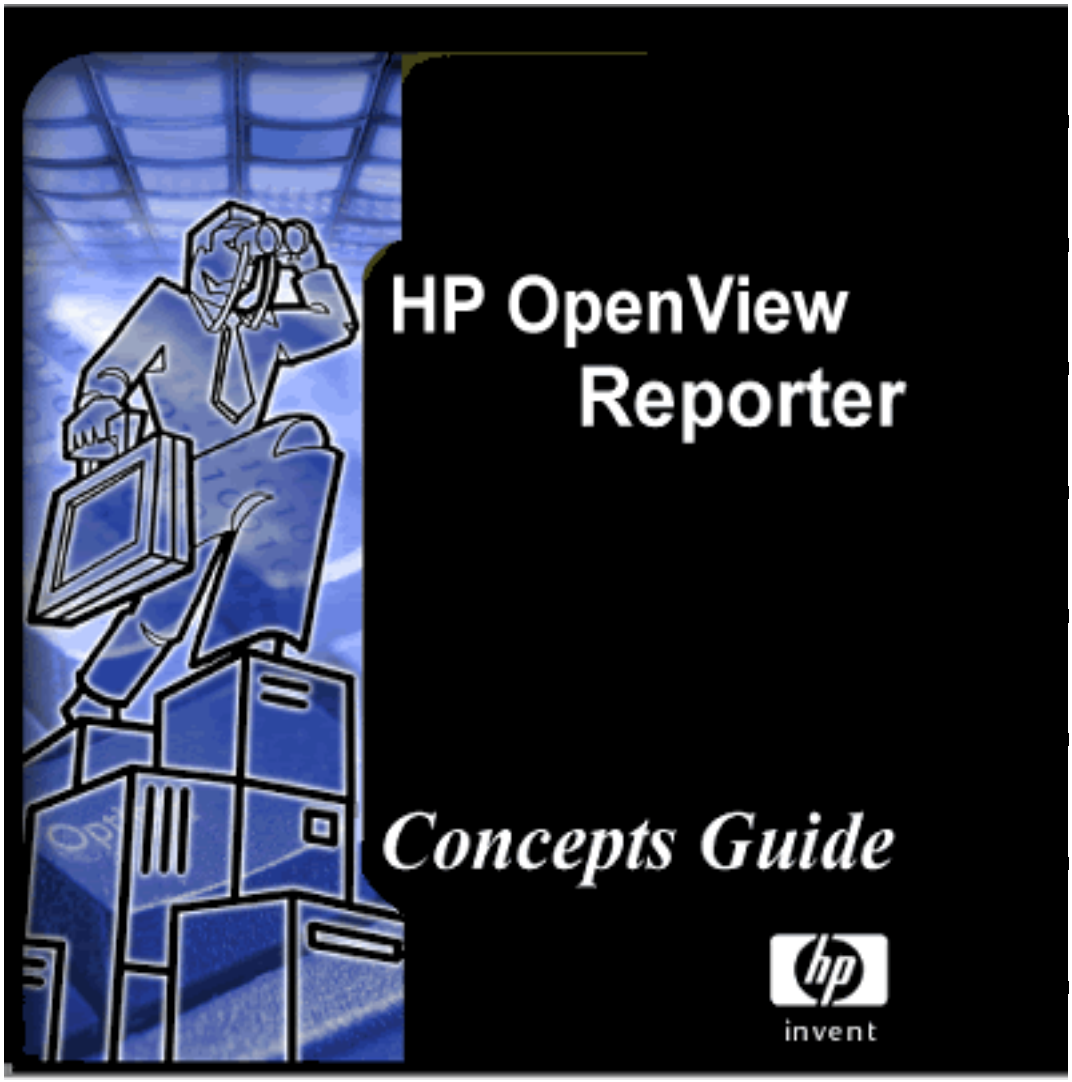

Getting Started with Reporter

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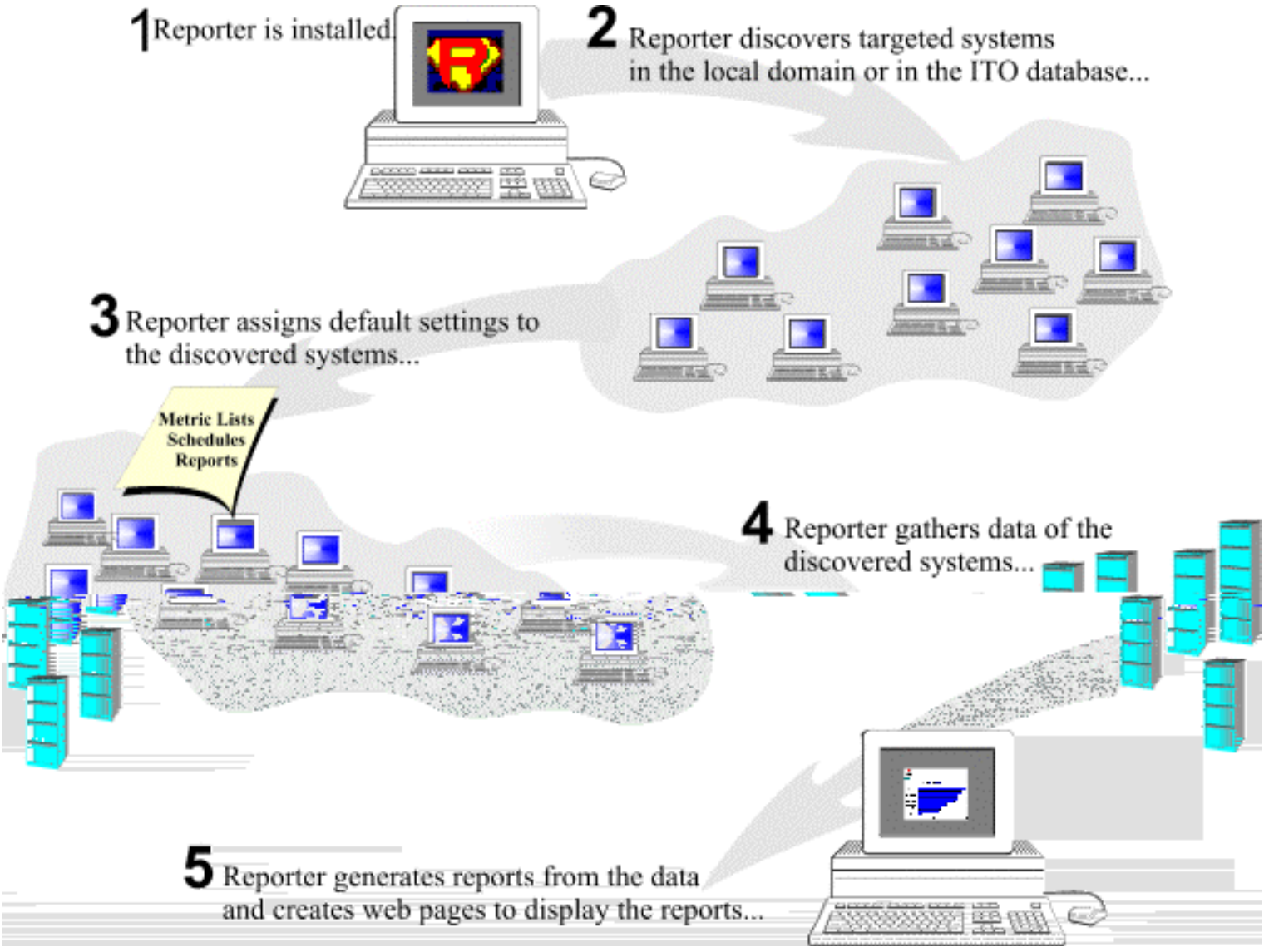
HP OpenView Reporter creates Web-based reports from data of targeted systems it "discovers." Discovery of a system can occur if the system is running OpenView agent software. Agent software includes HP OpenView MeasureWare Agent for Windows NT/2000 (MeasureWare Agent) or HP OpenView Performance Agent on UNIX systems. (Using HP OpenView Vantage Point Operations (VPO) data or Oracle as the database requires special configurations; see instructions in the appendices.) Please see the links that follow the illustration below.) After Reporter has run through its discovery, it gathers data based on pre-defined and user-specified lists of metrics. It then uses this data to generate reports.

Note that in order to generate additional reports that are available for other VantagePoint products, you must add the Reporter package for the VantagePoint product you are using. Please refer to the online Help "Working with Reports" topics for instructions.

What Happens At Installation:



When Reporter is first installed, it begins operation automatically, using pre-configured settings which come with the product. The initial settings are sufficient to discover all targeted systems. Targeted systems are in the local domain for MeasureWare Agents; targeted systems for VPO are in the configured VPO database. Reporter completes a number of steps immediately after installation as illustrated below.

As shown in the preceding illustration, following installation, Reporter begins a cycle of its actions immediately. This immediate start, which is different from the schedule that Reporter follows by default, occurs so that you can see reports right away without having to wait until the next day. After the above actions are completed, Reporter follows the default schedule, which begins at 12:30 AM every night unless you change those default settings. Reporter's default schedule is described in "How Reporter Works," Chapter 3.

MeasureWare Agent and VantagePoint Operations (VPO) are sold separately from Reporter. No changes are required to MeasureWare Agent in order to support Reporter. However, for VantagePoint Operations on HP-UX or SUN see the appendices to configure a connection to the database.*
In addition, before Reporter can generate reports from other VantagePoint Reporter-enabled products (data sources other than MeasureWare Agent, such as VPO), you must select the report package from Reporter's File>Configure Report Packages menu.

 Reporter stores data in a default database. If you want to use a different database, please see the appendices for instructions on how to configure an alternate Reporter database.*

*Due to Oracle requirements, Reporter does not support connections to more than one version of Oracle Server at a time. Please see the Oracle8 Online Generic Documentation or contact Oracle support for further details.

Reporter's Daily Routine

After you install Reporter and it goes through the discovery process, it starts collecting data based on the metric lists that are assigned to the discovered systems. Metric lists for MeasureWare Agent and the Database can be modified while those for VPO cannot. The default metric lists provided for the respective agents are grouped as follows:

For MeasureWare Agent systems:

- Global
- Application
- Transaction

For VP Operations systems:

- VPO Messages
- VPO Operator

For VantagePoint for Windows systems:

- GLOBAL
- APPLICATION
- TRANSACTION
- VPR_ARMTRANSACTION
- VPR_MEMORY
- VPR_NETWORK
- VPR_NETWORKINTERFACE
- VPR_PHYSICALDISK

- VPR_PROCESSOR
- VPR_SYSTEM

The data collected by Reporter is stored in a database from which reports can be generated. Reporter also performs routine database maintenance and builds a web page that can display all reports generated by Reporter. This web page is viewable from your browser.

Reporter performs the following actions to discover new systems and to continue to track systems already in the database.

- Searches systems selected for inclusion in the Discovery Area (or initially, by default, systems in the local domain) and adds entries into the schedule to gather data when it finds new sources of data added.
- Gathers a default set of metric data based on the metrics available through MeasureWare Agents and stores this data in the Reporter database.
- Updates the database with any new information.
- Creates a series of pre-defined reports based on the data available in the Reporter database.
- Creates a web page that links into all the HTML reports created by Reporter.

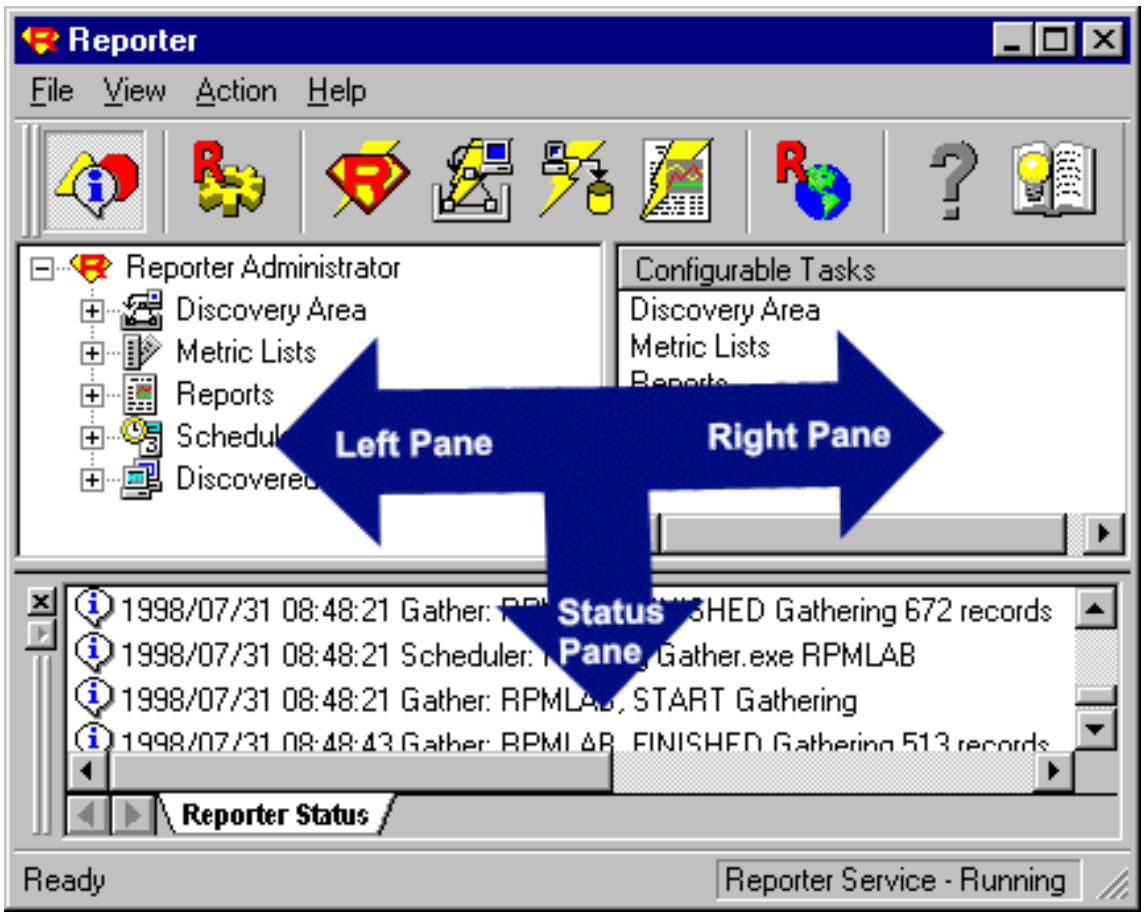
From the data it collects, Reporter automatically generates a number of different reports, providing you with critical information about the systems in your computing environment.

After you have begun using Reporter, you will likely want to customize Reporter by organizing your systems into different system groups. With these changes you can assign reports to these new system groups and generate sets of reports that are immediately organized in a way that is relevant to the way your organization functions. Lastly, you might also decide to create custom reports, for which you can purchase Crystal Reports and define new reports with data that you select (by creating metric lists).

The HP OpenView Point Reporter Window

Reporter is made up of a number of programs that work together. These programs complete the following actions: discover systems that are running MeasureWare Agents for Windows NT/2000 (MeasureWare Agent) or VantagePoint Operations (VPO) agents on your network; schedule periods of time during which data is collected on those systems or from the VPO database; and generate reports that contain the collected data. When installed and configured, Reporter allows you to access reports through an automatically generated Web page that allows you to view information on the systems targeted for reporting.

The illustration below shows the three panes of the Reporter main window. Each component is described in the sections that follow.



The Left Pane: The left pane contains the list of available items in a tree structure. Press the "plus" sign to expand part of the tree. You can select an item in the left pane to see more information about it in the right pane. You can also drag and drop items from the left pane to add them to selected items in the right pane. Use the left pane whenever you want to display, add, or rename items. You can perform these operations from the left pane:

- Add new system groups, report definitions, metric lists and schedule actions

The Right Pane: The right pane shows specifics about the item selected in the left pane. Depending on the item selected, you can edit and delete items from the right pane. You can perform these operations from the right pane:

- Delete systems, domains, and networks from the list that the Reporter searches for MeasureWare Agents.
- Edit some settings and definitions
- View the metric lists, reports, system information, and system group for a specific system
- Assign systems, reports, and metric lists to system groups
- View the metrics contained in a metric list

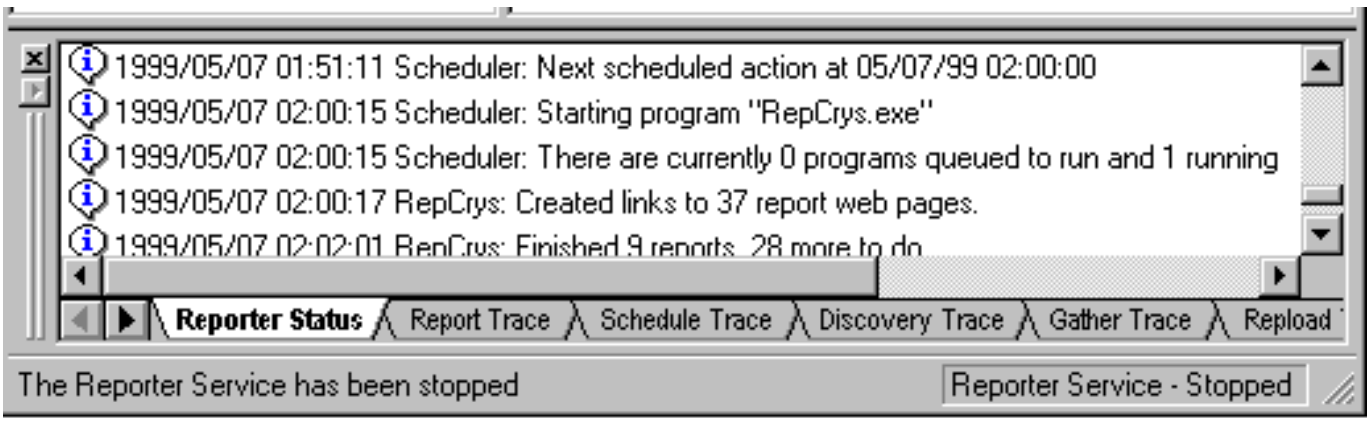
The Status Pane: The Status Pane is a read-only window that gives real-time information on the status of all the programs within the Reporter. To help navigate through the information displayed, each line entry is tagged as follows:


Information Only


Error


Warning


Trace information



The status pane (window) offers flexibility by allowing you to do the following:

- **Disconnect or hide the status pane:** You can disconnect the Status pane from the Reporter window and move it anywhere on the Desktop. You can also hide the Status pane through the View menu or the toolbar.
- **Display trace file information:** You can show additional information on Reporter activities by selecting specific trace files from which to display information. The illustration above shows tracing file tabs starting with Reporter Trace (shows information related to report generation). To use this feature, see the online Help topic "Configure the Status Window."

The Reporter Toolbar

Reporter's toolbar allows you to quickly initiate the following actions:

 Hides/shows the status pane.

 Starts/Stops the Reporter Service (must be activated before any of the programs can start; the program tool buttons appear disabled (colorless) if the Reporter Service is inactive).

 Starts all Reporter programs (actions) immediately.

 Starts the Discovery programs immediately.

 Starts the Gatherer programs immediately.

 Generates reports immediately.

 Shows the reports list on the Reporter Web page.

 Opens online Help.

 Opens the Concepts Guide (through your browser).

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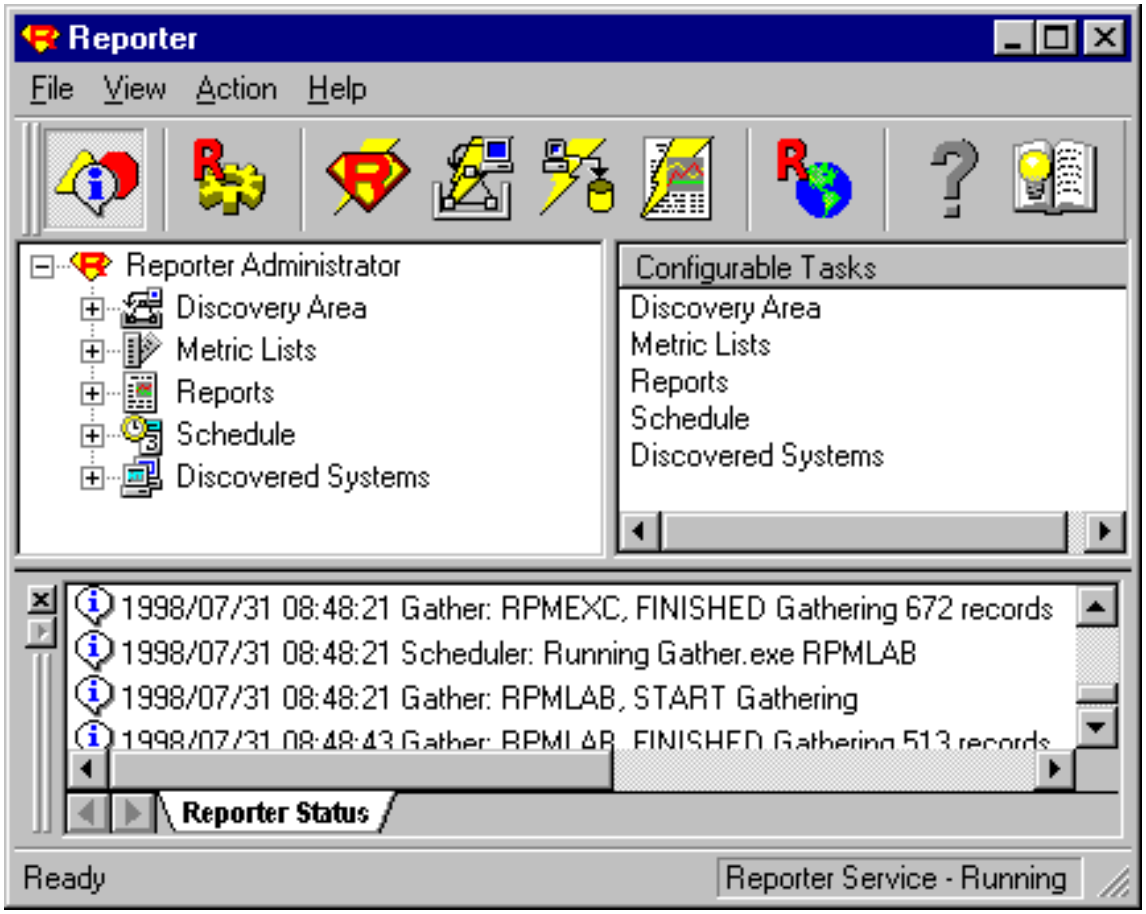
The Reporter Hierarchy

The left pane of the Reporter main window contains a hierarchy that allows you to view systems and change configurations. The sections that follow describe in general terms each specific area of the hierarchy and how you can use it. For specific information for the tasks you can complete using this hierarchy, refer to the Reporter online Help.



Discovery Area The Discovery Area is used to limit the search for MeasureWare Agents.The networks, domains and systems that appear beneath the Discovery Area icon are those that are known to Windows networking. Discovery can be extended outside the networks known to Windows in several ways described in later sections.

The Discovery Area is not used for discovery of VantagePoint Operations (VPO) systems. The VPO software keeps track of its systems in a central database. The Reporter copies this information from the VPO database.

Metric Lists The metric lists that appear beneath the Metric Lists icon are used to select the information that is gathered from system agents. This data is summarized and written into the Reporter database for easy reporting. Metric lists for MeasureWare Agents are modifiable and new metric lists can be created for additional MeasureWare Agent data sources (if you create new metrics, DO NOT include spaces in them as they will not be processed correctly). The metric lists for VPO agents are not modifiable.

You can assign metric lists to systems or groups of systems to control which data is gathered from them. By default, the standard metric lists are assigned to be gathered from all systems.

Reports The Report Families that appear beneath the Reports icon can be expanded to see individual report definitions. You can add a report to a system, group of systems or to the special group ALL to specify which systems to include in the report.

The colored squares in the corners of the report icons indicate the kinds of groupings this report supports (all systems [red], group [blue], or single system [green]). If you click a report you should see its definition in the right pane.

Reports are formatted in hypertext markup language (HTML) and are viewable through your Web browser.

If you choose to use a supplementary reporting application (Crystal Reports™ version 7.0 or 8.0), you can create your own reports or modify the reports furnished with the Reporter.

Schedule The entries beneath the Schedule icon are program actions configured to start at specified times. They are named for the actions they complete; for example, the Discover schedule starts the discovery process, while the Gather schedule starts the data collection process. You can change schedule times for all scheduled actions, or you can change the schedule time for one scheduled action. See the "Schedule" section in "How Reporter Works" for details on how to make such changes.

Discovered Systems The systems that have been discovered appear in groups beneath the Discovered Systems icon. Systems may be grouped to make them easier to locate, and to provide collections for reporting purposes. A system can belong to more than one group and all systems belong to the group named ALL.

Systems are added to groups automatically as they are discovered. Systems can show up in different groups based on any of these two methods: (1) You can create new groups and then place systems into those groups manually within the Reporter window. You place systems into the groups by double-clicking the system group name so that it appears in the right pane. Then you can drag 'n drop individual systems from the left pane to the right pane where the group appears. (2) You can also set up automatic grouping of systems by defining parameters for grouping. Then when Reporter discovers a system, it can place this system into the appropriate group, based on the parameters you have defined. Instructions for this method are in Chapter 6, Advanced Topics, By default, an automatic grouping is defined to add each system into a group based on its operating system.

You can select to place all newly discovered systems into a group named NEW to assist in manual grouping. If you are using VPO agents, you can copy the VPO nodegroups into the Reporter groups.

How HP OpenView Reporter Works

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Reporter's main window shows you a hierarchy that contains Reporter's configurable components. These components are: The network area to search for systems that are running MeasureWare Agent for Windows NT/2000 (MeasureWare Agent) or on UNIX systems, VantagePoint Performance Agent for UNIX (VP Performance Agent), metric lists, reports, scheduled actions and discovered systems. This section offers you more details on the configurable components listed below that are contained in Reporter's main window and also discusses how Reporter's actions (programs) are run and what happens during that time.

Discovery Area Before Reporter can access a system, it must be "discovered." Reporter is designed to discover Windows or UNIX systems through a couple of different methods. After a system is discovered, it is added to the Discovered Systems area of the Reporter hierarchy. Each time an existing system is re-discovered, its information is updated in the Reporter database.

To discover systems that are running MeasureWare Agents, you have three methods to choose from: network browsing, single system, and bulk discovery. You use the Discovery Area (in the Reporter main window) for the first two methods. Bulk discovery is discussed fully in "Customizing Reporter," Chapter 4, of this document.

Discovering systems through **network browsing** relies on the NT operating system, which lists all systems known to the NT network. It is possible for NT to know many thousands of systems so you will probably want to restrict the systems to be searched. Click the **Discovery Area** icon in the left pane to see the list of current networks and domains for network browsing. Under the Discovery Area in the left pane you can click the plus sign next to the icons to expand the hierarchy to see the networks, domains and systems known to the NT operating system. Drag to the right pane the network, domain, or system you would like searched.

Note: Systems that have aliases (multiple names) will have multiple appearances in the Discovery area. However, this situation does not create a problem as Reporter recognizes only one of those systems when discovery occurs. The system is reported on with the name used for MeasureWare Agent or VantagePoint Operations (VPO) data collection. If you set your trace level to "1," you can check the `trace.Discovery` *file to determine if multiple system names were discovered for a single system. (To change trace level, select* ***Configure*** *from the File menu in the main window.)*

Discovering **single systems** is not reliant on the NT operating system. You can add individual systems to the Discovery List by right-clicking the Discovery Area icon and selecting **Add Single System** from the drop-down menu shortcut that appears. After you enter the system name, it is included in the list of systems available for Discovery in the right pane.

To remove an item that appears in the Discovery List (the right pane of the Reporter window), right-click the

system name in the right pane and select **Delete** from the drop-down menu shortcut that appears.

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Metric Lists Metric lists control what information is gathered from a system into the Reporter's database. A metric list groups metrics from a single metric class supplied by MeasureWare Agent or by VPO. The metric list can also select the degree of summarization (points every 5 minutes, hour, day, etc.) and how much data to gather and retain in the database. The shorter the interval, the more records collected. The default summarization level is one hour.

Reporter includes default metric lists that target data collection for standard MeasureWare Agent metric classes and VPO messages. If you choose to create your own metric lists, you need to create new report definitions and templates to generate reports based on these customized lists. One metric naming requirement is that the name for the new metric NOT include embedded spaces. *Note: To create report templates, you must use Crystal Reports, a separate product that you can purchase from Seagate Software, Inc.*

You can assign metric lists to systems or groups of systems by selecting the systems or groups from the "Discovered Systems" icon in the scope pane, then dragging the metric list onto the right pane.

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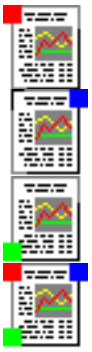
Reports Available reports are listed in families under the Reports icon. Expand the Reports hierarchy in the Reporter window and click on a report family to display in the right pane the reports it contains. You can also delete the report when it is in the right pane. Click on an individual report to display its definition details. You can edit the report definition details in the right pane including the Date Range and Shift Name.

Each report can include data from:



All systems in the database (**All Report**—color code red)

Selected system groups (**Group Report**—color code blue)

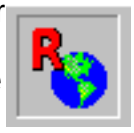
Single systems (**System Report**—color code green)

Combinations of the above

Each report definition must name a report template for one, two, or all three report types. Right-click the Reports icon and select **Add Report** from the drop-down item to create a new report definition.

In order to modify these report templates or add your own, you must purchase Crystal Reports™, which allows you to create additional templates. Chapter 4, "Generated Reports," describes how to use Crystal Reports to create templates to use with Reporter.

To view the last generated reports, click the Reports button on the tool bar or right-click the name Reports in the left pane and select **Show Reports**. You can also run a single report by right-clicking the report in the left pane and selecting **Run Report**.



You can assign reports to systems, to system groups, or to all systems. Click the system or group under the Discovered Systems icon in the left pane to display the system or group in the right pane and then drag the report onto the right pane. You can easily see if the report is meant for a single system (by the green square

attached to it), a system group (blue square), or all systems (red square) and assign it accordingly.

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Schedule The Schedule controls when actions occur within Reporter. Select the Schedule icon to display a list of scheduled actions (Reporter programs) in the right pane. You can restrict this list to actions of a particular type by clicking the plus sign next to the Schedule icon to expand the hierarchy and select one of the items under it. Normally all scheduling happens automatically, but you can modify scheduled actions when necessary. To modify a single scheduled action, double-click the entry for that action in the right pane. To add a new action, right-click the Schedule icon and select the **Add Schedule** from the drop-down menu shortcut that appears.

You can right-click the Schedule icon and select **Global Settings** to change the date for all scheduled actions. This is most useful when you want Reporter to delay all its scheduled actions until a future date. (Just choose Global Settings and change the Job Date to the desired date.) You can change the date and times for all executions of a particular type of action by right-clicking the action type (for example, Discover, Gather, Maintenance) under the Schedule icon and selecting **Global Settings** from the drop-down menu shortcut.

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Discovered Systems This section shows systems that have been discovered by the discovery programs. Discovered systems are placed in groups for easier access and reporting. Systems can be assigned to groups as they are discovered as specified in the Automatic Grouping facility. By default, systems are automatically assigned to groups based on the name of their operating system. You can also manually assign systems to groups. A system can belong to any number of different groups. You can create your own groups and assign systems to them manually using drag and drop.

Special groups:

- **ALL** - This group contains all discovered systems. Deleting a system from the ALL group removes all information about that system from the Reporter database.
- **NEW** - This group contains systems that are newly discovered. You can enable this group by selecting Options from the File>Configure menu. This group is useful if you are manually assigning systems to groups.
- **Nodegroups** – This group is part of the VPO configuration. VPO assigns systems to specific nodegroups. You can have these nodegroups copied to the Reporter groups by selecting Options from the File>Configure menu.

To add metric lists and reports to new system groups or to individual systems, click on the group or system under the Discovered Systems icon, then drag and drop the metric list or report from the left pane to the right.

To see more about a group or a system, select its name in the left pane. You can click the plus signs in the right pane to expand the information. Single systems contain useful information under the **System Information** icon.

You can delete a system from a group by selecting the group in the left pane and expanding the **Systems** icon in the right pane. Right-click the system and select **Delete** from the drop-down shortcut menu.

You can delete a group (except for the group ALL) by selecting Discovered Systems in the left pane, then selecting the group(s) to delete in the right pane and pressing the delete key (or right clicking and selecting the delete menu item).

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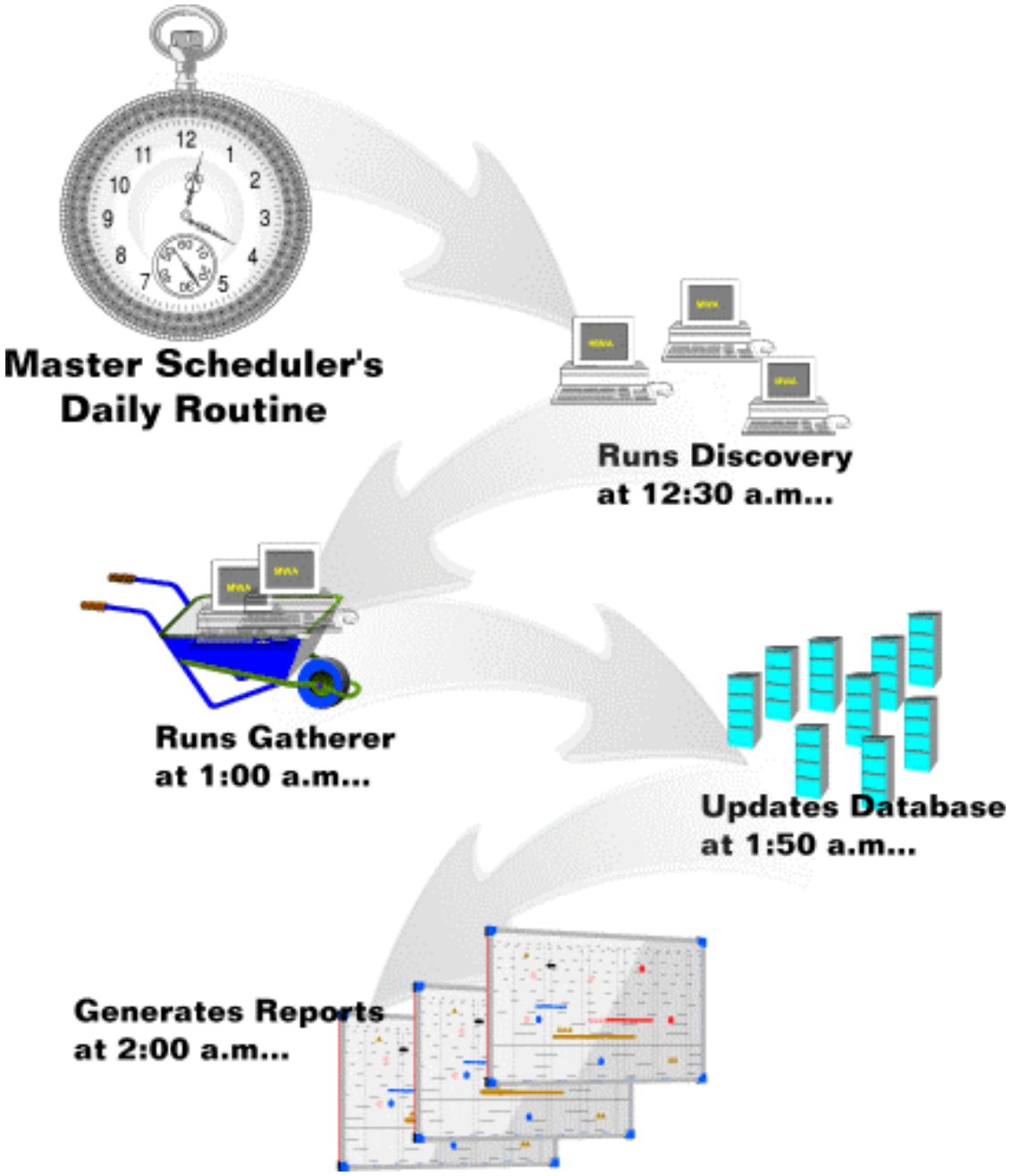
When Reporter's Programs Work

Reporter has many features that operate automatically from the time you install it. Reporter has been preconfigured to automatically run specific programs each night. These programs allow Reporter to discover new systems, add them to the database, gather and store those systems' data within the data base, and generate reports based on the newly gathered data. Reporter can operate successfully with no user interaction since it contains a schedule that automates the running of these programs. However, you can change the time at which any program is run.

Program Scheduling

Reporter's scheduling program (the Master Scheduler) is driven from a schedule table inside the central reporting database. Each entry in the schedule table describes when to run a program, what parameters to use, and how often to repeat the action. When no programs are scheduled to run, the scheduler is inactive.

The **Master Scheduler** has some special features that attempt to avoid overburdening the Reporter system with too many programs running at once. These features space out the running programs so that the system is still usable for other work.



Discovery Programs
Each night at 12:30 a.m.. (default time) the Discovery programs run.

Discover_ITO Program
Discover_ITO finds system nodes in the VPO database. It copies this information and optionally the VPO nodegroup information into the Reporter database.

Discovery Program
Discovery examines the network and looks for targeted systems that are running MeasureWare Agent. When Reporter finds a new system, it retrieves information about the system and its data sources. It adds this information to the Reporter database. It also schedules the execution of the Gather program to collect data for this system each night.

