# Database Report Pack

Software Version: 1.1

HP OpenView Performance Insight

User Guide



April 2007

### Legal Notices

### Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

#### **Restricted Rights Legend**

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

#### **Copyright Notices**

© Copyright 2005 - 2007 Hewlett-Packard Development Company, L.P.

### Trademark Notices

Java<sup>™</sup> is a U.S. trademark of Sun Microsystems, Inc.

Oracle® is a registered U.S. trademark of Oracle Corporation, Redwood City, California.

UNIX® is a registered trademark of The Open Group.

Windows® and Windows NT® are U.S. registered trademarks of Microsoft Corporation.

### **Documentation Updates**

This guide's title page contains the following identifying information:

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.

To check for recent updates, or to verify that you are using the most recent edition of a document, go to:

#### http://ovweb.external.hp.com/lpe/doc\_serv/

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

The following table indicates changes made to this document since the last released edition.
--

Chapter	Changes
Chapter 1	Version number changes, added information about what's new in this version
Chapter 2	Added new upgrade chapter
Chapter 3	Version number changes
Chapter 4	New procedures to configure distributed system using LIR (location independent reporting) and copy policies

### Support

You can visit the HP software support web site at:

#### http://support.openview.hp.com/support.jsp

HP Software online support provides an efficient way to access interactive technical support tools. As a valued support customer, you can benefit by using the support site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract.

To find more information about access levels and HP Passport, go to:

#### http://support.openview.hp.com/new\_access\_levels.jsp

# Contents

1	Overview	. 7 12 13
	Sources for Additional Information.	
2	The Upgrade Install         Guidelines for a Smooth Upgrade         Upgrading to Version 1.1         Package Removal	17 19
3	The New Install         Guidelines for a Smooth Install         Installing the Database Report Pack         Accessing Deployed Reports         Package Removal	23 24 26
4	Setting Up a Distributed System	29 32
5	Generic History Reports	33
6	Generic NRT Reports	39
7	Aggregation Reports	43
8	Selector & QuickView	49
9	Oracle Segment Reports	53
10	Oracle Tablespace Reports	57
A	Formulas         Main Package Formulas         Oracle Sub-Package Formulas.	65
В	Editing Tables and Graphs	67

dex
-----

# 1 Overview

This chapter covers the following topics:

- OVPI and Database Performance Metrics
- Data Collection
- Ways to Customize Reports
- Thresholds and Integration with OVO

### **OVPI and Database Performance Metrics**

HP OpenView Performance Insight (OVPI) is a performance management and reporting application. Long-term data collection, in-depth analysis, and automated web-based reporting are this application's primary strengths. If desired, OVPI can be integrated with network management and system management applications, including NNM and OVO. Integration enhances fault isolation and problem diagnosis.

The Database Report Pack 1.1 installs on OVPI. The reports in this package perform a ranking function, allowing you to compare database instances, spot various kinds of problems before they become serious, and anticipate capacity issues. Reports provide easy access to the following information:

- Dynamic space usage over the previous week
- Daily fluctuations in instance-size-free vs. instance-size-used
- Logon activity for the last few hours, per instance
- Availability for the last few hours, per instance
- Number of transactions for the last few hours, per instance
- Details about each customer (uptime, downtime, instance size, logons)
- Details about each location (uptime, downtime, instance size, logons)
- Segment analysis (Oracle only)
- Tablespace analysis (Oracle only)

The Database Report Pack offers the following features:

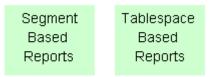
- Report linking
- Launch Point page
- Ad hoc selector reports
- Color-coded graphics in selection tables

Report linking means that navigating reports is now more like navigating a website—you have numerous links to follow and investigating a specific area of interest is easier and more efficient. You can use the links to move quickly between reports. There is no need to close the report you are viewing and then navigate folders. In addition to moving from one report to another report within the same report pack, you can link to reports in a different report pack. For example, there are links in Database reports that will open reports in the Device Resource Report Pack.

The Launch Point page groups reports into categories, providing a convenient overview of the package. The Database Report Pack includes two Launch Point pages, one for generic reports and one for Oracle reports. The generic Launch Point page offers the following choices:

Generic History Reports	Generic Near Real Time Reports			
Customer and Location aggregation Reports	Ad-Hoc Selector and Quick View Reports			
Oracle Reports				

The Oracle Launch Point page offers two choices:



The ad hoc selector option opens a report that lets you select specific devices and interfaces from a set of drop-down menus. Use the drop-down menus to pinpoint an item of interest. You will notice that the report displays quickly. Response time is good due to the limited number of database queries.

### Categories and Reports

Category	Reports Inside			
Generic History	Instance Size Details			
	Instance Size History			
Generic NRT	Instance Availability NRT			
	Instance Transactions NRT			
	Instance Logons NRT			
Customer and Location	Customer Summary			
	Location Summary			
Adhoc Selector and QuickView	Instance QuickView			
	Ad hoc Instance Selector			
Oracle Segment	Segment Size Details			
	Segment Size History			
Oracle Tablespace	Tablespace Size Used Top 20			
	Tablespace Size Allocated Top 20			
	Tablespace Size Percentage Used Top 20			
	Tablespace Size History			
	Tablespace Physical I/O Top 20			

The following table provides a list of categories and the reports in each group.

### **Reports and Statistics**

The following table outlines the statistics available from each report. For information about how each statistic is calculated, see Appendix A, Formulas.

Report	Statistics		
Instance Size Details	Instance size allocated		
	Average instance size used		
	Average instance size free		
Instance Size History	Instance size allocated		
	Instance dynamic size usage		
	Average instance size free		
Instance Availability NRT	Total instance uptime		
	Total instance downtime		
	Total instance unknowntime		

Report	Statistics				
Instance Transactions NRT	Number of transaction				
	Maximum transactions				
	Minimum transactions				
	Average transactions				
Instance Logons NRT	Total logons				
	Maximum logons				
	Minimum logons				
	Average logons				
Customer Details	Total uptime				
	Total downtime				
	Total instance size free				
	Total instance logons				
	Average instance size percent used				
Location Details	Total uptime				
	Total downtime				
	Total instance size free				
	Total instance logons				
	Average instance size percent used				
Instance QuickView	Instance availability NRT details				
	Instance size usage trend				
	Average logon trend				
	Average transaction trend				
Adhoc Instance Selector	Average instance uptime				
	Average instance logons				
	Average instance transactions				
	Average instance percentage size used				
Segment Size Details	Total segment size allocated (MBs)				
Segment Size History	Average size allocated				
	Dynamic size allocation				
	Segment size allocation details				
Tablespace Size Used Top 20	Average megabytes allocated				
	Average megabytes used				

Report	Statistics			
Tablespace Size Allocated Top 20	Average megabytes allocated			
	Average megabytes used			
	Average megabytes free			
Tablespace Size Percentage Used	Total space allocated			
Тор 20	Percent used			
	Tablespace usage trend			
Oracle Tablespace Size History	Average size allocated			
	Dynamic size usage			
	Average size free			
Oracle Tablespace Physical I/O	Total physical I/O			
Top 20	Maximum physical I/O			
	Minimum physical I/O			
	Average physical I/O			

## Package Version History

The following table provides a list of enhancements since Version 1.0.

Version	Release Date	Enhancements	
1.0	May 2006	16 reports; 1 datapipe:	
		Database Oracle SPI Datapipe 1.0	
1.1	April 2007	Location Independent Reporting (LIR)	
		Copy Policies	
		Top level table of NRT reports no longer shows rate data	
		Database Oracle SPI Datapipe 1.1	
		UPGRADE_Database_to_11	
		UPGRADE_Database_Oracle_to_11	
		fixes the following defects:	
		• QXCR1000351048	
		• QXCR1000351071	
		• QXCR1000367499	
		• QXCR1000368580	
		• QXCR1000386279	
		• QXCR1000386567	

## **Data Collection**

The only datapipe used by the Database Report Pack is the Database Oracle SPI Datapipe. The Database Oracle SPI Datapipe collects data from the Embedded Performance Agent, a sub-agent that ships with OVOW 7.2+ and OVOU 7.2+. The Database Oracle SPI Datapipe does not collect data from earlier versions of OVOW or OVOU.

The Database Oracle SPI Datapipe polls the EPC data store once every 45 minutes. Because changing the polling frequency could interfere with the polling conducted by OVPI for the System Resource Report Pack, we recommend that you do not change the polling frequency.

Metric	Description	metricid	objectid	valueid	value
E201_InstUptime	Availability	201	Instance name	1	Up = 5 Down = 0
E212_InstSize	Instance size	212	Instance name	1	Megabytes allocated
E212_InstSize	Instance size	212	Instance name	2	Megabytes free
E210_TblSpcSize	Tablespace size	210	Table space name	1	Megabytes allocated
E210_TblSpcSize	Tablespace size	210	Table space name	2	Megabytes free
E215_SegmntSize	Segment size	215	Segment name	1	Megabytes allocated
E213_TblSpcIO	Tablespace I/O	213	Table space name	1	Physical reads+writes since last collection
E037_USERLOGONCNT	User logons	NA	NA	NA	Number of user logons
NAE044_COMMITRATE	Transactions	NA	NA	NA	Number of transactions

The following table provides a list of metrics polled by the Database Oracle SPI Datapipe.

Future releases of the Database Report Pack will provide datapipes designed for:

- Sybase
- Informix
- MS SQL Server
- MS Access

## Ways to Customize Reports

The contents of a report can be customized by editing parameters, by editing tables and graphs, and by modifying default thresholds. Since there are no customer-oriented reports or location-oriented reports in the Database Report Pack, you cannot use group filters to create customer-specific reports. For details about editing tables and graphs, see Appendix B, Editing Tables and Graphs.

Editing a parameter applies a constraint to the contents of the report, thereby eliminating the data you are not interested in seeing. The Database Reporting Report Pack supports the following parameters:

- Instance
- System
- Vendor
- Customer
- Location

If you are using Report Viewer, follow these steps to edit a parameter:

- 1 Select Edit > Parameter Values from the menu bar.
- 2 When the Modify Parameter Values window appears, click the Current Value field.
- 3 Enter a new value.
- 4 Click OK.

If you are viewing the report on the Web, follow these steps:

- 1 Click the Edit icon at the bottom right-hand corner of the report.
- 2 When the Edit Parameters window opens, type the constraint in the appropriate field.
- 3 Click Submit.

## Thresholds and Integration with OVO

You can improve your ability to isolate faults and diagnose problems by installing the optional thresholds sub-package that comes with the Database Report Pack and configuring OVO as the destination for breach and clear traps generated by OVPI. If you install the optional thresholds sub-package, the Thresholds Module will monitor the OVPI database for breach conditions and respond to breaches by taking one of several possible actions, for example, sending breach and clear traps to OVO.

The thresholds sub-package provides the following defaults:

Instance Availability = 85%

Instance Size Used = 95%

To modify the defaults, open the Instance Customer Location and Threshold Configuration form. Enter new threshold values and save your changes.

