GetStorageArray (subtarget = ReplicationInfo)</code> is	Device Manager Agent	All*

	<p>executed for a Thin Image pair to which no S-VOL is allocated, invalid values are output for the following elements in the command execution results:</p> <ul style="list-style-type: none"> - "65,535" is output for the svolDevNum element. - "00:FF:FF" is output for the displaySvolDevNum element. - "Unknown" is output for the replicationFunction element. 		
6	<p>The following problem has been corrected: Volume virtualization fails with the error message KAIC03006-E.</p>	Device Manager Server	All*
7	<p>The following problem has been corrected: After a volume for which the drive type is SSD or a DP volume is specified and then volume virtualization is executed, the error dialog box (KAIC16114-E) is displayed several times when an external storage system is specified in the volume virtualization window.</p>	Device Manager GUI	All*
8	<p>The following problem has been corrected: If you open the Copy Group Details dialog box in the [Replication] tab, an unexpected KAIC16993-E error occurs in the copy pair information area.</p>	Device Manager GUI	All*
9	<p>The following problem has been corrected: The following symptoms occur on XML format output when "-f" or "--format" option with xml is specified to the GetStorageArray command of the Device Manager CLI.</p> <ul style="list-style-type: none"> - The XML is output improperly without an equal sign ("=") between attribute name and its value for reservedCapacityInKB attribute of the Pool or LDEV element. - The XML in which SnapshotSummary element cannot be child element of LogicalUnit element is output in improper form caused by the LogicalUnit element without the end-tag. 	Device Manager Server	AIX, HP-UX, Windows, Linux, Solaris
10	<p>The following problem has been corrected: If a storage system with an externally connected volume of a SMI-S enabled storage system is registered with Device Manager, displaying the list of volumes and the searching from the Search dialog box might fail with KAIC16993-E.</p>	Device Manager GUI	All*
11	<p>The following problem has been corrected: If Device Manager has been upgraded or configured from earlier than 8.1.1-00 to the version described in Products And Versions Affected, the Refresh Hosts task for each of VMware ESXi Servers managed by a VMware vCenter Server may fail with KAIC63503-E. When this problem occurs, the task for each VMware ESXi Servers fail with KAIC15001-E.</p> <p>However, the task status for the target VMware vCenter Server and VMware ESXi Servers remains as if they are In Progress even though the tasks for each VMware ESXi Servers has already been failed.</p> <p>Once the problem occurs, re-doing the task in different ways fails with the same error.</p>	Device Manager GUI	All*

12	<p>The following problem has been corrected: Launching Maintenance utility for VSP G200, G400, G600 fails with KAIC00825-E.</p> <p>The corrected DKC microcode version: 83-01-04-xx/00 or later</p>	Device Manager GUI	All*
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*: Applies to all supported operating systems in Device Manager.

Known problems

- Unallocating the volumes of a global-active device pair

To execute unallocation of a volume by selecting a P-VOL of a global-active device pair that belongs to a consistency group, perform the operations below. If you do not perform the following operations, the task might fail with the KAIC07762-E message.

1. In the tree view of the Device Manager GUI [Resources] tab, right-click on the secondary storage system, and then launch the [Remote Replication] window.
2. In [GAD Consistency Groups] tab on the [Remote Replication] window launched in (1), select the CTG ID of the volume, and then execute the [Suspend Consistency Groups] task.
3. After executing the task, wait until [Status] of the CTG ID changes to "SSWS" in the [GAD Consistency Groups] tab.
4. Close the window launched in (1).
5. In the [Open-Allocated] window of the storage systems, make sure that [GAD Pair Status] for the P-VOL and S-VOL are both "Split".

- Creating multiple volumes

If a task creating multiple volumes fails, the following problems might occur:

- Even if the volume status displayed in Task Details is not "Completed", some volumes might have been created in the storage system.
- Even if the volume status displayed in Task Details is "Completed", some volumes might not have been created in the storage system.
- If an initial value of the volume labels is specified, the volume label numbers might not be in sequence.

If a task creating multiple volumes fails, refresh the storage system that is supposed to include the created volumes. Then, in the Open-Unallocated volumes list of the storage system, check whether the volumes have been created. Recreate any volumes that were not created.

If necessary, modify the volume labels.

- Displaying information about the primary volume in the secondary site tab of the global-active device

If the user performing the global-active device operation in the following windows does not have the necessary permissions for the resource group of the DP pool or parity group, information about the primary volume is not displayed in the secondary site tab.

- Allocate Volumes
- Allocate Like Volumes
- Change to Global-Active Device Volumes

In such cases, try the operation again as a user who has one of following permissions for the resource group of the DP pool or parity group to which the volume belongs.