Gather Programs
Each night, starting at 1:00 a.m.(default time), the Gather programs run.

Gather_ITO Program
This programs reads information from the VPO database and writes summaries to the Reporter database. Because summaries take less space than the original information, they can be held for a longer period of time.

Gather Program
This program uses information in the Reporter database to determine what metrics to gather from the MeasureWare Agent data available in each system.This information is in the form of *metric lists* which define the metrics to be gathered from every data source. Reporter uses this information to collect data from each discovered system and adds this data to the Reporter database.

The Gather program executes every night, once for each discovered MeasureWare Agent system. It only gathers information that is not already in the Reporter database.

Database Maintenance Program

Each night at 1:50 a.m. (or following the completion of the last Gather program) the database maintenance program (RepMaint) starts.

RepMaint program
This program performs routine database maintenance such as deleting old data.

Report & Web Page Link Generation

From the data that is stored in the database and the report definitions, which determine the specific reports to generate for specific systems, Reporter is able to generate reports. In the last step, the report program builds a web page to link to all the HTML reports that Reporter generates.

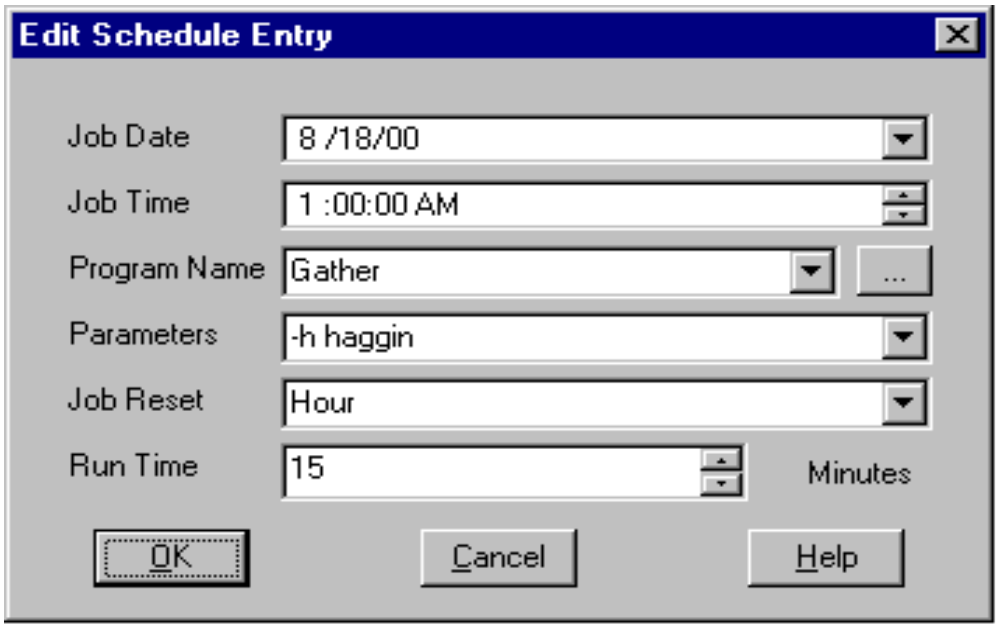
Most reports are generated from data which has been summarized and saved in the Reporter database. However, some reports are generated directly from other databases, such as the VPO database. These reports show data which is not easily summarizable. You can identify **direct reports** by a non-blank Database Name field in the Report Definitions dialog box.

Modify the Gather Schedule to Multiple Times Daily

VP Reporter performs batch reporting of data every night. However, it is possible to generate reports more frequently. For example, you may have a few critical server systems on which you want to see data updated every hour. To generate reports more often, Reporter can read the collected data more frequently than once a day. You can make this happen by using the Edit Schedule Entry dialog to re-schedule *gather* to show the data up to the last hour and run the gather program every hour. The two parameters you can use are **-h** (for showing all the data up to the last hour) and <***system***> (for naming the system on which you want the data shown).

To re-schedule data gathering for a specific system to an hourly basis:

1. Open the Reporter main window and in the left pane double-click **Schedule** (or right-click the plus next to Schedule) to expand the folder.
2. Still in the left pane select **Gather**.
   (In the right pane each system's scheduled gather jobs appear. The system name is in the Parameters column.)
3. In the right pane, right-click the system whose gather job you want to change and select **Edit**.
4. In the Edit Schedule Entry dialog box, type **-h** in the Parameters box to precede the system name. In the example below, " -h" precedes "haggin" to gather all collected data up to the last hour for system "haggin."
5. In the Job Reset box, click the down-arrow and select **Hour** to restart the job every hour.



Generated Reports and Custom Reports

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This section covers the following:

Reporter comes with a wide variety of report templates that you can see under the Reports icon. These templates are used to create report definitions based on the data gathered from discovered systems.

If you are using another VantagePoint product, the product may include a **Report Package** that is either automatically installed or can be added using the Reporter main window (choose **File>Configure>Report Packages**). Please see the online Help for details.

Reports are grouped into **Report Families** for ease in locating. You can add and delete report families and move reports between them using drag and drop. All reports belong to the ALL report family. Deleting a report from the ALL report family removes it entirely from the Reporter database. Deleting a report from any other report family affects only that family.

Report Type Color Coding

Reports are color coded with small squares to indicate if you can apply the report to **ALL** systems (**red** in the upper left corner), to a system **GROUP** (**blue** in the upper right corner), or to a single **SYSTEM** (**green** in the lower left corner).You can identify the report contents by the name displayed; for example the report Discovered Systems provides you with a list of all the systems that Reporter has discovered and on which reports are currently available.

Instructions are available at the end of this chapter for how to create custom reports using the Seagate report generating software Crystal Reports™ .

Generating Reports

Each night starting at 2:00 AM (following the update of the Reporter database by the RepMaint program), the report generation program (RepCrys*)* runs. This program uses a series of Crystal Reports™ templates to produce reports from the data in the Reporter database. These reports are stored in HTML format as .htm files and are suitable for viewing with web browsers. This program also creates a series of web pages that contain links that, when clicked, display the named report.

To view the last generated reports, click the Reports button on the tool bar or right-click the name Reports in the left pane and select **Show Reports**. You can also run a single report by right-clicking the report in the left pane and selecting **Run Report**.

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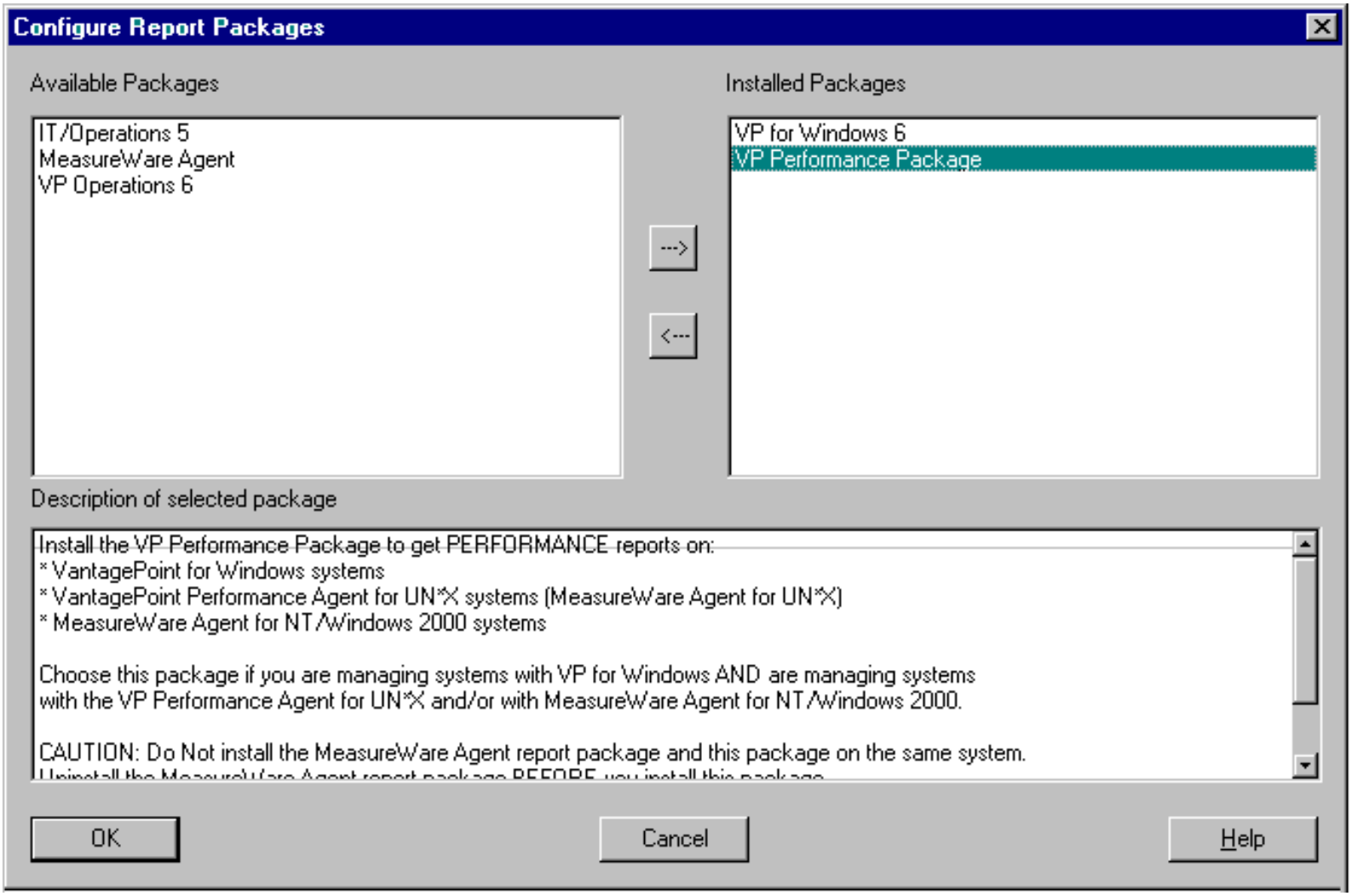
Adding Report Packages for Other OpenView Products

Some OpenView products include report packages that, once installed, automatically load a set of report templates that Reporter uses to generate reports for the newly installed product. However, in some cases you will have to manually select the product's report package within the Reporter main window.

To select the Report package:

1. Open the Reporter main window and select **File**>**Configure**>**Report Packages**.
2. In the dialog that appears, select the package for the product you installed.



Please refer to the specifc VantagePoint product documentation for details on whether or not the package is automatically installed, or if you need to manually integrate it with Reporter.

Displaying Reports As Web Pages

Reports can be viewed using any web browser such as Microsoft Internet Explorer™ or Netscape Navigator™.

- To view the reports from the system which has Reporter installed, click the Show Reports button on the toolbar or right-click the name Reports in the hierarchy and select Show Reports.
- To view reports using a web server, create a link from one of your web server pages to the reports.htm file. For default installations, this file will be found as `C:\rpmtools\data\webpages\reports.htm`
  If the Reporter is not running on the same system as the web server, then you must either mount the `C:\rpmtools\data` directory from the Reporter system onto the web server's file system or periodically copy the files in the `C:\rpmtools\data\webpages` directories to the web server system.
- For more information on this topic see the Advanced Topics chapter of this document.

All report definitions are shown under the Reports icon. Descriptions of a report's contents are sometimes included in the web pages to help interpret the information.

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Reporter Data

Accessing Reporter Data Reporter data is centralized on the system where Reporter is installed. You can configure more

than one centralized area to gather data from the same MeasureWare Agent. We recommend that Reporter reside on a system that is capable of writing reports directly to the web server's directories; for example, the web server itself or a system which can mount the web server's directories.

Reporter Data Retention Reporter data is retained for seven days by default and most reports, by default, reflect this setting. You can change this setting by editing each metric list.You can generate reports, though, that have fewer days' data in them by editing the Report Definition and selecting the desired **Date Range**. In this way you can produce reports with differing amounts of data from the same database.

Where Reporter Data Resides All data accessed by Reporter is stored in a relational database that supports Open Database Connectivity (ODBC). Reporter includes a default database. The database does not have to reside on the Central Reporting System, as programs on that system can access it through ODBC calls. Check the Release Notes for a list of currently supported databases.

Note: *Open Database Connectivity (ODBC) is an industry standard supported by many vendors that allows applications to share data from a wide variety of database formats*.

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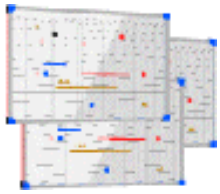
Creating Your Own Reports



As explained in the previous sections, Reporter includes a variety of reports that are automatically generated. You can make changes to a report definition, such as the date range you would like the data to cover, the shift on which you want data reported, etc. You may find that the default reports along with the changes you can make to their definitions are sufficient to meet your organization's needs. If this is the case, you can skip this section. But if you need to create your own custom reports, please read on.

New report templates are necessary when you want to report on data from new or modified metric lists. Custom reports allow you to display the data collected for these new lists. The procedures here cover how to change the report templates included with Reporter. If you change any default template, we recommend retaining the original report and template name and saving changes under a new report and template name.

Crystal Reports™ from Seagate Software

To create or modify report templates, you need to first purchase Crystal Reports, developed by Seagate Software, Inc. You can contact Seagate Software at 800-877-2340 (US and Canada) or 604-681-3435.The fax number is 604-681-2934, and the the Web site address is `www.seagatesoftware.com`. Seagate offers several packages depending on your needs. If you want to customize the default report templates or create your own templates, it is recommended that you purchase Seagate Crystal Reports Professional, version 8.0.

If you have any difficulty in using the Crystal Reports package, contact the Seagate support procedures. This document describes how to integrate Crystal Report templates into Reporter after you have created templates.

Step 1: Specify the database

When you create a new report template in Crystal Reports, you must designate the data source for the report's data. Even though more than one way may exist for accessing the Reporter database, we recommend you use the ODBC method. This method saves you from having to change your report templates if the underlying database for Reporter is moved.

- Open Crystal Reports
- Select **New** from the File menu.
- In the Expert report gallery, select **Standard**.
- Select the **SQL/ODBC** button.
- From the list of ODBC Server Types, select **ODBC-Reporter**.

Step 2: Choose a database table

After you have selected the database, you need to select the table that contains the data you want to use.

- Select the table(s) for your report.
  If you select more than one table, you are asked to indicate how they should be linked.

The following links are recommended:

(most).SYSTEMNAME links to	GROUPS.SYSTEMID
(most).SYSTEMNAME links to	SYSTEMS.SYSTEMID
GROUPS.SYSTEMID links to	SYSTEMS.SYSTEMID

The following tables are named according to the default metric list within Reporter. These tables store the data gathered for each metric list. If you add metric lists, additional tables are created from which you can generate other reports. Each database table is named according to the metric list name.

Database Table	Contains	Useful for
APPLICATION	One record (row) for each active user defined application on each system. Data points once each hour.	Reports showing which applications are most active.
GLOBAL	One record (row) for each hour showing overall activity, resources, etc.	General status of a system, resource usage, etc.
TRANSACTIONS	One record (row) for each Application Response Measurement (ARM) transaction once each hour.	Showing service level conformance and business transaction volumes.
DOWNTIME	One record (row) for each shift a system was available each day.	System Up and Down Time reports.

Additional tables control Reporter actions and maintain its status. These tables contain information generally not vital to your understanding of Reporter, but you might find some of the information interesting.

Database Table	Contains	Useful for
COMPLETED	One record (row) for each program which was completed in the operations of Reporter.	Tracking execution time of the various Reporter programs.
DATASOURCES	A list of the data sources and classes which were discovered on each MeasureWare Agent.	Viewing the DataClasses and DataSources reports.
GROUPS	A list of systems belonging to each system group.	Viewing the names of the systems in a group.
SYSTEMS	A list of discovered systems.	See the DiscoveredSystems report. In addition, this table may be linked to other tables to provide additional information about a system.

Step 3: Choose fields (metrics) to use in the report

If you need more information on metrics before making your selections, refer to MeasureWare Agent documentation for metric descriptions.

- Select the fields to include in the report.

Each table generated by a metric list contains the following fields:

Field	Description

ID	Sequentially assigned number for each row in the table. This is most likely not interesting for reports.
SYSTEMNAME	The name of the system that supplied the data. It matches the SystemID field in the Systems table.
DATETIME	The Date and Time at the beginning of the data sample period (for data points each hour, 8:00 represents the data from 8:00 to 8:59) This time is LOCAL TIME for the system which collected the data.
GMT	The Date and Time, specified in Greenwich Mean Time (also known as Universal Coordinated Time).
SHIFTNAME	A string with the name of the shift to which this record belongs, based on the first time covered by the record. This field may also contain "HOLIDAY" or "OFFSHIFT" to indicate holidays and times which are not covered in the user defined shifts.
"Instance Identifier"	For classes where more than one instance is logged in the same interval, the table includes the unique identifier for each instance, even if the identifier is not explicitly entered into the metric list. Examples of instance identifiers are APP_NAME for applications and TT_NAME for transactions. For classes where only one instance is logged each interval (GLOBAL, for example), no instance identifier is present.

Step 4: Design the template using Crystal Reports

Using Crystal Reports, you can explore the available formatting options. You will probably want to refer to the Crystal Reports documentation to take full advantage of Crystal Reports capabilities to design professional reports of presentation quality. Remember to preview reports with data from the Reporter database. After you are satisfied with the appearance of the report, move to the next section where you save the report template.

Creating Report Templates that support Date Range

A report definition may specify a date range in order to select less data than is present in the database, based on dates. In order to support this feature, you must add a special selection in your report template.

- In Crystal Reports, choose Select Expert button.
- Highlight the field for DATETIME or whatever field contains the date.
- Adjust the Select Expert so that it chooses rows where the DATETIME "is" "in the period" "AllDatesToToday".

When you use this report template, "AllDatesToToday" is replaced with the date range the user selects in the report definition.

Creating Report Templates that support Shifts

No special features are required in the report template to support user selected shifts. The only requirement is that the database table referenced by the report contains the field SHIFTNAME.

Step 5: Save the template

To save the template, preserve disk space, and ensure that the report is accessible to the Reporter system that generates the report:

- In Crystal Reports, on the File menu disable the Save Data with Report option.

- Save the template to a disk NOT mounted over the network.
  (Reporter generates reports using a background service that does not require you to remain logged onto the system. Network drives are usually mounted only when you log on.)

For easy access, save report templates in the same directory as the standard Reporter templates and use a similar naming scheme. The standard Reporter templates are saved to the directory `c:\rpmtools\data\reports`. The directory differs if you changed the default directory during installation.

Standard template names start with:

a_ for reports that apply to ALL systems
g_ for reports that apply to a GROUP of systems
s_ for reports that apply to SINGLE SYSTEMS

The Three Report Template Types

Reporter currently recognizes three different types of report templates: All (preceded by "a_"), Group (preceded by "g_"), and Single System (preceded by "s_"). The simplest template to create is ALL, which reports on all data in the database. If you do not want to complete the steps below, classify your report template as ALL, using an a_ prefix in the report template name. This classification provides you a simple means in the future for creating other templates. Later, you can modify the ALL template by adding selection criteria that allow it to be used as a Group or a Single System template as well.

Single System Reports: A Single System report template selects data from only one system from the database table. Exactly which system it selects is determined within the Reporter hierarchy when you select the system and drag the report onto that system. If you drag a report onto a single system, then that system is selected when the report is created. You can use the same template to create reports for different systems. Here are the steps required to construct a Single System report template.

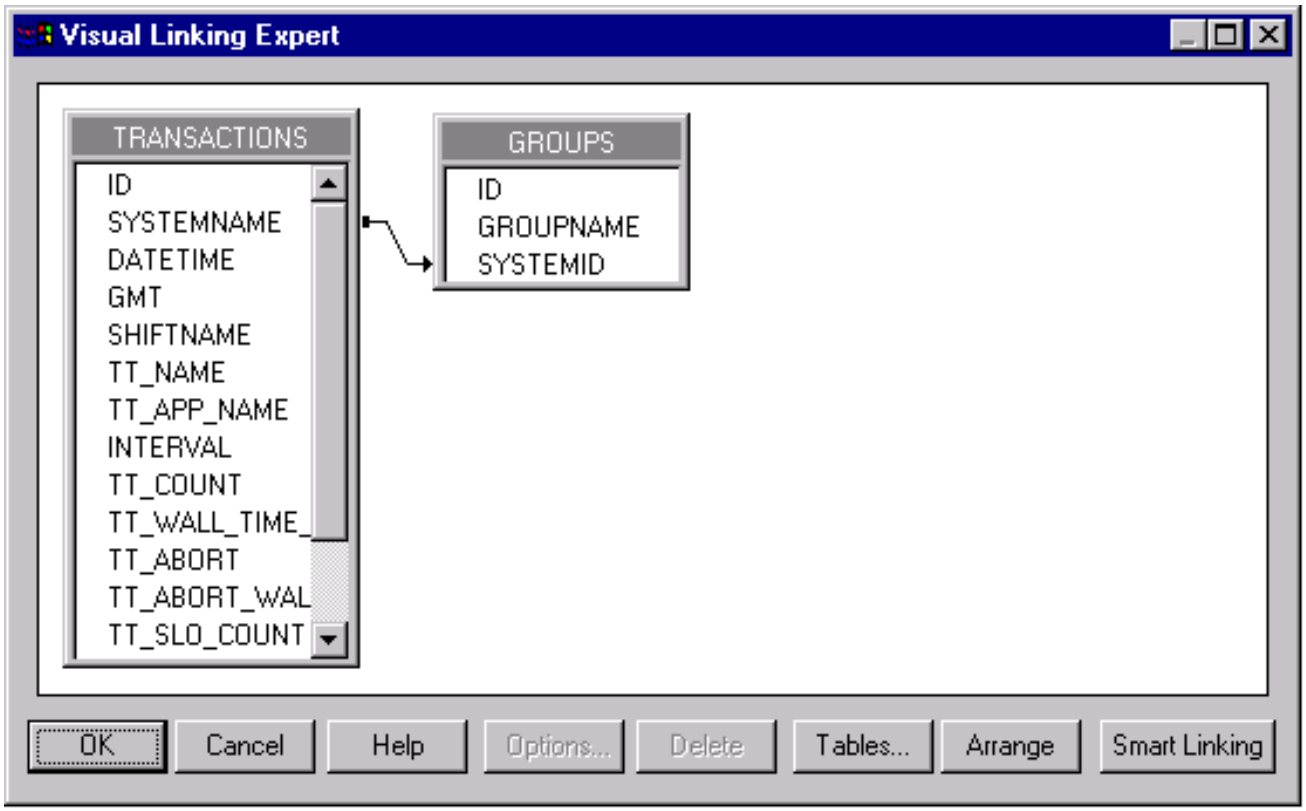
- In Crystal Reports, choose Select Expert button.
- Highlight the field for SYSTEMNAME or SYSTEMID. (If these fields are unavailable then the report cannot be made into a single system report).
- Adjust the Select Expert so that it chooses rows where the SYSTEMNAME (or SYSTEMID) "is" "equal to" and then pick any available system name.

When you use this report template, the system name you have chosen is replaced with the one to which you drag the report. To follow a standard naming convention for your reports, save each Single System report template with an s_ prefix.

Group Reports: A Group report template selects only systems that belong to a selected group of systems. Creating a Group report template is the same as creating a Single System report template except that the System Name is present in all data tables but the group name is not. In order to allow group selection by group name, you must first link the "GROUPS" table to your data table. This isn't so difficult and can even be done after a report template is already working as an ALL template.

- Add the GROUPS table and link it into your reporting table (see *C*rystal Reports, 8.0, online Help: Database/Add Database to Report).
- Pick the table **GROUPS**.
- Adjust the links by dragging from the database table System Name field into the groups table SystemID field.
- If you see a link between the ID field in the two tables, remove it by selecting it and pressing the **Delete** button.

When you are finished, your linking diagram should look like this:



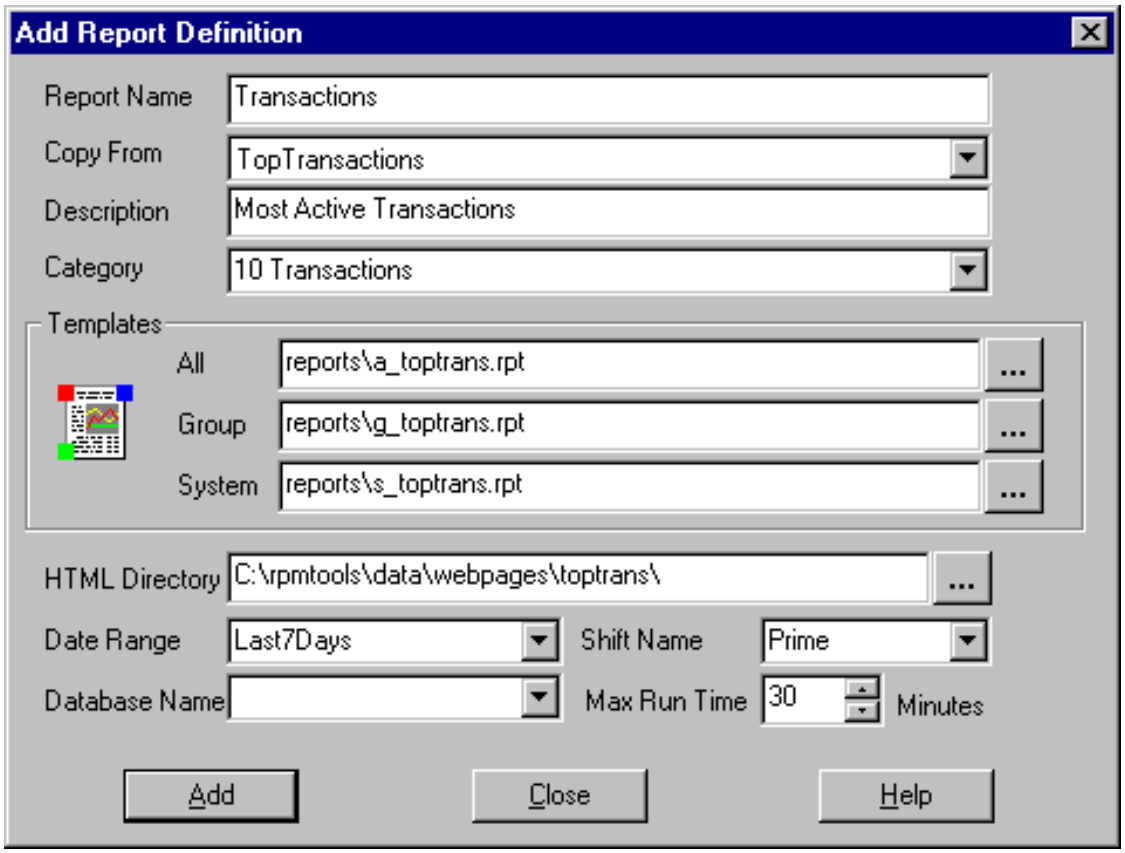
To finish:

- Go into the **Report/Select Expert** and choose the field **GROUPS.GROUPNAME** and "**is**" "**equal to**"
- Choose any valid group.
- Save the group report template with a g_ prefix.

Later in Reporter, when you drag this report onto a group, that group's name replaces the group name you chose above when you created the template.

Step 6: Add the Report Definition to Reporter

After you have created report templates, make them available to Reporter by right-clicking the Reports icon and selecting **Add Report**. In the dialog box that appears, fill in the fields (as explained below) and select **Add**, which displays the Add Report Definition dialog box.



The above illustration shows an example of a report definition that uses All, Group, and Single System report templates.

Report Name — The name that appears in Reporter's main window within the hierarchy under the Reports icon. Keep the name short to avoid scrolling to read it all. Make it descriptive of the report contents. You can use the same definition to produce reports for all systems (ALL), system groups (Group), individual systems (Single System), or any combination. Choose a report name that represents the entire family of templates.

Copy From — If you have already entered a report definition that is similar to the one you are now entering, you can save some typing by selecting that definition in the Copy From list.

Description — A label for the report that identifies it on the cover web page that lists reports. Enter a description that would help someone viewing the reports in a web browser understand the report contents.

Category — Allows sorting and grouping reports into categories. This field controls the layout of the web page links, by sorting all reports when the web page links are generated. A Category title is added each time a report in a new category is added.

A special feature allows you to specify category sort sequences that are not strictly alphabetical. To use this feature, start a category with numbers and an optional space. These numbers are then used in determining the sort order but are not printed in the linked web page. You can also use numbers to specify the order of reports within each category. Generally categories are sorted as they are entered, but any leading numbers and spaces are removed prior to adding to the link web page.

All Template — The name of the Crystal Reports template for ALL type reports. (If you have not entered the special select criteria required for Group and System templates, then enter your report template name into this field. You can omit the leading `c:\rpmtools\data` if desired. Use the Browse... button to locate your template using the file Explorer-type window.

Group Template — The name of the Crystal Reports template for Group reports. (This report template must have a select criteria for **Group name is equal to …**). You can omit the leading `c:\rpmtools\data` if desired.

System Template	The name of the Crystal Reports template for Single System reports. (This report template must have a select criteria for **System Name is equal to …** or **SystemID is equal to …**). You can omit the leading `c:\rpmtools\data` if desired. (A report definition can use one, two, or all three types of templates.)
HTML Directory	The directory where the report web page is stored. If this directory does not exist when the reports are created, it is created at that time. By convention, the HTML directory should be a directory under `c:\rpmtools\data\webpages` directory (`c:\rpmtools` can be different if you installed Reporter in a directory other than the default). You can omit the leading `c:\rpmtools\data` if desired.
Date Range	To change a report to include data for a specific range of dates, select a date range from the the drop-down list.
Shift Name	To change a report to include data from specific time periods during a 24-hour day, select a shift from the drop-down list. See Customizing Shifts for more information on shifts.
Database Name	Most reports have their data summarized and placed in the Reporter database. In this case, this field should be blank. For reports which pull data from a database other than the Reporter database, select that database here. See Reporting From Other Databases for more information.
Max Run Time	After attempting to produce a report for 30 minutes, the report-generating program RepCrys moves on to the next report. If you have reports which take longer than the configured maximum minutes to generate, you should increase the number of minutes. You can also extend the time out for the RepCrys program itself. See Customizing the Reporter, timeouts for details.

Customizing Reporter

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Reporter comes with a carefully chosen set of default actions and reports, based on customer input and market testing. In many cases these defaults will be exactly what you need and you can let the Reporter run with no changes at all. Reporter offers a high degree of flexibility in changing the default settings. This chapter describes areas you can change in the order you are most likely to use them.

Targeting Other Areas for Discovery

Discovery of Vantage Point Operations (VPO) systems copies system information from an existing VPO database into the Reporter. No customization for VPO systems discovery is available at this time.

Discovery of systems with MeasureWare Agents for Windows NT/2000 (MeasureWare Agent) or on UNIX systems (VantagePoint Performance Agent for UNIX (VP Performance Agent) consists of (a)forming a list of system names then (b)probing each system to determine if it has an active MeasureWare Agent. You can alter how this discovery occurs to a significant degree.

Initially, discovery of MeasureWare Agent-installed systems is limited to the network domain in which the Reporter program is installed (which is likely your local domain). You might want to broaden or restrict this area in order to report on more or fewer systems.

Normal MeasureWare Agent discovery is limited to the Discovery Area list. To display this list, select **Discovery Area** in the left pane. The Discovery list, shown in the right pane, consists of networks, domains, and single systems. When a network or domain is listed in the Discovery Area (in the right pane), all systems contained in that network or domain are searched.

You can expand the Discovery Area icon to show potential networks. From there you can expand networks to show domains, and expand domains to show systems. You can drag 'n drop items from the left pane into the right to add them to the Discovery Area list. Right-click in the right pane and select the Delete from the drop-down menu to remove a system from the list.

The networks, domains and systems found in the Discovery Area are derived from the NT operating system and may not represent all the systems that are available to you. Reporter allows you to configure it to discover systems through four mechanisms:

1. Networks, domains and systems known to NT networking are added to the discovery list using Drag 'n

Drop.

2. Systems discovered in the VPO database are automatically searched for the presence of MeasureWare Agent (or VP Performance Agent).
3. You can add a single system to the discovery list, even if it is not know to NT networking.
4. You can create a list of systems to discover from an external source and supply it to the bulk discovery process.

In each case, discovery must be able to resolve the system name it is searching into a network address. You can determine if this is possible by running the Command Prompt on NT and issuing a "ping" command for this system (ping systemname). If the ping command succeeds then the systemname is valid for discovery's use.

Targeting Systems Outside the Discovery Area (Add Single System)

You can right click on the Discovery Area and select **Add Single System** to enter the name of a system directly. This system does not have to be one that is available in the NT network hierarchy but it does have to be addressable from your NT system.

When systems names are added using **Add Single System**, the Reporter will issue a warning if no MeasureWare Agent (or VP Performance Agent) is found running on that system.

Targeting Systems Outside the Discovery Area (Bulk Discovery)

If you need to direct Reporter to a list of systems unknown to the NT operating system, you can use bulk discovery. This method works well for UNIX systems that are not identified within the NT networking system and as a result are not available in the Discovery Area. You could add each UNIX system, one at a time, but the effort might be excessive.

With bulk discovery you create a list of potential system names in a text file. Discovery looks for the existence of MeasureWare Agent (or VP Performance Agent) on each system in this list. You could create the list of systems by exporting all known system names from some other network topology scheme such as /etc/hosts on UNIX or the Network Node Manager software. Reporter substitutes this list of systems for the first phase of discovery. Unlike the Add Single System method, if no MeasureWare Agent software is found on a system, no warning message is generated. See the online Help topic on *Bulk Discovery* for more information.

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Changing Times of Actions

Initially, actions occur in the early morning hours (as described in How the Reporter Works). Actions are scheduled by default at these times to use otherwise idle time on your systems. In some cases, you might want to reschedule actions to occur at other times. For example, if many of the systems in your network are powered down each evening, these systems will not be available for discovery and data gathering if the Reporter runs at night. You might want to reschedule the discovery and gather programs to execute during the lunch hour.

You can change the time of any program that is already scheduled by using the Schedule icon in the left pane of the Reporter window. Select Schedule or one of the items under it to display scheduled programs in the right pane. Right click on the desired program and select Edit (or just double click the program you want). You can then edit the scheduling parameters for this one program execution.

To change the scheduling settings for an all program executions, click the plus sign next to the Schedule icon and right-click one of the programs below it. Select **Global Settings** to display a list of program settings. All programs (for example, all gather programs) are changed. The changes you make in this way apply to any programs for newly discovered systems. For example, by changing the Job Time for Gather to 12:15 p.m., all the currently scheduled gather programs run during lunch. In addition, any new Gather programs (for newly

discovered systems) are automatically scheduled for the new run time of 12:15 p.m.

You can change the following scheduling parameters using Global Settings:

Setting	Description
Job Date	Date the next program action is scheduled.
Job Time	Time the next program action is scheduled.
Job Reset	Frequency of which program repetition.
Run Minutes	Length of time program is allowed to run before it is terminated.
Max Concurrent	Maximum number of programs allowed to run at the same time.

Note: You may not see some settings for some programs because these settings either do not apply to the program or cannot be changed.

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Creating New System Groups

Systems, when discovered, are automatically placed under the Discovered Systems icon. Systems can be arranged in groups to make them easier to locate and to facilitate reporting on groups of systems. A single system can reside in more than one group but all systems belong to the group called **ALL**.

You can assign systems to groups **manually**. Right-click the Discovered Systems icon and select Add Group. Select the group, then drag and drop systems from other groups into the right pane to add them to the new group. Organizing systems with similar characteristics into groups can be useful when performing actions such as gathering data and reporting on entire groups rather than on individual systems.

You can also set up systems to be grouped **automatically** when they are discovered. By selecting AutoGroups from the Configure submenu on the File menu, you see a dialog box you use to enter the parameters for automatic grouping. For a detailed description of this feature see Chapter 6: "Advanced Topics," Automatic System Grouping. By default Reporter automatically places each discovered system in a group based on its operating system (HP-UX, NT, etc.) If VantagePoint Operations (VPO) systems are included, all systems discovered in the VPO database are placed in the group **ITO**.

You can enable the use of **special groups**. Select Options from the Configure submenu on the File menu of the Reporter main window.

- As previously mentioned, all discovered systems will belong to the special group **ALL**. Deleting a system from any other group merely removes it from that group. Deleting a system from the ALL group will remove the system and all data from that system from the Reporter database.
- In this dialog box you can direct Reporter to automatically create the group **NEW** and add each newly discovered system to it. This feature is helpful if you are manually grouping systems. After assigning the systems in the NEW group to the groups you desire, delete the NEW group. When the NEW group reappears, you know you have new systems to assign.
- If you are also discovering VPO systems, you can enable the automatic creation of **VPO NodeGroups**. These group names are copied from the VPO database. The VPO node groups (and the systems within them) automatically appear under the Reporter Discovered Systems hierarchy.

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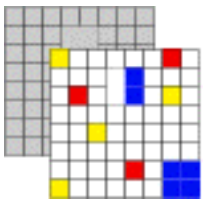

Customizing What Data Is Gathered From Systems

Reporter includes pre-defined metric lists that determine what data to gather from each system. Reporter also averages the data according to the summarization level (for example, hourly averages [the default], averages of 5, 10, 15, or 30 minutes, 3 hours, 6 hours, etc.).

Add metric lists: You can add your own metric lists by using the Metric List icon in the left pane. Reporter allows you to create metric lists for data from MeasureWare Agents and associate them with systems or groups of systems from which data will be gathered.