/admin/Database_For	ms/DB_Upda	ate_Instan	ce.frep		_ 🗖
Database I Instance Cus Threshold C	stomer l	Locatio			
Use this form to update th customer location name		r a database	instance. Here (	iser can change ti	hreshold value and
System Name	Instance	Vendor	Instance Size Utilization Threshold (%)	Instance Availability Threshold (%)	Customer Name
ovpint4.india.hp.com	ovpint54	Oracle	85.00	95.00	Customer Unassigned
<b>∢</b> Location Name				Location Unas	ssigned
Instance Size I	Utilization Th	reshold (%)	)	85.00	
Instance Availability Threshold (%) 95.00					
Instance Avail	ability Threst	nold (%)		95.00	

Because Network Node Manager (NNM) is the default destination for traps, you must configure the Thresholds Module to send traps to OVO. Do this by opening the SNMP Trap Action Definition form. Fill in the necessary information and save your changes. In addition to using the SNMP Trap Action Definition form to configure a new destination for traps, your OVO administrator must prepare a trap template definition for OVO. The *Thresholds Module User Guide* contains the information needed to prepare the template.

## Sources for Additional Information

For information about the latest enhancements to this package, and any known issues, refer to the *Database Report Pack Release Notes*.

Manuals for OVPI and manuals for the reporting solutions that run on OVPI can be downloaded from the following site:

#### http://ovweb.external.hp.com/lpe/doc\_serv/

The user guides for OVPI are listed under **Performance Insight**. The user guides for report packs and datapipes are listed under **Performance Insight Reporting Solutions**.

The manuals listed under **Performance Insight Reporting Solutions** indicate the month and year of publication. If a manual is revised and reposted, the date of publication will change. Because we post revised manuals on a regular basis, we recommend searching this site for updates before using an older manual that might not be the latest version available.

# 2 The Upgrade Install

This chapter covers the following topics:

- Guidelines for a Smooth Upgrade
- Upgrading to Version 1.1
- Package Removal

If you are installing the Database Report Pack for the first time, this chapter does not apply to you. See Chapter 3, The New Install.

## Guidelines for a Smooth Upgrade

When you insert the report pack CD in the CD-ROM drive and launch the package extraction program, the install script extracts every package from the CD and copies the results to the Packages directory on your system. When the extract finishes, the install script prompts you to launch Performance Insight and start Package Manager. Before running Package Manager, review the following guidelines:

- Prerequisites for the Database Report Pack
- Datapipes and Remote Pollers
- Custom Table Views
- Upgrading Common Property Tables
- Upgrading Database in a Distributed Environment

### Prerequisites for the Database Report Pack

Make sure the following software is installed before upgrading to Database 1.1:

- OVPI 5.2
- All service packs available for OVPI
- Common Property Tables 3.6

### Datapipes and Remote Pollers

If you uninstall an existing datapipe, the following information is lost:

- Single polling policy for a remote poller
- Cloned polling policies for multiple remote pollers
- Customized polling groups

To prevent this information from being lost, you can use the following commands to export existing polling policy configurations and customized polling groups:

- collection\_manager
- group\_manager

### **Exporting Polling Policy Configurations**

If your environment contains polling policies for remote pollers, use the collection\_manager command to export existing policy configurations to a file.

UNIX: As user trendadm, run the following command:

#### cd \$DPIPE\_HOME

#### ./bin/collection\_manager -export -file /tmp/savePollingPolicy.lst

*Windows:* As Administrator, launch a command window. Navigate to the OVPI install directory and execute the following command:

#### bin\collection\_manager -export -file \temp\savePollingPolicy.lst

### Exporting Polling Group Configurations

If your environment contains customized polling groups, use the group\_manager command to export groups to individual .xml files.

UNIX: As user trendadm, execute the following command:

#### cd \$DPIPE\_HOME

#### ./bin/group\_manager -export\_all -outfile /tmp/savePollingGroups

*Windows:* As Administrator, launch a command window, then navigate to the OVPI install directory and execute the following command:

#### bin\group\_manager -export\_all -outfile \temp\savePollingGroups

### Custom Table Views

If you are using table views you created yourself, the views you created may interfere with the report pack upgrade, causing the upgrade to fail. Whether or not your views interfere with the upgrade process depends on how you created them. If you used SQL to create them, the upgrade will succeed, however, your custom views will not be available once the upgrade is complete. If you used Datapipe Manager to create them, the upgrade is likely to fail. To prevent the upgrade from failing, delete custom table views before you upgrade the report pack, then recreate those views after the report pack is upgraded.

### Upgrading Common Property Tables

If you are running an older version of Common Property Tables, you must upgrade that package to version 3.6 or higher. If you are not running any version of Common Property Tables, Package Manager will install the latest version of Common Property Tables for you, automatically.

Do not install an upgrade for Common Property Tables *and* other packages at the same time. Install the upgrade package for Common Property Tables and *only* the upgrade package for Common Property Tables. For more information about installing and using Common Property Tables, refer to the *Common Property Tables User Guide*.

### Upgrading Database in a Distributed Environment

Following is an overview of the installation procedure for a distributed environment:

- 1 Disable trendcopy on the central server.
- 2 For the central server:
  - Upgrade to Common Property Tables 3.6; deploy reports
  - Upgrade to Database 1.1 (including any sub-packages); deploy reports
- 3 For each satellite server:
  - Upgrade to Common Property Tables 3.6 or higher
  - Upgrade to Database 1.1 (including any sub-packages)
  - Remove Database Oracle SPI Datapipe 1.0
  - Install Database Oracle SPI Datapipe 1.1
- 4 Re-enable trendcopy on the central server.
- 5 Reconfigure your central and satellite servers.

When Database 1.0 was installed, the person who installed that version had to set up connections with satellite server databases, configure trendcopy commands, and switch off aggregations above the hourly level at each satellite server. If you recently upgraded OVPI 5.2, server configuration changes that were made when Database 1.0 was installed must be redone. You must reconfigure your central and satellite servers. For details, see Chapter 4, Setting Up a Distributed System.

## Upgrading to Version 1.1

Perform the following tasks to upgrade from any earlier version to version 3.1:

- Task 1: Stop OVPI Timer and extract packages from the report pack CD
- Task 2: Upgrade to Common Property Tables 3.6
- Task 3: Install the Upgrade Packages
- Task 4: Remove Database Oracle SPI Datapipe 1.0
- Task 5: Install Database Oracle SPI Datapipe 1.1
- Task 6: Restart OVPI Timer
- Task 1: Stop OVPI Timer and extract packages from the report pack CD
  - 1 Log in to the system. On UNIX systems, log in as root.
  - 2 Stop OVPI Timer and wait for processes to terminate.On Windows, do the following:
    - a Select Control Panel > Administrative Tools > Services.
    - **b** Select OVPI Timer from the list of services.
    - c From the Action menu, select Stop.

On UNIX, as root, do one of the following:

HP-UX: sh /sbin/init.d/ovpi\_timer stop

Sun: sh /etc/init.d/ovpi\_timer stop

- 3 Insert the report pack CD in the CD-ROM drive. On Windows, a Main Menu opens automatically; on UNIX, mount the CD if the CD does not mount automatically, navigate to the top level directory on the CD, and run the **./setup** command.
- 4 Type **1** in the choice field and press **Enter**. The install script displays a percentage complete bar. When the copy is complete, the install script starts Package Manager. The Package Manager welcome window opens.

If you navigate to the Packages directory on your system, you will see the following folders under the Database folder:

- Database.ap
- Database\_Threshold.ap
- Database\_Oracle.ap
- Database\_Sr\_Integration.ap
- Database\_Demo.ap
- UPGRADE\_Database\_to\_11.ap
- UPGRADE\_Database\_Oracle\_to\_11.ap

#### Task 2: Upgrade to Common Property Tables 3.6

Follow these rules:

- Do not install any other package with the Common Property Tables upgrade package; install the Common Property Tables upgrade package and *only* the Common Property Tables upgrade package.
- When prompted to accept or disable the option to Deploy Reports, accept the default. If you do not deploy reports, you will not deploy the change forms that come with Common Property Tables.
- When the install finishes, click **Done** to return to the Management Console.

If you need more help with this task, refer to the Common Property Tables User Guide.

#### Task 3: Install the Upgrade Packages

- 1 From the Management Console, select **Tools > Package Manager**. The Package Manager welcome window opens.
- 2 Click Next. The Package Location window opens.
- 3 Click Install.
- 4 Click **Next**. The Report Deployment window opens. Accept the defaults for Deploy Reports, Application Server, and Port. Type your user name and password for the OVPI Application Server.
- 5 Click Next. The Package Selection window opens.

6 Click the check box next to the following packages (depending on which packages you are upgrading):

UPGRADE\_Database\_to\_11.ap UPGRADE\_Database\_Oracle\_to\_11.ap

- 7 Click Next. The Type Discovery window opens. Disable the default.
- 8 Click Next. The Selection Summary window opens
- 9 Click **Install**. The Installation Progress window opens and the install begins. When the install finishes, a package install complete message appears.
- 10 Click Done.



Do not be surprised if the UPGRADE package you just installed seems to have disappeared from view. Package Manager will display what you just installed as *Database Report Pack 1.1*. This is not an error.

#### Task 4: Remove Database Oracle SPI Datapipe 1.0

The Database Oracle SPI Datapipe cannot be upgraded. You must remove Database Oracle SPI Datapipe 1.0, then install Database Oracle SPI Datapipe 1.1. Start Package Manager and follow the on-screen instructions for package removal. When Package Manager tells you that removal is complete, click **Done** to return to the Management Console.

#### Task 5: Install Database Oracle SPI Datapipe 1.1

- 1 Start Package Manager. The Package Manager welcome window opens.
- 2 Click Next. The Package Location window opens.
- 3 Click Install.
- 4 Click Next. The Report Deployment window opens; disable the default for Deploy Reports.
- 5 Click Next. The Package Selection window opens.
- 6 Click the check box next to the following package:

Database Oracle SPI Datapipe 1.1

- 7 Click Next. The Type Discovery window opens.
- 8 Click Next. The Selection Summary window opens.
- 9 Click Install. The Installation Progress window opens and the install begins. When the install finishes, the package installation complete message appears.
- 10 Click Done.

#### Task 6: Restart OVPI Timer

On Windows, do the following:

- a Select Control Panel > Administrative Tools > Services.
- **b** Select OVPI Timer from the list of services.
- c From the Action menu, select Start.