- Admin
- Modify
- Storage Administrator (Provisioning)

- Allocating volumes of an external parity group

If you select an external parity group and start the Allocate Volume dialog box, the KAIC15023-W message is displayed and the operation cannot continue.

To allocate volumes of an external parity group, start the Allocate Volume dialog box from the [General Tasks] or [Action] menu, and then select the external parity group.

- Allocating a global-active device volume of a parity group

If you select a parity group whose emulation type is other than OPEN-V and attempt to allocate a global-active device volume, the secondary site tab incorrectly displays the message KAIC15023-W.

In Device Manager, you cannot create a global-active device pair for a parity group whose emulation type is other than OPEN-V.

- Allocating a global-active device pair from a DP pool

If you select a DP volume and attempt to create a global-active device pair in the Allocate Volume dialog box, the secondary site might display the KAIC16601-W warning message.

Use either of the following two methods to perform the operation.

- Check the drive characteristics (drive type, drive speeds, etc.) of the drives making up the DP pool used by the primary and secondary site. If there is no problem, continue the operation.
- Start the Allocate Volume dialog box from the [General Task] or [Action] menu, and then select the volume.

- Full allocation at a secondary site when allocating global-active device volumes

If both of the following conditions are met, at the secondary site the KAIC15874-E message is output, and you cannot set up full allocations:

1. You select either of the following volumes, and then open the [Allocate Volumes] dialog box:
 - HDT volume
 - Multiple HDT volumes that belong to the same pool
2. For the secondary site, [Volume Selection] is [Automatic].

In such a case, set [Volume Selection] to [Manual] and then select the volumes. Or start allocating volumes from the [General Tasks] or [Action] menu.

- The email notification of a Health Check result in Analytics Tab.

If all of the following conditions are met, Private Logical Groups are not displayed on [Affected Logical Groups] in a Health Check Report attached to the email.

- (1) A user managed by an external authorization server performs Health Check immediately or executes Health Checks on a schedule.
- (2) A user managed by an external authorization server specifies following items for performing Health Check.
 - (a) Select [Send a notification email]
 - (b) Input [Email Address]
 - (c) Select [Attach a Health Check]
- (3) A Health Check is completed normally.

If a user is not managed by an external authorization server, this problem does not occur.

If a user managed by an external authorization server confirms Affected Private Logical Groups, please confirm them with any of the following methods.

- (1) Verify them from a Health Check Report directly after login to Device Manager.
- (2) Verify them after exporting a Health Check Report as PDF or CSV form.

- Sorting and filtering

The following columns might not be sortable, or if they are sorted, they might not be sorted correctly:

Columns on volumes:

- Volume Attribute
- RAID Level
- Drive Speed(RPM)
- Chip Type
- Drive Capacity
- Copy Information(P-VOL)
- Copy Information(S-VOL)
- Capacity

- Parity Group
- No. of Paths
- Filesystem
- Filesystem Used %
- Vendor
- Used %
- No. of LUN Paths
- Host
- WWN
- Virtual LDEV ID
- Migration Restrictions
- Full Allocation
- Reserved Capacity

Columns on parity groups:

- Parity Group
- Cache Mode
- RAID Level
- Drive Speed(RPM)
- Chip Type
- Total Capacity
- Unallocated Capacity
- Free Capacity
- Usable Volumes
- No. of Volumes
- Form Factor

Columns on DP pools:

- Pool Type
- Subscription
- No. of Parity Groups
- Total Capacity
- Drive Type
- Drive Speed (RPM)
- Chip Type
- Form Factor

Columns on tiers:

- Parity Group
- Free Capacity
- Tier No
- Volume Location
- Drive Type
- Drive Speed
- No. of Parity Groups
- Total Capacity

Columns on file servers:

- Model

Columns on storage systems:

- Model

Columns on data collection tasks:

Target Type

- Storage Systems

Columns on host:

- Data Collector

The following restrictions apply only to the Analytics tab.

The following columns cannot be sorted:

Columns on volumes:

- Virtual LDEV ID
- Virtual Host Group ID
- Pool of Ext. Volume
- Ext. Storage Series

Columns on parity groups:

- H/W Tier No.
- Pool

Columns on ports:

- No. of Volumes

The following restrictions apply only to Migration Projects of the Mobility tab.