Note: Metric names cannot contain embedded spaces.

Metric lists for the VPO systems are fixed and cannot be altered (although you can alter the number of days to retain data for the VPO metric lists, you should not add or delete metrics to these lists).

One obvious reason for creating a new metric list is to direct Reporter as to what data should be gathered from a new data source. If you want to access data from MeasureWare Agent log files that originated from Data Source Integration (DSI) technology, then you can create a metric list to gather this DSI data and add it to the Reporter database.

Edit metric lists: You can edit existing metric lists (to gather additional metrics for example). You can create more than one metric list against the same MeasureWare Agent data source if desired. For example, you can create one list to collect GLOBAL data at one point every hour and retain 7 days of data. Then you could create a second metric list to collect GLOBAL data at one data point every day and retain 365 days of data. Be careful in deleting metrics from existing metric lists because deleting metrics can cause some of the default reports to fail.

Note: *Gathering additional data into the Reporter database does not cause this data to show up in one of the reports. To generate reports based on custom metric lists, you must purchase Crystal Reports. With Crystal Reports you can design report templates which display the data you desire. After creating the report template, you can add a report definition (in Reporter) that uses the new data from the custom metric list and uses the template to format the data into a web-based report.*

You can assign metric lists to different systems or groups of systems by dragging the list from the left pane over into the right pane which is displaying the desired group or system information.

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Timeouts

As Reporter completes its actions through the Master Scheduler that runs each program, it makes sure that any program that fails to execute properly does not prevent other programs from executing. Reporter accomplishes this by starting a timer when any program (such as gather) runs. If the timer runs out before the program

completes its actions, Reporter assumes that the program has failed to properly execute and terminates it. Any time this situation occurs, you can verify its occurrence by looking at the status column on the schedule and on several of the default reports.

In some cases, the work that a program has to perform takes longer than expected. Gathering large volumes of data over a very slow network, for example, might cause the gather program to terminate before it has finished collecting data from a system. In such a case, you should increase the value of the Run Time parameter to avoid terminating the program before it can finish its work.

You can change timeouts on individual programs by selecting the Schedule icon in the left pane and double clicking the desired program in the right pane. To change the timeouts for all programs, select the program under the Schedule icon in the left pane, right-click it and select **Global Settings**. Check the box next to Run Minutes and enter the desired value. This change affects all the programs run for every system. The Run Minutes value setting also applies to all new programs added for newly discovered systems.

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Customizing Shifts

Most reports produced by the Reporter show data from the entire day for every day that has been gathered into the database. You can specify reports to show data for less than a 24-hour day by specifying a **shift** in the report definition. You can modify an existing report or copy a report definition to create a new one and select the shift you desire in the Shift Name box (in the Report Definition). Making such a change means that the report contains data only from the selected shift.

You can change shift times or define new shifts by selecting **Shifts** from the Configure submenu on the File menu. Default shift names are already present within the Configure Shifts dialog box and include **Prime**, **Swing**, and **Graveyard**. You can modify these shift times and also add your own shifts. You can also configure Holidays. Within the Report definition, however, if the data you are gathering for a particular report contains a date and time combination that is not covered by any defined shift or specified holiday, you can just specify **OFFSHIFT**.

You can define one set of shifts that applies to all systems in the database. Shifts should not overlap with each other since each data record must be uniquely identified with a single shift name. If shifts and holidays match the same day, the entire day will be marked Holiday.

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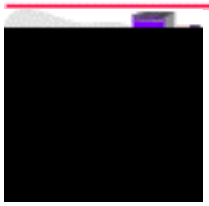

Reporting From Other Databases

You can configure Reporter to generate reports directory from another database, such the one used by HP OpenView Operations (also known as VantagePoint Opertions and IT/Operations). Those reports generated from the OpenView Operations Oracle database show information not easily summarized by Reporter and that require templates different from the default set that Reporter generally uses.

To customize Reporter so that it can generate reports directly from another database rquires:

- the database be accessible to the Reporter system.
  (Reporter programs run on the Windows platform and must be able to access the database from there. This may require loading additional database client software such as SQL Server Client or SQL*Net.)
- report templates be created that reference the database directly.
  (Requires the use of the separately purchased Seagate™ Crystal Reporter Writer).
- the database security (user ID and password) be entered into Reporter.
  (Use the menu item File>Configure>Databases).
- the report definitions in Reporter include the database name.

Advanced Topics

This section includes topics for further customizing Reporter to your environment and for your reporting needs. You should know how to use components of Reporter's main window to implement the features discussed in this section.

The following topics are covered:

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Making Reporter Web Pages Available
(on the network)

After you have installed Reporter and you now have Web page reports, you may want to make these reports available through your company Web page. To do this, you could supply a link from your company's home Web page to the Reporter Web page. In this way users of the company's home Web page could examine reports generated by Reporter. In addition, this method of providing a link to Reporter documents allows those who routinely access the company Web page to use their Web browser to view reports through a variety of sources compatible with the Web such as Windows-based PCs, UNIX systems, Macintosh systems, and even Web-TV. Of course, the company home Web page security will probably be set up so that only authorized users can access it. If not, consider including a password to the Reporter Web page link.

Below, two approaches are described, one for those who have Reporter and the company Web residing on the same system, and the other for those who have Reporter and the company Web on separate systems.

1. Open the company Web page file with your web-authoring application.
2. Add a hyperlink to the Reporter file that lists the reports: `c:\rpmtools\data\webpages\reports.htm`.

Note: You may have to use a pathname different from `c:\rpmtools\data` if you did not accept the default installation path and installed Reporter in another directory.

Web server/Reporter residing on separate systems (two options): To link Reporter's documents to your company Web page when it is impossible or undesirable to operate Reporter on your Web server system, choose one of the following two options:

Option #1:

1. Copy the Reporter files onto the Web server using disk sharing (Windows, NT Share, NFS, etc.)
2. Link from the Web page into the `reports.htm` file in its shared location.

Option #2:

1. Copy all the files in the `c:\rpmtools\data\webpages` directory and sub-directories each night after the report generation has finished.

Note: To automate the process, you could construct a batch file to complete this task and schedule an action in Reporter to perform it. Schedule the action at any time after the **repcrys** program so that all reports are finished before the files are copied.

Warning: Do NOT map a shared directory from the Web server to the Reporter system and attempt to write reports to this directory. The Reporter creates reports from a service that cannot see shared directories. Use one of the above approaches instead.

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Securing Web Pages

If you want to restrict access to reports, use normal Web page security techniques to implement restrictions. As previously stated, you might assign a password to the Reporter link that restricts access to the main reporter Web page. You can also limit access to some reports by adding security to individual report Web pages.

To secure your Reporter Web pages:

- Create a report cover Web page to replace the `reports.htm` file.
- Save the file with a different name since the `reports.htm` file will be replaced each time reports are regenerated. Simply saving the current `reports.htm` file under another name, then editing it should produce the desired results.

*Note: The addition of new reports to Reporter will be reflected in the `reports.htm` file and not in the copy you are using. You should edit your new Web page to include the new reports and whatever security you need for them.*You can add security at a lower level by creating your own pages to link into the group and single system Web pages. The Web page hierarchy used by Reporter is as follows (all files are relative to the directory `C:\rpmtools\data\webpages` if you installed in the default directories):

1. The `reports.htm` file contains links to Web pages for all (All Systems), group (System Group), and single system (Single System) reports.

2. Each ALL report resides in its own directory with a Web page called `default.htm`. For example, the TopCPU report for all systems will be in file `topcpu\default.htm`.
3. The `group_<groupname>.htm` file contains links to all group reports for a single group of systems. Multiple files may be present, one for each group that has reports assigned to it. The <groupname> will be the name of the group of systems.

   Each group report resides in the directory named after the report, but in its own sub-directory named after the group itself. For example, the group report for TopCPU for systems in the NT group will be in file `topcpu\NT\default.htm`.
4. The `single_<reportname>.htm` file contains links to each single system which had a report of this type. Multiple of these files may be present, one for each single system report which was generated.

   Each single system report resides in the directory named after the report, but in its own sub-directory named after the system itself. For example, the Top Transactions report for system MyWebServer would be in the file `toptrans\MyWebServer\default.htm`.

The best approach to finding a particular report is to examine the `reports.htm` file and follow its links to the desired report. You can then link into that report directly from your own Web pages.

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Configuring Reporter to Gather Data through a Firewall

Reporter Discovery and Gather programs can be configured to work with systems outside a firewall as long as the those systems run in DCE mode. No support is provided for systems using NCS.

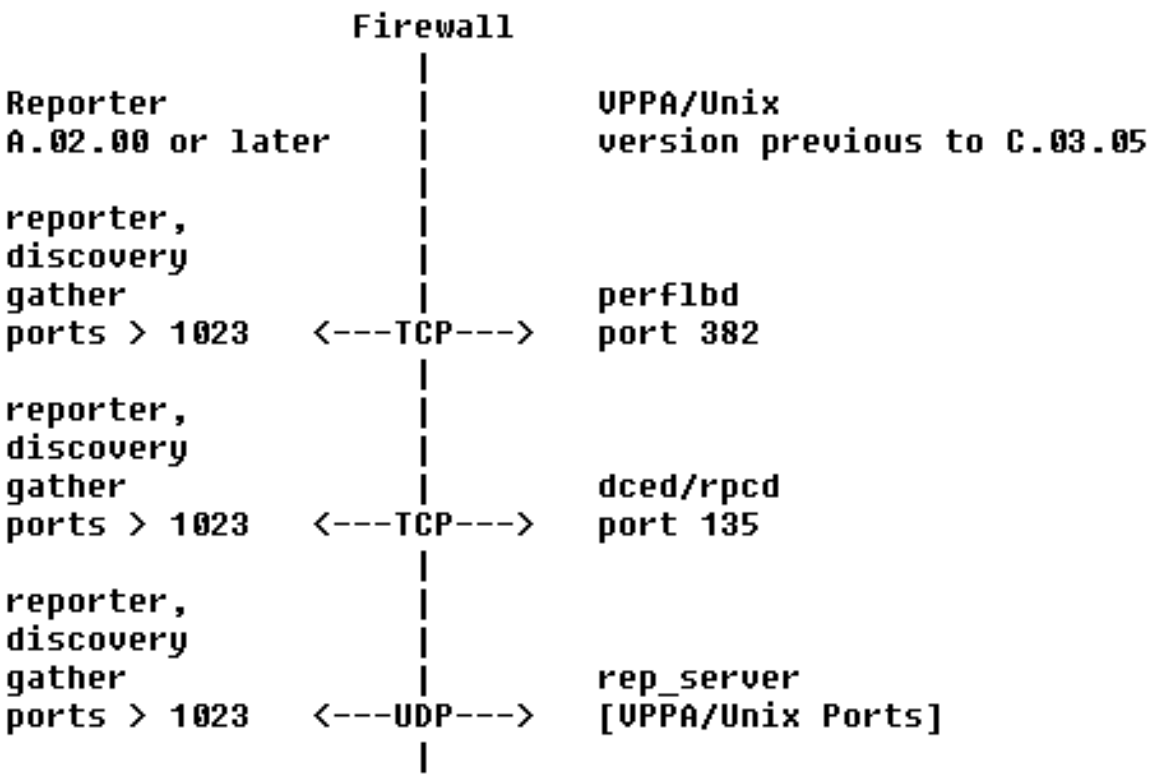
Reporter has been enhanced to communicate more effectively through firewalls with VantagePoint Performance Agent for UNIX (VP Performance Agent) and MeasureWare Agent for Windows NT/2000 (MeasureWare Agent). Previous versions of Reporter used only the UDP protocol to communicate with VP Performance Agent or MeasureWare Agent. The current Reporter release now can work with TCP protocol if you currently use VP Performance Agent C.03.05 or later, or MeasureWare Agent C.03.00 or later. Reporter will continue to use the UDP protocol for previous versions of VP Performance Agent and MeasureWare Agent.

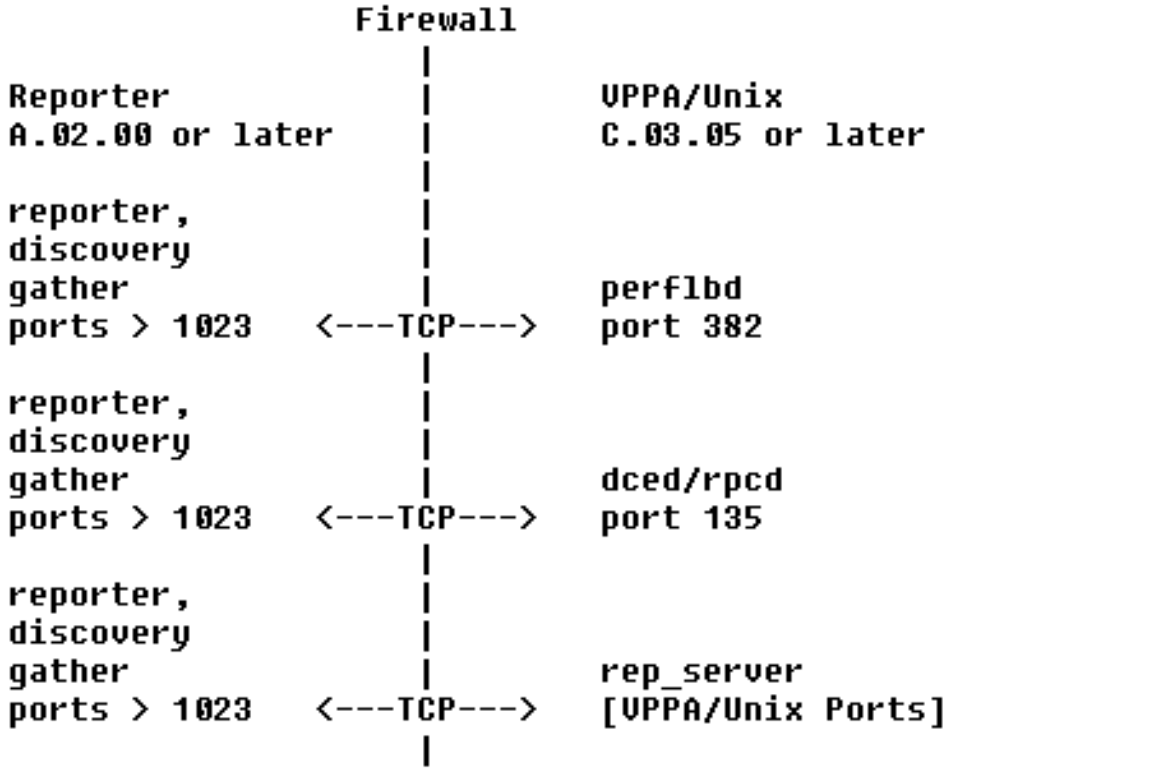
Reporter can also work through NAT firewalls by communicating with VP Performance Agent and MeasureWare Agent systems, using translated IP addresses. This setup works with versions C.00.00 or later for both products.

Because Reporter now can connect to the VP Performance Agent and MeasureWare Agent systems using the IP addresses configured in the Reporter database, you no longer need to configure the previously unreachable IP addresses in the ignoreip.txt file for multi-homed VP Performance Agent and MeasureWare Agent systems.

⚠ **IMPORTANT**: Reporter no longer uses UDP protocol to connect to port 135 on the VP Performance Agent or MeasureWare Agent systems. Reporter now uses TCP, regardless of the version of either product. If Reporter has been communicating to either product through a firewall, it has been using port 135/UDP. This must be changed in the firewall configuration to open port 135/TCP.

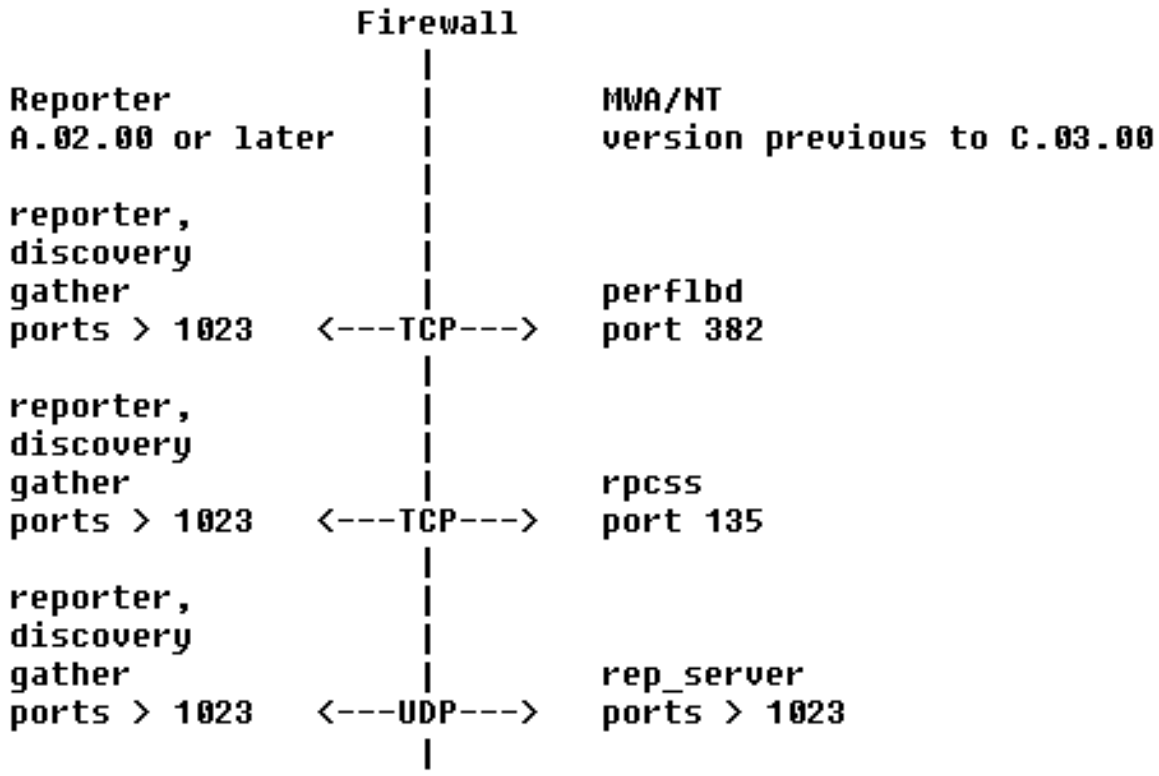
Configuring the firewall for Reporter to Vantage Point Performance Agent for UNIX communication:

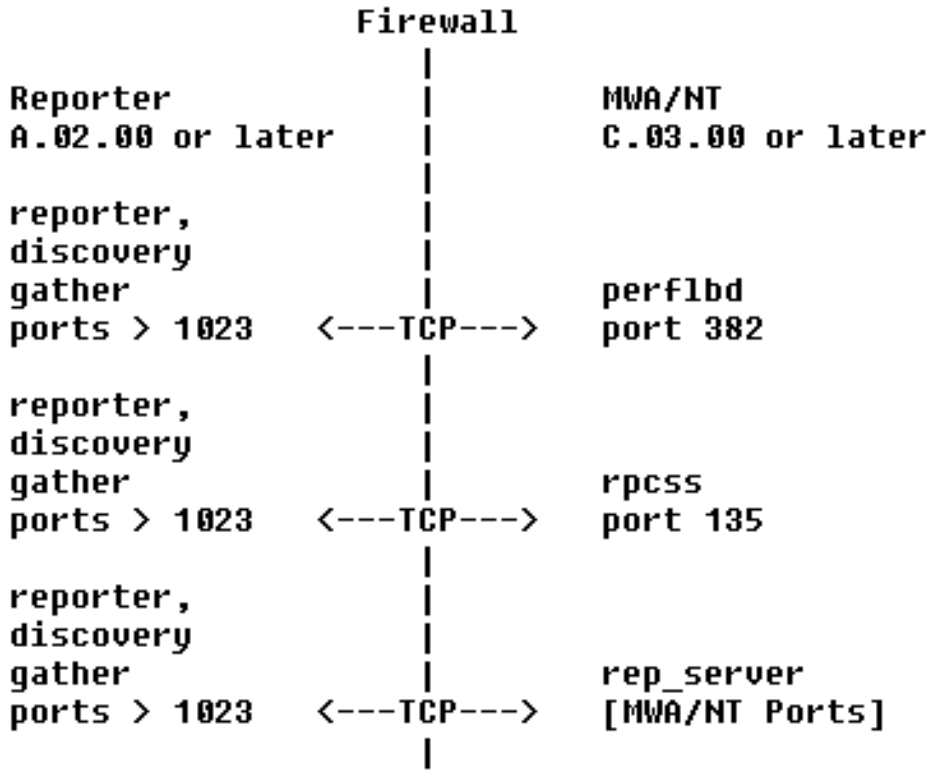




Refer to the VP Performance Agent for HP-UX Installation and Configuration Guide to determine the VP Performance Agent port range.

Configuring the firewall for Reporter to MWA/NT communication:





Refer to the MeasureWare Agent for Windows NT/2000 Installation and System Management Guide to determine the MeasureWare Agent port range.

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Backing Up Data

To prevent data loss, you should consider implementing two safeguards. First, ensure that Reporter processing does not occur during normal backup times. Second, set up a process that automatically backs up Reporter data.

Schedule Reporter Processing Outside of Backup Time

By default, Reporter performs all its processing between the hours of 12:30 AM to 3:00 AM (or later if you have many systems). This processing should not interfere with normal backup processing except for the amount of CPU and network traffic it consumes. Reporter automatically limits its processing so that it does not consume more than 50% of the CPU for long periods. Even so, in some cases this additional activity could slow the process of backing up system data if backup actions and regular Reporter actions are scheduled at the same time. If your backup occurs during the hours of 12:30 and 3:00 AM, you might want to change the schedule that Reporter follows in performing its actions (see below).

Backing up Reporter Data

By default, Reporter retains the last 7 days of data that it gathers from MeasurewWare Agent (or VP Performance Agents for UNIX) MeasureWare Agents usually retain 30 to 60 days of data locally. If for any reason the Reporter database is lost, the data can be re-gathered from MeasureWare Agents as a part of normal Reporter processing.

If you are retaining more data on the Reporter system than you would want to re-capture from MeasureWare Agents, you should probably periodically make a backup copy of the Reporter database. The gathered data and operational parameters for Reporter are kept in a single database. By default this database is a single file c:\rpmtools\data\datafiles\Reporter.mdb. To back up Reporter data, make a copy of this file.

Remember that when you are backing up the Reporter database, it is unavailable for other Reporter activities. If you back up the database during data gathering or discovery, messages may appear such as "WARNING: Unable to update the database after 20 tries." You can recover most Reporter activities so that you can recapture lost data during the next processing cycle. Even so, try to avoid repeated loss of data by performing database backup at times when Reporter is not busy.

Archiving Web Page Reports

In its normal routine Reporter replaces all report Web pages each time new reports are generated. Because of this you do not need to manage old report pages or worry about filling up your disk space with them. However, if you want to retain past report Web pages, you can do so by following these steps.

1. All report Web pages are in the c:\rpmtools\data\webpages directory and its sub-directories. The simplest way to retain old report pages is to rename this directory before the new reports are generated.
2. Arrange a method for naming the old Web pages directory to retain the desired number of copies and to manage disk space consumption.
3. A sub-directory named **images** resides in the same directory as the webpages directory. The files in this directory contain graphics/pictures that are displayed in some Web pages. Because these files are not updated but are used mainly for labeling the report (such as in the report banner displayed at the top of the rpoert), you do not need to copy the files to the archive location.
4. Arrange for the renaming process to happen each time that you want to retain a set of Web reports. One automated way to do this is to construct a batch file that does the renaming of directories for you. Next, add an entry to Reporter's schedule to execute this batch file prior to generating a new set of reports.

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Changing the Scheduled Times of Reporter Actions

Several reasons could exist for changing the default processing times for Reporter actions. You might want to avoid daily backup times as described above. You might also have an environment where the systems are unavailable at the default times. Many sites may power down their workstations each night. If you want to discover and gather data from these systems, you may have to reschedule these actions to occur during the day (at lunch hour for example).

The procedure below lets you change all currently scheduled actions to occur at the desired times, while still maintaining the sequence of events that are important to Reporter's processing cycle. Using this procedure also ensures that new actions are scheduled at the new times rather than the previous default times.

1. Stop the Reporter Service (to ensure no processing starts up due to a typing error).
2. Set the default times for new actions by selecting an item below the Schedule icon, right-clicking it, and selecting **Global Settings** from the short-cut menu.
3. Select the starting time for each standard action. Sequence times in this order (1) Discovery, (2) Gather, (3) Maintenance, and (4) Report (earliest times at the top of the list, later times toward the bottom). Do not be concerned about allowing enough time for each action to finish before starting the next action. As long as the times are not identical, the Reporter service ensures that actions occur in the proper sequence.
4. Restart the Reporter service.

Scheduling a Batch File to Run

You can also schedule a batch file to run through the VP Reporter Scheduler by completing the following steps:

1. Create the batch file and save it.
2. Open the Reporter main window.
3. In the left pane right-click **Schedule** and select **Add Schedule**.
4. In the Add Schedule Entry window that appears in the Program Name box type:
   cmd.exe
5. In the Parameters text box type:
   /c "cmd.exe /c \temp\<*myfile*>.bat"

   Note: Be sure to enter the syntax in the Parameters text box exactly as it appears on the above line including the double quotation marks and substituting the directory where you have located your batch file and the batch file name.

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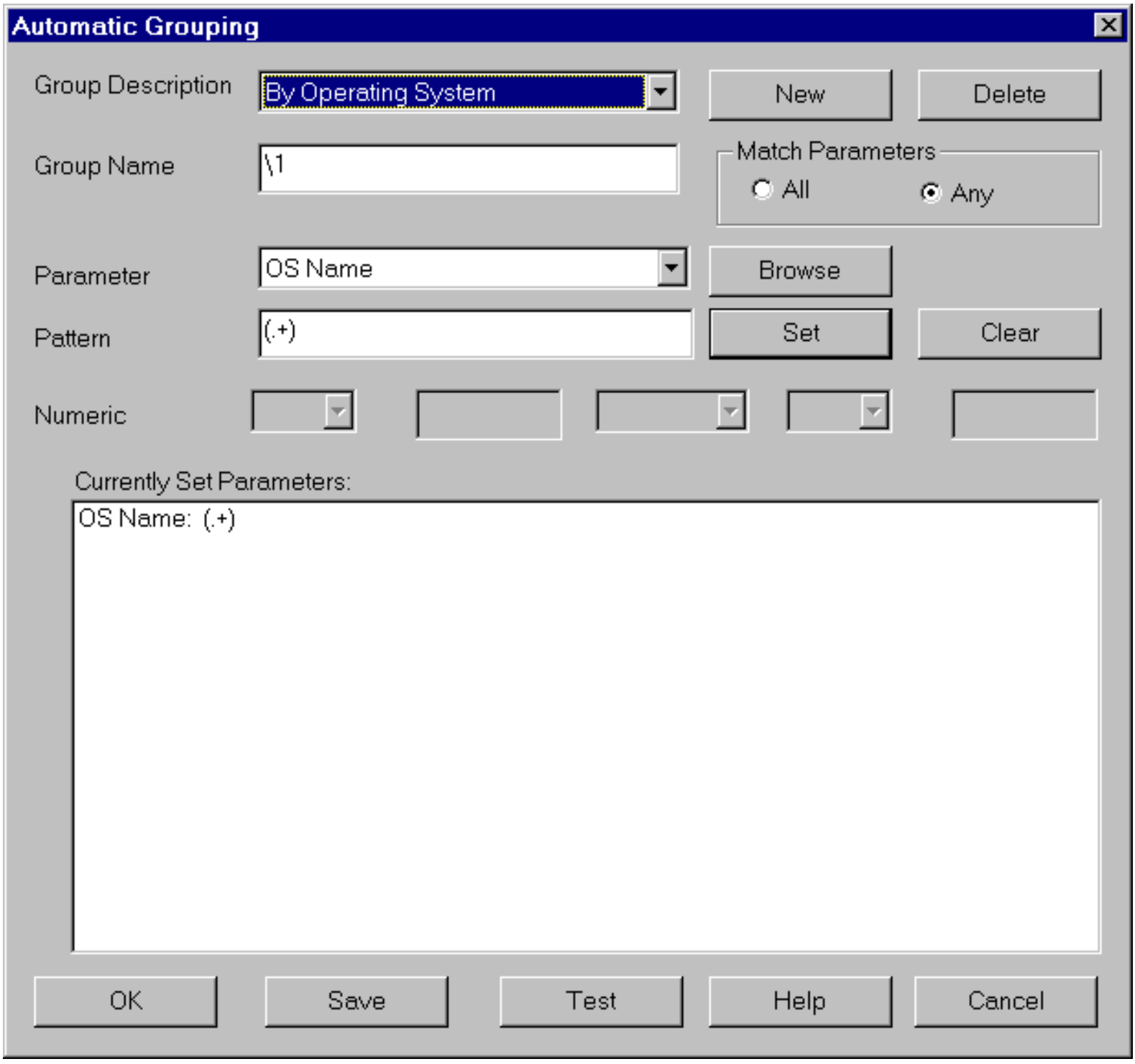
Automatic System Grouping

You can automatically group systems using the automatic grouping feature. With this feature you can set Reporter to automatically group newly discovered systems based on a variety of system characteristics. Whenever a system is

discovered, Reporter examines its characteristics and adds it to any group(s) it matches. Re-discovery of a system can add the system to additional groups if its characteristics or the group specifications change.

You can find this feature by selecting AutoGroups from the Configure submenu on the File menu in the Reporter main window. The following dialog box appears where you can add or alter specifications for automatic grouping.



The Automatic Grouping dialog box lets you set automatic grouping specifications for newly discovered systems. You can use any number of specifications, each associated with the **Group Description**. Each specification links to the name of the group assigned to systems that match the specification. The **Group Name** box can contain a literal string and/or string substitution codes consisting of a back slash (\ ) and a number. Substitution codes are covered later. The remaining components of the dialog box follow.

Parameter box: allows you to select one system identification criteria from a drop-down list. Depending on the type of data you select, the next boxes are enabled or disabled. Selecting a character-based criteria allow pattern

matching using the **Pattern** box. Selecting numeric-based criteria causes the boxes in the line labeled **Numeric** to be enabled. A summary of all criteria currently in effect for this specification is shown in the large box at the bottom of this section.

- **New and Delete buttons:** create and destroy autogrouping specifications.
- **Save button:** Saves the specification to the database. If you make changes to a specification but do not save them, you are prompted to save before selecting a new specification or exiting the screen.
- **Match Parameters** section lets you indicate whether a match will be made for systems that match any or all of the criteria shown:

  All requires a system to match every defined criterion in order to belong to the group.

  Any requires a system match any single defined criterion to belong to the group.
- **Browse button:** lists the current values for the parameter you selected. With this information, you can determine the exact format or range for the group you are defining. You can select a value from the browse list to copy it into the pattern or numeric boxes.
- **Set button:** After you enter the pattern or numeric match for the parameter you selected, select the **Set** button to add it to the Currently Set Parameters list.
- **Clear button:**you can select **Clear** to remove a parameter from the list.
- **Test button:** lists the systems that match the parameters and the group name to which they would be assigned in the bottom part of the screen. Note that no changes are actually made to the groups in the database at this time. The Test button shows only what systems would match the specifications. You can see from the text that appears above the white box how many systems did and did not match the parameters.
-

Excluding Systems from Reporting

There are two ways to exclude systems from the reports produced by the Reporter.

1. Set the Discovery Area so that undesired systems are never discovered.
2. Set the System Information parameters for a system that has already been discovered to exclude that system from all reporting.

Use the first technique if you want to selectively exclude numbers of systems that are separated into different networks and domains. Use the second technique to exclude selected systems from within a discovery area that you otherwise want discovered normally. You might exclude your test systems when they reside inside your normal network domain using the second technique.

Procedures for setting the discovery area are documented in the main part of this document and in Reporter's online Help.

To exclude single systems from reporting:

1. Allow the system to be discovered along with the other systems in the discovery area.
2. Select the system in the Discovered Systems area of the left Reporter window pane (the right pane should display the details for this system).
3. In the right pane, double-click System Information.
4. Double-click **Exclude** in the list of items under System Information. Each time you double-click this item, it toggles between *Yes* and *No*. Accept the Exclude (Yes) status to exclude this system from further reporting.

What happens when a system is marked as excluded?

- A maintenance program removes information on this system from the Reporter database. The system should not appear in any reports that are generated after this information is removed.
- The system, however, still remains in the Discovered Systems area under the ALL group so that you can later select the system and change the Exclude setting if necessary.
- While excluded, the system still is available to the discovery process, but no information is copied from the system into the Reporter database. Excluded systems should not be present in any of the Reporter's standard reports.
- If you create any of your own reports using the SYSTEMS table, you should include a select statement which selects only systems whose exclude value is zero. (See the a_systems.rpt template file for an example.)

If you exclude a system by mistake, no permanent damage occurs. Just go back into the System Information (as explained above) and toggle the **Exclude** setting back to *No*.

- The maintenance program is scheduled to run at the normal maintenance time (usually 1:55 AM the next morning). If this program hasn't run yet, change the System Information **Exclude** value to **(No)** and no data will be removed.
- If the maintenance program has already run and all data has been removed, you can still remedy the situation. Remember, too, that you still have the historical data maintained by MeasureWare Agent. To correct the situation, reset the System Information: **Exclude** value to **(No)** and Reporter will re-discover the system and gather data from it into the Reporter database. You need to add this system back into the system groups you previously included it in and add any single system reports or metric lists that were previously assigned to it.

Pattern Matches

Parameters that are character strings let you define patterns in the **Pattern** box for matches with systems that you want included in the group. The contents that you include in the Pattern box are recognized as ***regular expressions*** to allow a wide flexibility in pattern matching. At its simplest, a character string can successfully match a system if the system data contains that character string in any position.

See Regular Expressions for rules for using regular expressions.
See Pattern Examples for examples of patterns that use regular expressions.

One advantage of regular expressions is that you can specify sub-strings that match any or all of the data in the metric. You can use these sub-strings as variables in the **Group Name** using a back slash followed by a field number. The first matching sub-string replaces the "\1" field, the second the "\2" field, etc. For example, if you select the "Agent" as the Parameter and enter a pattern of "(.+)", it will will match any non-null string in its entirety. A system with an agent metric containing "SCOPE A.02.00" would replace the Group Name "Agent(\1)" with the agent metric name so that the Group Name displayed below Discovered Systems in Reporter's hierarchy would be Agent(SCOPE A.02.00).

Numeric Matches

Parameters that are numbers let you match a number or range of numbers using the **Numeric** boxes.

These boxes define two sets of numeric comparisons, joined by a conjunction. Each numeric comparison specifies an operator (=, >, <, >=, <=) for (Equal To, Greater Than, Less Than, Greater Than or Equal To, Less Than or Equal To) and a numeric value. The conjunction may be "AND" (both comparisons are true"), "OR" (either comparison is true") or a blank (the second comparison is not used).

You can specify a match of all values EXCEPT for one specified by specifying Numeric > value OR < value.

After entering or editing a pattern or numeric match , don't forget to press the **Set** button to add it to the Group Specifications list.

Regular Expressions

The **Pattern** box in the Automatic Grouping dialog box is used to enter pattern-matching criteria in the form of regular expressions. Regular expressions have been used in many operating systems over the years and so may be familiar to you. Still, there have been some variations in what patterns are allowed, so a review of what is allowed might be useful. If you are not familiar with regular expressions, the material in this section may make you want to review the rules governing regular expressions in more detail in another source. The material here shows simple to more complex concepts with examples sprinkled throughout. The examples are formulated specifically to match the use of regular expressions by Reporter; consequently other uses are not discussed.

Regular expressions: A regular expression (often abbreviated RE) consists of **regular characters** and characters with special meanings.