On UNIX, as root, do one of the following:

HP-UX: **sh** /**sbin**/**init.d**/**ovpi**\_**timer start** 

Sun: sh /etc/init.d/ovpi\_timer start

## Package Removal

Follow these steps to uninstall the Database Reporting Report Pack:

- 1 Log in to the system. On UNIX systems, log in as *trendadm*.
- 2 Stop OVPI Timer and wait for processes to terminate.
- 3 Start Package Manager. The Package Manager welcome window opens.
- 4 Click Next. The Package Location window opens.
- 5 Click the **Uninstall** radio button.
- 6 Click Next. The Report Undeployment window opens.
- 7 If reports were deployed to the OVPI Application Server, accept the defaults for Undeploy Reports, Application Server Name, and Port. Otherwise, clear the check box and skip to step 9.
- 8 Type your username and password for the OVPI Application Server.
- 9 Click Next. The Package Selection window opens.
- 10 Click the check box next to the following packages:

Database Report Pack 1.1 Database Report Pack Demo 1.1

- 11 Click OK.
- 12 Click Next. The Selection Summary window opens.
- 13 Click **Uninstall**. The Progress window opens and the removal process begins. When the uninstall process is complete, a package removal complete message appears.
- 14 Click **Done** to return to the Management Console.
- 15 Restart OVPI Timer.

*Windows*: Select Settings > Control Panel > Administrative Tools > Services.

UNIX: As root, type one of the following:

HP-UX: sh /sbin/init.d/ovpi\_timer start

Sun: sh /etc/init.d/ovpi\_timer start

# 3 The New Install

This chapter covers the following topics:

- Guidelines for a Smooth Install
- Installing the Database Report Pack
- Accessing Deployed Reports
- Package Removal

### Guidelines for a Smooth Install

An OVPI reporting solution has at least two ingredients, a report pack and a datapipe. Some reporting solutions offer multiple datapipes. When you install the datapipe, you configure OVPI to collect a specific type of data at a specific interval. When you install the report pack, you configure OVPI to summarize and aggregate performance data in accordance with specific processing directives issued by the report pack.

The report pack CD includes the latest report packs, datapipes, and shared packages. When you insert the CD in the CD-ROM drive and launch the package extraction program, the install script copies every package from the CD to the Packages directory on your system. After the extract finishes, the install script prompts you to start Package Manager. Before using Package Manager, review the following guidelines.

### Software Prerequisites

Version 1.1 of the Database Reporting Report Pack has the following prerequisites:

- OVPI 5.2
- All service packs available for OVPI 5.2
- Common Property Tables 3.6
- SysRes OVPA Collection Datapipe 1.0
- OVO Management Server, version 7.2 or later
- Database Oracle Smart Plug-In (SPI):
  - Version B.09.01 for Windows
  - Version A.09.10 for UNIX

If you are not currently running any version of Common Property Tables, let Package Manager install version 3.6 for you. If you are running an earlier version of Common Property Tables, upgrade to version 3.6. Upgrading Common Property Tables is easy; however, if you need assistance with the upgrade, or if you want to know more about how this package operates, refer to the *Common Property Tables User Guide*.

### **Distributed Environments**

If you intend to run Database Reporting in a distributed environment, installation is more complicated, since you must install the report pack and the datapipe multiple times, once on the central server, and once on each satellite server. Typically, you will not install the datapipe on the central server. Where you install the thresholds sub-package depends on how you want to implement thresholding.

Here's an overview of package installation in a distributed environment.

- 1 Make sure that every server is running OVPI 5.2.
- 2 Make sure that every server is running all available service packs for OVPI 5.2.
- 3 Disable trendcopy on the central server.
- 4 Install the following packages on the central server:
  - Common Property Tables 3.6
  - SysRes OVPA Collection Datapipe 1.0
  - Database Report Pack
  - Oracle sub-package
  - Thresholds sub-package
- 5 Install the following packages on each satellite server:
  - Common Property Tables 3.6
  - SysRes OVPA Collection Datapipe 1.0
  - Database Report Pack
  - Oracle sub-package
  - Thresholds sub-package
  - Database Oracle SPI Datapipe 1.1
- 6 Re-enable trendcopy on the central server.

If you do not want local reporting, that is, if you do not want to access reports and forms at the local level, there is no need to deploy reports to the OVPI Application Server when you install packages on satellite servers. However, if you need local reporting, be sure to deploy reports (and forms) when you install packages on a satellite server.

When you finish installing packages, you have to set up a distributed system. This involves setting up connections with satellite server databases, configuring the central server to copy data from satellite servers, and switching off higher-level aggregations at the satellite servers. These steps are covered in Chapter 4, Setting Up a Distributed System.

## Installing the Database Report Pack

Perform the following tasks to install Database Reporting on a stand-alone system:

- Task 1: Stop OVPI Timer and extract report packs from the report pack CD
- Task 2: If necessary, upgrade to Common Property Tables 3.6
- Task 3: Install the report pack and the Database Oracle SPI Datapipe

- Task 1: Stop OVPI Timer and extract OVPI packages from the CD
  - 1 Log in to the system. On UNIX systems, log in as root.
  - 2 Stop OVPI Timer and wait for processes to terminate.

Windows: Select Control Panel > Administrative Tools > Services

UNIX: As root, do one of the following:

HP-UX: sh /sbin/init.d/ovpi\_timer stop

Sun: sh /etc/init.d/ovpi\_timer stop

- 3 Insert the report pack CD in the CD-ROM drive. Do one of the following:
  - Windows: run the setup.bat command if auto run is disabled. If auto run is enabled, a Main Menu appears.
  - *UNIX:* mount the CD manually if the CD does not mount automatically, then run the setup command.
- 4 Type **1** to select OVPI report packs in the choice field and press **Enter**. The install script displays a percentage complete bar. When extraction is complete, the install script starts Package Manager. The Package Manager Welcome window opens.

If you navigate to the Packages directory on your system, you will see the following directories under the parent directory for the report pack:

- Database\_Reporting.ap
- Database\_Reporting\_Demo.ap

Installing the demo package is optional. You may install the demo package by itself, or you may install the demo package along with the report pack.

#### Task 2: Upgrade Common Property Tables

If you are running an older version of Common Property Tables, upgrade to Common Property Tables 3.6. Do not install the upgrade for Common Property Tables *and* other packages at the same time. Install the upgrade package for Common Property Tables and *only* the upgrade package for Common Property Tables. When Package Manager indicates that the installation is complete, click **Done** to exit Package Manager and return to the Management Console.

#### Task 3: Installing Database Reporting

- 1 Start Package Manager. The Package Manager welcome window opens.
- 2 Click Next. The Package Location window opens.
- 3 Click **Install.** Approve the default installation directory or use the browse feature to select a different directory, if necessary.
- 4 Click **Next**. The Report Deployment window opens. Accept the default settings for Deploy Reports; also accept the defaults for application server name and port in the same window.
- 5 Enter your username and password for the OVPI Application Server.
- 6 Click Next. The Package Selection window opens.

7 Select the check box next to the following packages:

Common Property Tables 3.6 SysRes OVPA Collection Datapipe 1.0 Database Report Pack 1.1 Oracle sub-package Database Oracle SPI Datapipe 1.1 Database Report Pack Demo

- 8 Click Next. The Type Discovery window opens.
- 9 To run Type Discovery immediately after package installation, keep the default and click **Next**. The Selection Summary window opens.
- 10 Click **Install**. The Installation Progress window opens and the install process begins. When the install process is complete, an installation complete message appears.
- 11 Click Done.
- 12 Restart OVPI Timer.

Windows: Select Settings > Control Panel > Administrative Tools > Services.

UNIX: As root, type one of the following:

HP-UX: sh /sbin/init.d/ovpi\_timer start

Sun: sh /etc/init.d/ovpi\_timer start

## Accessing Deployed Reports

When you installed the report pack, you enabled the Deploy Reports option. As a result, the reports in this package (as well as the thresholds form) were deployed to the OVPI Application Server. Once the reports reside on the OVPI Application Server, you have two ways to view them:

- OVPI client applications
- Web browser

If you have the client applications, you have access to Report Viewer, Report Builder, and the Management Console. If you do not have the client applications, using a web browser to view reports is the only way you can view reports. For more information about the clients, refer to the *OVPI Installation Guide*. For details about the Management Console, including how to use the Object/Property Management view to launch reports specific to a selected object, refer to the *OVPI Administration Guide*.

## Package Removal

Follow these steps to uninstall the Database Reporting Report Pack:

- 1 Log in to the system. On UNIX systems, log in as *trendadm*.
- 2 Stop OVPI Timer and wait for processes to terminate.
- 3 Start Package Manager. The Package Manager welcome window opens.
- 4 Click Next. The Package Location window opens.
- 5 Click the Uninstall radio button.
- 6 Click Next. The Report Undeployment window opens.
- 7 If reports were deployed to the OVPI Application Server, accept the defaults for Undeploy Reports, Application Server Name, and Port. Otherwise, clear the check box and skip to step 9.
- 8 Type your username and password for the OVPI Application Server.
- 9 Click Next. The Package Selection window opens.
- 10 Click the check box next to the following packages:

Database Report Pack 1.1 Database Report Pack Demo 1.1

- 11 Click **OK**.
- 12 Click Next. The Selection Summary window opens.
- 13 Click **Uninstall**. The Progress window opens and the removal process begins. When the uninstall process is complete, a package removal complete message appears.
- 14 Click **Done** to return to the Management Console.
- 15 Restart OVPI Timer.

*Windows*: Select Settings > Control Panel > Administrative Tools > Services.

UNIX: As root, type one of the following:

HP-UX: sh /sbin/init.d/ovpi\_timer start

Sun: sh /etc/init.d/ovpi\_timer start

# 4 Setting Up a Distributed System

If you intend to run the Database Report pack as a distributed system across multiple servers, you have to configure the central server, configure each satellite server, and verify that system clocks are synchronized.

## Configuring the Central Server

To configure the central server, perform the following tasks:

- Task 1: Register the satellite server by setting the database role
- Task 2: Enable LIR
- Task 3: Add LIR mappings
- Task 4: Verify the automatically generated copy policies
- Task 5: Delete LIR mappings for rate tables
- Task 6: Modify the trendtimer.sched file
- Task 7: Modify the Database\_Hourly.pro file
- Task 1: Register the satellite server by setting the database role
  - 1 Start the Management Console (log on with Administrator privileges).
  - 2 Click the **Systems** icon in the navigation pane.
  - 3 Navigate to the OVPI Databases folder and select the database system.
  - 4 Click Database Properties.
  - 5 From the Database Role list, select the Satellite Server role.
  - 6 Enter any information necessary to configure the Satellite Server role.

To add a new database reference, you can use the Add Database Reference Wizard in the System and Network Administration application.

#### Task 2: Enable LIR

- 1 Start the Management Console (log on with Administrator privileges).
- 2 Click the Systems icon in the navigation pane.
- 3 Navigate to the OVPI Databases folder and select the central server.
- 4 Click LIR Configuration.
- 5 Select the LIR enabled check box.

#### Task 3: Add LIR mappings

Configure LIR mappings for the following categories (for the database and Oracle sub-package you have installed): Database and Database\_Oracle.

