

# Hitachi Storage Adapter for Oracle ASM Storage Reclamation Utility (ASRU)

v03.0.0  
Release Notes

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## About this document

This document provides the latest information about the Hitachi Storage Adapter for Oracle ASRU. 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.

## Intended audience

This document is intended for customers and Hitachi Data Systems partners who license and use the Hitachi Oracle Enterprise Manager Grid Control System Monitoring Plug-in for Hitachi Storage Platforms.

## Product licensing

Downloading and use of this adapter is free, but technical support will require a license. Contact HDS for a license. (See [Getting help](#) for contact information.)

## Getting help

The Hitachi Data Systems Support Center staff is available 24 hours a day, seven days a week. Provisions for patches and fixes are restricted to normal business hours, 8 a.m. to 5 p.m. PST.

To reach us, please visit the support Web site for current telephone numbers and other contact information:

<http://www.hds.com/services/support/>. If you purchased this product from an authorized HDS reseller, contact that reseller for support.

Before calling the Hitachi Data Systems Support Center, please provide as much information about the problem as possible, including:

- The circumstances surrounding the error or failure.
- The exact content of any error message(s) displayed on the host system(s).

## Hardware and software support

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**Note** Only the software and hardware that follow in this document are supported by this release.



## Server OS

OS version	Supported
Red Hat Enterprise Linux 6.3 (x86_64)	X

## Storage Model

Storage Model	Supported	Microcode version
VSP	X	70-06-21-00/00
HUS VM	X	73-03-09-00/00
VSP G1000	X	80-01-42-00/00
HUS	X	0977/H-S

## Oracle Software

Oracle	Supported
Oracle Grid Infrastructure 11g with ASM configured	X
Oracle Database 11g	X
Oracle Enterprise Manager Cloud Control 12c	X
Oracle Grid Infrastructure 12c with ASM Configured	X
Oracle Database 12c	X
Oracle ASM Storage Reclamation Utility (ASRU.pl)	X
Storage Navigator Modular 2 CLI from Hitachi SNM2LIN_2700	X
Command Control Interface from Hitachi 01-32-03/03	X

## Cluster Software

Cluster Software	Supported
Oracle Real Application Cluster Support Version 11g	X
Oracle Real Application Cluster Support Version 12c	X

## Host Interface

Interface	Supported
FC	X

Interface	Supported
iSCSI	X

## Volume Type

Volume Type	Supported
HDP	X
HDT	X

## New features and important enhancements

- ▣ 11g and 12c databases, with both single-instance and Real Application Clusters (RAC) database support
- ▣ Hitachi Universal Volume Manager (H-UVM) support
- ▣ Bug fixes

## Known problems

The `Storage_Status` command shows that the total space is less than the used space. Furthermore, the command reports negative free space, which is incorrect. In other words, the total space for a given LUN is shown as slightly less than the used space for that LUN. This causes the free space to be displayed as a small negative number. Please ignore this negative value and assume zero instead.

When account authentication is enabled in HUS subsystem, permission to modify authority may be withdrawn from one user when another user logs into the subsystem and acquires it. This results in seemingly arbitrary failures of Hitachi Storage Adapter for Oracle ASRU reclaim operations.

For more information, refer to the "Resource Operation Authorities" section of the *Hitachi TagmaStore Adaptable Modular Storage and Workgroup Modular Storage Account Authentication User's Guide*, revision MK-96DF797-02.

## Related documents

*Hitachi Storage Adapter for Oracle ASRU User's Guide*,  
MK-92ADPTR036-02.

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