Regular characters: Any non-special character will match an exact copy of itself in the same case (upper/lower case). A string of these non-special characters will match the exact same string (with no extra characters of other "stuff" in the middle). Unless told otherwise, the pattern string may occur ANYWHERE in the data field. Note than **blanks** are regular characters and so are significant in the pattern.	**Example***: Pattern "rose" will match data "roseville", "Red Red rose", and "arose"* *but not "Rose" (upper case "R") and not "ro se" (blank in the middle).*
Line Anchors: You may specify that a pattern must start at the beginning of the field by starting with the special character **caret** "^". (carets may be used as special characters elsewhere as well, but as the first character in a pattern, it means the rest of the pattern must start at the beginning of the data field. Similarly, you may specify that a pattern must end at the end of the field by making the last character in the pattern a **dollar sign** "**$**".	**Example:** *Example: Pattern "^rose" will match data "roseville", but not "Red Red rose", and "arose".* *Pattern "rose$" will match "arose" and "Red Red rose" but not "roseville".* *Pattern "^rose$"will match "rose" but not "arose" "Red Red rose" or "roseville".*
Match any character: The **Period** "**.**" will match any single character.	**Example***: Pattern "r.se" will match "rose", "rise", "r se" "r#se" but not "roose" or "ro se"*
Match a character sequence: Repeat the period to match a sequence of any characters.	**Example:** *Pattern "…" matches any three characters. "abc", "123", "a c", but not "ab" (only TWO characters)*

Repeats: Several special characters are used to specify that part of a pattern may be repeated. For example, following a character by the **asterisk** "*****" will match zero or more occurrences of that character.	**Example:** *Pattern "a*" will match "a", "aa", "aaa", even "" (zero occurrences of "a") but not "a a" or "aba".*
Wildcard as plus: plus "**+**" works the same as the asterisk except that it matches ONE or more occurrences of the character.	**Example:** *Pattern "a+" will match "a", "aa", "aaa" but NOT "" (zero occurrences).*
Wildcard as question mark: question mark "**?**" will match exactly ONE occurrence of the character, or nothing at all but not multiple occurrences of the character.	**Example***: Pattern "a?" will match "a" and "" but not "aa" or "aaa".*
Repeating Patterns: The repeat characters work with single character patterns, but they may also be used to match repeating patterns which are enclosed in **parenthesis** "**()**" and ranges which are enclosed in **square brackets** "**[]**". These constructs are explained more fully later in this section.	**Example***: Pattern "(abc)*" will match "abc", "abcabc" "abcabcabc" and ""* *Pattern "[0-9]+" will match any contiguous sequence of one or more numbers*
Ranges: A range of characters may be specified inside of **square brackets** "**[]**". A range of characters may be specified by simply entering them between the brackets. "[0123456789]" would match any single character than was a number. "[ab]" would match either an "a" or a "b". A short hand may be used to specify all characters falling between two others is to specify the first character, a **dash** "**-**" then the last character. Thus "[0-9]" is the same as "[0123456789]". Any characters may be used as long as the follow the ASCII collating sequence. "[a-zA-Z] matches any alpha character. It may be easier to specify a range of characters that you do NOT want to match. TO do this, place a **caret** "^" as the first character then specify the characters to exclude. "[^xyz]" would match any character EXCEPT "x", "y", or "z". It is important to remember that a range matches a SINGLE CHARACTER in the data string. If you want to match more than one	**Example***: The Pattern "[0123456789]" would match "0" or "8" but not "45" (two characters, it would match the first one "4" but not both of them).* **Example***: The pattern "[0-9]+" would match any string of digits (but at least one digit). It would match "1","1234", "668888" but not "" (must have one digit and not "555-1212" (the "-" isn't a digit In this case the pattern would match just the "555"))* **Example***: The pattern "a[0-9]*" would match "a" followed by zero or more digits. It would match "a", "a0", "a77655"* **Example***: The Pattern "a[^b].*" would match "a" followed by a character which is NOT "b" followed by anything (zero or more occurrences of any character). It would match the string "ace", "ac", "a9", and even "actuarial" but it would not match "abcradabra" or "a" (range matches ONE character).*

character then you should follow the range specification by one of the repeat characters	
OR: You may specify more than one regular expression that may be used to match a given field by separating them by a **vertical bar** "|". Remember that each regular expression is evaluated against the entire field contents so if you need anchor characters you must repeat them.	**Example***: The Pattern "abc|def" would match either "abc" or "def"*
Special Characters as regular characters: The following are special characters: "**.**", "*****", "**?**", "**+**", "**(**", "**)**", "**{**", "**}**", "**[**", "**]**", "^", "**$**", "|", "\". If you want a special character to match itself, precede it with a back slash "\" and it becomes non-special.	**Example:** *The pattern "[0-9]+\.[0-9]+\.[0-9]+\.[0-9]+" matches the four parts of an IP address, separated by periods.* **Example:** *The pattern "…\\…." matches any three characters, a back slash then four characters.*

Group Names & Sub-strings

Sub-Strings are useful in automatically generating group names based on the variable contained in the sub-string. Any sub-string that matches a pattern can be used as part of the Group Name that appears in the Reporter hierarchy under Discovered Systems. The Group Name should have a **back slash** "****" followed by a **number** to indicate where the value for the sub-string should be substituted. The number indicates which sub-string value to substitute (in case there is more than one sub-string in your pattern).

Substring Matches: Regular expressions can be built up of single character patterns as described above. In addition they can be broken into sub-strings using **parenthesis** "**()**". The characters inside the parenthesis are treated as a separate regular expression that is matched against the data string. As illustrated in the preceding section, this can be combined with the repeat characters to match repeating patterns of characters in the data.

Example 1: *The Pattern "^(ab.)" will match any data string starting with "ab" and then having at least one more character. Thus it would match "abc", "ab9", "abcradabra" (with the sub-string matching only the "abc" part of "abcradabra") but not "ab" (nothing to match the period) and not "dabc" or " abc" since the caret indicates the pattern must start the field.*

Now, if you specify a Group Name of "Special - \1" then the actual group names generated would be:

Parameter Value	Group Name
abc	Special - abc
ab9	Special - ap9
abcradabra	Special - abc

Example 2: *Suppose you wanted to create a group for any non-null Operating System Name and you wanted that group to be exactly the same as the Operating System Name itself. Specify a Pattern for the Operating System Name like "(.+)" which says to match a sub-string (parenthesis) of any character (the period) repeated one or more times (the plus). Then specify the Group Name as "\1" which will substitute the first matched sub-string as the Group Name.*

Example 3: *Suppose your System Ids consist of three characters for the Area Code, any one character then four more characters for the region. You want to group names consisting of these two fields in the reverse order.*

Match specification: *The pattern "^(…).(….)$". Note that by anchoring the string at the beginning and end of the field (caret and dollar sign) we will not match any data field that deviates from this pattern. "aaa-rrrr" would match but "aaa-rrrrz" and "aaa - rrrr" would not.*

Group name result: *Next the Group Name "\2\1" specifies a group named with the two matched sub-strings, but with the second one first.*
Parameter Value "aaa-rrrr" => Group name "rrrraaa"

Nonprinting Characters: Although their use in the Reporter Automatic Grouping function is not likely, the pattern field will accept the following escape codes for non-printing characters:

Escape Sequence	Character Code	Meaning
\a	**0x07**	**Bell**
\f	**0x08**	**Form Feed**
\n	**0x0C**	**Newline**
\r	**0x0D**	**Carriage Return**
\t	**0x09**	**Tab**
\v	**0x0B**	**Vertical Tab**

Pattern Examples

The following character strings illustrate some typical constructions for the regular expressions which are allowed in the pattern field:

Pattern	Use
. (period)	Matches any character
[0-9]	Matches character in the range of digits
[a-zA-Z]	Matches an alphabetic character
[a-zA-Z0-9]	Matches an alphanumeric character
non special character	Matches the same character anywhere in the field
^	Requires match to occur at the beginning of the field
$	Requires match to occur at the end of the field
*	Matches any repeat of previous pattern 0 or more times
+	Matches any repeat of previous pattern 1 or more times
?	Matches previous pattern or nothing at all
( )	Specifies to treat the enclosed expression as a sub-string. Sub-strings as variables can be substituted in the Group Name using \1, \2, \3, etc., for first, second, third sub-string.
|	Allows separate matching; functions the same as OR (matches either pattern)
\	Escape character, treats special character as non-special.

This table contains some patterns that might be useful in Reporter

Parameter	Pattern	Matches
any	.+	Non-empty field
any	(.+)	Non-empty field, allow sub-string to substitute in the group name in place of "\1"
any	(.*)	Anything, including an empty field. Allows sub-string substitution in the group name
System ID	^(…)	Allows grouping of systems based on the first three characters of their system ID. Group Name might be "Application - \1"
IP Address	^([0-9]+)\.([0-9]+)\.([0-9]+)\.[0-9]+$	IP Address and allows sub-strings for the first three parts of the address to be used in the Group Name as \1, \2, \3.
Agent	^SCOPE	Any system that has MeasureWare Agent installed.
OS Name OS Release OS Version	^NT$ ^4\.0 ^SvcPk 3	Any system running NT 4.0 with Service Pack 3. NOTE: The **Match All** radio button should be selected to avoid matching any system that matches ANY of these three specifications.
Agent	^SCOPE.*([A-Z]\.[0-9][0-9]\.[0-9][0-9])	MeasureWare Agent-installed software, allows a group name such as: "MeasureWare \1" to group systems by MeasureWareAgent release installed.

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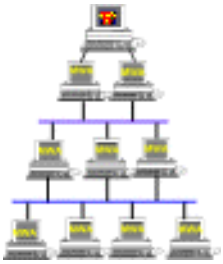


Scalability

This section helps you estimate the number of MeasureWare Agents (or VP Performance Agents) that a single Reporter system can successfully support. You can also plan on how much disk space to allow for Reporter data for a given number of days and systems.

The number of systems in the VantagePoint Operations (VPO) database is not as important as VPO has already gathered message data for these systems.

This section covers system requirements, scheduling recommendations, and disk space use for both the default database and Oracle as the Reporter database. Recommendations offered here are based on tests that used the default metric lists:

GLOBAL	10 metrics summarized into one data point every hour
APPLICATION	7 metrics summarized into one data point for each active application every hour
TRANSACTIONS	9 metrics summarized into one data point for each active transaction every hour

Note: An average of 90 records per day were gathered from each system in the tests that follow. The number of records gathered per day on each system in your environment may differ.

Caution: Testing was performed with 50, 100, 500, 1000, and 1100 systems. The graphs below used linear projections for numbers of systems beyond 1100

System Requirements for the Default Database

Tests were performed using a variety of hardware configurations which yielded the following general recommendations:

CPU

- A 166 MHz Pentium processor is marginally acceptable
- A 200 MHz Pentium Pro processor is a preferred for most installations
- A 400 MHz Pentium-II processor is required to support larger numbers of MeasureWare Agents (see details below).
- Two processors roughly doubles the Reporter's performance (that is, doubles the number of MeasureWare Agents it can support).

Main Memory

- Main memory size should be a minimum of 64 MB with 128 MB preferred for larger installations.
- Additional memory beyond 128 megabytes provides some marginal increase in performance but is not as dramatic as increasing processor speed.

Virtual Memory

- Virtual memory should be configured to 120 MB above the amount normally used on this system (minimum). A lesser configuration could result in program aborts and unexpected errors.
- Larger virtual memory will be required if you increase the Max Concurrent values for scheduled programs.

Disk Space

- 40 MB for the product files
- At least 120 megabytes for virtual memory, plus the disk space used by the database.
  (See below for information on the amount of disk space required by the database.
- During the creation of some reports, disk space to hold scratch files may become significant for very large numbers of systems in the Reporter database.

System Requirements

for Oracle

Tests, performed on a variety of hardware configurations, yielded the following general recommendations:

CPU	■ A 200 MHz PentiumPro processor is marginally acceptable ■ A 333 MHz PentiumPro processor is a preferred for most installations ■ A 450 MHz Pentium-II processor is required to support larger numbers of VP Performance Agents (see details below).
Main Memory	■ Main memory size should be a minimum of 96MB with 192MB preferred for larger installations. ■ Additional memory beyond 192MB provides some marginal increase in performance but is not as dramatic as increasing processor speed.
Virtual Memory	■ Virtual memory should be configured to 200MB above the amount normally used on this system (minimum). A lesser configuration could result in program aborts and unexpected errors. ■ Larger virtual memory will be required if you increase the Max Concurrent values for scheduled programs.
Disk Space	■ 60MB for the product files ■ At least 200MB for virtual memory ■ During the creation of some reports, disk space to hold scratch files may become significant for large numbers of systems in the Reporter database
Disk Space on Oracle Database Server	■ (See below for information on the amount of disk space required by the Oracle database.)

System Requirements using SQL 7.0

CPU	■ A 200 MHz PentiumPro processor is marginally acceptable ■ A 450 MHz Pentium-III processor is a preferred for most installations ■ A 733 MHz Pentium-III processor is required to support larger numbers of VP Performance Agents (see details below). ■ The Client CPU is not as important as the Server's CPU(s), as the overall Server speed and number of CPUs increased the time required to complete the Reporter task decreased.
Main Memory	■ Main memory size should be a minimum of 96MB with 262MB preferred for larger installations. ■ Additional memory beyond 262MB provides some marginal increase in performance but is not as dramatic as increasing processor speed..
Virtual Memory	■ Virtual memory should be configured to 200MB above the amount normally used on this system (minimum). A lesser configuration could result in program aborts and unexpected errors. ■ Larger virtual memory will be required if you increase the Max Concurrent values for scheduled programs.

Disk Space	■ 70MB for the product files (Client only) ■ At least 200MB for virtual memory ■ At least 200MB for virtual memory n During the creation of some reports, disk space to hold scratch files may become significant for large numbers of systems in the Reporter database
Disk Space on Sybase Database Server	■ (See below for information on the amount of disk space required by the SQL database.)

Time Allotment for Reporter Task Completion

Probably, you will need to determine whether you can use Reporter as is or if you will need to reconfigure its schedule to fit in with your organization's available resources and daily work routine. You will also need to consider the following as you view the different levels discussed here. These variables are vital in determining which level you can use to get the most value out of Reporter:

- CPU speed and number of processors
- Number of systems on which you will be reporting
- Number of systems in the "Discovery Area" which are scanned for MeasureWare Agents
- Speed of the network

For the sake of this discussion, we are characterizing the running of Reporter into two levels of basic usage patterns.

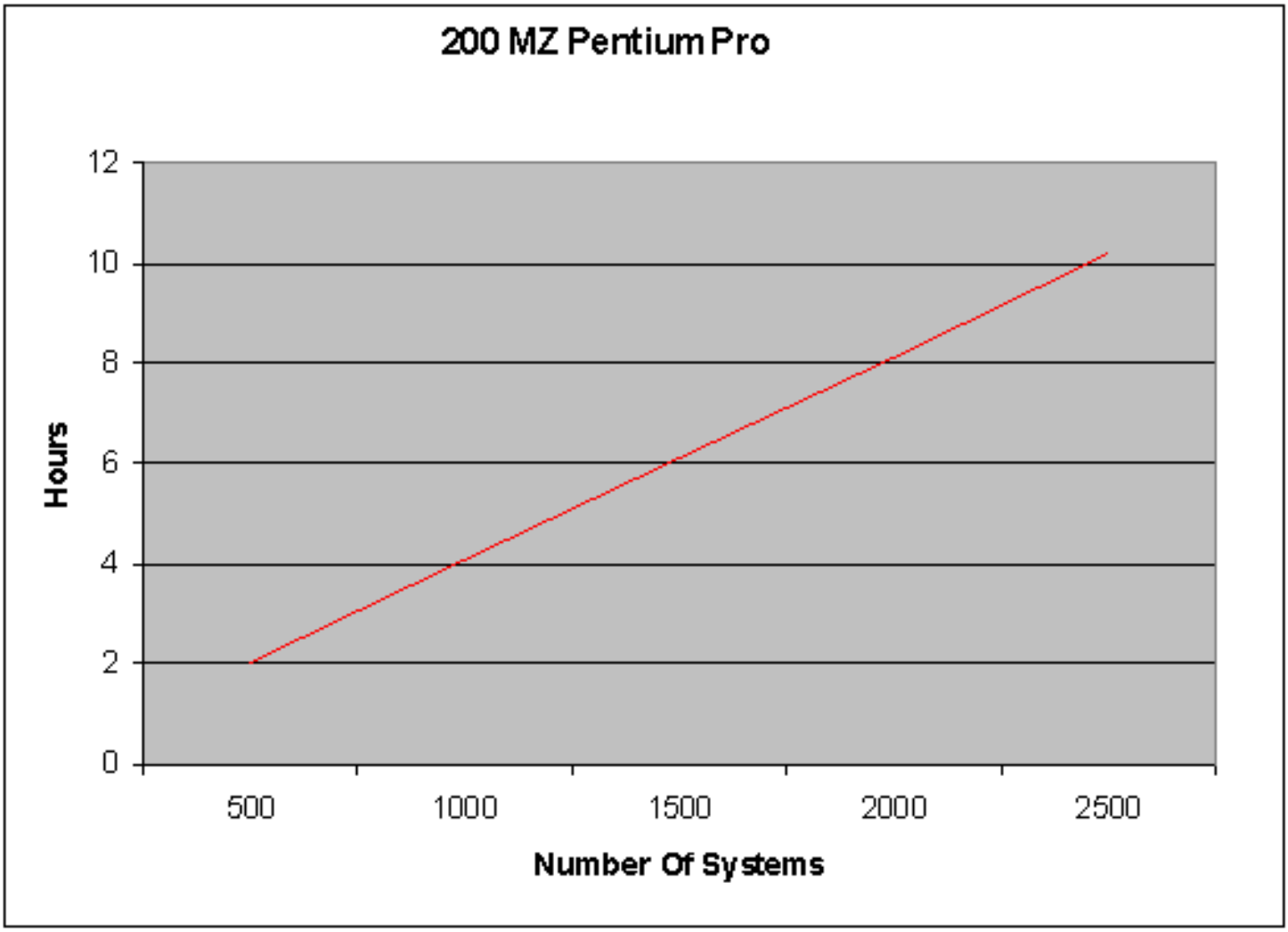
Level 1, **using Access, Reporter's default database,** requires no change to Reporter's default processing schedule and is directed at those systems that are used for other tasks across the organization. For systems like these, Reporter's late-night processing cycle means that it does not interfere with the daily routine. In this situation, Reporter uses the default schedule, which starts up its routine at 12:30 AM each night. This level recognizes that Reporter must finish its work in 6 1/2 hours so that the system is idle by 7:00 AM each morning.

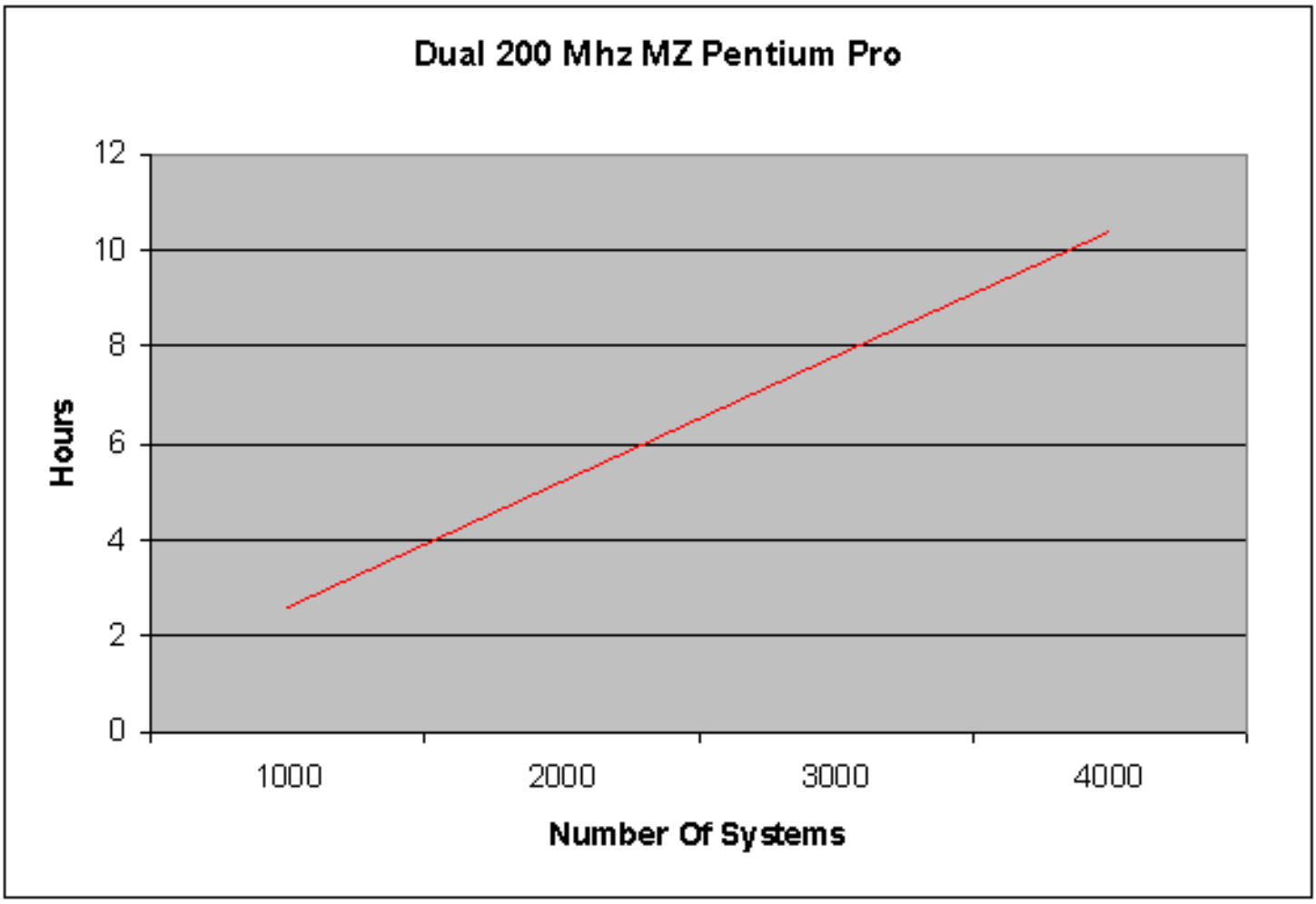
Hardware	Systems supported / Database space required
■ 200 MHz Pentium pro, single processor ■ 64 MB memory	■ 1600 MeasureWare Agents (or VP Performance Agents) ■ 84 MB for database (approximate)
■ 200 MHz Pentium pro, dual processors ■ 96 MB memory	■ 2492 MeasureWare Agents (or VP Performance Agents) ■ 131 MB for database (approximate)
■ 400 MHz Pentium-II, dual processors ■ 192MB memory	■ 4577 MeasureWare Agents (or VP Performance Agents) ■ 240 MB for database (approximate)

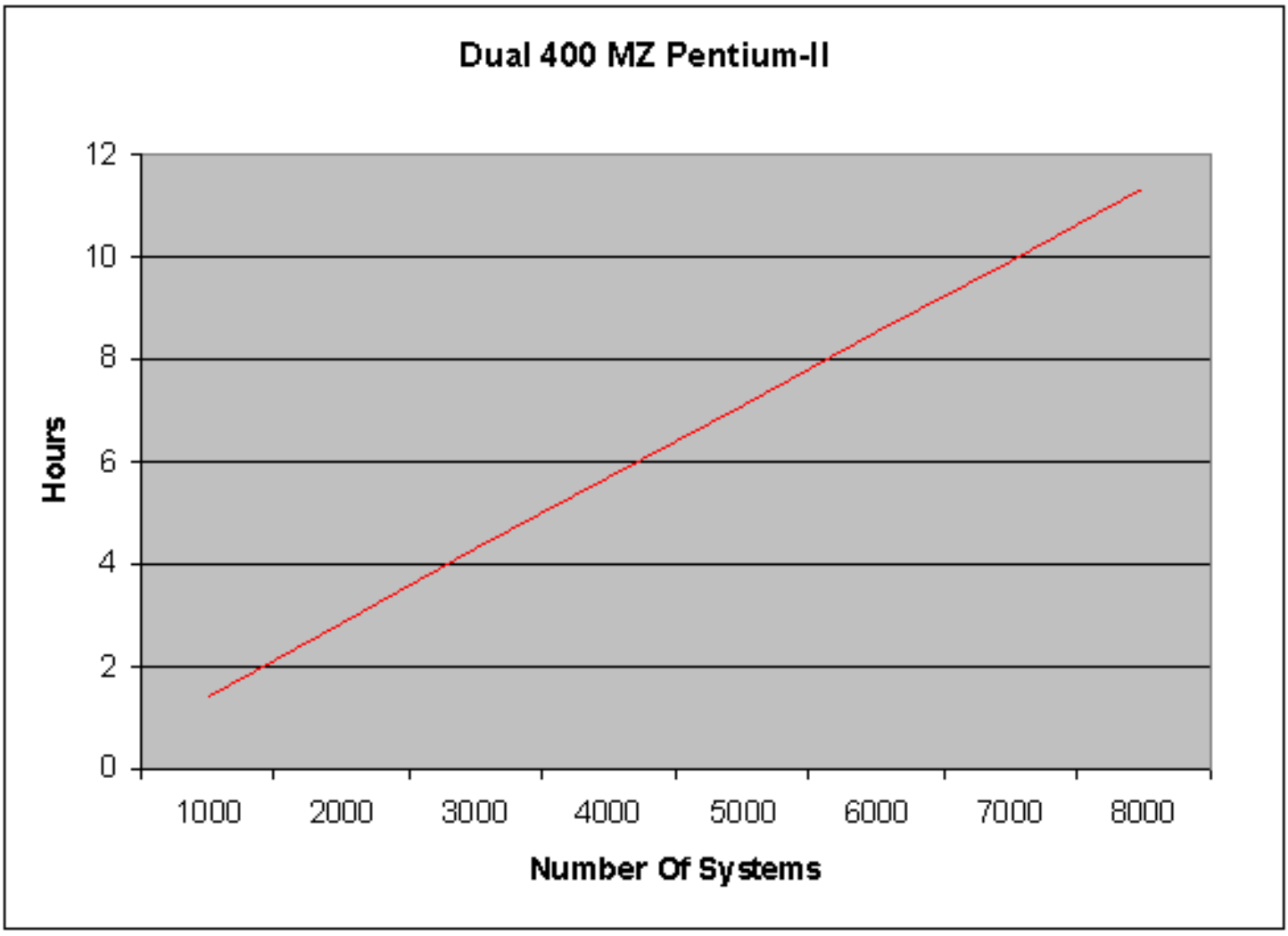
Level 2, using Access, Reporter's default database, you can allow more time for Reporter to gather its data and generate reports. If, for example, you don't require updated reports until 12:30 PM each day, and Reporter is run on a dedicated system, then you can allow 12 hours for the reporter processing cycle. In this case the number of systems you can monitor will increase.

Hardware	Systems supported / Database space required
■ 200 MHz Pentium pro, single processor ■ 64 MB memory	■ 2952 MeasureWare Agents (or VP Performance Agents) ■ 155 MB for database (approximate)
■ 200 MHz Pentium pro, dual processors ■ 96 MB memory	■ 4600 MeasureWare Agents (or VP Performance Agents) ■ 242 MB for database (approximate)
■ 400 MHz Pentium-II, dual processors ■ 192MB memory	■ 8450 MeasureWare Agents (or VP Performance Agents) ■ 444 MB for database (approximate)

The graphs below illustrate those results by giving the typical number of hours required to complete Reporter tasks for a given number of systems. You can dramatically affect these times by changing the report collection parameters such as the number of days in the database (7 days is assumed for these graphs).




Dual 200 Mhz MZ Pentium Pro
Hours
12
10
8
6
4
2
0
1000
2000
3000
4000
Number Of Systems

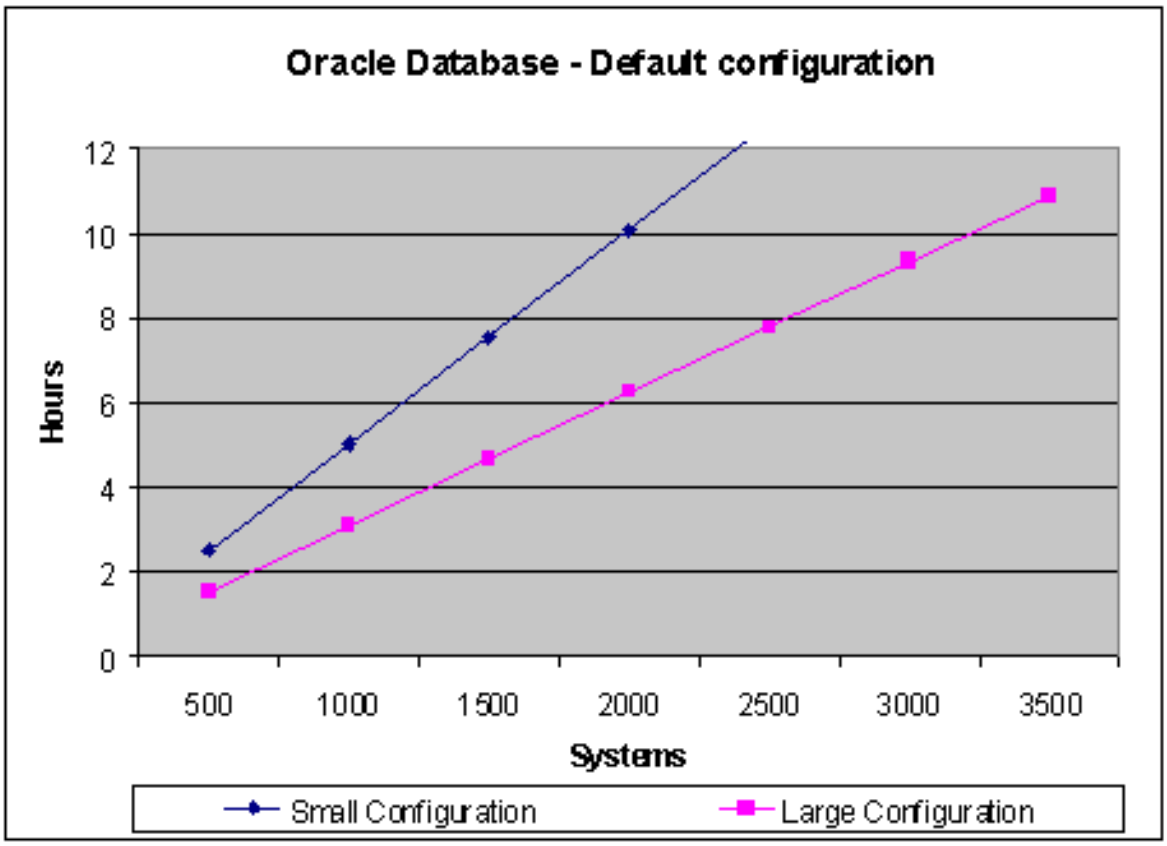


Top

Level 1, **Using Oracle as the Reporter Database:** Requires no change to Reporter's default processing schedule and is directed at those systems that are used for other tasks across the organization. For systems like these, Reporter's late-night processing cycle means that it does not interfere with the daily routine. In this situation, Reporter uses the default schedule, which starts up its routine at 12:30 AM each night. This level recognizes that Reporter must finish its work in 6 1/2 hours so that the system is idle by 7:00 AM each morning.

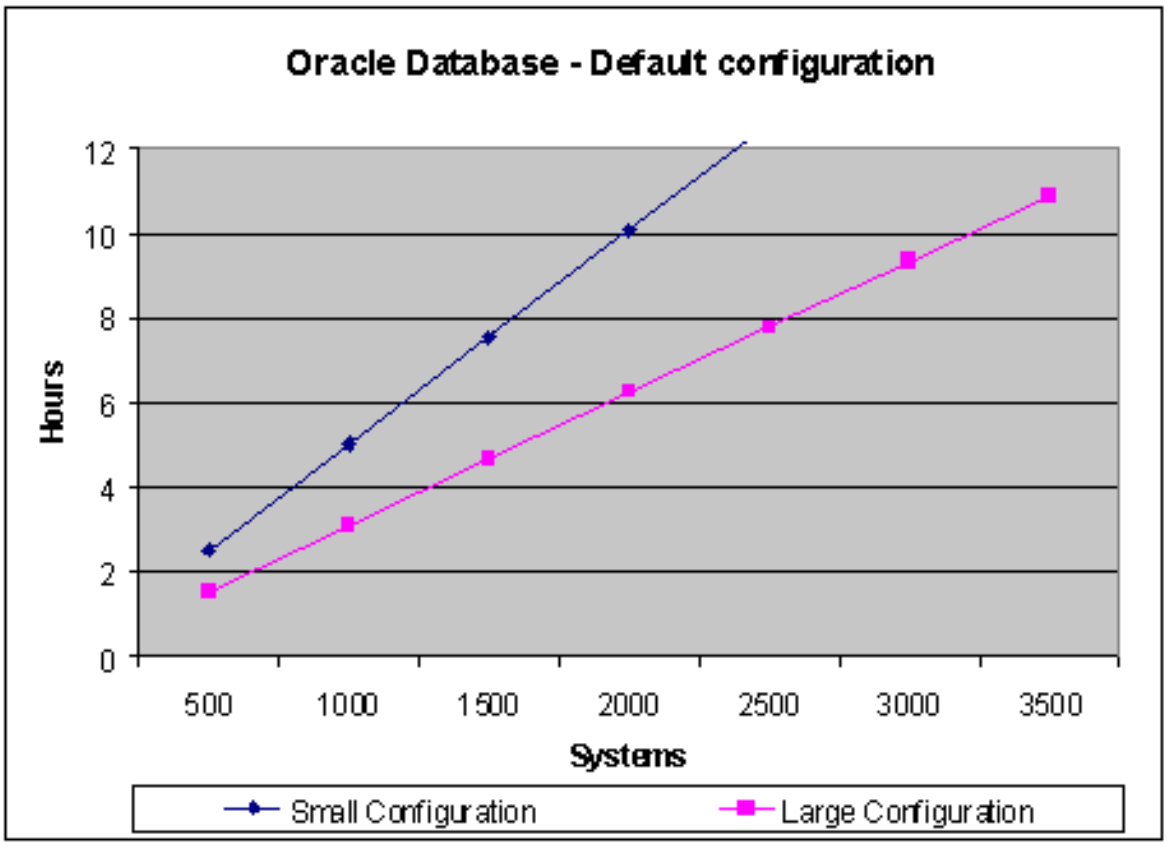
Server Hardware	Client Hardware	Systems supported / Database space required
■ Model 735/125 MHz ■ Single CPU PA7150 ■ 10 GB External Disk Pack ■ 96 MB Memory ■ 100 MB Lan	■ 200 MHz Pentium pro, single processor ■ 96 MB memory ■ 200 MB virtual memory ■ 100 MB Lan	■ 1291 MeasureWare Agents (or VP Performance Agents) ■ 900 MB Minimum for database (approximate)

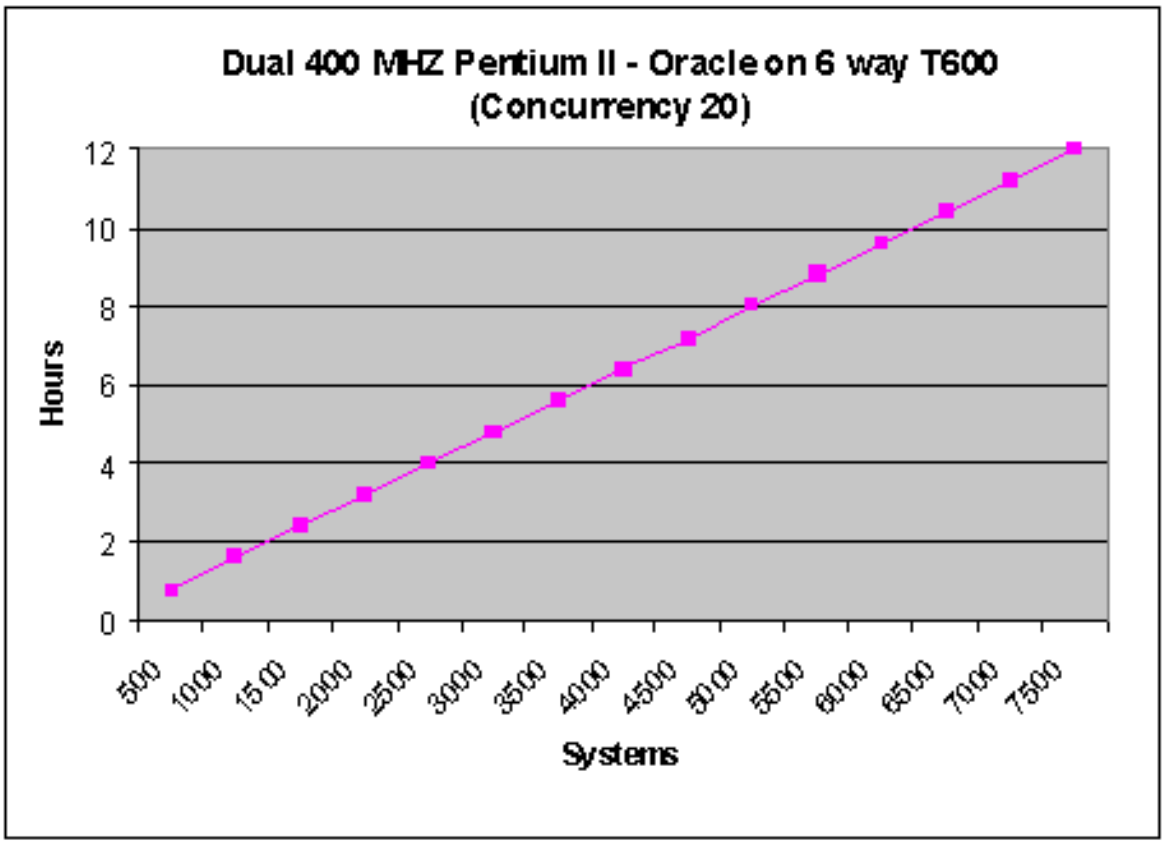
■ Model T600(893)/180 MHz ■ Six way CPU PA8000 ■ 20 GB Nike Disk Array ■ 2048 MB Memory ■ 100 MB Lan	■ 400 MHz Pentium-II, dual processors ■ 192MB memory ■ 300 MB virtual memory ■ 100 MB Lan	■ 2086 MeasureWare Agents (or VP Performance Agents) ■ 900 MB Minimum for database (approximate)



Level 2, using Oracle as the Reporter database: Change Max Concurrent value for data gathers to 20. Note that this level requires larger hardware and software configurations for both the database server and the NT client.