- 1 Start the Management Console (log on with Administrator privileges).
- 2 Click the **Systems** icon in the navigation pane.
- 3 Navigate to the OVPI Databases folder and select the central server.
- 4 Click LIR Configuration.
- 5 Click Add Mapping.
- 6 From the Select Satellite Server list, select a satellite server to which to add a mapping.
- 7 Select the **Category** data table option.
- 8 Select **Database** from the drop down list.
- 9 Select the **rate** data type.
- 10 Click Add to List.
- 11 If you want to add additional LIR mappings, click **Add to list** and repeat step 6 through step 10.
- 12 Click OK.
- 13 Click Apply.

A copy policy is automatically generated for the hourly data and for each LIR mapping that you add. The data type selected when adding an LIR mapping (in step 9 above) determines the type of data copied that is defined in the generated copy policy (the type of data copied that is defined in the generated copy policy (the type of data copied that is defined in the generated copy policy is for one greater than the data type selected in the LIR mapping). For example, if you select an hourly data type, a daily data copy policy is generated.

#### Task 4: Verify the automatically generated copy policies

Verify that a copy policy has been generated for the following tables and that the copy type is set correctly (to Property and Data):

- 1 Start the Management Console (log on with Administrator privileges).
- 2 Click the **Copy Policy** icon in the navigation pane to start the Copy Policy Manager.
- 3 Find the following tables (for the database and sub-package you have installed) and verify the copy type is set to Property and Data for each table:

Database	Oracle Sub-package		
SHDBINSTANCE	SHDBINST_SEGMENTS		
SRDBINSTANCE	SHDBINST_TBLSPACES		

If a copy policy has not been generated for a table, do the following:

- 1 Click the New Copy Policy icon or select File > New Copy Policy from the Copy Policy Manager. The Copy Policy Wizard displays.
- 2 Click Next. The Satellite Server and Copy Policy Selection Page displays.
- 3 Select a satellite server from the pull down list. This is the satellite server from which data is copied to the central server.

- 4 Select **Single Table** and select the table from the pull down list.
- 5 Click Next. The Copy Type Selection Page displays.
- 6 Select Property and Data.
- 7 Click **Next**. The Summary page displays.
- 8 Verify the information in the summary window. If the information is not correct, you can modify it by clicking Back.
- 9 Click Finish.
- 10 Repeat step 4 step 9 for all missing tables.

If the copy type is not set to Property and Data, do the following:

- 1 Double-click the copy policy.
- 2 Select the **Property and Data** copy type.
- 3 Click OK.

#### Task 5: Delete LIR Mappings for the SRDBINSTANCE rate table

Delete the LIR mappings for SRDBINSTANCE (the data is being copied to the central server).

- 1 Start the Management Console (log on with Administrator privileges).
- 2 Click the **Systems** icon in the navigation pane.
- 3 Navigate to the OVPI Databases folder and select the central server.
- 4 Click LIR Configuration.
- 5 Unselect the Rate check box for K\_DBINSTANCE and KV\_DBINSTANCE.
- 6 Click Apply.

#### Task 6: Modify the trendtimer.sched file

The trendtimer.sched file is found in the {DPIPE\_HOME}/lib/ directory where {DPIPE\_HOME} is the directory in which OVPI is installed.

If you installed the Oracle sub-package, make the following change to this file:

• Find and comment out the following line:

1:00+30 - - {DPIPE\_HOME}/bin/trend\_proc -f {DPIPE\_HOME}/scripts/Database\_Oracle\_Hourly.pro

#### Task 7: Modify the Database\_Hourly.pro file

The Database\_Hourly.pro file is found in the {DPIPE\_HOME}/scripts/ directory where {DPIPE\_HOME} is the directory in which OVPI is installed.

Make the following change to this file:

- Comment out the DB\_1 block section.
- Comment out the DB\_2 block section.

## Configuring a Satellite Server

Follow these steps to configure a satellite server.

- 1 Disable aggregations at the daily level and above.
  - a Open the {DPIPE\_HOME}/lib/trendtimer.sched file (where {DPIPE\_HOME} is the directory in which OVPI is installed)
  - **b** Find and comment out the following lines:

```
24:00+3:00 - - {DPIPE_HOME}/bin/trend_proc -f
{DPIPE_HOME}/scripts/Database_DMF.pro
24:00+3:00 - - {DPIPE_HOME}/bin/trend_proc -f
{DPIPE_HOME}/scripts/Database_Oracle_DMF.pro
```

- 2 Modify the {DPIPE\_HOME}/scripts/Database\_Hourly.pro file (where {DPIPE\_HOME} is the directory in which OVPI is installed):
  - Comment out the DB\_3 block, including the begin and end lines.
- 3 If you installed the Oracle sub-package, modify the {DPIPE\_HOME}/scripts/ Database\_Oracle\_Hourly.pro file:
  - Uncomment the DB\_1 block, including the begin and end lines.

## System Clocks

Verify that the system clock on each satellite server is synchronized with the system clock on the central server.

# 5 Generic History Reports

There are two generic history reports in Database Reporting:

- 1 Instance Size History
- 2 Instance Size Details Top 20

#### **Instance Size History**

This report looks at dynamic space usage over the previous week, and allows you to spot instances with the highest dynamic space usage. The building block in this report is a daily average for instance-size-used and a daily average for instance-size-free. The daily averages are rolled up, producing averages for the week that appear in the top selection table.

The top selection table sorts instances by dynamic space usage, most to least. The data in the usage details table below the selection table shows the daily fluctuation in average instance-size-free vs. average instance-size-used. The tabbed graph below the usage details table displays a daily bar chart and a monthly bar chart. Both charts show the fluctuation in free vs. used, allowing you to see historic trends.

#### Instance Size Details Top 20

This report reveals which database instances are using the most instance size. It measures instance size three ways:

- As a percentage
- In megabytes
- In megabytes allocated

Each selection table on the left looks at yesterday's data. Each graph to the right shows what the trend has been over the previous 7 days.

## Database Report Pack Instance Size History Report



This report shows top 20 instances which had the most dynamic space usage over the previous week. The instances were selected using the standard deviation of the amount of space used. The graph show historical trends for the space usage on daily and monthly basis.

### Top 20 Instance

#### Sorted Based On Most Dynamic Space Usage (MB)

	System Name	Instance Name	Vendor	Instance Size Allocated	Instance Dynamic Size Usage	Average Instance Size Free
	ovpint4	Ovpint54	Oracle	1024.00	70.90	520.95
	ovpihpt3	Ovpihpt3	Oracle	1024.00	35.89	500.02

Mon, Mar 28, 2005 - Mon, Mar 28, 2005

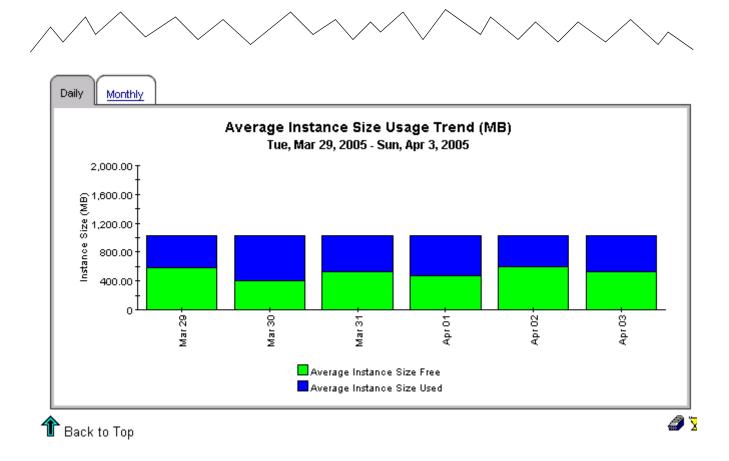
Customer Name	Location Name
Customer Unassigned	Location Unassigned

### Instance Size Usage Details

Tue, Mar 29, 2005 - Sat, Apr 2, 2005

Date	Instance Size Allocated	Average Instance Size Used	Average Instance Size Free	
Tue, Mar 29 12:00 AM	1024.00	444.59	579.41	
Wed, Mar 30 12:00 AM	1024.00	616.23	407.77	
Thu, Mar 31 12:00 AM	1024.00	493.70	530.30	
Fri, Apr 1 12:00 AM	1024.00	547.97	476.03	
Sat, Apr 2 12:00 AM	1024.00	420.99	603.01	



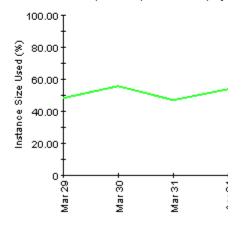


## Database Report Pack Instance Size Details Top 20 Report

This report shows top 20 Instances sorted based on megabytes allocated, megabytes used and percentage used with one table and a con category.

#### **Top 20 Instances** Sorted Based on Average % Used Sun, Apr 3, 2005 - Sun, Apr 3, 2005 Average Average Instance Instance Instance System Instance Vendor Size Name Name Size Size Free Allocated Used (%) (%) 53.35 46.65 ovpihpt3 Ovpihpt3 Oracle 1024.00 48.32 51.68 ovpint4 Ovpint54 Oracle 1024.00

#### Instance Size Usage Tr Tue, Mar 29, 2005 - Sun, Ap



-Average Instance Size Usage (

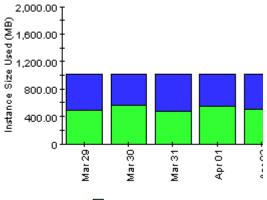
### Top 20 Instances

### Sorted Based on MegaBytes Used

Sun, Apr 3, 2005 - Sun, Apr 3, 2005

	System Name	Instance Name	Vendor	Instance Size Allocated	Average Instance Size Used	Average Instance Size Free
	ovpihpt3	Ovpihpt3	Oracle	1024.00	546.30	477.70
)	ovpint4	Ovpint54	Oracle	1024.00	494.84	529.16

### Instance Size Usage Trend (M Tue, Mar 29, 2005 - Sun, Apr 3, 2005



Average Instance Size Used Average Instance Size Free



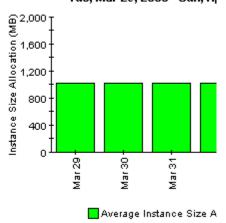


#### Top 20 Instances Sorted Based on MegaBytes Allocated

Sun, Apr 3, 2005 - Sun, Apr 3, 2005

	System Name	Instance Name	Vendor	Instance Size Allocated	Average Instance Size Used	Average Instance Size Free
	ovpihpt3	Ovpihpt3	Oracle	1024.00	546.30	477.70
-9	ovpint4	Ovpint54	Oracle	1024.00	494.84	529.16

Instance Size Allocation Tue, Mar 29, 2005 - Sun, Aj



👚 Back to Top

# 6 Generic NRT Reports

There are three generic NRT reports in the Database Report Pack:

- 1 Instance Availability in Near Real Time
- 2 Number of Transactions in Near Real Time
- 3 Number of logons in Near Real Time

#### Availability NRT

Contains one selection table and one tabbed graph. The selection table looks at actual sample data collected over the previous six hours, not hourly averages. The selection table shows:

- Total Instance Uptime in minutes
- Total Instance Downtime in minutes
- Total Instance Unknowntime in minutes

The selection table sorts instances by Total Instance Uptime, most to least. Use the graph below the selection table to see trending on an hourly, daily, and monthly basis.

