

Hitachi Storage Adapter for Oracle ASM Storage Reclamation Utility (ASRU) enables the reclamation of previously allocated storage capacity that is no longer in use by Oracle databases. ASRU improves performance, reduces total cost of ownership (TCO) and increases efficiency of your Hitachi storage and converged infrastructure supporting Oracle databases and critical applications.

DATASHEET

Hitachi Storage Adapter for Oracle ASM Storage Reclamation Utility

Reclaim Unused Storage Capacity, Improve Performance and Increase Efficiency for Your Oracle Storage Infrastructure

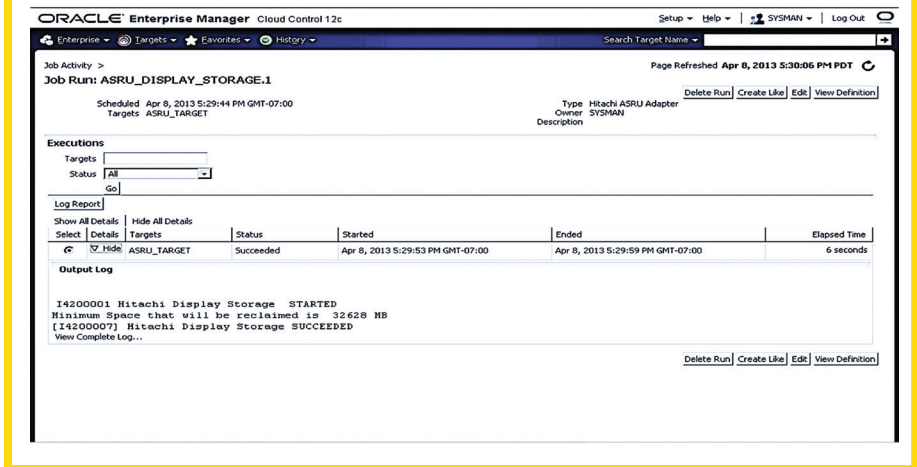
IT organizations are under increased pressure to maintain high-performance Oracle databases and other mission-critical applications at the lowest possible cost. Continually provisioning storage capacity to support rapidly growing databases and applications is not a sustainable or cost-effective option.

Thin provisioning is an effective means to increase the efficiency of the storage infrastructure that supports your Oracle environment: It can reduce costs and dramatically improve storage capacity savings. This can extend the useful life of your storage or converged infrastructure.

Over time, however, even when using thinly provisioned storage, IT will see that capacity utilization deteriorates. The database size significantly increases and larger amounts of data are migrated, deleted or otherwise modified.

REDUCE TCO: RECLAIM CAPACITY THAT YOUR ORACLE DATABASES NO LONGER USE

- Streamlined and simplified data life-cycle management for on-site and cloud-based content.
- Simple, yet deep, interface for a variety of user types.
- Comprehensive rules-based services for managing compliance, retention and disposition requirements.



Hitachi Storage Adapter for Oracle ASM Storage Reclamation Utility complements the ASRU utility supplied by Oracle. It allows administrators to reclaim unused, but previously allocated, storage capacity nondisruptively while maintaining application service levels.



Capabilities

The Oracle ASRU utility is used by a database administrator to identify and mark any allocated unused storage space, or disk blocks, in the Oracle database tablespaces that have been created on top of Oracle Automatic Storage Management (ASM). These unused spaces or blocks are identified as possible candidates for reclamation and use by the host system and/or storage system. Once marked, the storage system administrator can then run the Hitachi Storage Adapter for ASRU script. The Oracle ASRU utility identifies and marks allocated but unused storage capacity as candidates for reclamation and reuse by the host system and/or storage system or disk blocks.

This is made possible by Hitachi Dynamic Provisioning (HDP) and Hitachi Dynamic Tiering (HDT) features and is completely transparent and nondisruptive to the database and associated applications.

Using Hitachi Storage Adapter for Oracle ASRU to enable storage reclamation can be considered after several types of database events or operations, including:

- Dropping or deleting one or more tablespaces.
- Dropping or deleting one or more databases.
- Adding one or more volumes to an ASM disk group. This action will cause an ASM rebalance operation, which moves a subset of the existing data from the old volumes to the new volumes. Any storage released from the old volumes is a candidate for reclamation.

Technical Considerations

Hitachi Storage Adapter for Oracle ASRU is available for the multiple Hitachi storage systems and Oracle database software releases, as well as the operating systems listed in Table 1.

Solutions for Oracle Databases

With over 20 years of Oracle expertise, Hitachi Data Systems has solutions, services, tools and expert system knowledge to support the largest and most demanding Oracle customers worldwide.

Services to Help You Succeed

Hitachi Data Systems Global Services offers experienced Oracle database solution consultants, proven methodologies and a comprehensive services portfolio to assist you in implementing Hitachi products and solutions in your environment. For more information, see the Hitachi Data Systems Global Services website.

For More Information

To learn more about how Hitachi Data Systems can help you with database storage management and to read more about our solutions, visit www.hds.com/oracle. Or, contact your local sales representative or solutions consultant.

TABLE 1. HITACHI STORAGE ADAPTER FOR ORACLE ASM STORAGE RECLAMATION UTILITY

| | |
|----------------------------------|---|
| Hitachi Storage Systems | <ul style="list-style-type: none"> ■ Virtual Storage Platform (VSP) family, including VSP, VSP G200, VSP G400, VSP G600, VSP G800 and VSP G1000 ■ Unified Storage VM (HUS VM) ■ Unified Storage (HUS) 100 family, including HUS 110, HUS 130 and HUS 150 ■ Hitachi Universal Volume Manager |
| Oracle Database Software | <ul style="list-style-type: none"> ■ Oracle Enterprise Manager Cloud Control 12c ■ Oracle Grid Infrastructure 12c with ASM configured ■ Oracle Database 12c |
| Oracle Cluster Software | <ul style="list-style-type: none"> ■ Oracle Real Application Cluster Support Version 12c ■ Oracle Real Application Cluster Support Version 11g |
| Required Hitachi Software | <ul style="list-style-type: none"> ■ Hitachi Storage Navigator Modular 2 CLI SNM2LIN_2733 ■ Hitachi Command Control Interface 01-31-03/06 |
| Operating System | <ul style="list-style-type: none"> ■ Red Hat Enterprise Linux 6.3 (x86_64) ■ Red Hat Enterprise Linux 6.5, 6.6 ■ Oracle Linux 6.5, 6.6 |

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