Server Hardware	Client Hardware	Systems supported / Database space required
■ Model T600(893)/180 MHz ■ Six way CPU PA8000 ■ 20 GB Nike Disk Array ■ 2048 MB Memory ■ 100 MB Lan	■ 400 MHz Pentium-II, dual processors ■ 192 MB memory ■ 300 MB virtual memory ■ 100 MB Lan	■ 4075 MeasureWare Agents (or VP Performance Agents) ■ 1393 MB for database (approximate)

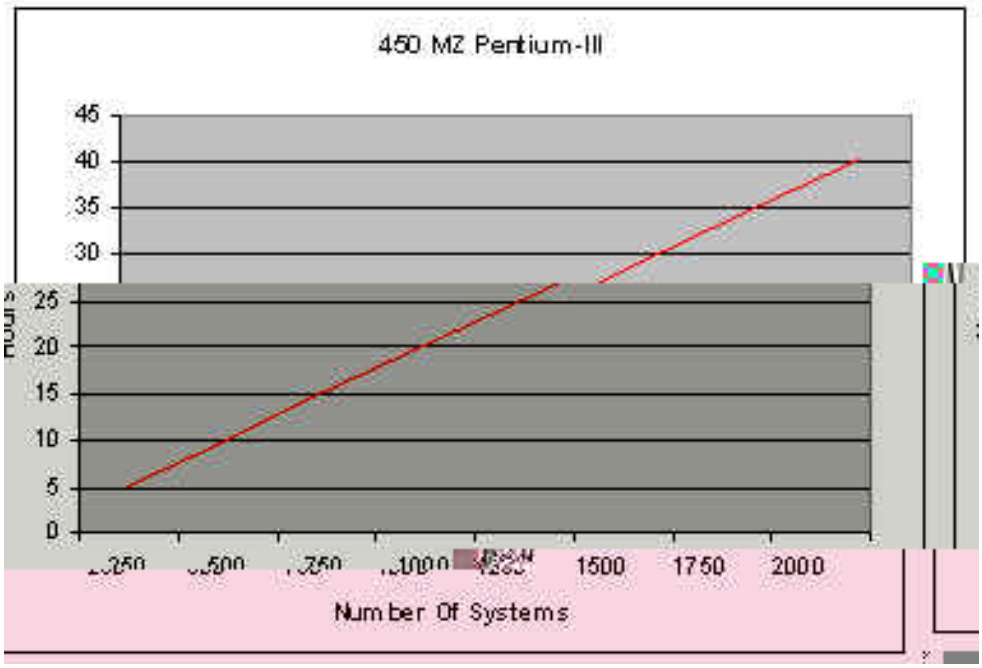

Oracle Database - Default configuration
Hours
0
2
4
6
8
10
12
500
1000
1500
2000
2500
3000
3500
Systems
Small Configuration
Large Configuration

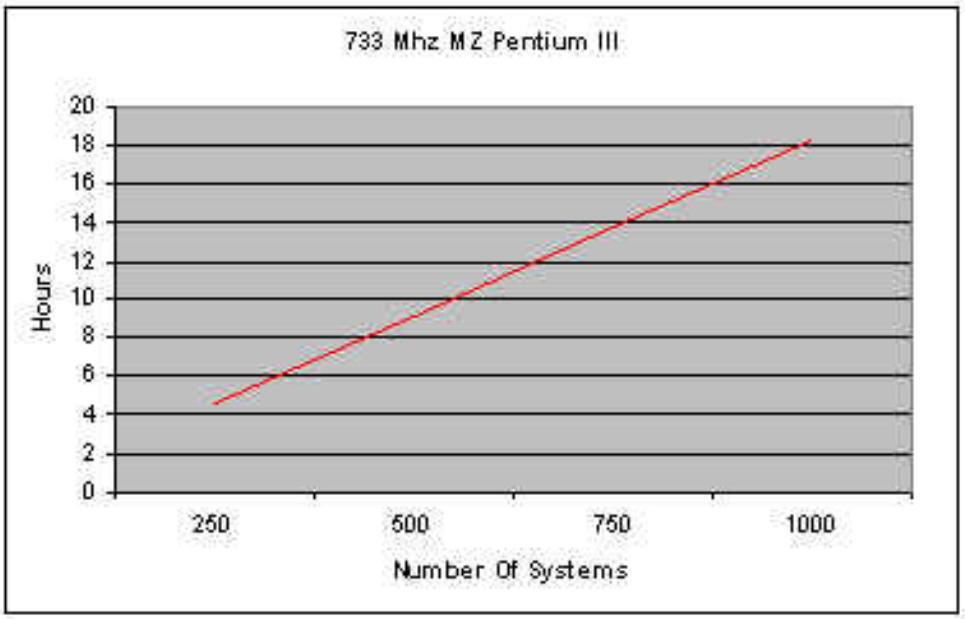

Dual 400 MHZ Pentium II - Oracle on 6 way T600
(Concurrency 20)
Hours
0
2
4
6
8
10
12
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
7000
7500
Systems

Top

Level 1, using SQL as the Reporter database: Requires no change to Reporter's default processing schedule and is directed at those systems that are used for other tasks across the organization. For systems like these, Reporter's late-night processing cycle means that it does not interfere with the daily routine. In this situation, Reporter uses the default schedule, which starts up its routine at 12:30 AM each night. This level recognizes that Reporter must finish its work in 6 1/2 hours so that the system is idle by 7:00 AM each morning.

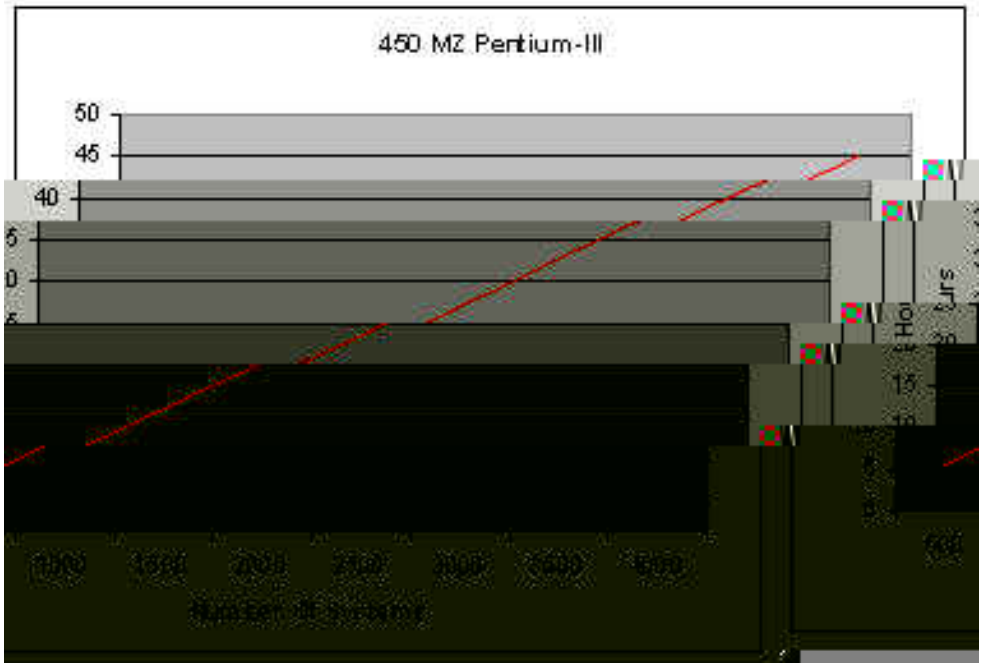
Server Hardware	Client Hardware	Systems supported / Database space required
■ Net Server 5/133 MHz LS4 ■ 4 x 133 MHz CPU ■ 2 x 9 GB Internal Disk ■ 327 MB Memory ■ 100 MB LAN	■ 450 MHz Pentium-II processor ■ 262 MB memory ■ 384 MB virtual memory ■ 100 MB LAN	■ 265 MeasureWare Agents (or VP Performance Agents) ■ 100 MB minimum for database (approximate)
■ Net Server 5/133 MHz LS4 ■ 4 x 133 MHz CPU ■ 2 x 9 GB Internal Disk ■ 100 MB LAN	■ 733 MHz Pentium-III, single processor ■ 392 MB memory ■ 400 MB virtual memory ■ 100 MB LAN	■ 290 MeasureWare Agents (or VP Performance Agents) ■ 100 MB for database (approximate)

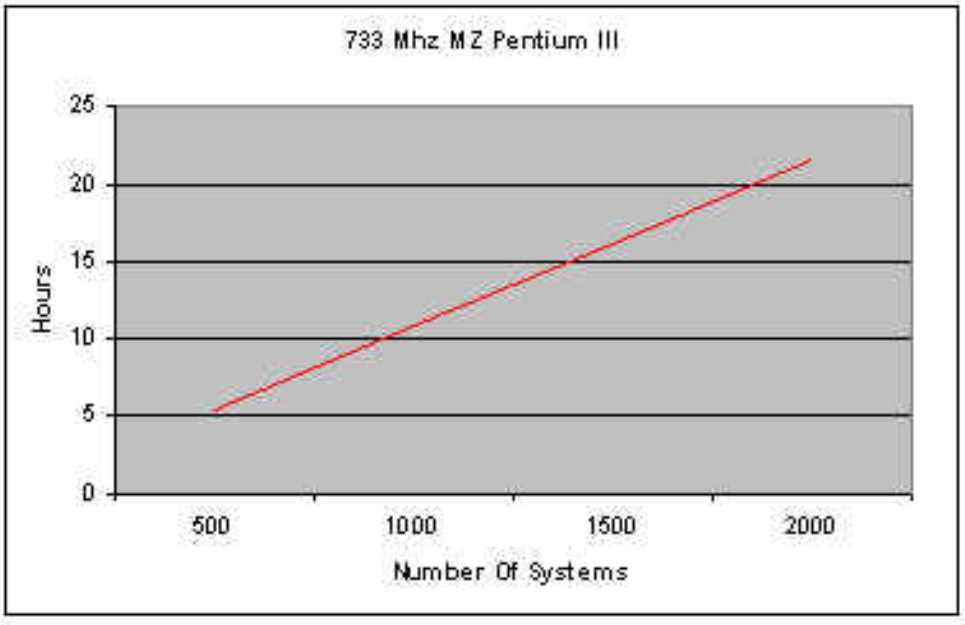




Level 2, using SQL as, Reporter's default database, you can allow more time for Reporter to gather its data and generate reports. If, for example, you don't require updated reports until 12:30 PM each day, and the Reporter is run on a dedicated system, then you can allow 12 hours for the reporter processing cycle. In this case the number of systems you can monitor will increase.

Server Hardware	Client Hardware	Systems supported / Database space required
■ Net Server 2/500 MHz LC3 ■ 2 x 500 MHz CPU ■ 2 x 9 GB Internal Disk ■ 327 MB Memory ■ 100 MB LAN	■ 450 MHz Pentium-II processor ■ 262 MB memory ■ 384 MB virtual memory ■ 100 MB LAN	■ 475 MeasureWare Agents (or VP Performance Agents) ■ 200 MB minimum for database (approximate)
■ Net Server 5/133 MHz LS4 ■ 2 x 500 MHz CPU ■ 2 x 9 GB Internal Disk ■ 327 MB Memory ■ 100 MB LAN	■ 733 MHz Pentium-III, single processor ■ 392 MB memory ■ 400 MB virtual memory ■ 100 MB LAN	■ 497 MeasureWare Agents (or VP Performance Agents) ■ 200 MB for database (approximate)

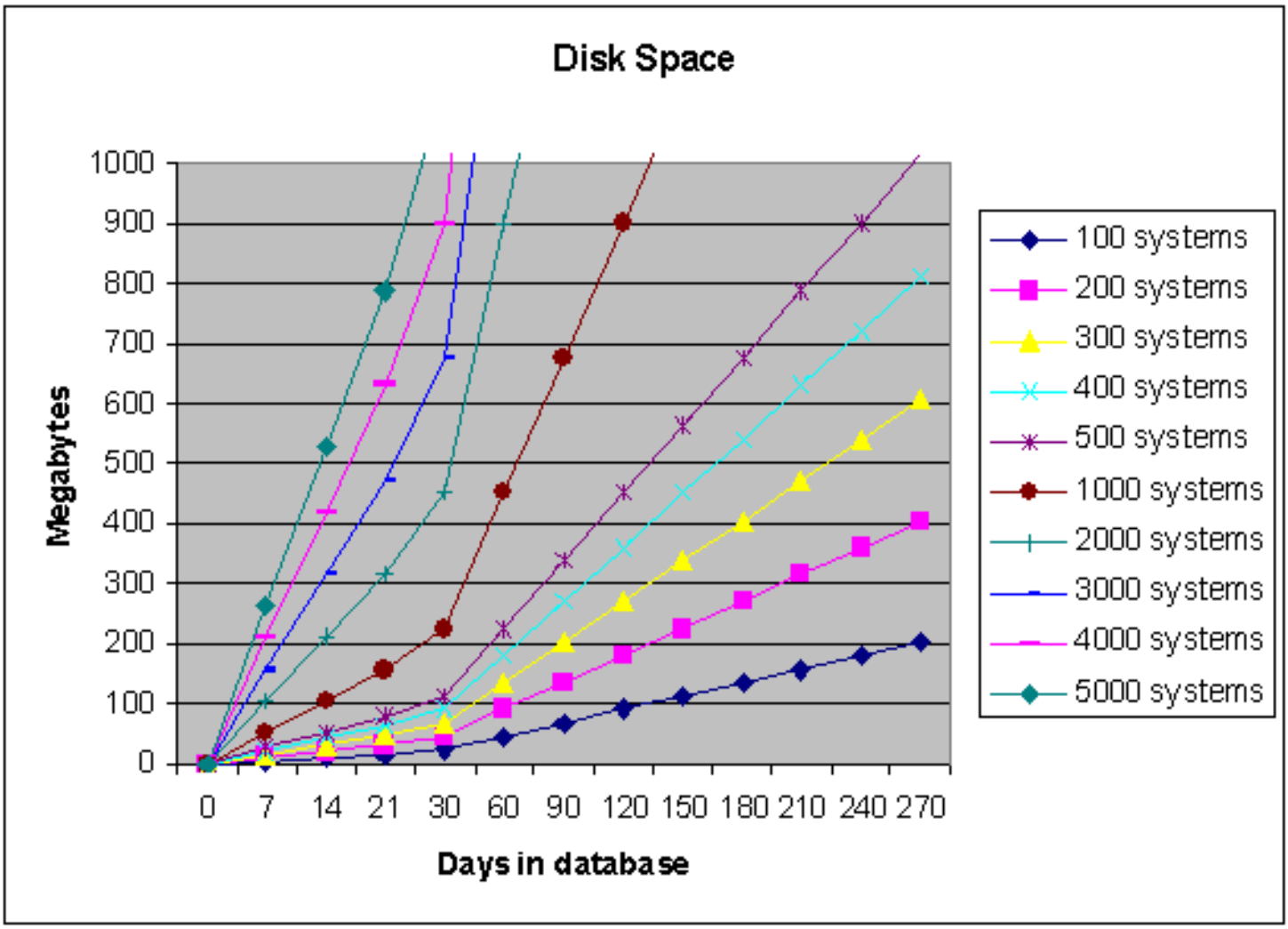




Default Database Disk Space Use

The preceding disk space values assume the default metrics are collected and held for 7 days. If you collect from more systems or hold more days' worth of data, the database will require more disk space and processing will take more time. Initial testing indicates that the default database requires at least approximately 7.7 KB disk space per system per day. To store data for 1,000 systems for the default database for 7 days would require 54 MB (1,000 systems multiplied by 7 days multiplied by 7.7 KB).

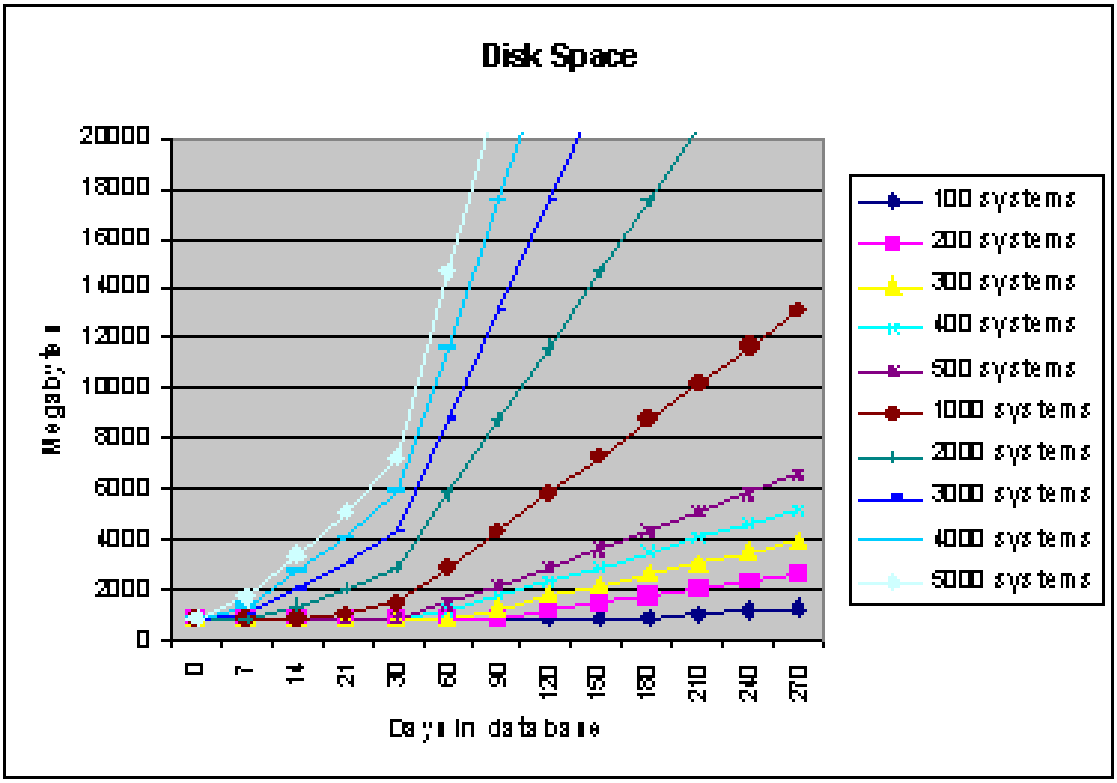
The following chart shows the database disk space requirements according to the number of systems and the number of days' worth of data stored in the database.



Oracle Disk Space

Initial testing indicates that the Oracle 7.3.4 database requires approximately 50KB per system per day. To store data for 3,000 systems for 7 days (default setting) would require 1,025MB (3,000 multiplied by 7 days multiplied by 50KB). The minimum size of the database is 900 Megabytes.

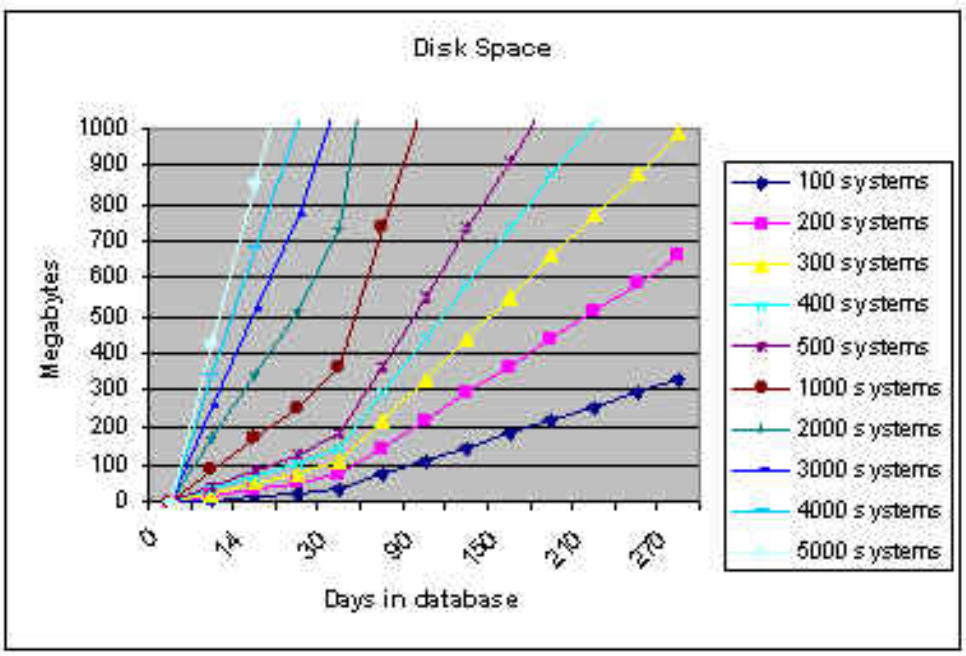
The following chart shows the database disk space requirements according to the number of systems and the number of days' worth of data stored in the database.



Database Disk Space using SQL

Initial testing indicates that the SQL 7.0 database requires approximately 12.5KB per system per day. To store data for 2,000 systems for 7 days (default setting) would require 175MB (2,000 multiplied by 7 days multiplied by 12.5KB). The minimum size of the database is 200 Megabytes.

The following chart shows the database disk space requirements according to the number of systems and the number of days' worth of data stored in the database.



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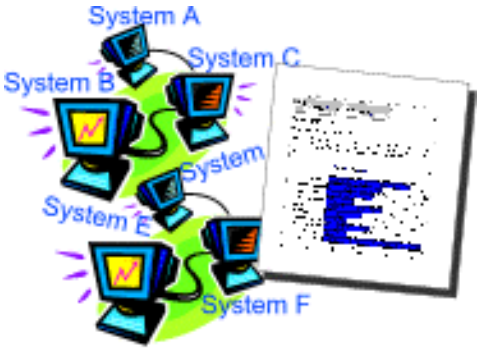


How Reporter Handles System Names and Data Sources (and what you can do in problem situations)

The reports generated by Reporter list systems by their network names. However, what happens if a system's network name is not unique or if one system has more than one network name? Further, what happens if data from one system is transferred to another system? Can Reporter sort out these situations correctly? For the most part, yes. Reporter automatically resolves these potential problems because MeasureWare Agent (or VP Performance Agent for UNIX) log files identify the original source of data by including a unique system ID.

However, other situations can occur that you may need to be aware of so that you can avert problems. These situations involve duplicate network names and duplicate system IDs within log files. This section covers what you can do, and what you might look for in a complex network environment where it is easy to duplicate names or values inadvertently.

Network Names Identify Systems in Reports

Reporter's pre-configured reports use each system's network name to identify the system. However, you can, to some degree, control the system names in the reports by controlling what network names are used to discover each system. Note that system names must be usable by the name server to link to a valid network IP address. You cannot use any arbitrary name, but you can choose from equivalent names, such as the short name, the fully qualified name, or the IP address itself.

***Note**: After Reporter discovers a system, that network name is fixed. The network name cannot be replaced, even if the system uses a second or third network name. If you want to change network names, you must delete the system entirely or start over with an empty database and discover again, using the desired network names.*

Duplicate Network Names for Different Systems

(what you can do to resolve)

When you open Reporter's main window and use the Discovery Area to discover systems in the Microsoft Windows NT network domains, the names that appear in your reports match those that you see in the expanded Discovery Area tree. The names are usually short names like *rosebud*. If the short form of any name occurs more than once in the network, Reporter will discover the first one and ignore the second. For this reason, you need to resolve this situation before the Discovery process begins.

What you can do to resolve duplicate network names before running Discovery:
In cases where network names duplicate each other in the short form, you can resolve this problem by using Add Single System or Bulk Discovery and enter the names in their longer, fully qualified form. Both methods require that you manually enter names. The name that you enter must be a valid name on the name server so

that it can be resolved with its network IP address. For example, enter rosebud.citizen.kane.com and rosebud.flowers.are.us instead of allowing Reporter to automatically discover the first short network name of rosebud and ignore the second duplicate name (for a different system).

*Note: You can test the validity of a name by entering the command **ping** <system name> in the Command Prompt window. If **ping** finds the correct system, you can use that name in Add Single System or Bulk Discovery.*

Multiple Network Names for the Same System

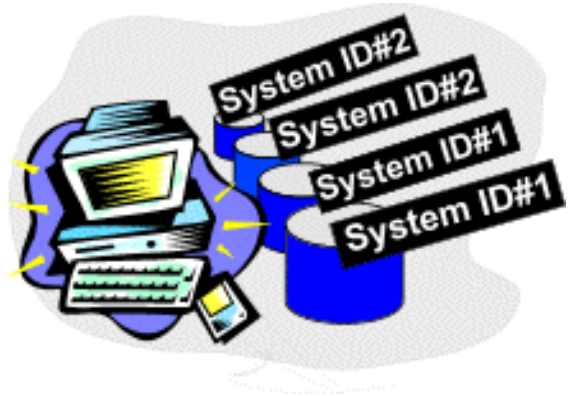
(no resolution necessary)

If multiple network names refer to the same system, Reporter resolves the situation. This situation can occur when Reporter discovers a single system that uses network identifiers, such as rosebud, rosebud.citizen.kane.com and 123.13.45.221. Even though Reporter might discover this single system multiple times because of its different network names, Reporter associates these multiple network names with one MeasureWare Agent system ID. Reporter assigns data to the first network name and ignores the others.

Note: To view the network name and the MeasureWare Agent system ID for any system, select the system in the Discovered Systems area of Reporter's main window. Expand the System Information icon in the right pane. SystemID contains the network name for this system and SystemName contains the MeasureWare Agent system ID value.

MeasureWare Agent System IDs Link Performance Data and Systems

When Reporter has discovered a MeasureWare Agent -installed system, it looks within the log file set to identify the source of the collected data through the metric: GBL_SYSTEM_ID. This is the system ID, which is stored in the database (even though you do not see it in any of the default reports). With a unique system ID value in each log file set, no problems occur.



Multiple Log files on the Same System

Reporter can determine if log files (such as a raw log file and an extracted log file) are from the same system. By checking the system ID (GBL_SYSTEM_ID metric), Reporter recognizes that these log files originate from the same system and ignores the duplicate.

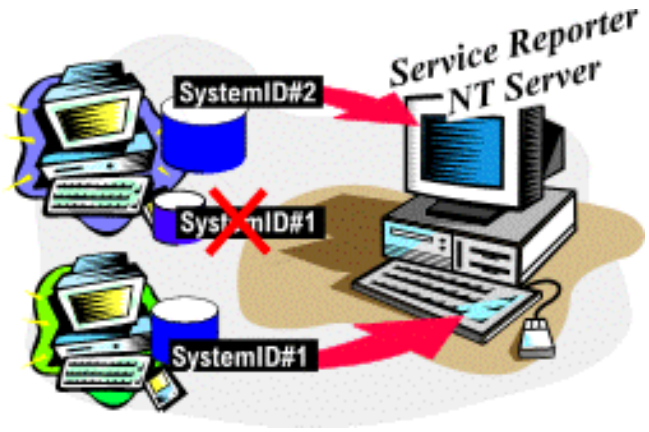
If two log file sets have the same system ID (duplicate values for the GBL_SYSTEM_ID metric), Reporter recognizes the first and that becomes the only log file set (and system) for which a report is generated. If you are missing a report on a system, possibly the system ID metric value for that system is duplicated by another system.

How to tell if you have this problem: From the Reporter window select Configure from the File menu and set the trace level to a value of 1 or higher. Next, allow the Discovery process to execute one complete cycle, then examine the file trace.discovery in the rpmtools\data directory. Look for messages

with the string "Found Duplicate System IDs". Determine if the data sources listed are actually log files from the same system. If not, you may need to change the system ID as described in the following paragraph.

What you can do to resolve duplicate system IDs: Open the MeasureWare Agent parm file for the missing system. *You need to change the name for the duplicate(s) by editing the parm file on that (those) system(s). (See the MeasureWare Agent documentation for details).*

Note: If the default value is not present (no system ID is present in the parm file), check the system ID according to the operating system. For example:
UNIX systems use the nodename, obtained by entering the command: uname -n.
Windows NT systems use a name obtained from an API call: GetComputerName.
Windows 3.x and Windows 95 systems use the PC label assigned to the system during MeasureWare Desktop installation.
MPE/iX systems use the variable listed as HPSYSNAME.



Automatic Update of Proxied Systems to Direct Sources of Data

If during the discovery process, Reporter discovers a duplicate system ID for a log file originating directly from a system and the system already discovered is being proxied, Reporter replaces the entry for the indirect data source with the new, non-proxied system. Existing data, groups, reports, etc., are updated from the old proxied identifier to the new direct one.

As illustrated above, Reporter could originally access only System #2, which stored its own log files and those from System #1. Later when Reporter gained access to System #1, it automatically ignored the second log file on System #2, and retrieved that data directly from System #1.

Using the MeasureWare Agent System ID in Reports

If you create your own reports or edit the standard reports using Crystal Reports (purchased separately), you can use the MeasureWare Agent system ID as follows:

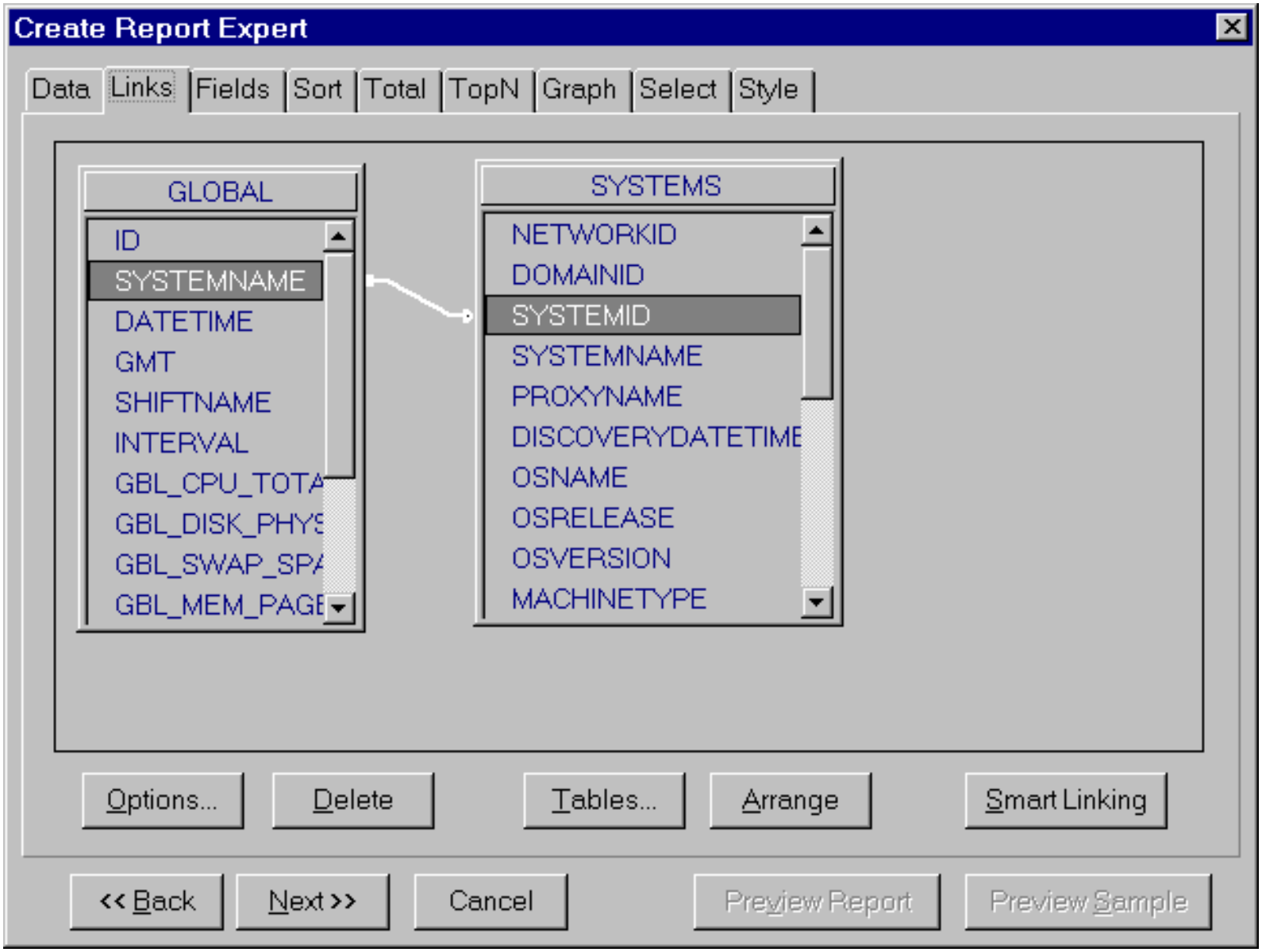
Each Reporter database table created from a metric list has the same name as that metric list. At minimum, the table contains these four standard items:

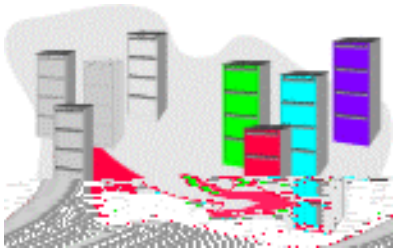
- ID: a sequential number used to guarantee uniqueness on each record.
- SYSTEMNAME: the network name for the system (as used by discovery).
- DATETIME: the local time on the MeasureWare Agent system for the record
- GMT: Greenwich Mean Time for the record.

The **SYSTEMS** table contains discovered information about each system. Each discovered system has one record. Within that record, fields of interest are:

- SYSTEMID: the network name for the system (as used by discovery).
- SYSTEMNAME: the VP Performance Agent GBL_SYSTEM_ID value.
- PROXYNAME: the network name of the system which is hosting the proxied log files for this system.

To use the MeasureWare Agent system ID name (the value for GBL_SYSTEM_ID) in a report, you can link from a metric list table using the **SYSTEMNAME** item into the Systems table using the **SYSTEMID** item.





Recovering a Corrupted Database

If the Reporter database is damaged, you can perform the following steps to correct it:

1. Select **Stop Reporter Service** from the Action menu.
2. Repair the database: Open the Control Panel, choose ODBC, select the System DSN tab and highlight the Reporter database driver (*.mdb). Select the **Configure...** button and in the next window the **Repair…** button.

If this procedure fails or if the database is still unusable, please see the section that follows to a new database.

Starting Over

- To remove all data from the Reporter database and/or to restore the original default configuration settings, follow the steps below.
- To transfer data from the Reporter default database to an Oracle database, see the instructions: Transferring Data from the default database to Oracle.

1. To stop the Reporter service, select **Action**>**Stop Reporter Service**. (or select the **Start/Stop Reporter Service** toolbar button ). You can also do this manually by opening the NT Control Panel, selecting **Services**, highlighting **Reporter Service**, and pressing the **Stop** button.
2. Reporter default database users: If you want to save the existing data, rename the database; if you do not need to save existing data, delete the file\rpmtools\data\datafiles\Reporter.mdb.
   Oracle database users: See "Removing Data from the Oracle Database" and follow the instructions to delete all data from the Oracle database. Then follow the remaining steps of the procedure here.
3. For Windows 2000 systems: Select **Start**>**Settings**>**Control Panel**>**Administrative Tools**>**Data Sources (ODBC)**
   or
   For Window NT: Select **Start**>**Settings**>**Control Panel**>**Data Sources (ODBC).**
4. Select the DSN tab and within the System Data Sources: select **Reporter** and click the **Configure...** button.
5. In the window that appears that click the **Create ...** button.
6. In the New Database window browse to the \rpmtools\data\datafiles\ directory and in the Database Name text box type **Reporter** and click**OK**.
7. Now create the Reporter tables within the database by running the **\rpmtools\bin\NewDB.exe** program.
8. Change the default configuration in the Discovery area as necessary in the Reporter main window (dragging and dropping additional systems to the Discovery Area).
   (To create new system groups, wait until after the Discover process has completed so that you can add the newly discovered systems to those groups.)

   Note: If you have been backing up Reporter data, restore this file from your backup.
9. To restart the Reporter service, in the Reporter main window select **Action>Start Reporter Service**. Reporter immediately begins the processing cycle as it did when it was first installed.

Removing Data from the Oracle Database

a. On the NT system where Reporter is installed, copy the **\rpmtools\newconfig\oracle\DropNewdb.sql** file to the UNIX system in directory: **$ORACLE_HOME/dbs/**
b. On the UNIX system where the Oracle database is installed, verify that for the current Oracle session, the Oracle SID=REPORTER.
c. Log on as oracle and at the oracle> prompt, enter **svrmgrl** to start the Oracle Server Manager program.
d. At the SVRMGR> prompt, enter **connect internal**.
e. Enter the following to remove data from the database: **@ORACLE_HOME/dbs/dropnewdb.sql**
f. Return to the previous procedure and complete steps 3 to 5.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Integrating VP Reporter with VP/Windows

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To integrate Reporter with VantagePoint for Windows (VP/Windows), make sure that VantagePoint for Windows is already installed on the system where you plan to install Reporter. Then **install Reporter on the same system**. After installing Reporter on the on the VP/Windows management server, you can see that Reporter has added its own tools and policies to the VP/Windows console tree.