#### Logons NRT

Contains one selection table and one tabbed graph. The selection table looks at actual sample data collected over the previous six hours, not hourly averages. The selection table shows:

- Total logons
- Maximum logons (per hour)
- Minimum logons (per hour)
- Average logons (per hour)

The selection table sorts instances by Total Instance Uptime, most to least. Use the tabbed graph below the selection table to see trending on an hourly, daily, and monthly basis.

#### **Transactions NRT**

Contains one selection table and one tabbed graph. The selection table looks at actual sample data collected over the previous six hours, not hourly averages. The selection table shows:

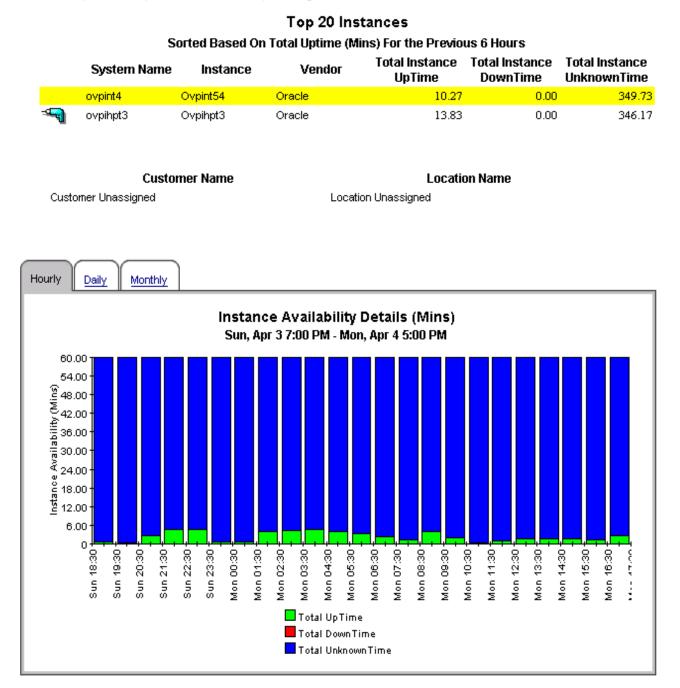
- Total transactions
- Maximum transactions (per hour)
- Minimum transactions (per hour)
- Average transactions (per hour)

The selection table sorts instances by Total Instance Uptime, most to least. Use the tabbed graph below the selection table to see trending on an hourly, daily, and monthly basis.

## Database Report Pack Instance Availability Near Real Time Report



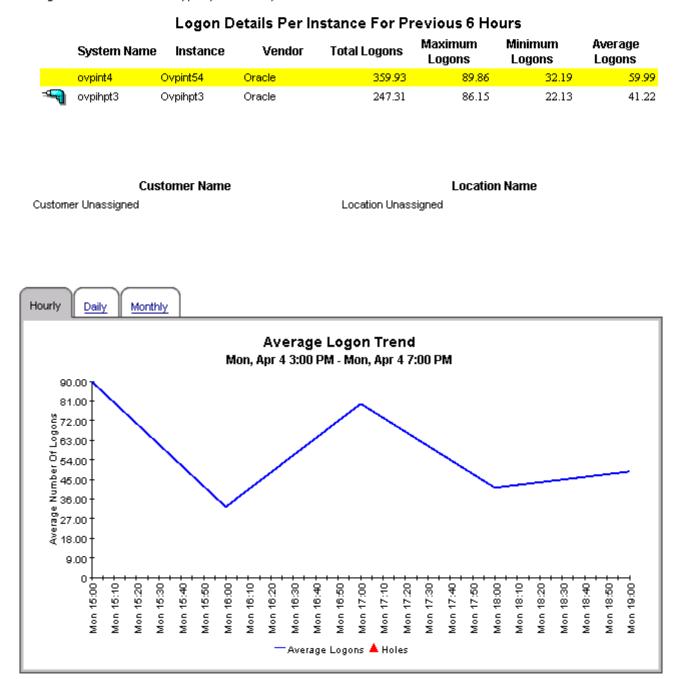
This report shows database instances sorted based on total uptime minutes of the instance. The report also shows total downtime and total unknown time for each instance. In addition it displays hourly, daily and monthly trends for uptime, downtime and unknown time. The daily and monthly trends are in terms of percentages.



### Database Report Pack Instance Logons Near Real Time Report



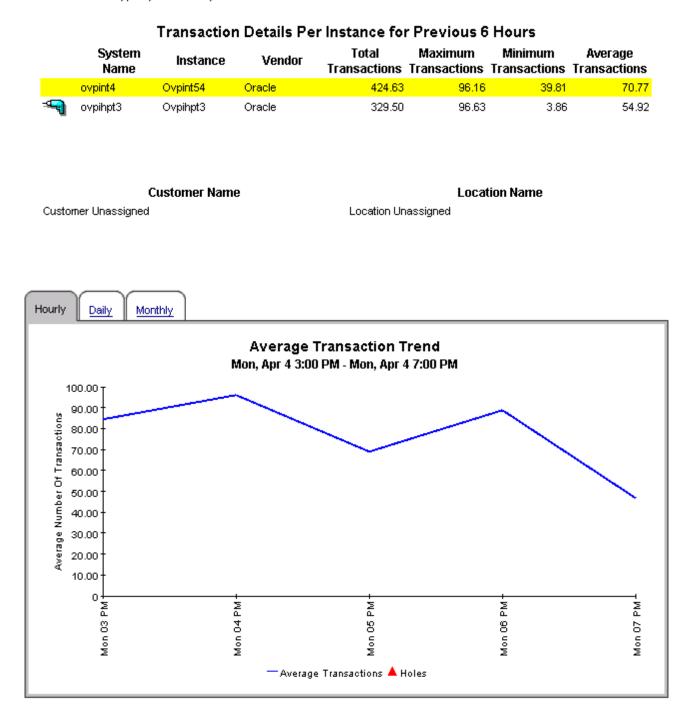
This report shows the number of user logons per instance over a period of last 6 hours. Selecting an instance from the top table gives the logon trend over the for hourly, daily and monthly.



## Database Report Pack Instance Transactions Near Real Time Report



This report shows the number of transaction per instance over a period of last 6 hours. Selecting an instance from the top table gives the transaction hourly, daily and monthly trend.

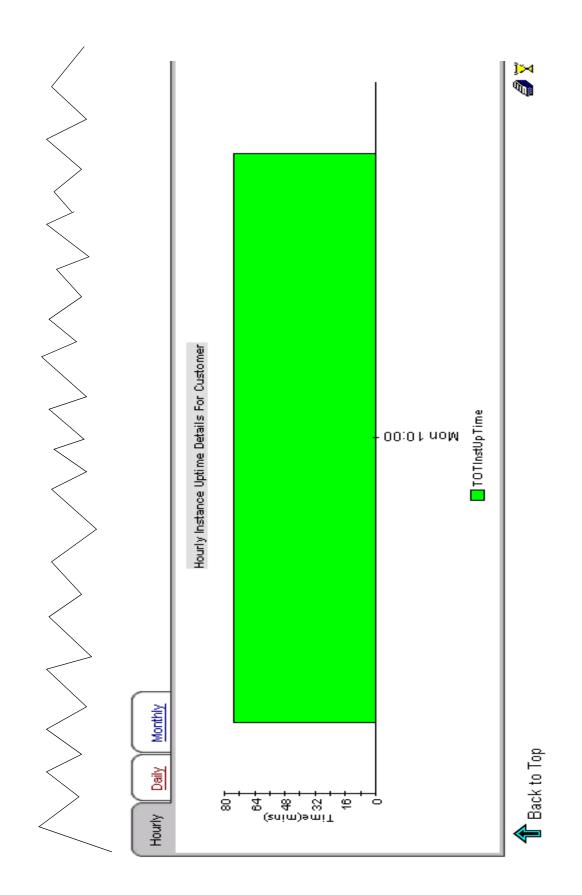


# 7 Aggregation Reports

There are to aggregations reports in the Database Report Pack:

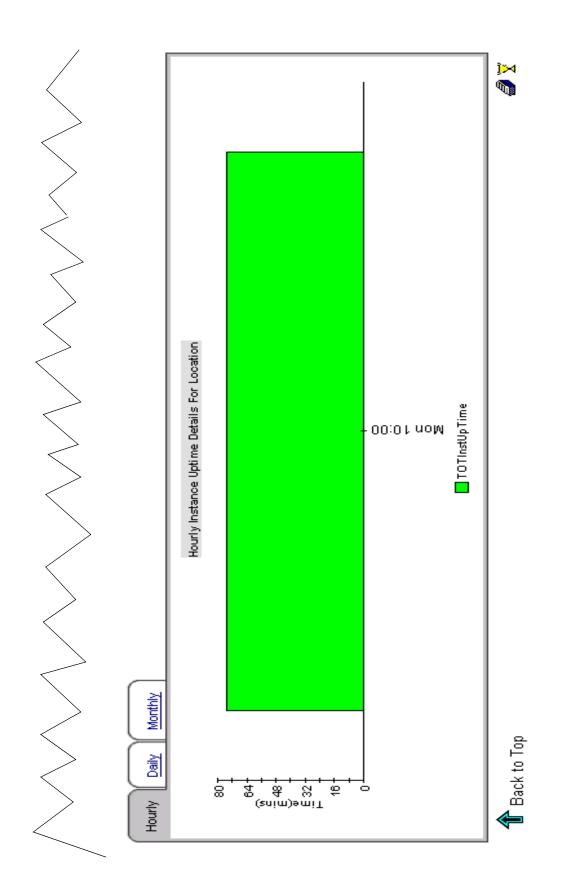
- Customer Summary Report
- Location Summary Report

		Custom		1 Z MIS	•
	Total Up Time		Total Down Time		Lime Period
istomer Unassigned		75.00		0.00 Mon, Ap	Mon, Apr 11 10:00 AM
		Custon	Customer Usage Details For Last Day	st Day	
	Percentage Instance Uptime	Average Down Time	Average Instance Average Instance Size Free Logons	Average Instance Logons	Average Instance Size % Used
	100.00	0.00	694.10	10.00	60.88
		Custome	Customer Usage Details For Last Month	: Month	
	Percentage Instance Uptime	Average Down Time	Average Instance Size Free	Average Instance Average Instance Logons Size % Used	Average Instance Size % Used
	50.14	0.00	507.64	45.99	50.43