The following columns cannot be sorted:

Columns on migration projects:

Columns on target resource Group of the setting window of Resource Group Mappings:

- Name
- Description

- Number of User Groups to Be Assigned

Columns on storage port mappings of the setting window of Port Mapping:

- Target Storage Port

Columns on migration jobs:

- No. of Volumes
- Capacity
- Config File Migration Status
- Aggregated Copy Pair Status

Columns on data migration status:

- Step 1
- Step 2
- Step 3
- Step 4
- Step 5

The following columns in the task details of Migrate Config Files:

- Message

The following columns in the task details of Nondisruptive Migration:

- Status
- Estimated Time
- Remaining Time
- Elapsed Time
- Message

The filtering result of the following columns might not be correct:

Columns on volumes:

- No. of LUN Paths
- No. of Paths
- Filesystem
- Filesystem Used %
- Vendor
- GAD Pair Status
- GAD CTG ID
- GAD I/O Mode

Columns on parity groups:

- Total Capacity

Columns on DP pools:

- Subscription
- Total Capacity
- Chip Type

Columns on hosts:

- OS
- IP Address"

The following restrictions apply only to the Analytics tab.

The following columns cannot be filtered:

Columns on volumes:

- Ext. Storage Series
- Used %

Columns on parity groups:

- H/W Tier No.

Columns on ports:

- No. of Volumes

The following items cannot be filtered in the Select DP Pool dialog box:

- Used Capacity
- Subscription

The error occurs when the following columns are selected on the filter for the volume list.

- Copy Info(P-VOL) and Copy Info(S-VOL)
- Volume Attribute and Storage System
- Volume Attribute and Copy Info(P-VOL)
- Volume Attribute and Copy Info(S-VOL)
- Volume Attribute and Pool

The following restrictions apply only to Migration Projects of the Mobility tab.

The following columns cannot be filtered:

Columns on migration jobs:

- No. of Volumes
- Capacity
- Config File Migration Status
- Aggregated Copy Pair Status

Columns on data migration status:

- Step 1
- Step 2
- Step 3
- Step 4
- Step 5

The following columns in the task details of Migrate Config Files:

- Message

The following columns in the parity groups of Prepare Target Secondary Volumes, and Nondisruptive Migration:

- No. of Volumes
- Ext. Storage System

Installation precautions

Please review the following manual references for installation.

Component	Reference
Device Manager Server	See "Installing" in the <i>Hitachi Command Suite Installation and Configuration Guide</i> .
GUI	See the online help.
CLI	See "Requirements for CLI Operations" in the <i>Hitachi Command Suite CLI Reference Guide</i> .
Device Manager Agent	See Installing the Device Manager Agent in Windows and Installing the Device Manager Agent in Linux in the <i>Hitachi Command Suite Installation and Configuration Guide</i> .

Usage precautions

Notes that apply after having executed the AddReplication or ModifyReplication command of the Device Manager CLI

To check the values of the pvIOMode and the svIOMode attributes of the ReplicationInfo instance, update the configuration information of the storage systems by using Device Manager.

If the information is not updated, the values of the attributes will be incorrect.

Upgrading Device Manager when using Tuning Manager

If you upgrade Device Manager from 8.0.0 to 8.0.1 or later, also upgrade Tuning Manager to 8.0.1 or later.

If you do not upgrade Tuning Manager, the Main Console of Tuning Manager displays an invalid value in the "Virtual Model" column of the VSP G1000 volume information. (For more information about the invalid values, see Table 1-1.)

The above problem occurs if you do not upgrade Tuning Manager and all the following conditions are met:

- The Main Console of Tuning Manager is monitoring a virtual storage machine for which USP VM, USP V, or NSC55 is set for the virtual model of the VSP G1000 storage system.
- The system is operating with the following combination of products:
 - Tuning Manager 8.0.0
 - Device Manager 8.0.1 or later

Table 1-1: The correct and invalid value of the "Virtual Model" column

#	Storage type of the virtual model	Correct value	Invalid value
1	USP VM	USP VM	USP_V
2	USP V	USP V	USP_V
3	NSC55	NSC	USP

To check the correct virtual model name of a virtual storage machine, see the name displayed in the "Virtual Model" column of the volume list on the "Resources" tab of Device Manager.

Creating a NAS Platform storage pool

For Hitachi NAS Platform v12.3 or later, if you use only one parity group for creating a storage pool, create at least four volumes from that parity group in advance.

Documentation

Available documents

Manual Name	Manual No.	Issue Date
Hitachi Command Suite User Guide	MK-90HC172-20	May 2015
Hitachi Command Suite CLI Reference Guide	MK-90HC176-20	May 2015
Hitachi Command Suite Messages	MK-90HC178-20	May 2015
Hitachi Command Suite Audit Log Reference Guide	MK-92HC213-06	May 2015
Hitachi Command Suite Installation and Configuration Guide	MK-90HC173-20	May 2015
Hitachi Command Suite Administrator Guide	MK-90HC175-20	May 2015

Documentation errata

None

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