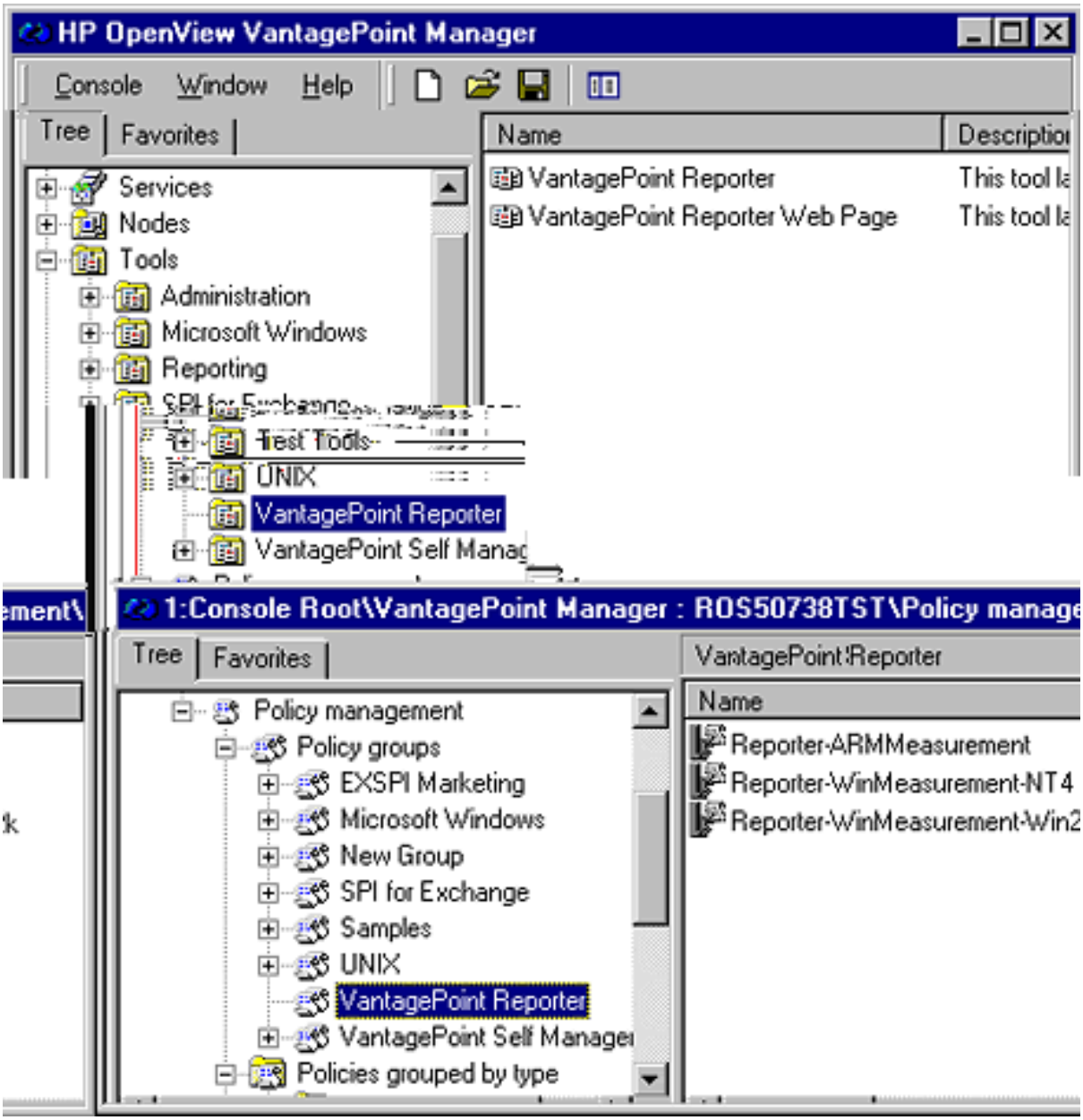
After the installation you can run a script to deploy Reporter policies to all VP/Windows-managed nodes if you choose. The script is located in:
`\rpmtools\Bin\Reporter_deploy.vbs`

View Reporter Tools and Policies

After installing Reporter on the VP/Windows system, you can open the VP/Windows console and see the Reporter additions:

1. Double-click the **Tools** folder to expand it and view the VantagePoint Reporter folder.
2. Double-click the VantagePoint Reporter folder to view Reporter's additional two **tools** :

   (A) VantagePoint Reporter (opens the Reporter main window)
   (B) VantagePoint Reporter Web Page (launches your browser to display a list of available reports).



1. Double-click the **Policy management>Policy groups** folders to expand and view the **VantagePoint Reporter** policies. If you would like ARM or system performance reports, you must deploy these policies to managed nodes (please see detailed instructions below).

Set up Reports Using VantagePoint for Windows Data

To set up reports for operating system performance data:

1. In the VP/Windows console, select **Policy Management Policy groups**>**VantagePoint Reporter**.
2. Deploy appropriate policy to all managed nodes where you want performance reports.
3. Select the policy for the operating system type.

   For NT 4: **Reporter-WinMeasurement-NT4**
   For Windows 2000: **Reporter-WinMeasurement-Win2k**
4. Allow at least 15 minutes for data collection
5. Start Reporter services to gather data and create reports.
6. Install the Report Package: In the Reporter main window, from the File menu select **Configure**>**Report Package**.

7. Select **VP Performance Package** from the Available Packages.

To set up reports for ARM transaction data from systems with ARM-instrumented applications:

1. If the VP/Windows ARM Instrumentation is not already deployed, in the VP/Windows console, expand the **Policies grouped by type>App Perf Measurement (ARM 2.0)** folder.
2. Deploy policy **VP_WIN-ARMDefault** to each system where ARM-instrumented applications are running (this deploys the ARM Instrumentation if it is not already deployed).
3. If ARM-instrumented applications are not running, start them now.
   (Note: you do not have to stop/restart applications.The next time they are restarted, the transaction logging begins.)
4. Expand the **Policy Management**>**Policy groups**>**VantagePoint Reporter** folders.
5. Deploy the **Reporter-ARMMeasurement** policy to each system where ARM-instrumented applications are running.
6. Allow at least 15 minutes for data collection.
7. Start Reporter services to gather data and create reports.
8. (If not already installed) Install the Report Package: In the Reporter main window, from the File menu select
   Configure>**Report Package**.
9. Select **VP Performance Package** from the Available Packages.

To set up reports that show VP/Windows messages and events (after Reporter installation is complete):

1. Install the Report Package: In the Reporter main window, from the File menu select
   Configure>**Report Package**.
2. Select **VP/W Version 6** from the Available Packages.

Appendices: Special Configuration Instructions

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Special instructions for configuring other sources for retrieving or storing data

The following instruction sets provide detailed steps for the following:

- **Appendix A**: Connecting VantagePoint Operations (formerly known as ITO), which uses Oracle 7.3.4, to Reporter for use as a data source
- **Appendix B**: Connecting VantagePoint Operations (formerly known as ITO), which uses Oracle 8.0.x, to Reporter for use as a data source
- **Appendix D**: Using Oracle 8.0.x on HP-UX as the Reporter database
- **Appendix E**: Using Oracle 7.3.4 on Solaris as the Reporter database
- **Appendix F**: Using Oracle 8.0.x on Solaris as the Reporter database
- **Appendix G**: Transferring data from the default Microsoft Access database to Oracle
- **Appendix H**: Using SQL Server as the Reporter database.
- **Appendix I**: Setting Kernel Parameters
- **Appendix J**: Setting UNIX environment variables
- **Appendix K**: Template examples for configuring Oracle as the Reporter database
- **Appendix L:** Upgrading from an older to a newer version Access database
- **Appendix M:** Using Oracle 8.1.6 or 8.1.7 on HP-UX or Solaris as the Reporter database
- **Appendix N**: Connecting VantagePoint Operations 6, which uses Oracle 8.1.6 or Oracle 8.1.7, to Reporter for use as a data source

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Legal Notices

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Appendix A: Connecting VantagePoint Operations to Reporter

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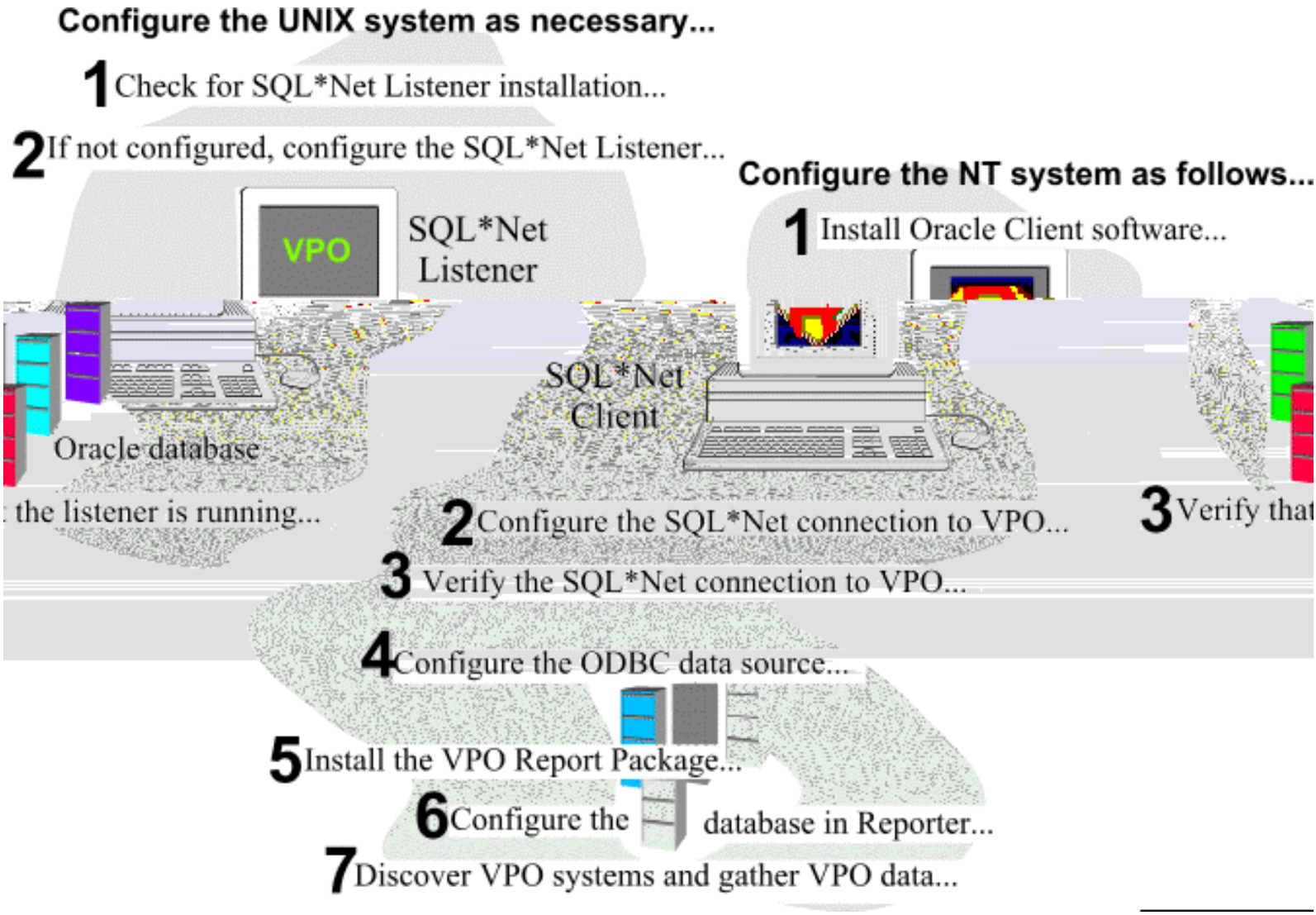
Connect the VP Operations Database to Reporter (using Oracle 7.3.4)

Before Reporter can create reports containing VantagePoint Operations (also known as ITO) data, you must configure the connection between the VP Operations database (Oracle on the UNIX system) and Reporter (on the Windows NT system). The following illustration gives you an overview of the steps you complete on the two systems.

Note: The procedure for connecting the Reporter NT system to an HP-UX or a Solaris system is identical with exceptions clearly indicated in the specific tasks.



This connection requires you to complete the following:

- **Configure the UNIX server** that accesses the VP Operations database by completing the following tasks:
  1 Check for SQL*Net listener installation
  2 If necessary, configure the SQL*Net listener
  3 Verify that the listener is running
- **Configure the NT system running Reporter** by completing the following tasks:
  1 Install the Oracle Client software on the NT system
  2 Configure the SQL*Net connection to the VP Operations database
  3 Verify the SQL Connection to the VP Operations database

Prerequisites and Preparations

- **Software on the VP Operations management server:** VP Operations 5.3 (Oracle 7.3.4) must be installed and running.
- **Software on the Reporter system:** Oracle Client Software 7.3.4—a software package from Oracle. Recommended (tested) version: 7.3.4.0.0.
- **Information:** Know the fully qualified VP Operations Oracle database server name, the ORACLE_HOME directory, and the user name and password for logging into the VP Operations database. For VP Operations 5.3 the recommended user name is opc_report.
- **Case Sensitivity**: Some required entries in NT are case-sensitive; so we recommend you match instruction text exactly.
- **UNIX Shells**: Since HP-UX users typically use the Korn shell and Solaris users typically use the Bourne shell, the syntax for exporting variables differs.
  For the Korn shell, the format is:
  export VARIABLE_NAME=<*value*>
  For the Bourne shell, the format is:
  VARIABLE_NAME=<*value*>
  export VARIABLE_NAME
  In the discussion below the Korn shell format is used; if you are running a Bourne shell, substitute the correct format.

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Configure the UNIX Server

This section covers checking the UNIX system (where the VP Operations Oracle database resides) for configuration of the SQL*Net listener and if none is present, configuring the listener.

Task 1 Check for SQL*Net listener installation

On the Oracle database server for systems running VP Operations 5.3, the SQL*Net listener should already be configured and running. Check to see if the SQL*Net listener is already configured and running as follows. It is assumed you are logged on to the Oracle database server system for VP Operations as root.

- To see if the listener is configured, enter the command:
  grep listener /etc/services

  If the output includes a line beginning with "listener," such as
  listener 1521/tcp #Oracle listener
- the listener is already configured and you can proceed to **Task 3**.

⚠ If the port number in the output is different from **1521/tcp**, consult with your Oracle database or VP Operations administrator to see if the port number can be changed to 1521 and the listener restarted. If not, see the Oracle NT client documentation to change the port number on the client side (this involves modifying the `\orant\network\admin\tnsnames.ora` file after completing Task 2 on the NT system).

If no output appears, the listener is not configured, and you must proceed to the next task.

Task 2 Configure (if necessary) the SQL*Net listener

To configure the SQL*Net listener on the UNIX Oracle database server system, run the **opcsqlnetconf** script.

For VP Operations 5.3 installations, this script is located on the VP Operations server system in `/opt/OV/bin/OpC`.

Note: If you run the script and receive the WARNING : Above SQL*Net files already exist.
Do you want to replace them?, respond **no** to end the script execution.

Call your VP Operations or database administrator for help.

The script assumes the VP Operations Oracle database instance "openview" is on the same system where VP Operations is installed, and prompts you with the system name where the script is running as the default "listener" system. The script must be run on the system where the VP Operations Oracle database instance "openview" resides.

To configure the VP Operations 5.3 HP-UX or Solaris server, follow these steps:

1. At the server on which VP Operations is installed, log on as root
2. Run the **/opt/OV/bin/OpC/opcsqlnetconf** script.

(Most responses require only that you press **Enter**.)

The script prompts and output are as follows:

```
ITO SQL*Net configuration script opcsqlnetconf.
Verify/Set Variables:
Please enter ORACLE_SID [openview]: [Enter]
Please enter ORACLE_HOME [/opt/oracle/product/7.3.4]: [Enter]
Please enter the name of the database server node
(normally management server) [voyager]: [Enter]
Do you want to enable automatic startup of the SQL*Net listener at system boot (y/n) [y] ?
[Enter]
Do you want to start the SQL*Net listener now (y/n) [y] ? [Enter]
LSNRCTL for HPUX: Version 2.3.4.0.0 - Production on 18-NOV-98 14:39:39
Copyright (c) Oracle Corporation 1994. All rights reserved.
Starting /opt/oracle/product/7.3.4/bin/tnslsnr: please wait...
TNSLSNR for HPUX: Version 2.3.4.0.0 - Production
System parameter file is /etc/listener.ora
Log messages written to /opt/oracle/product/7.3.4/network/log/listener.log
Listening on: (ADDRESS=(PROTOCOL=ipc)(DEV=10)(KEY=openview))
Listening on: (ADDRESS=(PROTOCOL=tcp)(DEV=14)(HOST=15.8.153.173)(PORT=1521))
Connecting to (ADDRESS=(PROTOCOL=IPC)(KEY=openview))
STATUS of the LISTENER
------------------------
Alias LISTENER
Version TNSLSNR for HPUX: Version 2.3.4.0.0 - Production
Start Date 18-NOV-98 14:39:46
Uptime 0 days 0 hr. 0 min. 1 sec
Trace Level off
Security OFF
SNMP OFF
Listener Parameter File /etc/listener.ora
Listener Log File /opt/oracle/product/7.3.4/network/log/listener.log
Services Summary...
openview has 1 service handler(s)
The command completed successfully
ITO SQL*Net configuration script opcsqlnetconf finished.
#
```

Task 3 Verify that the listener is running

Enter the commands:

export ORACLE_HOME=<*pathname*>

(***pathname*** is typically /opt/oracle/product/7.3.4)

$ORACLE_HOME/bin/lsnrctl status

Look in the resulting status summary for a **Services Summary** indicating that **openview** has **<*number*> service handler(s)** (showing one or more for the number). If an error message appears, indicating "no listener," ask your Oracle database or VP Operations administrator to start the listener.

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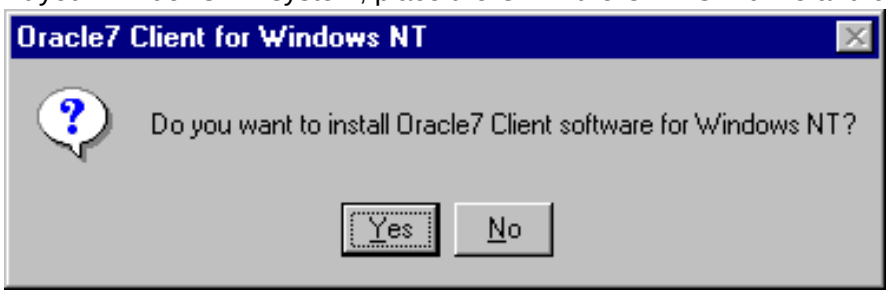
Configure the Windows NT System Running Reporter

This section covers the installation of the software that allows the Windows NT system, on which Reporter runs, to connect to the UNIX system for access to the VP Operations database.

Task 1 Install Oracle Client software

To begin, you need the following Oracle product: Oracle® Client Software, version 7.3.4, for Windows NT and Windows 95.

1. At your Windows NT system, place the CD in the CD-ROM drive and click **Yes** in the dialog box that appears.



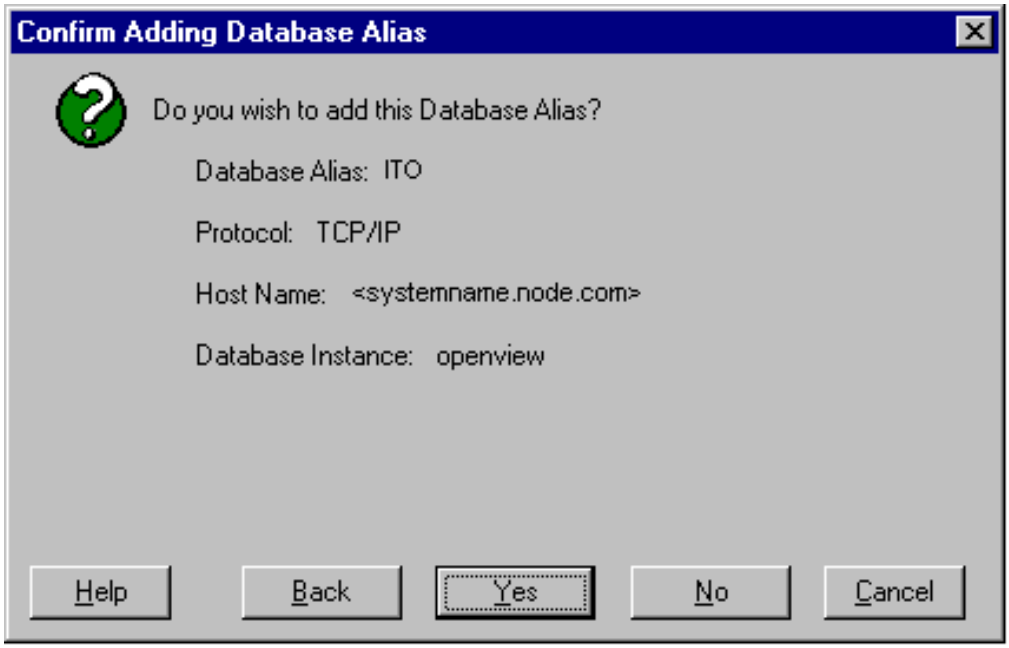
2. In the introductory dialog boxes that appear, (a) select the appropriate language, (b) enter the installation settings for company name, and (c) directory to which to install (c:\ORANT is the default).
3. Accept **Oracle7 Client** as the type of installation to perform.
4. Accept **Application User** as the primary function you will be performing.
5. Select whether to access the Oracle documentation on the CD (recommended) or to store on your hard drive.
6. Click **OK** upon completion of the installation.
   The system displays the Windows directory (for example, `\WINNT35\`) and path to the current list of programs available from the Start menu, among them Oracle for Windows NT.
7. ⚠ IMPORTANT: You must reboot your system now.

Task 2 Configure the SQL*Net connection to the VP Operations database

After you install the Oracle client software on the Windows NT system running VantagePoint Reporter, on that same system complete the following steps:

1. From the Start/Programs menu, select **Oracle for Windows NT** and **SQL Net Easy Configuration**.
2. Select **Add Database Alias** as the SQL*Net configuration you would like to perform.
3. Enter **ITO** in the Database Alias text box and click **OK**.
4. Accept **TCP/IP** as the protocol to be used.
5. In the TCP/IP Host Name text box enter the **fully qualified** host name for ***<UNIX_database_server_name>***
   and in the Database Instance text box enter **openview** and click **OK**.

   The information appears as follows with your specific Host Name substituted:



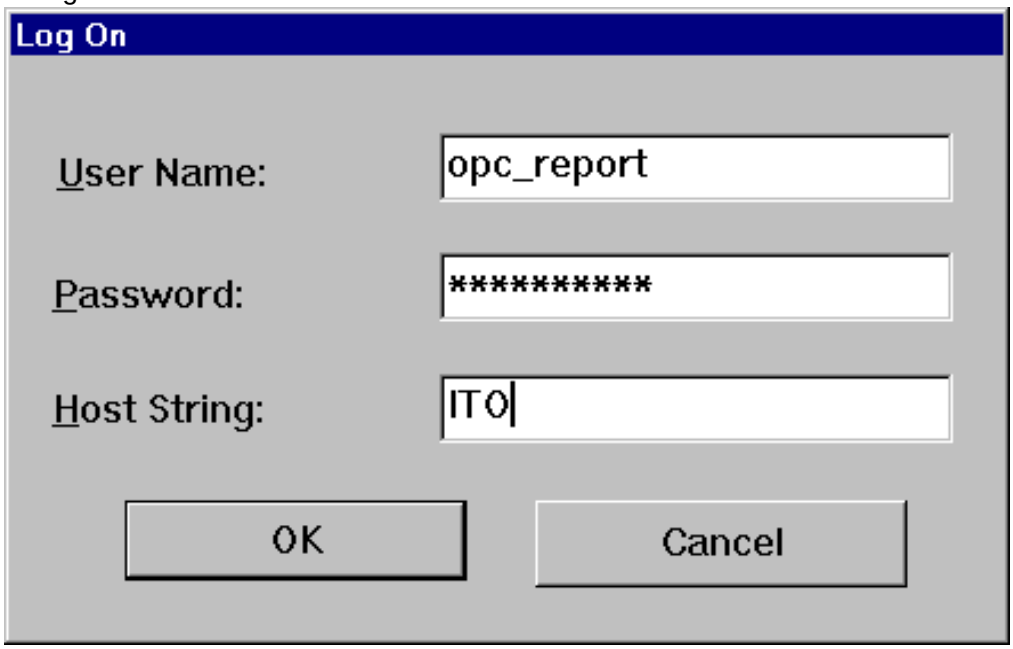
6. Select **Yes**
7. Click **Cancel** to exit SQL*Net Easy Configuration, and click OK to acknowledge the exit.

⚠ Remember that the SQL*Net connection defaults to port 1521. If you used a port number different from that in the UNIX configuration, you must open the file `\orant\network\admin\tnsnames.ora` and change the port number(s) in the ITO.world section to match the port number you have configured on the UNIX side.

Task 3➡ Verify the SQL*Net connection to the VP Operations database

After you complete the SQL*Net configuration, verify that you can contact the VP Operations database from your NT system as follows:

1. From the Start/Programs menu, select **Oracle for Windows NT** and **SQL Plus 3.3.**
2. Enter the database User Name (the recommended user name is opc_report) and Password. Enter "ITO" as the Host String.



3. Press the OK button. A good response would be similar to:

Connected to:
Oracle7 Server Release 7.3.4.0.0 - Production
PL/SQL Release 2.3.4.0.0 - Production

SQL>

If error messages appear, you have an error in the connection from the NT system to the Oracle VP Operations database. Review previous tasks in this section.

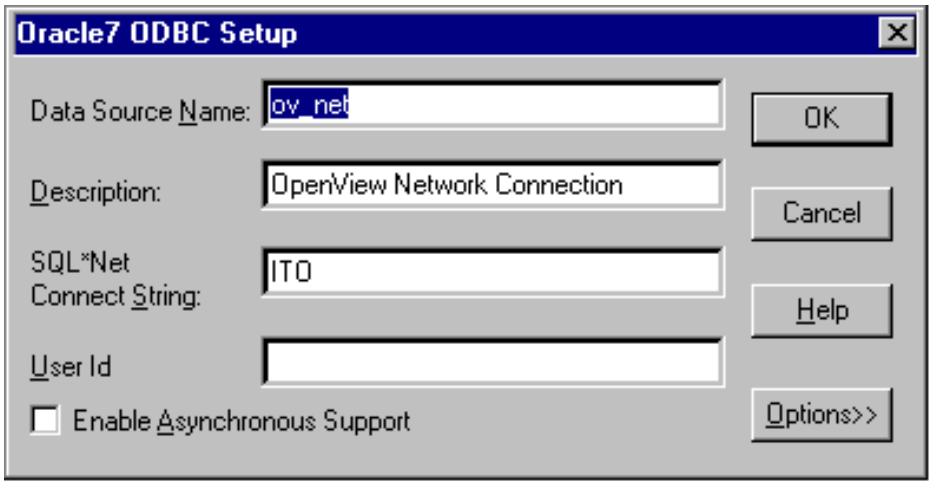
4. At the SQL> prompt enter the following command to retrieve data from one of the Oracle database tables:
   SQL> select node_group_name from opc_node_groups;
   A response like the following indicates successful access to the VP Operations database. If you receive errors, you need to correct them before proceeding. Contact your Oracle database administrator for assistance.
   NODE_GROUP_NAME
   ---
   hp_ux
   net_devices
   NT
5. Exit the SQL Plus program
   `SQL> exit`

Task 4 Configure the ODBC data source in the NT Control Panel

After you have configured SQL*Net on the Windows NT system running VantagePoint Reporter, you must configure the ODBC data source.

On the Windows NT system where Reporter is (or will be) installed, complete the following steps:

1. Select **Control Panel** from the Windows NT Start/Settings menu.
2. Double-click **ODBC** in the Control Panel window .
3. Select the **System DSN** tabbed page.
4. Choose the **Add…** button and highlight **Oracle73 Ver 2.5** driver and select **Finish**.
5. In the dialog box that appears, enter the following:
   Data Source Name: **ov_net**
   Description: *<your_description>*
   SQL*Net Connect String: **ITO** for the database alias name
   User ID: (no entry necessary)

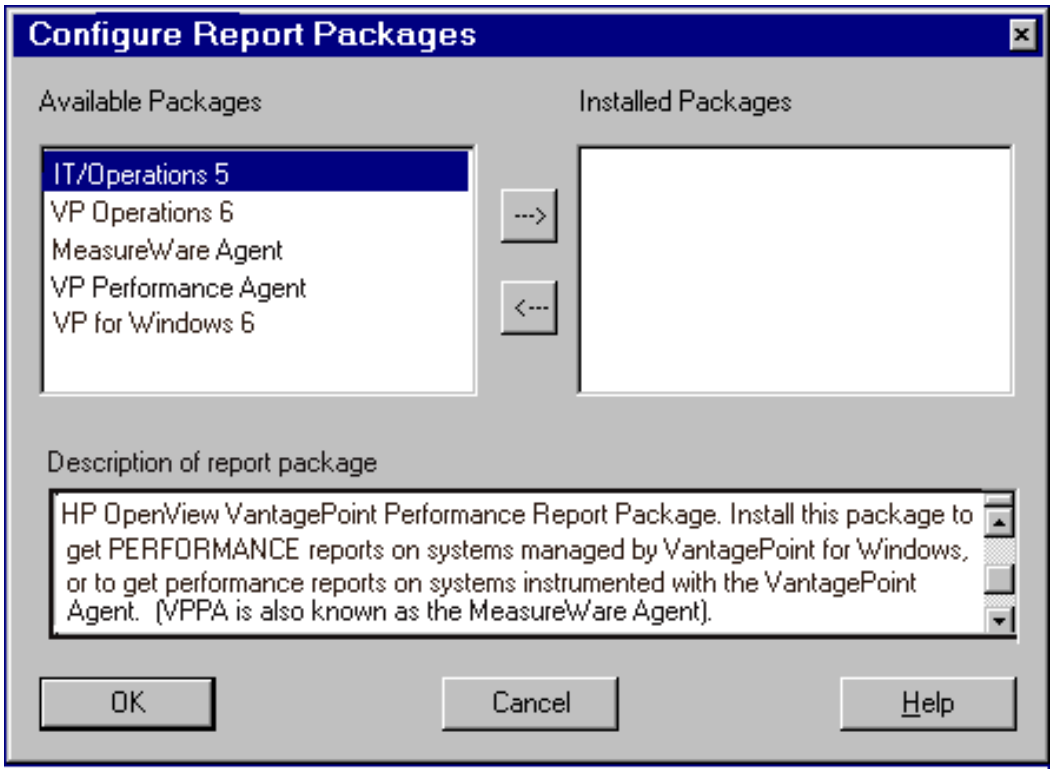


6. Click **OK**.
7. Close the **ODBC Data Source Administrator** window.
8. Close the **Control Panel** window.

Task 5 Install the VP Operations Report Package

To add report definitions and configuration information, you need to add the VP Operations package. To add the package:

1. Start **Reporter** from the Start/Programs/RPM Tools menu.
2. In the Reporter main window from the **File** menu select **Configure>Report Packages**



3. Select the appropriate VP Operations version from the Available Packages box; click the right-arrow to move to the Installed Packages box, and click **OK**.
4. Verify that the Reporter service is running
   (the service is not running if the 3rd through 6th toolbar buttons are greyed-out); if not, start it by clicking the 2nd button.
5. In the Status pane, check for the messages:
   ```
   RepLoad:Loading package for "ITOperations 5"
   RepLoad:Completed loading template file
   ```
   (to indicate successful package installation)

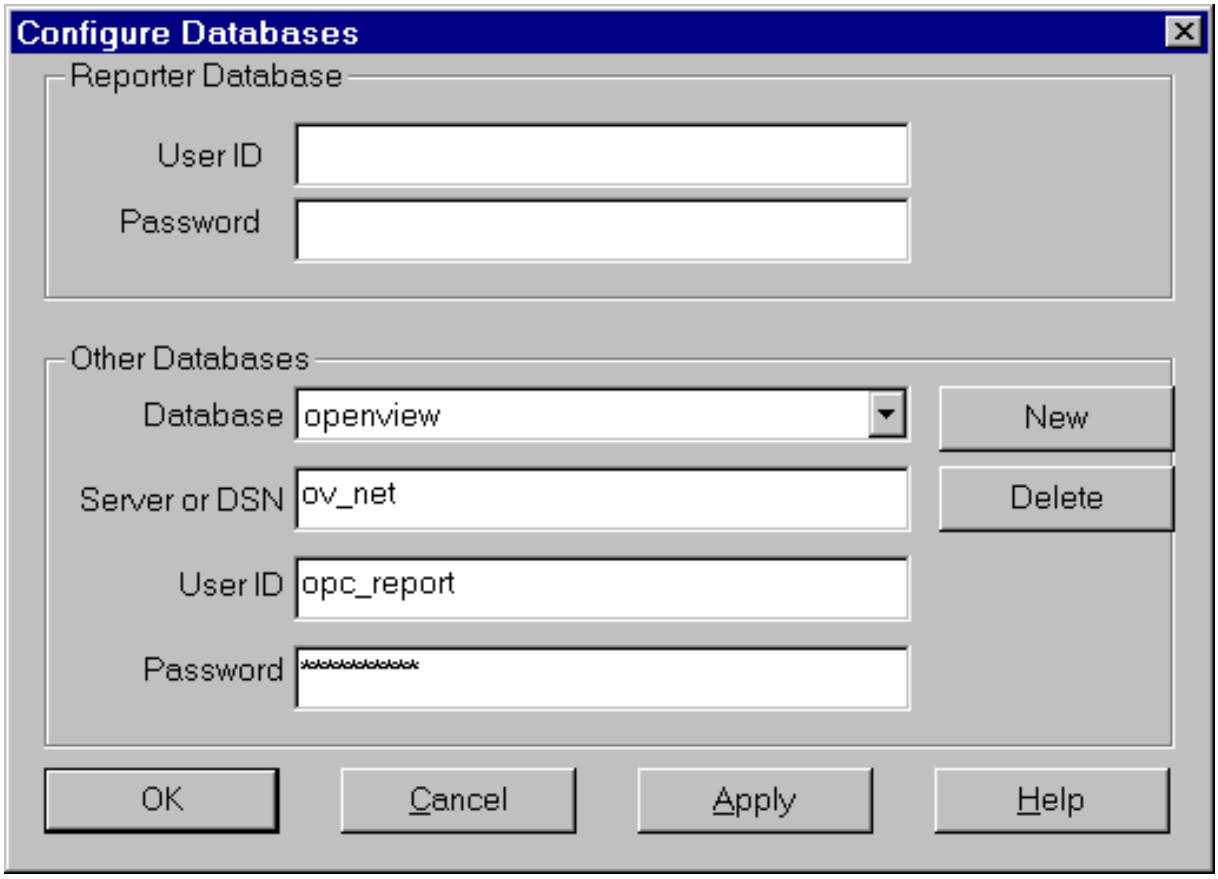
Task 6 Configure the Database in Reporter

Now that you have configured the database connection to the Windows NT system and installed the VP Operations Report package, you can configure Reporter to recognize the VP Operations database as the source for its data. With Reporter installed on the Windows NT system, follow the steps below:

1. In the Reporter main window, from the **File** menu select **Configure,** then **Databases** from the submenu.
2. In the Other Databases section (lower area) of the Configure Databases dialog box select the down-arrow in the Database text box, and choose **openview**.
   (If **openview** does not appear, you will need to review the steps of the previous sections to configure the ODBC setup.)

   Complete the remaining text boxes as follows:
   Server: **ov_net**
   User ID: <*your_VP Operations_ database_user_name*>
   Password: <*your_VP Operations_database_password*>

   ⚠ Even though asterisks appear for the password, you must enter the correct password for the VP Operations user ID.



4. Select **OK**.

Task 7➡ Discover VP Operations Systems and Gather VP Operations Data

1. Select Schedule in the left pane to display a list of all scheduled actions in the right pane.
2. In the right pane, right-click **Discover_ITO.exe** and select **Run Now**.
3. In the Status pane, check for messages such as
   ```
   Discover_ITO: Begin Discovery of ITO database open view
   Discover_ITO: Examined systems in groups for x systems found y new.
   Scheduler: Next scheduled action at 10/17/99 00:29:00
   ```
   If you see errors, return to Task 6 and make sure the password and other fields have been correctly filled in.
4. In the right pane, right-click **Gather_ITO.exe** and select **Run Now**.
5. In the Status pane, check for messages such as
   ```
   Gather_ITO: Begin synchronizing with ITO database openview
   Gather_ITO: Processed x Historical messages, Added y Summaries,
      z Operator Sums.
   Gather_ITO: Processed x Active messages, Added y Summaries,
      z Operator Sums.
   Scheduler: Next scheduled action at 10/17/99 00:29:00
   ```
6. If you want to see reports immediately, in right pane right-click **RepCrys.exe** and select **Run Now**.

Your configuration of the VP Operations (ITO) database with Reporter is now complete. VP Operations reporting will now run in the normal nightly reporting cycle.