	Location Summan, Penort	data. second (	will be shown in three tables on the right.First table will provide last 2 his data: second one provide last day summarized data for one customer. Th	y summarized d	data. second one provide last day summarized data for one customer. Third	Thid
LOCATION NAME	Nepul	one provide m	one provide monthly summarized data for selected Location.	d data tor select	ed Location.	invent
			Location Usage Details For Last 2 Hrs	Details For Last 2	2 Hrs	
	Total L	Total UpTime	Total D	Total Down Time	Ţ	Time Period
Location Unassigned		75.00			0.00 Mon, Al	Mon, Apr 11 10:00 AM
			Location Usage Deatils For Last Day	Deatils For Last	Day	
	Percentage Instance Intime	Average Down Time	Average Size Free	Average Logons	Average Size % Used	Time Period
	100.00	0.00	694.10	10.00		60.88 Sun, Apr 10 12:00 AM
			Location Usage Details For Last Month	etails For Last M	torth	
	Percentage Instance Uptime	Average Down 1e Time		Average Size Free	Average Logons	Average Size % Used
	5	50.14	0.00	507.64	45.99	50.43
			$\langle$	$\langle$	<	
, > > >	>	>	>	>	$\left\langle \right\rangle$	>

# ĺ . 1 -.



# 8 Selector & QuickView

Database Report P Adhoc Instance Selector	<b>se Re</b>   stance \$	port Pa	Pack This report oriteria. TI with the drive y interface y tor the selecte	This report allows you to filter the entire database instance set by several common criteria. The table below will then refresh showing you which instance comply with the drop down selections. If you are accessing the report from the web interface you can then cross launch many other reports with information relating to the selected instance.	: entire database :n refresh showin; you are accessin yoh many other r	instance set by g you which inst g the report from eports with inforr	several common ance comply n the web mation relating to	
Choose System 🗸	μ		Choose Customer	ner 🔻	Che	Choose Vendor 🗸		
Choose Instance 🗸	ce •		Choose Location	۲ ۲				
			Inst	Instance Details	200			
			MON, Apr 25	MON, APT 25 12:UU AM [GM1+U5:3U]	0.3UJ			
System Name	Instance	Vendor	Customer	Location	Average Instance Uptime	Average Instance Logons	Average Instance Transactions	Average Instance Percentage Size Used
ovpihpt3	Ovpihpt3	Oracle	Customer Unassigned Location Unassigned	ocation Unassigned	2.45			53.35
ovpint4	Ovpint54	Oracle	Customer Unassigned Location Unassigned	ocation Unassigned	2.90			48.32

# **Database Report Pack**

### Instance Quickview Report

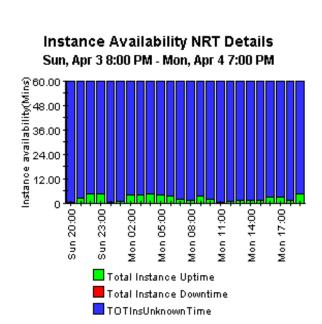
#### System Name

Vendor Oracle •

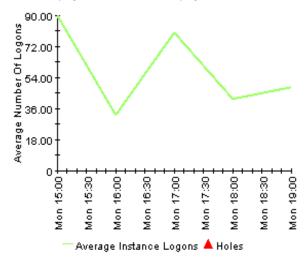
ovpint4 💽

L

Customer Unassigned

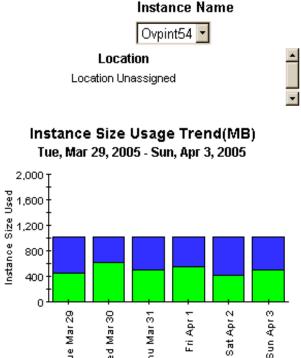


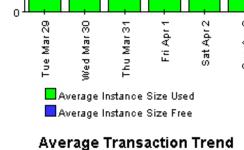
Average Logon Trend Mon, Apr 4 3:00 PM - Mon, Apr 4 7:00 PM



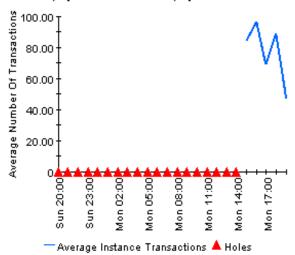
This report gives as quick graphical overview of database instances providing such details as logons, transactions, instance size usage and availability.







Sun, Apr 3 8:00 PM - Mon, Apr 4 7:00 PM



# 9 Oracle Segment Reports

There are two segment reports in the Database Report Pack:

- Segment Size History
- Segment Size Details

## Database Report Pack Segment Size History Report



This report shows the top segments which had the most dynamic space allocation over the reporting interval. The top segments were selected using the standard deviation of the amount of space allocated. The graph also shows historical trends for the size allocated on daily and monthly basis.

### Top 20 Segments Sorted Based On Most Dynamic Space Allocation

Mon, Mar 28, 2005 - Mon, Mar 28, 2005

	System Name	Instance	Vendor	Segment Name	Average Size Allocated	Dynamic Size Allocation
	ovpint4	Ovpint54	Oracle	EXAMPLE.SH.COSTS	530.49	79.53
-9	ovpihpt3	Ovpihpt3	Oracle	EXAMPLE.SH.PRODUCTS	483.86	57.99
-4	ovpint4	Ovpint54	Oracle	SYSTEM.SYS.I_SOURCE1	507.21	55.80
-4-9	ovpihpt3	Ovpihpt3	Oracle	SYSTEM.SYS.I_OBJ2	536.41	52.79

#### **Customer Name**

Location Name

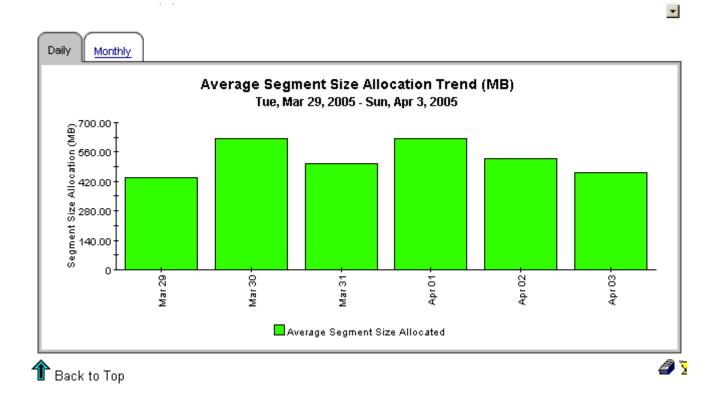
Customer Unassigned

Location Unassigned

#### Segment Size Allocation Details

Tue, Mar 29, 2005 - Sat, Apr 2, 2005

Time Period	Average Segment Size Allocated
Tue, Mar 29 12:00 AM	436.48
Wed, Mar 30 12:00 AM	623.78
Thu, Mar 31 12:00 AM	504.08
Fri, Apr 1 12:00 AM	625.03
Sat, Apr 2 12:00 AM	529.75



Oracle Segment Reports

## Database Report Pack Segment Size Details Report



This report shows the top 20 segments sorted by megabytes allocated. Selecting a segment from the top table gives the daily and monthly usage trends for the segment.

#### Top 20 Segments Sorted Based on Total Allocated Size (MB)

Sun, Apr 3, 2005 - Sun, Apr 3, 2005

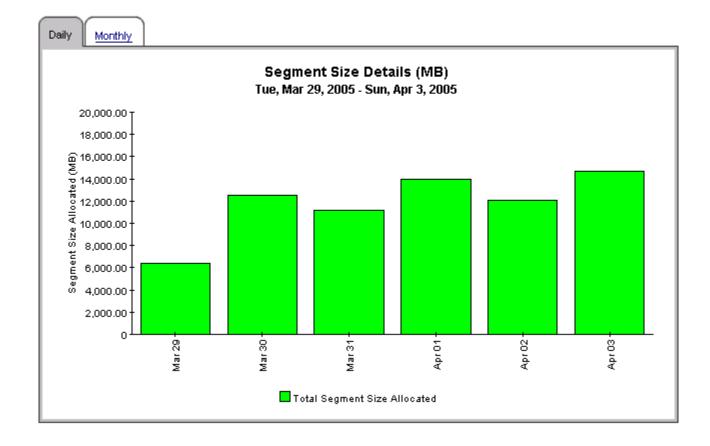
System Name	Instance Name	Vendor	Segment Name	Total Segment Size Allocated
ovpihpt3	Ovpihpt3	Oracle	SYSTEM.SYS.I_OBJ2	14670.99
🗠 ovpihpt3	Ovpihpt3	Oracle	EXAMPLE.SH.PRODUCTS	12545.87
🔫 ovpint4	Ovpint54	Oracle	SYSTEM.SYS.I_SOURCE1	11840.32
📲 ovpint4	Ovpint54	Oracle	EXAMPLE.SH.COSTS	11131.27

**Customer Name** 

Customer Unassigned

Location Name

Location Unassigned



# 10 Oracle Tablespace Reports

There are five tablespace reports in the Database Report Pack:

- Tablespace Physical I/O Top 20
- Tablespace Size History
- Tablespace Size Allocated Top 20
- Tablespace Size Used Top 20
- Tablespace Size Percentage Used Top 20

## **Database Report Pack Tablespace Physical IO Top 20 Report**

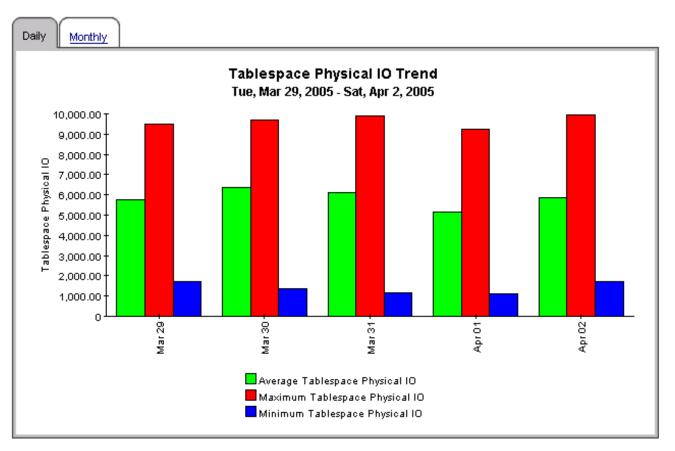


This report shows the top 20 tablespace by physical I/O (reads plus writes) for the previous week. Selecting a tablespace from the top table, shows the daily and monthly I/O trends for the tablespace.

### **Top 20 Tablespaces**

#### Sorted Based On Total Physical IO

		S	un, Apr 17, 20	005 - Sun, Apr	24, 2005 [GM	T+05:30]		
	System Name	Instance Name	Vendor	Tablespace Name	Total Physical IO	Maximum Physical IO	Minimum Physical IO	Average Physical IO
	ovpint4	Ovpint54	Oracle	DRSYS	762673.54	9961.55	1099.64	5777.78
-9	ovpint4	Ovpint54	Oracle	CVMLITE	756694.76	9918.15	1229.29	5705.92
	ovpihpt3	Ovpihpt3	Oracle	EXAMPLE	737823.59	9952.93	1225.10	5532.06
-9	ovpint4	Ovpint54	Oracle	SYSTEM	733414.21	9925.98	1153.64	5640.42
-9	ovpihpt3	Ovpihpt3	Oracle	XDB	724070.33	9971.07	1107.64	5424.47
≫	ovpint4	Ovpint54	Oracle	USERS	703221.52	9696.91	1037.66	5279.53



<u>a</u> •

^

## Database Report Pack Tablespace Size History Report



This report shows the top tablespaces which had the most dynamic space usage over the reporting interval. The top tablespaces were selected using the standard deviation of the amount of space used. The graph also shows historical trends for the size usage on daily and monthly basis.