Appendix B: Connecting VantagePoint Operations to Reporter

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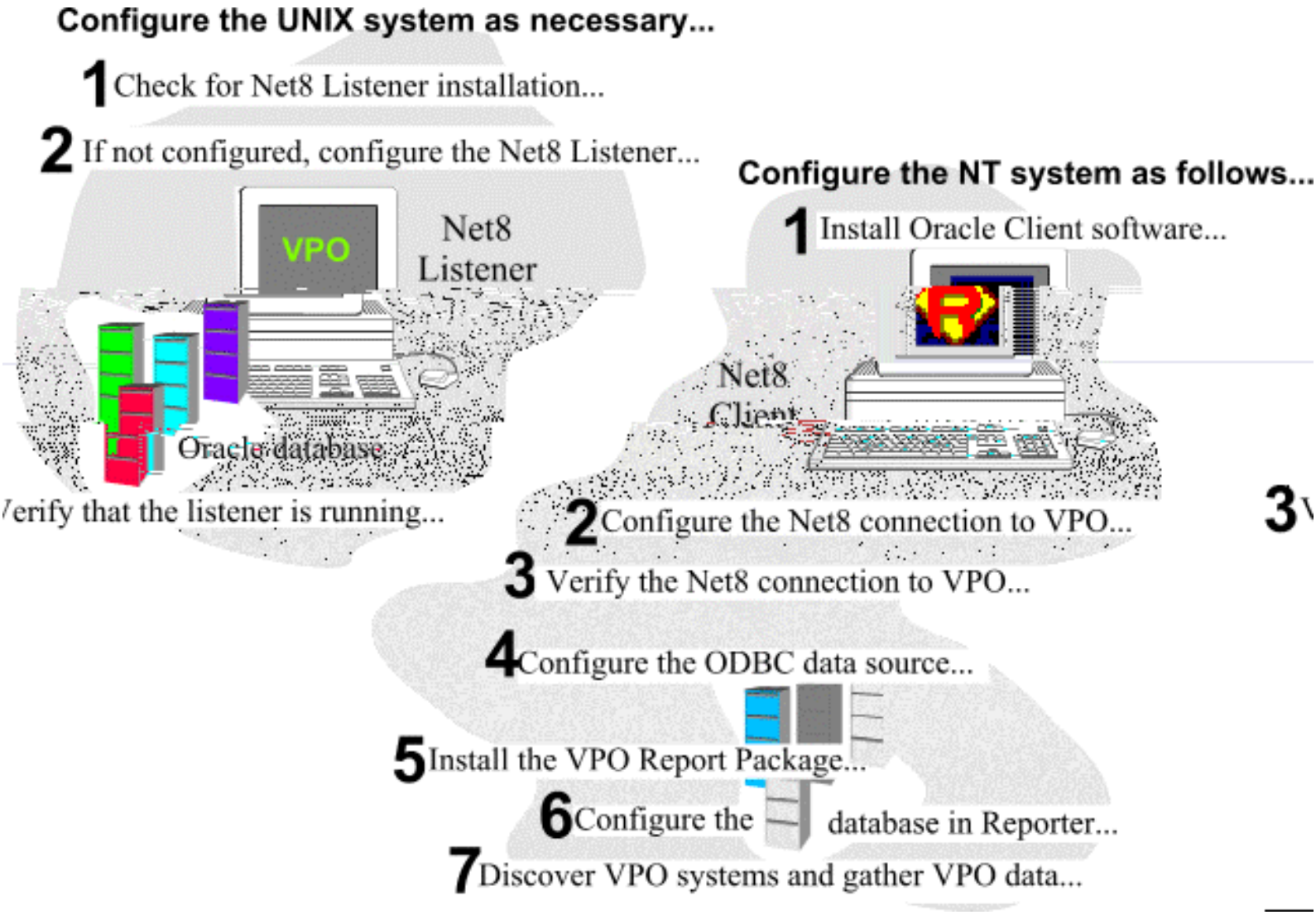
Connecting the VantagePoint Operations Database to Reporter (using Oracle 8.0.x)

⚠ References in this appendix to **Oracle 8.x** should be interpreted as version **8.0.5** and **8.0.6**.

Before Reporter can create reports containing VantagePoint Operations (VPO), formerly known as ITO, data, you must configure the connection between the VPO database (Oracle on the UNIX system) and Reporter (on the Windows NT system). The following illustration gives you an overview of the steps you complete on the two systems.



This connection requires you to complete the following:

- **Configure the UNIX server** that accesses the VPO database by completing the following tasks:
  1 Check for Net8 Listener installation
  2 Configure the Net8 Listener
  3 Verify that the listener is running
- **Configure the NT system running Reporter** by completing the following tasks:
  1 Install the Oracle Client software on the NT system
  2 Configure the Net8 connection to the VPO database

Prerequisites and Preparations

- **Software on the VPO management server:** Either VPO 5.3 using Oracle 8.0.5 or 8.0.5; or VPO 6.0 using Oracle 8.0.6 must be installed and running.
- **Software on the Reporter system:** Oracle Client Software, version 8—a software package from Oracle. Recommended (tested) version: 8.0.5. or 8.0.6
- **Information:** Know the fully qualified VPO Oracle database server name, the ORACLE_HOME directory, and the user name and password for logging into the VPO database.
- **Case Sensitivity**: Some required entries in NT are case-sensitive; so we recommend you match instruction text exactly.
- **UNIX Shells**: Since HP-UX users typically use the Korn shell and Solaris users typically use the Bourne shell, the syntax for exporting variables differs.
  For the Korn shell, the format is:
  export VARIABLE_NAME=<*value*>
  For the Bourne shell, the format is:
  VARIABLE_NAME=<*value*>
  export VARIABLE_NAME
  In the discussion below the Korn shell format is used; if you are running a Bourne shell, substitute the correct format.

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Configure the UNIX Server

This section covers checking for installation of the Net8 listener on the UNIX system which is the Oracle database server for VPO, and if necessary, installing it.

Task 1 Check for Net8 listener installation

On the Oracle database server for systems running VPO 5 or 6, the Net8 listener should already be installed and running. Check to see if the Net8 listener is already installed and running as follows. It is assumed you are logged on to the Oracle database server system for VPO as root.

- To see if the listener is configured, enter the command:
  grep listener /etc/services
- If the output includes a line beginning with "listener," such as
  listener 1521/tcp #Oracle listener
  the listener is already configured and you can proceed to **Task 3**.

  ⚠ If the port number in the output is different from **1521/tcp**, consult with your Oracle database or VPO administrator to see if the port number can be changed to 1521 and the listener restarted. If not, see the Oracle NT client documentation to change the port number on the client side (this involves modifying the `\orant\net80\admin\tnsnames.ora` file after completing Task 2 on the NT system).

  If no output appears, the listener is not configured, and you must proceed to the next task.

Task 2 If necessary, configure the Net8 listener

To configure the Net8 listener on the HP-UX Oracle database server system, run the **opcsqlnetconf** script. For VPO 5 or 6 installations, this script is located on the VPO server system in directory `/opt/OV/bin/OpC`.

Note: If you run the the script and receive the WARNING : Above Net8 files already exist. Do you want to replace them? , respond "no" to end the script execution. Call your VPO or database administrator for help.

The script assumes the VPO Oracle database instance "openview" is on the same system where VPO is installed, and prompts you with the system name where the script is running as the default "listener" system. The script must be run on the system where the VPO Oracle database instance "openview" resides.

- **To configure the VPO 5 or 6 UNIX server, follow these steps:**

  1 At the UNIX server on which VPO is installed, log on as root
  2 Run the **/opt/OV/bin/OpC/opcsqlnetconf** script.

  (Most responses require only that you press **Enter**.)

The script prompts and output are as follows:

```
VPO Net8 configuration script opcsqlnetconf.
Verify/Set Variables:
Please enter ORACLE_SID [openview]: [Enter]
Please enter ORACLE_HOME [/opt/oracle/product/8.0x]: [Enter]
Please enter the name of the database server node
(normally management server) [voyager]: [Enter]
Do you want to enable automatic startup of the Net8 listener at system boot (y/n) [y] ?
[Enter]
Do you want to start the Net8 listener now (y/n) [y] ? [Enter]
LSNRCTL for HPUX: Version 2.3.4.0.0 - Production on 18-NOV-98 14:39:39
Copyright (c) Oracle Corporation 1994. All rights reserved.
Starting /opt/oracle/product/8.0x/bin/tnslsnr: please wait...
TNSLSNR for HPUX: Version 2.3.4.0.0 - Production
System parameter file is /etc/listener.ora
Log messages written to /opt/oracle/product/8.0x/network/log/listener.log
Listening on: (ADDRESS=(PROTOCOL=ipc)(DEV=10)(KEY=openview))
Listening on: (ADDRESS=(PROTOCOL=tcp)(DEV=14)(HOST=15.8.153.173)(PORT=1521))
Connecting to (ADDRESS=(PROTOCOL=IPC)(KEY=openview))
STATUS of the LISTENER
------------------------
Alias LISTENER
Version TNSLSNR for HPUX: Version 2.3.4.0.0 - Production
Start Date 18-NOV-98 14:39:46
Uptime 0 days 0 hr. 0 min. 1 sec
Trace Level off
Security OFF
SNMP OFF
Listener Parameter File /etc/listener.ora
Listener Log File /opt/oracle/product/8.0x/network/log/listener.log
Services Summary...
openview has 1 service handler(s)
The command completed successfully
VPO Net8 configuration script opcsqlnetconf finished.
#
```

Task 3 Verify that the listener is running

Enter the commands:

export ORACLE_HOME=<*pathname*>
(***pathname*** is typically /opt/oracle/product/8.0.5 *[or 8.0.6])*
$ORACLE_HOME/bin/lsnrctl status

Look in the resulting status summary for a **Services Summary** indicating that **openview** has **<*number*> service**

handler(s) (showing one or more for the number). If an error message appears, indicating "no listener," ask your Oracle database or VPO administrator to start the listener.

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Configure the Windows NT System Running Reporter

This section covers the installation of the software that allows the Windows NT system, on which Reporter runs, to connect to the UNIX system, from which the VPO database is accessed.

Task 1 Install Oracle Client software

To begin, you need the following Oracle product: Oracle® Client Software, version 8.0.5 or 8.0.6, for Windows NT and Windows 95/98.

1. At your Windows NT system, insert the CD in the CD-ROM drive and select **Begin Installation** in the dialog box that appears.
2. In the introductory dialog boxes that appear, (a) select the appropriate language, (b) enter the installation settings for company name, and (c) directory to which to install (c:\ORANT is the default).
3. Accept **Oracle8 Client** as the type of installation to perform.
4. Accept **Application User** as the primary function you will be performing.
5. Select whether to access the Oracle documentation on the CD (recommended) or to store on your hard drive.
6. Click **OK** upon completion of the installation.
   The system displays the Windows directory (for example, `\WINNT35\`) and path to the current list of programs available from the Start menu, among them Oracle for Windows NT.

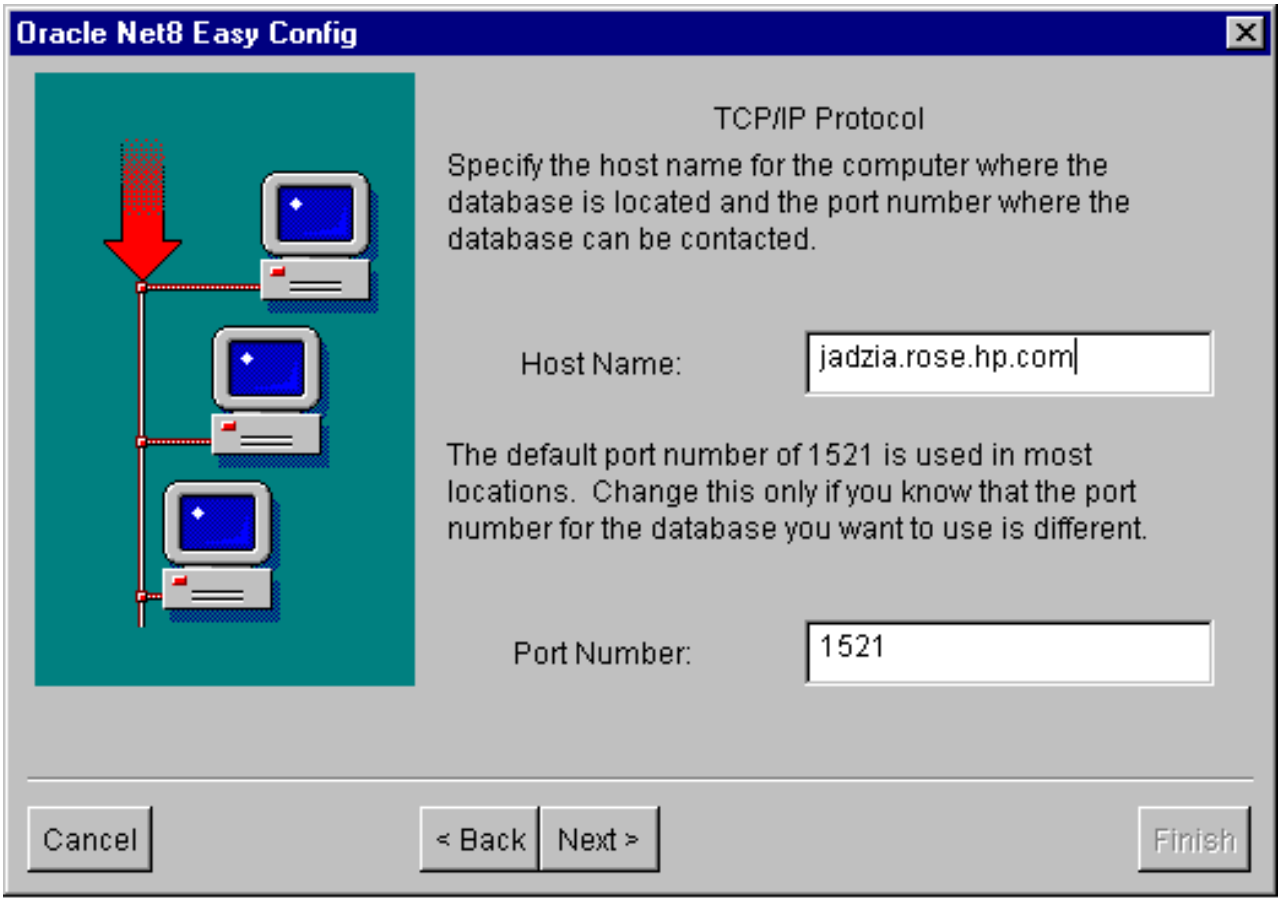
   Steps 7-10 install an Oracle ODBC driver patch for Oracle 8.0.5 only. These steps may not be necessary if you already have a patch equivalent to or later than 8.0.5.6. In this case, the procedure below will warn you that you already have a more current version installed.
7. To install the Oracle ODBC patch:
   Run Oracle installer (default location: **c:\orant\bin\orainst.exe**).
8. Choose the From button.
9. Insert the Reporter CD and select **\Support\Oracle\win32\install\nt.prd**, then choose **OK**.
10. Select Oracle8 ODBC driver and exit the installer.
11. Important: You must **reboot** your system now.

Task 2 Configure the Net8 connection to the VPO database

After you complete the installation of the Oracle client software on the Windows NT system running VantagePoint Reporter, on that same system complete the following steps:

1. From the Start>Programs menu, select **Oracle for Windows NT** and **Net8 Easy Configuration**. (Ignore the Warning dialog that appears; select the check box to prevent it from appearing again.)
2. Accept **Add New Service**, enter **ITO** in the New Service Name text box, and click **Next** to continue.

3. Accept **TCP/IP** as the protocol to be used and click **Next**.
4. In the TCP/IP Protocol text box shown below enter the **fully qualified** host name for ***<UNIX_database_server_name>*** and click **Next**.

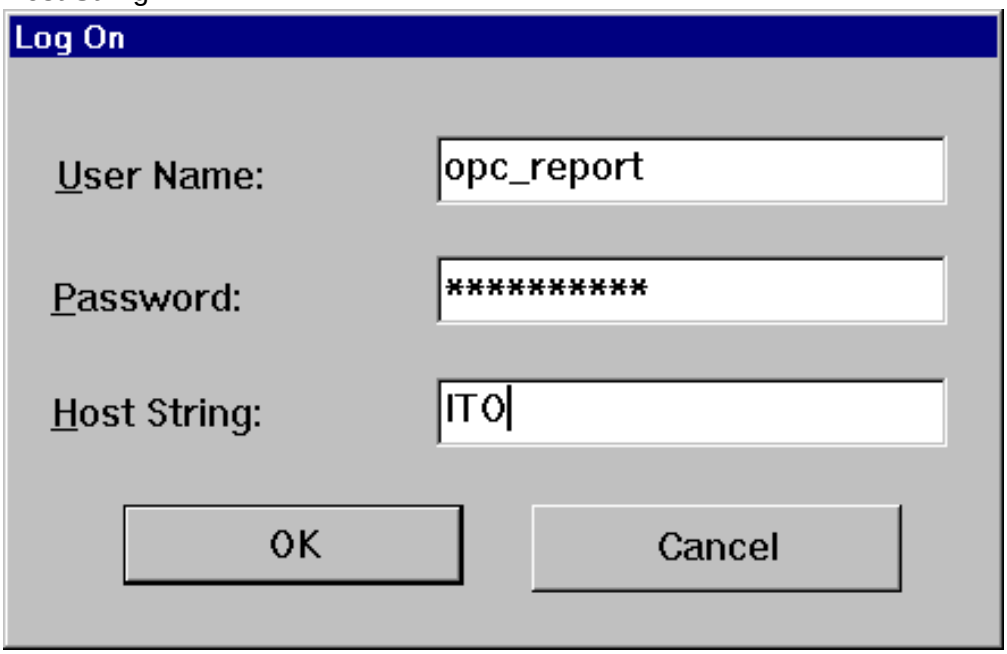


6. Enter **openview** as the database SID and select Next.
   Important: The database SID "openview" must be lowercase to match the Oracle SID name entered for the host configuration.
7. Select the **Test Service** button.
8. In the Test Connection dialog enter the database user name (for VPO 5 the recommended user name is **opc_report**) and password, and select the **Test** button (to verify the test connection is successful) and select the **Done** button.

Task 3 Verify the Net8 connection to the VPO database

After you complete the Net8 configuration, verify that you can contact the VPO database from your NT system as follows:

1. From the Start/Programs menu, select **Oracle for Windows NT** and **SQL Plus 8.0.**
2. Enter the database User Name (the recommended user name is opc_report) and Password. Enter "ITO" as the Host String.



3. Press the OK button. A good response would be similar to:

   Connected to:
   Oracle8 Enterprise Edition Release 8.0.5.0.0 - Production
   With the Partitioning and Objects options
   PL/SQL Release 8.0.5.0.0 - Production

   If error messages appear, you have an error in the connection from the NT system to the Oracle VPO database. Review previous tasks in this section.
4. At the SQL> prompt enter the following command to retrieve data from one of the Oracle database tables:

   SQL> select node_group_name from opc_node_groups;

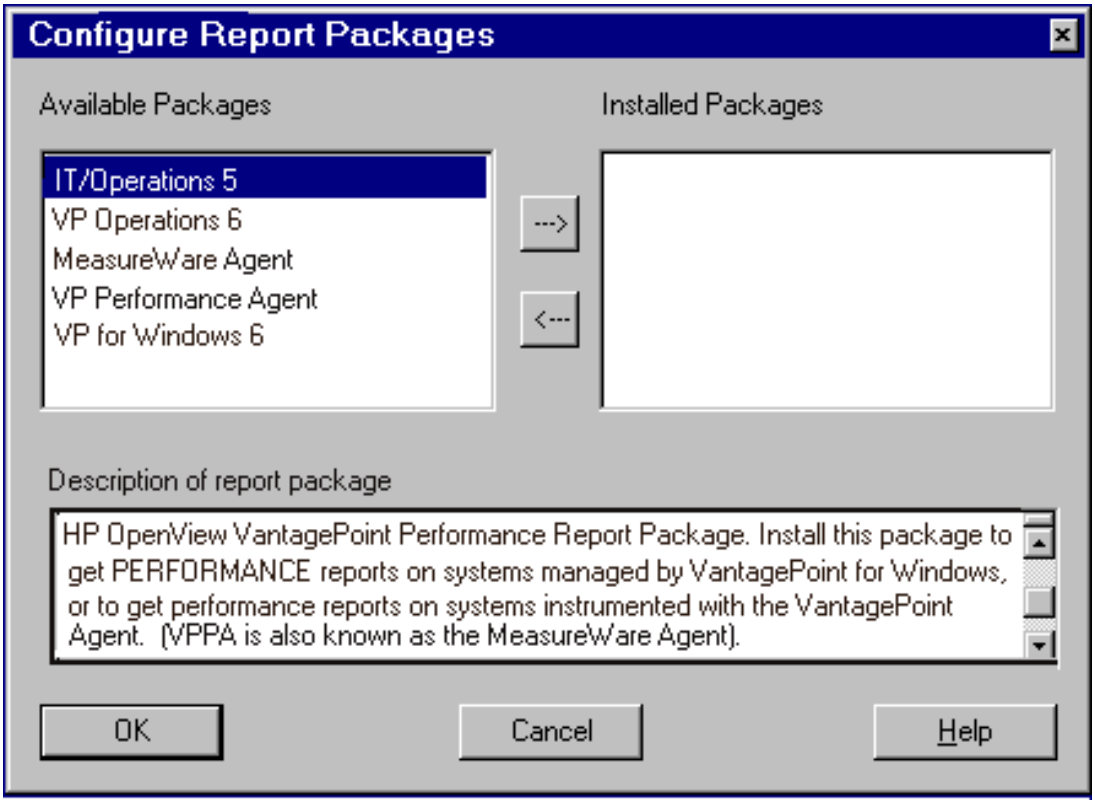
   A response like the following indicates successful access to the VPO database. If you receive errors, you need to correct them before proceeding. Contact your Oracle database administrator for assistance.

   NODE_GROUP_NAME
   ---
   hp_ux
   net_devices
   NT
5. Exit the SQL Plus program
   SQL> exit

Task 4 Configure the ODBC data source in the NT Control Panel

After you have configured Net8 on the Windows NT system running VantagePoint Reporter, you must configure the ODBC data source.

Select l **Control Panel**Double-click l**(ODBl)Tj /F9 1 Tf 21.947 0Td (in the Control Pane wiindo e.)Tj-10105697 0Td**



3. Select the appropriate VP Operations version from the Available Packages box; click the right-arrow to move to the Installed Packages box, and click **OK**.
4. Verify that the Reporter service is running
   (the service is not running if the 3rd through 6th toolbar buttons are greyed-out); if not, start it by clicking the 2nd button.
5. In the Status pane, check for the messages:
   RepLoad:Loading package for "IT/Operatons 5 or VP Operations 6"
   RepLoad:Completed loading template file
   (to indicate successful package installation)

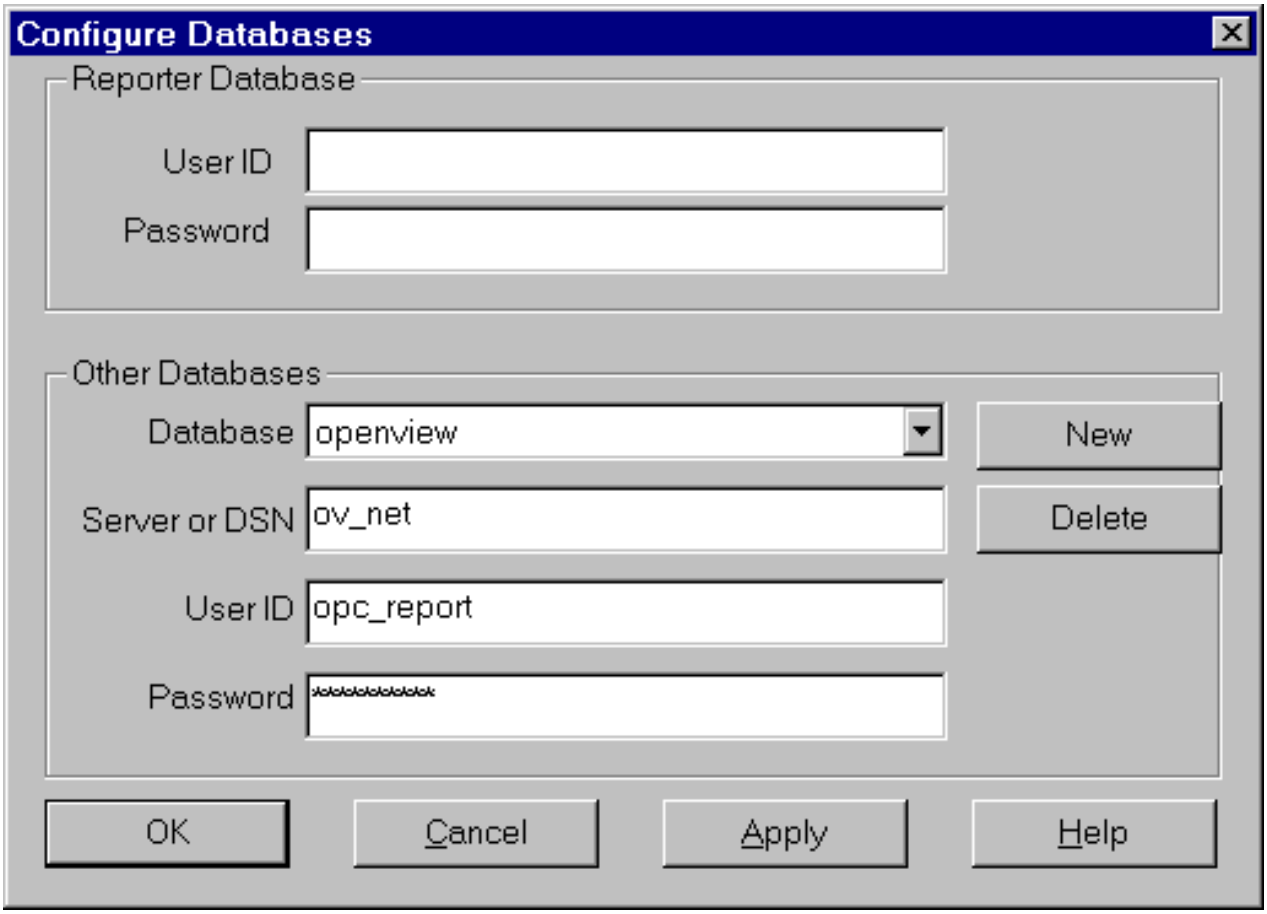
Task 6: Configure the Database in Reporter

Now that you have configured the database connection to the Windows NT system and installed the VP Operations Report Package, you can configure Reporter to recognize the VP Operations database as the source for its data. With Reporter installed on the Windows NT system, follow the steps below:

1. In the Reporter main window, from the **File** menu select **Configure,** then **Databases** from the submenu.
2. In the Other Databases section (lower area) of the Configure Databases dialog box select the down-arrow in the Database text box, and choose **openview**.
   (If **openview** does not appear, you will need to review the steps of the previous sections to configure the ODBC setup.)

   Complete the remaining text boxes as follows:
   Server: **ov_net**
   User ID:< *your_VP Operations_ database_user_name*>
   Password:<your_VP Operations_database_password>

   ⚠ Even though asterisks appear for the password, you must enter the correct password for the VP Operations user ID.



4. Select **OK**.

Task 7: Discover VP Operations Systems and Gather VP Operations Data

1. Select Schedule in the left pane to display a list of all scheduled actions in the right pane.
2. In the right pane, right-click **Discover_ITO.exe** and select **Run Now**.
3. In the Status pane, check for messages such as
   Discover_ITO: Begin Discovery of VP Operations database open view
   Discover_ITO: Examined systems in groups for x systems found y new.
   Scheduler: Next scheduled action at 10/17/99 00:29:00
   If you see errors, return to Task 6 and make sure the password and other fields have been correctly filled in.
4. In the right pane, right-click **Gather_ITO.exe** and select **Run Now**.
5. In the Status pane, check for messages such as
   Gather_ITO: Begin synchronizing with ITO database openview
   Gather_ITO: Processed x Historical messages, Added y Summaries,
   z Operator Sums.
   Gather_ITO: Processed x Active messages, Added y Summaries,
   z Operator Sums.
   Scheduler: Next scheduled action at 10/17/99 00:29:00
6. If you want to see reports immediately, in right pane, right-click **RepCrys.exe** and select **Run Now**.

Your configuration of the VP Operations database with Reporter is now complete. VP Operations reporting will now run in the normal nightly reporting cycle.

Appendix D: Using Oracle 8.0.x for the Reporter Database

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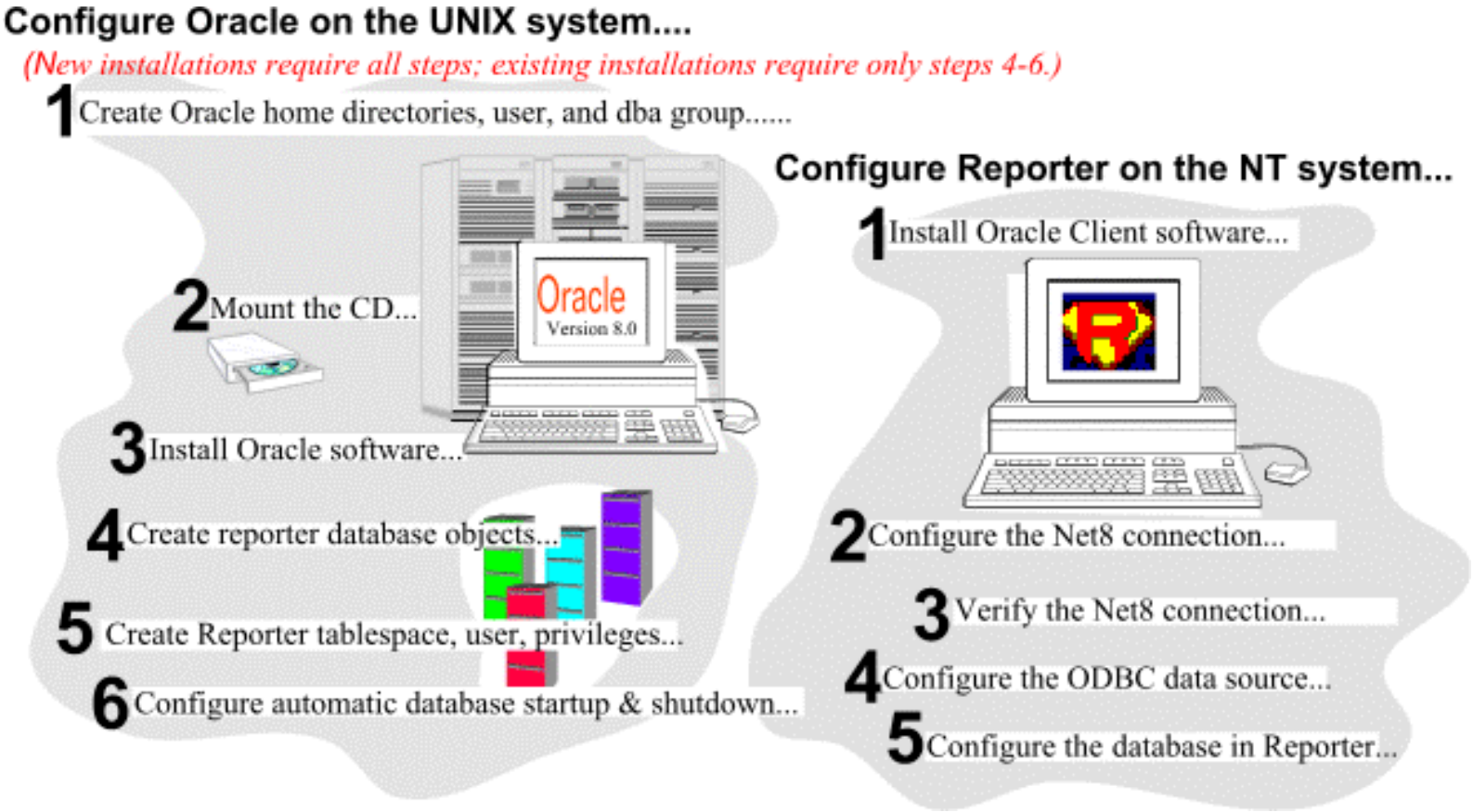
Set Up Oracle 8.0.x on HP-UX and Configure on NT

Prerequisites: Check your **HP-UX system kernel parameters**. If they do not meet minimum requirements, you will have to modify them and reboot your system. Reporter requires 900MB disk space in the Oracle database.
For other disk, system, and memory requirements, please check the "Features and Requirements" section *of the Oracle8 Installation Guide for HP-UX*.

The following illustration shows the tasks you must complete to set up Oracle as the Reporter database. To the left are the steps on the HP-UX system which differ for new and existing installations of Oracle. To the right is the procedure for configuring the Oracle Reporter database on the NT system.

Note: You can click the task (in the illustration) to jump to those specific instructions.



On the UNIX system (choose the appropriate procedure by clicking it):

- Setup for **new** installations of Oracle 8
  (Task 1 — 6)
- Setup for **existing** installations of Oracle 8
  (Task 4 — 6)

On the Windows NT system running VantagePoint Reporter:

- Configure Reporter to use the Oracle database

Case Sensitivity: Some required entries in NT are case-sensitive; so we recommend you match instruction text exactly.

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Setup for new installations of Oracle 8 .0.5 or 8.0.6

The following tasks cover the preliminary setup of directories and user accounts as follows:

Task 1 Create Oracle home directories, user, and dba group

Before you begin, you need the following administrator privileges: root and dba privileges on the UNIX system where you are using Oracle; administrator privileges on the NT client where Reporter is installed.

1. You must be logged on as **root** or **su**
2. Set umask as follows:
   umask = 022
3. Create the the Oracle home directory by entering the following:
   mkdir –p /opt/oracle/product/8.0.5
4. Create dba group and add oracle user in **/etc/group**
5. Create oracle user in **/etc/passwd**
6. Enter **cd /opt**
7. Enter **chown –R oracle:dba oracle**
8. Modify permissions and ownership on /etc/oratab by entering the following:
   chown oracle:dba /etc/oratab

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Task 2 Mount the CD

1. Enter: **/usr/sbin/pfs_mountd &** (Note:pfs creates the correct format to read the CD)
2. Enter: **/usr/sbin/pfsd &**
3. Use a system edVPOr to add as follows:
   /etc/pfs_fstab

   Syntax:
   <device_file> <mount_point> <filesystem_type> <translation_method>
   Definitions of the syntax above:

   <device_file> = CD-ROM device file
   <mount_point> = mount point
   <filesystem_type> = CD-ROM to be mounted is in IS09660 format <translation_method> = Rockridge extension

   For example:

/dev/dsk/c5t2d0 /SD_CDROM pfs-rrip xlat=unix 0 0

4. Insert the CD into the CD-ROM and mount the device as follows:
   /usr/sbin/pfs_mount /SD_CDROM
5. Change directories to **/SD_CDROM** where you can see a lower-case listing of the directories and files on the CD-ROM. The mounted CD should appear as another read-only file system.
6. Exit the superuser account as follows: **# exit.**

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Task 3 Install Oracle software using the orainst program

1. Log on as the oracle software owner (user created in Task 1 in Setup for new installations of Oracle 8.0.5 or 8.0.6).
2. Set UNIX environment variables as follows:
   ORACLE_BASE – set to admin pathname default (/opt/oracle)
   ORACLE_SID – set to the database name you wish to create (REPORTER)
   ORACLE_HOME – set to full pathname of the Oracle system home directory
   ORACLE_TERM – set to the appropriate value (hpterm, etc…)
   PATH - needs to include $ORACLE_HOME/bin
   SHLIB_PATH – set to $ORACLE_HOME/lib

   ⚠ Make sure the ORACLE_SID is set to **REPORTER**; otherwise the Reporter tables will be put in the wrong SID.
3. Enter the following to open the directory where the install program resides:
   cd /<*cdrom*>/orainst
4. Run **/<*cdrom*>/orainst/oratab.sh** either in character mode (which is used in this example) by entering: **./orainst /c** or in Motif mode by entering: **./orainst /m**

   Note: You must set your DISPLAY environment variable to **<*nodename*>:0.0** before running the Motif version of Oracle Installer.

   - Select **Default Install** at the Install Type screen.
     The preamble.txt file appears, which contains information about changes to Oracle. At the end the text, you can select **OK** to display the README.FIRST file, which contains information about the installation. Select **OK** to proceed.
   - From the Installation Activity Choice screen - Select **Install**, **Upgrade, or De-install Software**
   - From the Installation Options screen - Select **Install New Product – Do Not Create DB Objects**
   - Confirm Environment variables **ORACLE_HOME** and **ORACLE_BASE**
   - Accept relinking default (**no**)
   - Verify Installation Options are correct
   - Select the following products from the Software Asset Manager Screen:

   Note: If you are in character mode you can scroll to view all the products available.

   Net8 8.0.5.0.0
   Net8 Protocol Adapter (8.0.5.0.0)
   TCP/IP Protocol Adapter 8.0.5.0.0
   Oracle Intelligent Agent 8.0.5.0
   Oracle Unix Installer 4.0.3.0
   Oracle8 Enterprise (RDBMS)
   PL/SQL 8.0.5.0.0
   SQL*PLUS 8.0.5.0.0

   Note: At the entry for Net8 Protocol Adapter (8.0.5.0.0), press Enter at the + (plus sign) to select

"TCP/IP Protocol Adapter 8.0.5.0.0"; toggle to a "-" and use the space bar to select "TCP/IP Protocol Adapter."

- Select **Install** or Tab to Install
- Enter Unix DBA group name, default is dba (needs to match dba group created in Task 1, step 6)

5. Exit the Oracle install program

Skip to Task 4, Create REPORTER database objects

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Setup for existing installations of Oracle 8.0.5 or 8.0.6 (substitute accordingly)

Log on as the oracle software owner. Verify that the following HP-UX environment variables are set:

ORACLE_SID - set to the database name you want to create (**REPORTER**)
ORACLE_BASE – set to admin pathname default (/opt/oracle)
ORACLE_HOME - set to full pathname of the Oracle system home directory
ORACLE_TERM – set to the appropriate value (hpterm, etc…)
PATH - needs to include $ORACLE_HOME/bin
SHLIB_PATH – set to $ORACLE_HOME/lib

⚠ Make sure the ORACLE_SID is set to **REPORTER**; otherwise the Reporter tables will be put in the wrong SID.