#### **Top 20 Tablespaces**

#### Sorted Based On Most Dynamic Space Usage

				Mon, Mar 28, 3	- 2005 - Mon, Mar	28, 2005		
		System Name	Instance Name	Vendor	Tablespace Name	Average Size Allocated	Dynamic Space Usage	Average Size Free
		ovpihpt3	Ovpihpt3	Oracle	XDB	1024.00		496.58
-	<b>9</b>	ovpint4	Ovpint54	Oracle	USERS	1024.00	71.92	487.72
-	<b>9</b>	ovpint4	Ovpint54	Oracle	SYSTEM	1024.00	71.54	521.38
-	<b>9</b>	ovpihpt3	Ovpihpt3	Oracle	EXAMPLE	1024.00	62.41	507.92
-	9	ovpint4	Ovpint54	Oracle	DRSYS	1024.00	50.02	538.00
-	×	ovpint4	Ovpint54	Oracle	CVMLITE	1024.00	36.88	532.07

#### Customer Name

#### Location Name

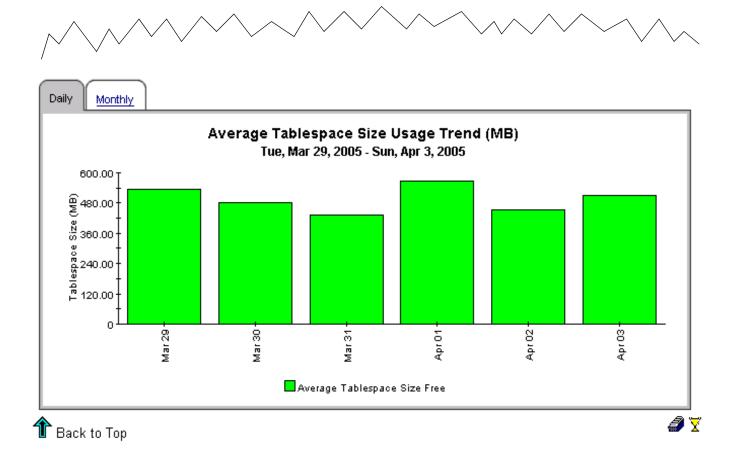
Customer Unassigned

Location Unassigned

#### Tablespace Size Usage Details

Tue, Mar 29, 2005 - Sun, Apr 3, 2005

	1 do, mai 20, 2000	0dii, Apr 0, 2000		
Date	Average Size Allocated	Average Size Used	Average Size Free	
Tue, Mar 29 12:00 AM	1024.00		534.08	
Wed, Mar 30 12:00 AM	1024.00		480.73	
Thu, Mar 31 12:00 AM	1024.00		433.26	
Fri, Apr 1 12:00 AM	1024.00		566.98	
Sat, Apr 2 12:00 AM	1024.00		454.78	
Sun, Apr 3 12:00 AM	1024.00		509.68	



### Database Report Pack Tablespace Size Allocated Top 20 Report



The report shows top 20 tablespaces across all instances sorted based on megabytes allocated in the top table with a graph showing the daily trend for the tablespace selected from the top table.

#### **Top 20 Tablespaces**

#### Sorted Based on Average Megabytes Allocated (MB)

	System Name	Instance Name	Vendor	Tablespace Name	Average Megabytes Allocated	Average Megabytes Used	Average Megabytes Free
	ovpint4	Ovpint54	Oracle	DRSYS	1024.00	533.02	490.98
-99	ovpint4	Ovpint54	Oracle	USERS	1024.00	583.02	440.98
-9	ovpint4	Ovpint54	Oracle	SYSTEM	1024.00	595.55	428.45
-9	ovpint4	Ovpint54	Oracle	CVVMLITE	1024.00	434.89	589.11
-99	ovpihpt3	Ovpihpt3	Oracle	XDB	1024.00		509.68
- 🏹	ovpihpt3	Ovpihpt3	Oracle	EXAMPLE	1024.00	600.46	423.54

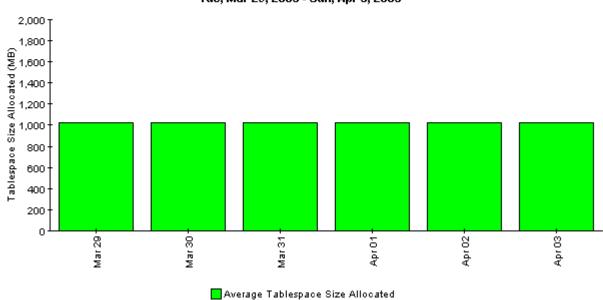
#### Sun, Apr 3, 2005 - Sun, Apr 3, 2005

#### Customer Name

#### Location Name

Customer Unassigned

Location Unassigned



#### Average Tablespace Size Allocated (MB) Tue, Mar 29, 2005 - Sun, Apr 3, 2005

### Database Report Pack Tablespace Size Used Top 20 Report



The report shows top 20 tablespaces across all instances sorted based on megabytes used in the top table with a graph showing the daily trend for the tablespace selected from the top table.

#### Top 20 Tablespaces

#### Sorted Based on Average Megabytes Used (MB)

Sun, Apr 3, 2005 - Sun, Apr 3, 2005

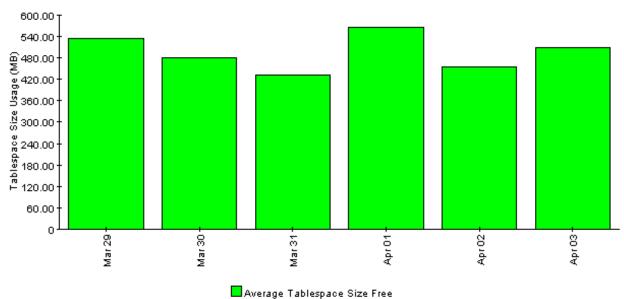
	System Name	Instance Name	Vendor	Tablespace Name	Average Megabytes Allocated	Average Megabytes Used
	ovpihpt3	Ovpihpt3	Oracle	XDB	1024.00	
-9	ovpihpt3	Ovpihpt3	Oracle	EXAMPLE	1024.00	600.46
-9	ovpint4	Ovpint54	Oracle	SYSTEM	1024.00	595.55
-9	ovpint4	Ovpint54	Oracle	USERS	1024.00	583.02
-9	ovpint4	Ovpint54	Oracle	DRSYS	1024.00	533.02
×	ovpint4	Ovpint54	Oracle	CVMLITE	1024.00	434.89

**Customer Name** 

Location Name

Customer Unassigned

Location Unassigned



#### TableSpace Size Usage Details (MB) Tue, Mar 29, 2005 - Sun, Apr 3, 2005

### Database Report Pack Tablespace Size Percentage Used Top 20 Report



The report shows top 20 tablespaces across all instances sorted based on percentage tablespace size used in the top table with a graph showing the daily trend for the selected tablespace from the top table.

#### Top 20 Tablespaces

#### Sorted Based on Percentage Used

Sun, Apr 3, 2005 - Sun, Apr 3, 2005

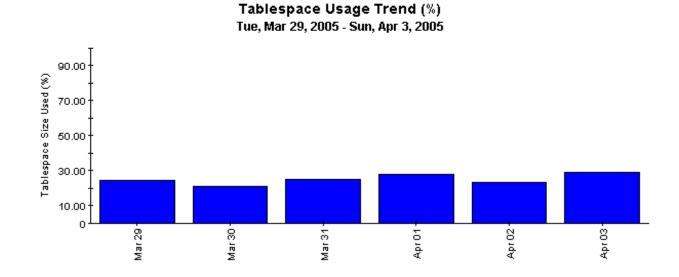
	System Name	Instance Name	Vendor	Tablespace Name	Total Space Allocated	Percent Used
	ovpihpt3	Ovpihpt3	Oracle	EXAMPLE	24576.00	29.32
-9	ovpint4	Ovpint54	Oracle	SYSTEM	24576.00	29.08
-9	ovpint4	Ovpint54	Oracle	USERS	24576.00	28.47
-9	ovpint4	Ovpint54	Oracle	DRSYS	24576.00	26.03
-9	ovpint4	Ovpint54	Oracle	CVVMLITE	24576.00	21.23
×	ovpihpt3	Ovpihpt3	Oracle	XDB	24576.00	0.00

#### **Customer Name**

Location Name

Customer Unassigned

Location Unassigned



#### Oracle Tablespace Reports

# A Formulas

### Main Package Formulas

If a metric cannot be collected directly from the EPC sub-agent, OVPI calculates it. The following table indicates how each metric is calculated.

Metric	How the Metric is Calculated		
Instance uptime	Time in minutes the database instance was up		
Instance downtime	Time in minutes the database instance was down		
Instance unknowntime	Time that is unaccounted for, time when the instance was neither up nor down = (60 – Uptime – Downtime)		
Instance percent uptime	Average Percent Up time of database instance = (InstUpTime/60) * 100		
Instance percent downtime	Average Percent Down time of database instance = (InstDownTime/60) * 100		
Instance percent unknowntime	Average Unknown time of database instance = ((InstUpTime+InstDownTime)/60) * 100		
Instance size allocated	Total size of memory allocated by this instance, measured in megabytes		
Instance size free	Amount of memory still free from the total allocated, measured in megabytes		
Instance size used	Amount of memory used, measured in megabytes = (InstanceSizeAllocated – InstanceSizeFree)		
Instance size percent used	Average Percent Instance Size Used = (InstSizeUsed/ InstSizeAllocated) * 100		
Instance size percent free	Average Percent Instance Size Used = (InstSizeFree/ InstSizeAllocated) * 100		

## Oracle Sub-Package Formulas

The following formulae are used to calculate metrics for reports in the Oracle sub-package.

Metric	How the Metric is Calculated	
Tablespace Size Allocated	Total size of Tablespace, measured in megabytes	

Metric	How the Metric is Calculated	
Tablespace Size Free	Amount of free Tablespace size, measured in megabytes	
Tablespace Size Used	Amount of used Tablespace size, measured in megabytes = (TblSpaceSizeAllocated – TblSpaceSizeFree)	
Tablespace Size Percent Used	Average Percent Tablespace Size Used = (InstSizeUsed/ InstSizeAllocated) * 100	
Tablespace Size Percent Free	Average Percent Tablespace Size Used = (InstSizeFree/ InstSizeAllocated) * 100	
Segment Size Allocated	Total size of segment, measured in megabytes	
Instance Logons	Number of logons for an instance	
Instance Transactions	Number of transaction for an instance	
I/O	Number of physical I/O operations for a tablespace	

# **B** Editing Tables and Graphs

Any table or graph can be viewed in several ways. While the default view is usually adequate, you can easily change to a different view. If you are using Report Viewer, right-click the object to open a list of view options. If you are using a web browser to view the report, follow these steps to change the default view:

- 1 Click **Preferences** on the links bar.
- 2 Expand **Reports** in the navigation frame.
- 3 Click Viewing.
- 4 Select the Allow element editing box.
- 5 Click Apply.
- 6 Click the Edit icon next to the table or graph.

### **View Options for Tables**

Right-clicking a table, or selecting the Edit Table icon if you are using the Web Access Server, opens a list of table view options.

Set Time Period,
Change Constraint Values
Select Nodes/Interfaces
Change Max Rows
View in new Frame
Print Table
Export Element as CSV
Delete Table

Select **Set Time Period** to alter the relative time period (relative to now) or set an absolute time period. The Set Time Period window opens.

You may shorten the period of time covered by the table from, for example, 42 days to 30 days or to 7 days. If you are interested in a specific period of time that starts in the past and stops *before* yesterday, click **Use Absolute Time** and select a Start Time and an End Time.

Select **Change Constraint Values** to loosen or tighten a constraint, thereby raising or lowering the number of elements that conform to the constraint. The Change Constraint Values window opens. To loosen a constraint, set the value lower; to tighten a constraint, set the value higher.

The **Select Nodes/Interfaces** allows you to change the scope of the table by limiting the table to specific nodes, specific interfaces, or a specific group of nodes or interfaces. The Select Node Selection Type window opens.

**Change Max Rows** increases or decreases the number of rows in a table. The default is 50. If you expand the default, the table may take more time to open. If you are trending a large network, using the default ensures that the table opens as quickly as possible.

View in new Frame opens the table in a Table Viewer window, shown below. If necessary, make the data in the table more legible by resizing the window.

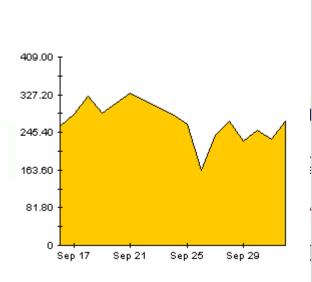
#### 🏢 Table Viewer

		Over Previous 6 Ho	urs	
Direction	IpPrecedence	Switched Bytes	Switched Pkts	Time Period
Input	0	105,688	675	Tue Oct 29 07:00 AM
Input	1	0	0	Tue Oct 29 07:00 AM
Input	2	0	0	Tue Oct 29 07:00 AM
Input	з	0	0	Tue Oct 29 07:00 AM
Input	4	0	0	Tue Oct 29 07:00 AM
Input	5	0	0	Tue Oct 29 07:00 AM
Input	6	600	5	Tue Oct 29 07:00 AM
Input	7	0	0	Tue Oct 29 07:00 AM
Input	0	98,334	638	Tue Oct 29 06:45 AM
Input	1	0	0	Tue Oct 29 06:45 AM
Input	2	0	0	Tue Oct 29 06:45 AM
Input	з	0	0	Tue Oct 29 06:45 AM
Input	4	0	0	Tue Oct 29 06:45 AM

Polled IP QoS Statistics Data - Input

### View Options for Graphs

Right-clicking a graph, or clicking the Edit Graph icon if you are using the Web Access Server, opens the following list of view options.



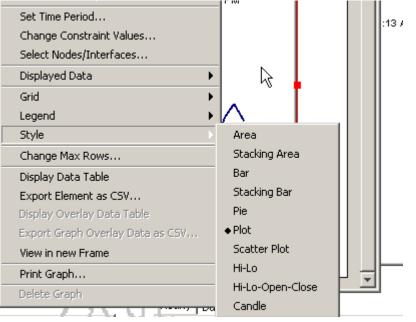
Add Overlay
Remove Overlay
Set Time Period
Change Constraint Values
Select Nodes/Interfaces
Displayed Data
Grid
Legend •
Style 🕨
Change Max Rows
Display Data Table
Export Element as CSV
Display Overlay Data Table
Export Graph Overlay Data as CSV
View in new Frame
Print Graph
Delete Graph

Option	Function		
Set Time Period	Same as the table option shown above.		
Change Constraint Values	Same as the table option shown above.		
Select Nodes/Interfaces	Same as the table option shown above.		
Displayed Data	For every point on a graph, display data in a spreadsheet.		
Grid	Add these to the graph:		
	X axis grid lines		
	Y axis grid lines		
	X and Y axis grid lines		
Legend	Delete or reposition the legend.		
Style	See the illustrations below.		
Change Max Rows	Same as the table option shown above.		
Display Data Table	See below.		
Export Element as CSV	Same as the table option shown above.		
View in New Frame	Opens graph in a Graph Viewer window.		
Print Graph	Same as the table option shown above.		

The following table provides details about each option.

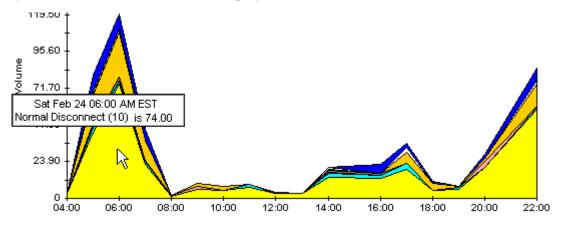
### **Style Options**

Select **Style** to display a list of seven view options for graphs.



#### Style > Area

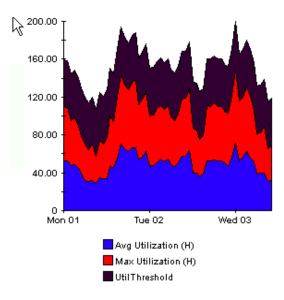
The plot or bar chart changes to an area graph. While relative values and total values are easy to view in this format, absolute values for smaller data types may be hard to see. Click anywhere within a band of color to display the exact value for that location



To shorten the time span of a graph, press SHIFT+ALT and use the left mouse button to highlight the time span you want to focus on. Release the mouse button to display the selected time span.

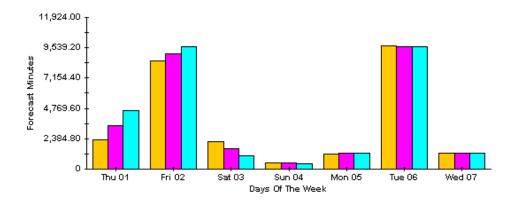
#### Style > Stacking Area

The area or plot graph changes to a stacking area graph. This view is suitable for displaying a small number of variables.



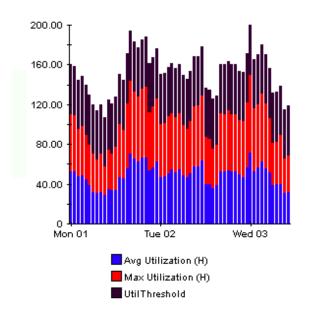
#### Style > Bar

The graph changes to a bar chart. This view is suitable for displaying relatively equal values for a small number of variables. There are three variables in the graph below.



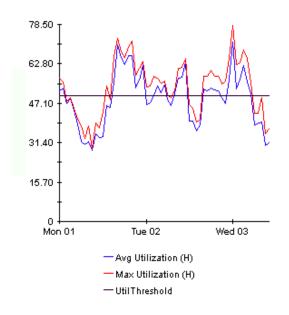
#### Style > Stacking Bar

The plot or area graph changes to a stacking bar chart. If you increase the width of the frame, the time scale becomes hourly. If you increase the height of the frame, the call volume shows in units of ten.



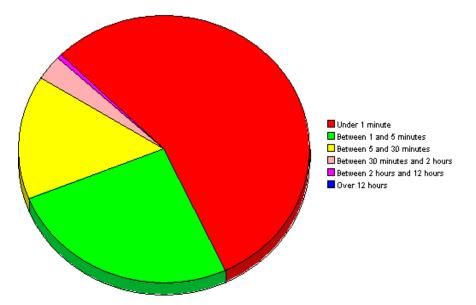
#### Style > Plot

Bands of color in an area graph change to lines. If you adjust the frame width, you can make the data points align with hour; if you adjust the frame height, you can turn call volume into whole numbers.



#### Style > Pie

An area graph becomes a pie chart. Bands in an area graph convert to slices of a pie and the pie constitutes a 24-hour period. This view is helpful when a small number of data values are represented and you are looking at data for one day.



If you are looking at data covering several days, you will see multiple pie graphs, one for each day.

### **Display Data Table**

This option changes a graph into a spreadsheet.

📕 Data table	for 8.1
X Axis	Average
Tue Feb 19	0.809
Tue Feb 19	0.621
Tue Feb 19	1.026
Tue Feb 19	0.362
Tue Feb 19	1.171
Tue Feb 19	1.051
Tue Feb 19	0.284
Tue Feb 19	0.826
Tue Feb 19	1.483
Tue Feb 19	0.967
Tue Feb 19	1.471
Tue Feb 19	1.308
Tue Feb 19	1.123
Tue Feb 19	0.93
Tue Feb 19	1.497
Tue Feb 19	0.806
Tue Feb 19	0.725

### View in New Frame

The graph opens in a Graph Viewer window. Improve legibility by resizing the window.

🖉 Graph Viewer	- D X			
Network Response Time				
Cisco_04				
Tue Feb 19 12:00 AM - Tue Feb	19 11:00 PM			
Tue 05:00 AM Tu - Average	↓ ae 11:00 PM			

# Index

### A

ad hoc selector reports, 7

#### С

change max rows option, 69 collection\_manager (command), 18 Common Property Tables, 20, 25 upgrading, 18 custom views of data or property tables, 18

#### D

Database Oracle Smart Plug-In (SPI), 23 Database Oracle SPI Datapipe, 12, 26 Datapipe Manager, 18 demo package, 25 Display Data Table, 69 displayed data option, 69

#### E

extracting packages, 25

#### F

formulas, 65

#### G

grid options, 69 group\_manager (command), 18

#### 

Informix, 12 instance downtime, 65 instance logons, 66 instance percent downtime, 65 instance percent unknown time, 65 instance percent uptime, 65 instance size allocated, 65 instance size free, 65 instance size percent free, 65 instance size percent used, 65 instance size used, 65 instance transactions, 66 instance unknown time, 65 instance uptime, 65

#### L

Launch Point, 7 legend options, 69

#### Μ

MS Access, 12 MS SQL Server, 12

#### 0

OVO Management Server, 23 OVPI Timer starting, 21 stopping, 19

#### P

polling policies, 17

#### R

report linking, 7 reports view options, 26

#### S

segment size allocated, 66 style options for graphs, 69 SysRes OVPA Collection Datapipe, 23, 24, 26

#### T

tablespace size allocated, 65 tablespace size free, 66 tablespace size percent free, 66 tablespace size percent used, 66 Tablespace Size Used, 66

#### U

upgrading Common Property Tables, 18 Use Absolute Time, 67

#### V

viewing reports, 26 view in new frame, 68