After you verify that the above environment variables are set as described above, you can complete **Task 4**, **Task 5**, and configure the NT system running Reporter (a link to these instructions appears at the end of the Task 5).

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Task 4 Create REPORTER database objects

1. Edit the file **$ORACLE_HOME/rdbms/install/rdbms/cnfg.orc**

   Note: you must do this step before creating objects.

   Remove the comment (pound sign #) in the line:
   #db_block_size = <*blocksize*> and change to:
   db_block_size = 8192

2. Enter the following to change to the directory where the installation program resides:
   cd $ORACLE_HOME/orainst
   (if the directory does not exist, mount the CD as described in Task 2 and run **/<*cdrom*>/orainst**)

3. To create database objects, run the installation program (in character mode) by entering
   ./orainst /c
   and proceed as follows:

   - Select **Default Install** at the Install Type screen
     The preamble.txt file appears, which contains information about changes to Oracle. At the end of the text, you can select **OK** to display the README.FIRST file, which contains information about the installation. Select **OK** to proceed.
   - Select **Create/Upgrade Database Objects**
   - Select **Create Database Objects**
   - Confirm Environment variables.
   - Verify Installation Options are correct
   - From the left pane, select the following:

Net8 8.0.5.0.0
Net8 Protocol Adapter (8.0.5.0.0)
TCP/IP Protocol Adapter 8.0.5.0.0
Oracle Intelligent Agent 8.0.5.0 (recommended if available)
Oracle Unix Installer 4.0.3.0 (recommended if available)
Oracle8 Enterprise (RDBMS)
PL/SQL 8.0.5.0.0
SQL*PLUS 8.0.5.0.0

- Select **Install**.
- Select **Create Product DB Objects**.
- Select **/opt/oracle** or the value of **$ORACLE_BASE** for the first mount point.

  Note: different mount allows you to specify different file systems.
- Select **/opt/oracle** or the value of **$ORACLE_BASE** for the second mount point.
- Select **/opt/oracle** or the value of **$ORACLE_BASE** for the third mount point.
- Exit the Installation.

4. Run the program **$ORACLE_HOME/bin/svrmgrl** and enter the following commands to shut down the REPORTER SID:
   - **connect internal**
   - **shutdown immediate**
   - **exit**
   - enter: **export ORACLE_SID=<*next_Oracle_database_instance*>**
     (to Reset to each Oracle database instance; then run the **svrmgrl** program with the above three commands to shut down all Oracle database instances.)
5. If you modified ORACLE_SID in step #4, reset it as follows:
   export ORACLE_SID=REPORTER
6. Log on as **root**
   Verify that the following HP-UX environment variables are set:

   ORACLE_SID - set to the database name you want to create (**REPORTER**)
   ORACLE_BASE – set to admin pathname default (/opt/oracle)
   ORACLE_HOME – set to full pathname of the Oracle system home directory
   ORACLE_TERM – set to the appropriate value (hpterm, etc…)
   PATH - needs to include $ORACLE_HOME/bin
   SHLIB_PATH – set to $ORACLE_HOME/lib

   Make sure the ORACLE_SID is set to **REPORTER**; otherwise the Reporter tables will be put in the wrong SID.
7. Run **$ORACLE_HOME/orainst/root.sh**
8. To access data from the Oracle database, you need to configure a listener by using the configuration templates included with VantagePoint Reporter. Follow instructions in either (A) if you have a listener already configured or (B) if you do not have a listener configured.

   A HP-UX with existing Oracle listener configuration: From the NT system in the \rpmtools\newconfig\oracle\hp-ux directory or from the Reporter installation CD in the HP-UX directory, copy the **listener.002** and the **tnsnames.002** files to the HP-UX system `/etc/` directory. Use the templates to copy and paste the Reporter portions of the new listener configuration syntax into your existing configuration files. For help in editing your existing files, view the examples linked here: listener.002 example; tnsnames.002 example

   B HP-UX with no existing Oracle listener configuration: From the NT system in the \rpmtools\newconfig\oracle\hp-ux directory or from the Reporter installation CD in the HP-UX directory, copy the **listener.001** and the **tnsnames.001** files to the HP-UX system /etc/ directory and rename them to

listener.ora and **tnsnames.ora** respectively. For help in editing these files, view the examples linked here: listener.001 example; tnsnames.001 example.

9. Log on as **oracle**.
   Verify that the following HP-UX environment variables are set:

   ORACLE_SID - set to the database name you want to create (**REPORTER**)
   ORACLE_BASE – set to admin pathname default (/opt/oracle)
   ORACLE_HOME – set to full pathname of the Oracle system home directory
   ORACLE_TERM – set to the appropriate value (hpterm, etc…)
   PATH - needs to include $ORACLE_HOME/bin
   SHLIB_PATH – set to $ORACLE_HOME/lib

   ⚠ Make sure the ORACLE_SID is set to REPORTER; otherwise the Reporter tables will be put in the wrong SID.

10. Edit the file **$ORACLE_BASE/admin/REPORTER/pfile/initREPORTER.ora** by adding the following line to the end of the file:

    compatible = 8.0.5
    or
    compatible=8.0.6

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Task 5 Create Reporter tablespace, user, and privileges*

If you are migrating Reporter data from the default database to Oracle, complete **steps #5, and #10 only; omit steps #1-4 and #6-9.*

1. *(If migrating Reporter data from the default database to Oracle, skip forward to step #5.)*
   Log on as root or su.
2. From the NT Reporter system `\rpmtools\newconfig\oracle` directory or from the Reporter installation CD in directory */<<cdrom >/oracle*, copy the `repconfig.sql` file to your HP-UX server directory `$ORACLE_BASE/admin/REPORTER/create/`
3. Enter: **chown oracle:dba repconfig.sql**
4. Edit the file as follows (edits are highlighted) for size and performance considerations:

   Note: In the example below *maxsize* is set to *900M* where *maxsize* equals the maximum size your file system can handle. You must replace **/database/oradata** with the path you have established for your database data files. The data file names are only recommendations and can be changed to conform to the standards at your site. Also the user and password are highlighted; change as necessary.

   Note: For performance considerations Oracle recommends to place data (tablespace REPORTER), index (tablespace RPT_INDEXES), and rollback segments (tablespace RBS) on different disks if available. See the Scalability section of Chapter 6: Advanced Topics for tablespace sizing.

   create tablespace REPORTER datafile
   '**/database/oradata**/REPORTER/rptdb01.dbf' SIZE 200M,
   '**/database/oradata**/REPORTER/rptdb02.dbf' SIZE 200M
   autoextend on next 20M maxsize 900M
   default storage (
   initial 8192k
   next 8192k
   pctincrease 0

```
);
create tablespace RPT_INDEXES datafile
'/database/oradata/REPORTER/rptidx01.dbf' size 300M
autoextend on next 20M maxsize 500M
default storage (
initial 8192k
next 8192k
pctincrease 0
);
alter tablespace SYSTEM add datafile
'/database/oradata/REPORTER/sys02.dbf' size 20M;
alter tablespace RBS add datafile
'/database/oradata/REPORTER/rbs02.dbf' size 50M;
alter tablespace TEMP add datafile
'/database/oradata/REPORTER/tmp02.dbf' SIZE 20M;
create user clark identified by kent default tablespace REPORTER;
grant create session, create table, create any index, create sequence, create trigger, unlimited
tablespace to clark identified by kent;
```

5. Log on as the oracle software owner.
6. *(If migrating Reporter data from the default database to Oracle, skip forward to step #10.)*
   Set UNIX environment variables as follows:
   ORACLE_BASE – set to admin pathname default (/opt/oracle)
   ORACLE_SID – set to the database name you wish to create (REPORTER)
   ORACLE_HOME – set to full pathname of the Oracle system home directory
   ORACLE_TERM – set to the appropriate value (hpterm, etc…)
   PATH - needs to include **$ORACLE_HOME/bin**
   SHLIB_PATH – set to $ORACLE_HOME/lib

   ⚠ Make sure the ORACLE_SID is set to **REPORTER**; otherwise the Reporter tables will be put in the wrong SID.
7. Run the **ORACLE_HOME/bin/svrmgrl** program and enter the commands:
   connect internal
   startup
8. Enter the following SQL statement:

   @$ORACLE_BASE/admin/REPORTER/create/repconfig.sql
9. Enter the following command to exit: **Exit**
10. Enter the following command to start the SQL listener: **lsnrctl start**

Task 6 Configure Automatic Database Startup and Shutdown

The following procedure installs a script which invokes **dbstart** to start up all Oracle database instances, with entries in the oratab file which have a "Y" as the startup flag.

⚠ **Warning!** If your database administrator already has the startup procedure in place, you should skip this step.

⚠ **Warning!** If the VPO (openview) database is installed on same Oracle server, you must modify its oratab entry to change the startup flag from "Y" to "N" since it is restarted by a different facility. For example, change openview:$ORACLE_HOME:Y to openview:$ORACLE_HOME:**N**.

Note: Executing the following script to set up automatic database startup and shutdown assumes the Oracle user name is oracle. If this is not the case, you will have to adjust the postinstall script accordingly.

1. Log on as root.
2. Mount the Reporter Installation CD.
3. Change to the CDROM directory /cdrom/oracle/hp-ux.

4. Enter **./postinstall** to execute the script

Note: If you do not have access to the Reporter installation CD, you may copy files **postinstall**, **reporacle**, and **repcnfg** from the Reporter NT system directory:\rpmtools\newconfig\oracle\hp-ux to /tmp. Change permissions on the **/tmp/postinstall** file to 755, change to the /tmp directory, and enter **./postinstall** to execute the script.

Now you are ready to Configure Reporter to use the Oracle database.

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Configure Reporter on the Windows NT System

This section covers the installation of the software that allows the Windows NT system, on which Reporter runs, to connect to the HP-UX system, from which the Oracle database is accessed.

Task 1 Install Oracle Client software & Reporter Patch

To begin, you need the following Oracle product: Oracle® Client Software, version 8.0.5, for Windows NT and Windows 95/98. You also need administrator privileges on the NT client where Reporter is installed

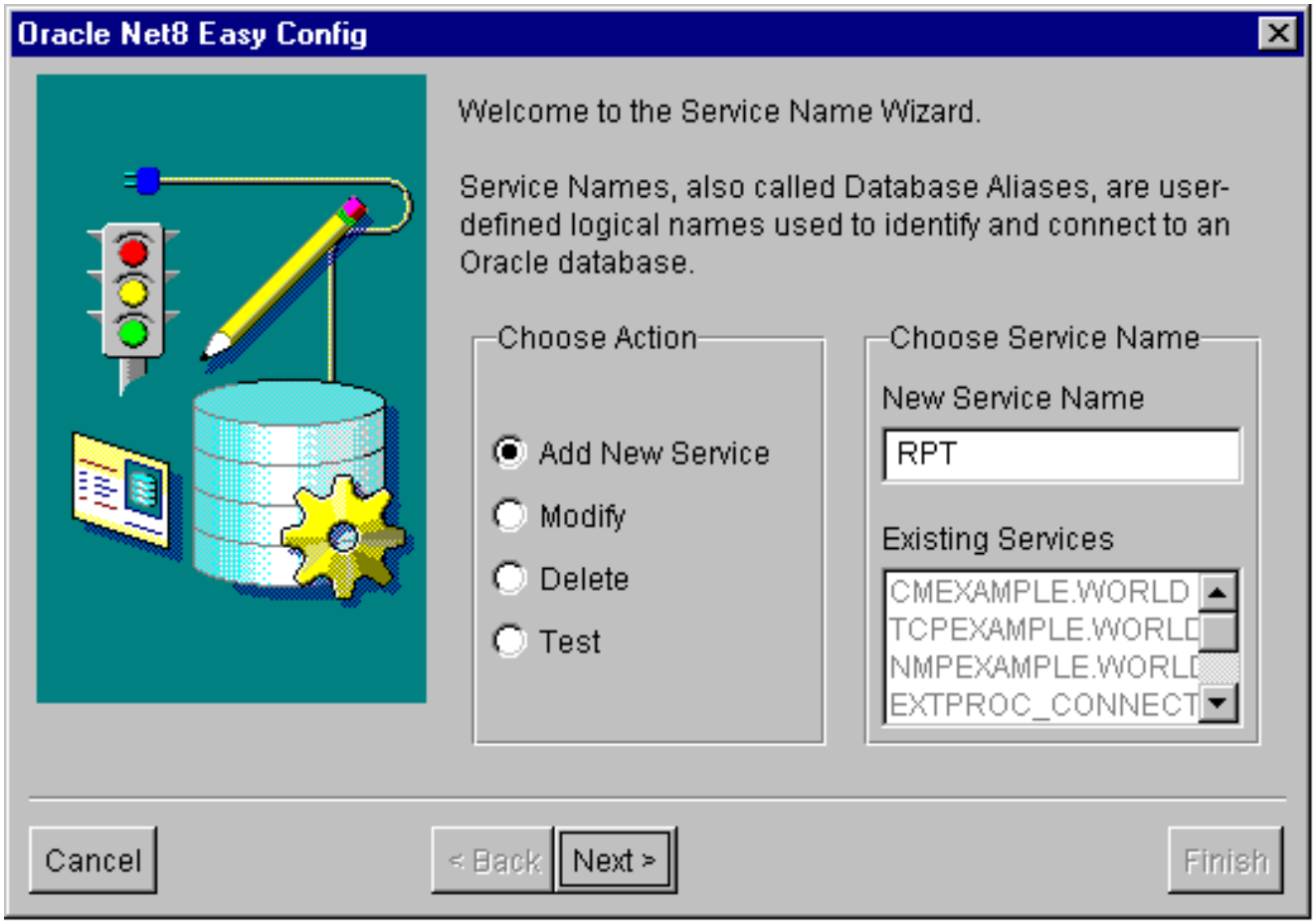
1. At your Windows NT system, insert the CD and select **Begin Installation** in the dialog box that appears.
2. In the introductory dialog boxes that appear, (a) select the appropriate language, (b) enter the installation settings for company name, and (c) accept or enter the directory to install software (c:\ORANT is the default).
3. Accept **Oracle8 Client** as the type of installation to perform.
4. Accept **Database Administrator** as the primary function you will be performing.
5. Select whether to access the documentation on the CD (recommended) or to store on your hard drive.
6. Click **OK** upon completion of the installation.
   The system displays the Windows directory (for example, \WINNT35\) and path to the current list of programs available from the Start menu, among them Oracle for Windows NT.

   Steps 7-10 install an Oracle ODBC driver patch. These steps may not be necessary if you already have a patch equivalent to or later than 8.0.5.6. In this case, the procedure below will warn you that you already have a more current version installed.
7. To install the Oracle ODBC patch:
   Run Oracle installer (default location: **c:\orant\bin\orainst.exe**).
8. Choose the **From** button.
9. Insert the Reporter CD and select **\Support\oracle\win32\install\Nt.prd,** then choose **OK**.
10. Select Oracle8 ODBC driver and click install button.
11. Exit the installer.
12. **Important:** You must **reboot your system** now.

Task 2 Configure the Net8 connection to the reporter database

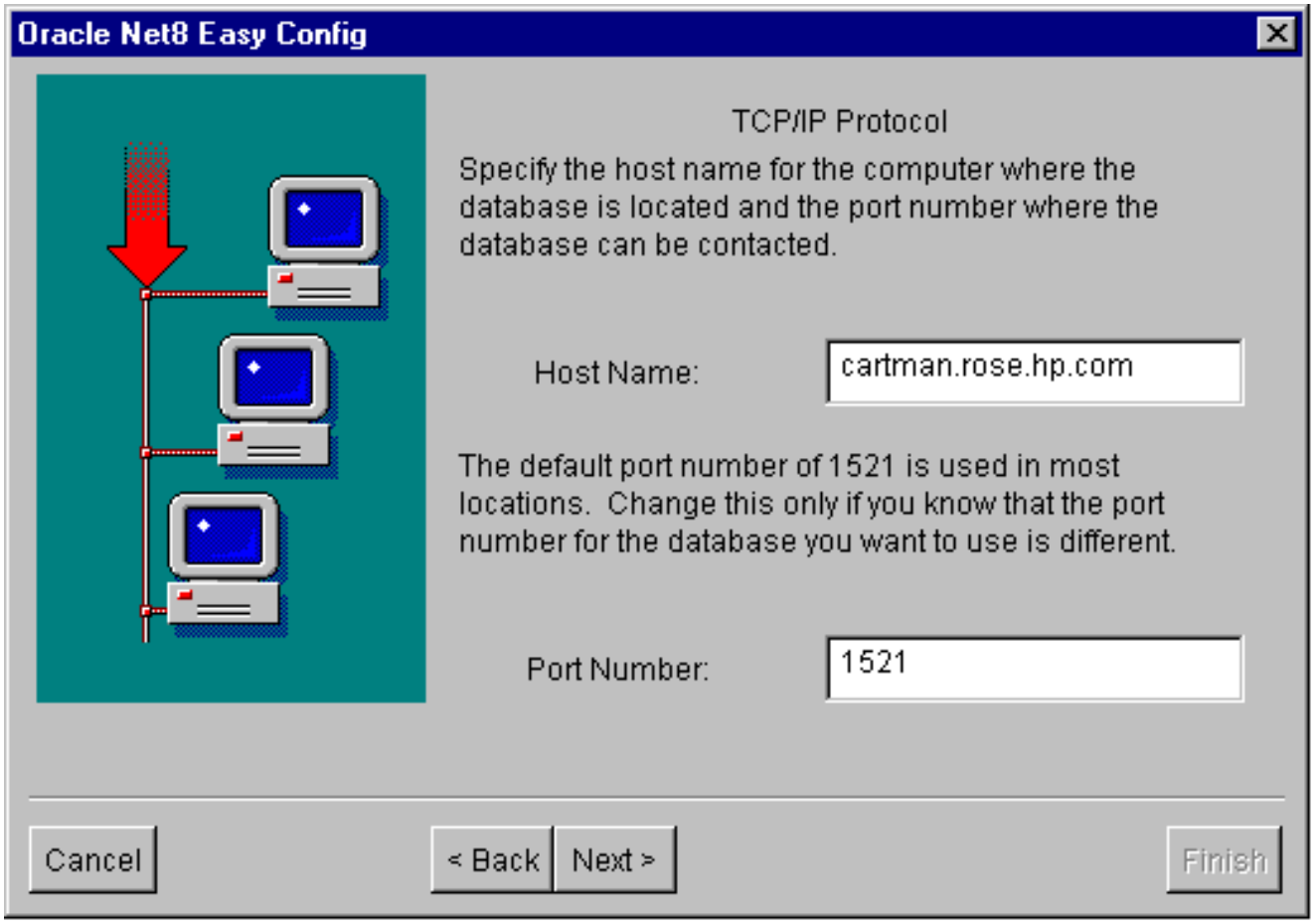
After you complete the installation of the Oracle client software on the Windows NT system running VantagePoint Reporter, on that same system complete the following steps:

1. From the Start/Programs menu, select **Oracle for Windows NT** and **Oracle Net8 Easy Config**.
2. Click **Yes** to Warning dialog that appears to continue. Select the check box to prevent this warning from appearing again.
3. Accept **Add New Service**, enter **RPT** in the New Service Name text box, and click **Next**.



4. Accept **TCP/IP** as the protocol to be used and click **Next**.
5. In the TCP/IP Host Name text box enter the **fully qualified** host name for ***<HP-UX_database_server_name>***

   The information appears as follows with your specific Host Name substituted:



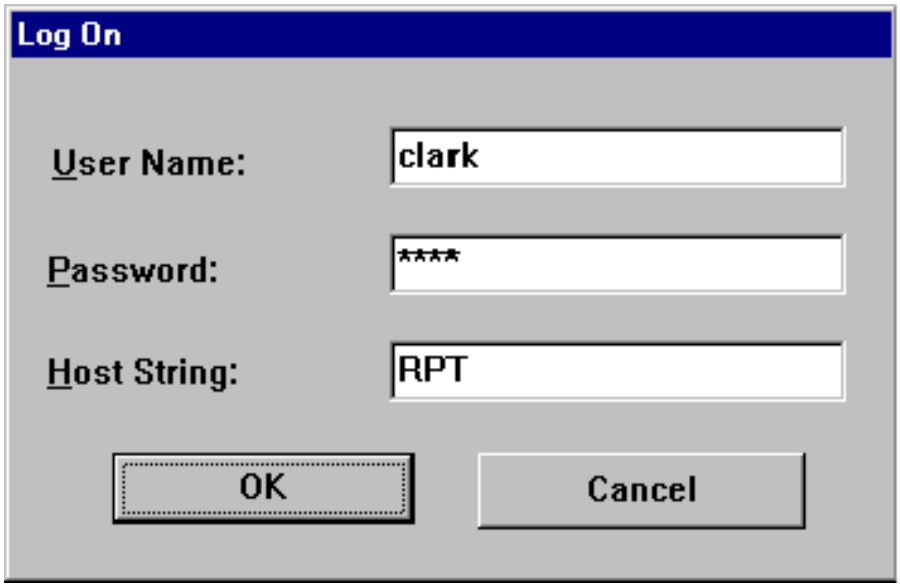
5. Enter **REPORTER** as the database SID and select **Next**

   Important: the database SID "REPORTER" must be all uppercase to match the Oracle SID name entered in the host configuration.
6. Click the **Test Service** button
7. In the Test Connection dialog enter the database Username ***clark*** (or the user name that you previously chose), the Password that you plan to use in the VantagePoint Reporter, select the **Test** button. Verify the test connection is successful and select the **Done** button.
8. In the Oracle Net8 Easy Config dialog box, click **Next**, then **Finish**.

Task 3 Verify the Net8 connection to the REPORTER database

After you complete the Net8 configuration, perform the following steps to verify that you can contact the Reporter database from your NT system:

1. From the Start/Programs menu, select **Oracle for Windows NT** and **SQL Plus 8.0.**
2. In the Log On dialog box, enter the database User Name and Password that you used for the UNIX system configuration in Task 5, step 4 (**clark** identified by **kent**, but if you are migrating from the default database to Oracle, User Name is **system** and Password is **manager**).



3. Select the **OK** button. A good response would be similar to:

   Connected to:
   Oracle8 Enterprise Edition Release 8.0.5.0.0 - Production
   With the Partitioning and Objects options
   PL/SQL Release 8.0.5.0.0 - Production

   SQL>
4. If you get error messages, you have an error in the connection from the NT system to the Oracle Reporter database.
5. At the SQL> prompt, enter the command:
   select TABLESPACE_NAME, STATUS from user_tablespaces;

   You should see all the tablespace names displayed below.

```
TABLESPACE_NAME STATUS
------------------------------------
SYSTEM ONLINE
RBS ONLINE
TEMP ONLINE
TOOLS ONLINE
USERS ONLINE
REPORTER ONLINE
RPT_INDEXES
```

   7 rows selected.

   Note: If you are migrating from the default database to Oracle, you will not see REPORTER ONLINE or RPT_INDEXES.

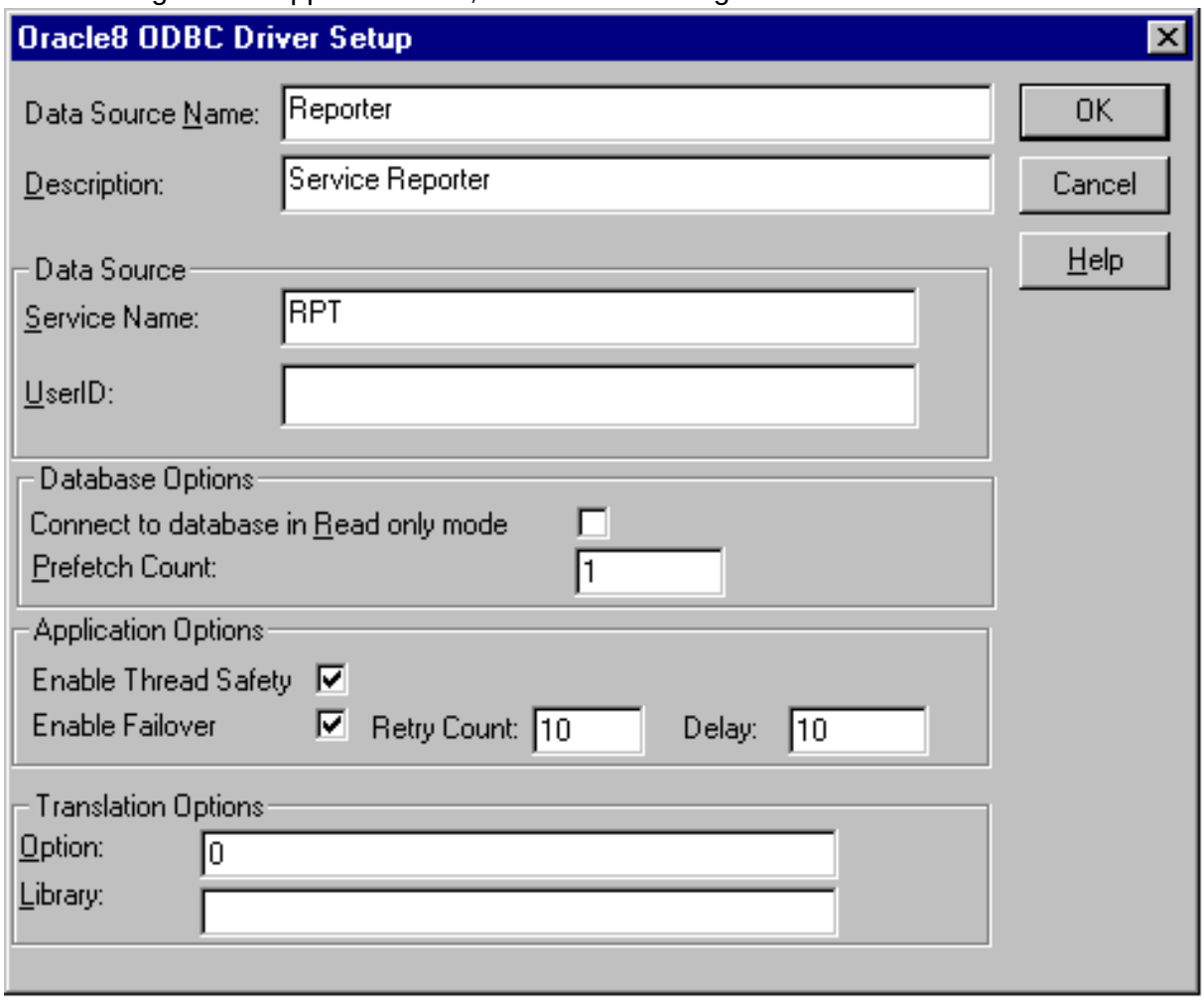
   If you successfully connected but do not see these tables, check with the database administrator for Oracle on the host system.
6. From the **File** menu select **Exit**.

Task 4 Configure the ODBC data source in the NT Control Panel

After you have configured SQL*Net on the Windows NT system running VantagePoint Reporter, you must configure the ODBC data source.

On the Windows NT system where Reporter is (or will be) installed, complete the following steps:

1. Select **Control Panel** from the Windows NT Start/Settings menu.
2. Double-click **ODBC** in the Control Panel window .
3. Select the **System DSN** tabbed page.
4. *(If migrating data from the default database to Oracle, omit this step.)*
   Choose Reporter with the default database (MSDE or previously Microsoft Access) driver and remove it.
5. Choose the **Add…** button and highlight **Oracle ODBC** driver and select **Finish**.
6. In the dialog box as appears below, enter the following:



Data Source Name: **Reporter**
Description: <*your_description*>
Service Name: **RPT**
User ID: (no entry necessary)

⚠ **Important**: You must enter **Reporter** as the Data Source Name in mixed case (uppercase "R") to match references to it in Reporter executables.

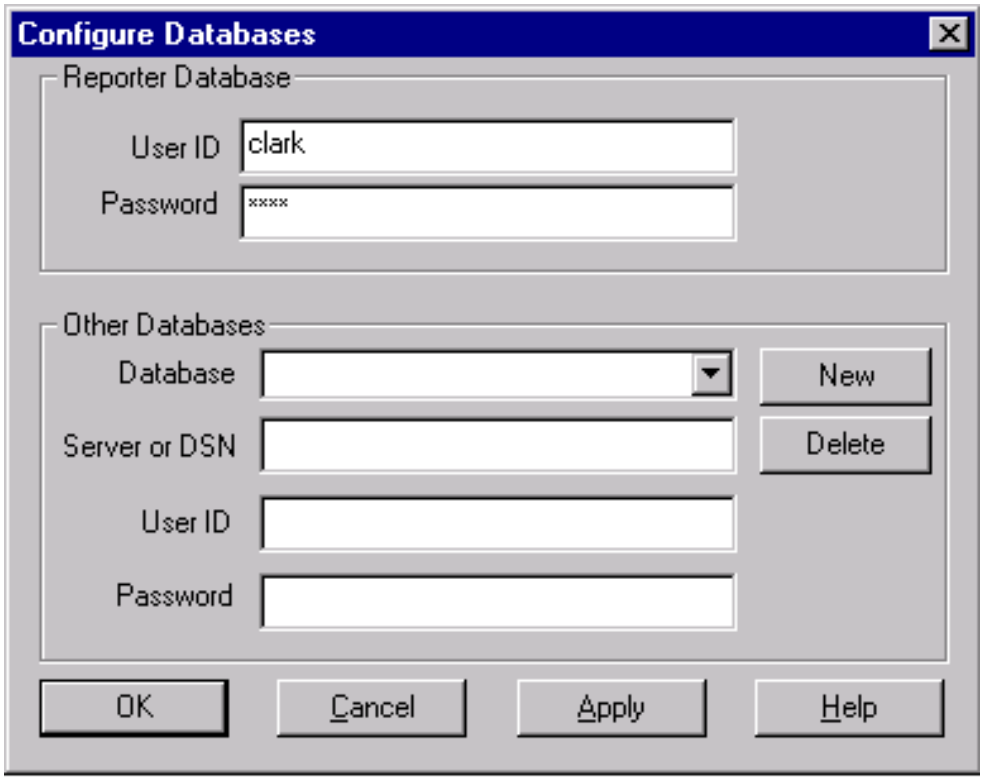
7. Click **OK**.
8. Close the **ODBC Data Source Administrator** window.
9. Close the **Control Panel** window.

Task 5 ➡ Configure the Database in VantagePoint Reporter*

**If you are migrating data from the default database to Oracle, OMIT step #6*.

1. Start **Reporter** from the Start/Programs/RPM Tools menu.
2. The following error message is expected.

3. In the Reporter main window, from the **File** menu select **Configure,** then **Databases** from the submenu. (The same error message appears as in the previous step; ignore and click OK to proceed.)
4. In the Configure Databases dialog box under the Reporter Database section, enter the database User Name and Password that you used for the UNIX system configuration in Task 5, step 4 (**clark** identified by **kent**). *But if you are migrating from default database to Oracle, User Name is* **system** *and Password is* **manager**.



5. Click **OK**
6. (*If migrating data from default database to Oracle, OMIT this step.)*
   Run **rpmtools/bin/Newdb.exe**
7. Close Reporter main window.
8. Open Reporter main window.

Appendix E: Using Oracle 7.3.4 for the Reporter Database

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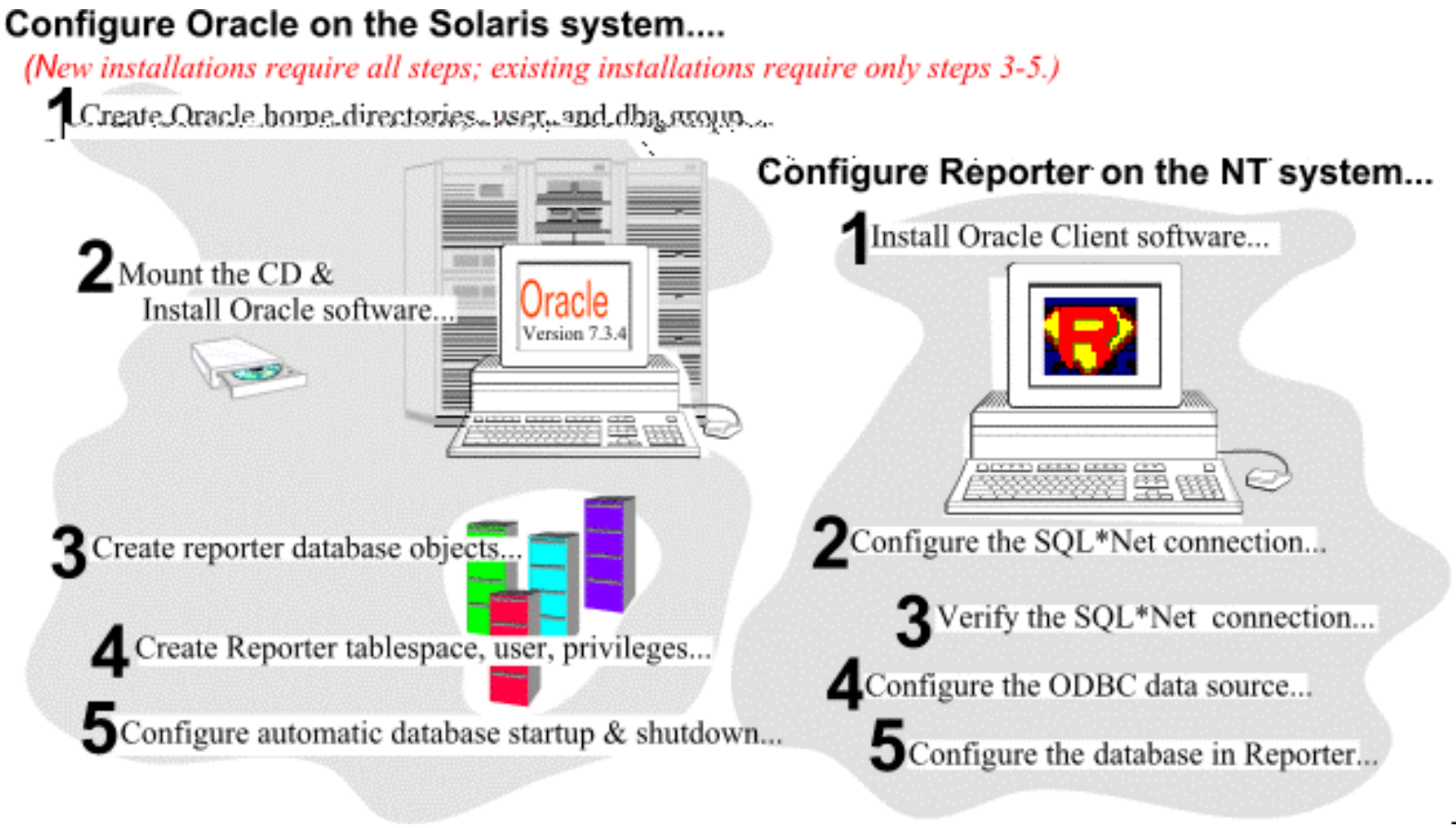
Set Up Oracle 7.3.4 on Solaris and Configure on NT

Prerequisites: Check your **Solaris system kernel parameters**. If they do not meet minimum requirements, you will have to modify them and reboot your system. Reporter requires 900MB disk space in the Oracle database.
For other disk, system, and memory requirements, please check the "Features and Requirements" section *of the Oracle8 Installation Guide for Solaris*.

The following illustration shows the tasks you must complete to set up Oracle as the Reporter database. To the left are the steps on the Solaris system which differ for new and existing installations of Oracle. To the right is the procedure for configuring the Oracle Reporter database on the NT system.

Note: You can click the task (in the illustration) to jump to those specific instructions.



On the Solaris system (choose the appropriate procedure by clicking it):

- Setup for **new** installations of Oracle 7
  (Task 1 — 5)
- Setup for **existing** installations of Oracle 7
  (Task 3 — 5)

On the Windows NT system running VantagePoint Reporter:

- Configure Reporter to use the Oracle database

Case Sensitivity: Some required entries in NT are case-sensitive; so we recommend you match instruction text exactly.

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Setup for new installations of Oracle 7.3.4

The following tasks cover the preliminary setup of directories and user accounts as follows:

Task 1 ➡ Create Oracle home directories, user, and dba group

Before you begin, you need the following administrator privileges: root and dba privileges on the UNIX system where you are using Oracle; administrator privileges on the NT client where Reporter is installed.

1. You must be logged on as **root** or **su**
2. Set umask as follows:
   umask = 022
3. Create the the Oracle home directory by entering the following:
   mkdir –p /opt/oracle/product/7.3.4.0.1
4. Create oracle user in **/etc/passwd**
5. Run **pwconv** to create a password in **/etc/shadow**
6. Create dba group and add oracle user in **/etc/group**
7. Enter **cd /opt**
8. Enter **chown –R oracle:dba oracle**
9. The .profile needs to include PATH=$PATH:
   Include environment variables from Task 2, step 3, below.

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Task 2 ➡ Mount the CD & Install Oracle software using the orainst program

1. Put the CD in the CD-ROM drive.
2. Log on as the oracle software owner (user created in Task 1 in Setup for new installations of Oracle 8.0.5).
3. Set UNIX environment variables as follows:
   ORACLE_BASE – set to admin pathname default (/opt/oracle)
   ORACLE_SID – set to the database name you wish to create (REPORTER)
   ORACLE_HOME – set to full pathname of the Oracle system home directory
   ORACLE_TERM – set to the appropriate value (hpterm, etc…)
   PATH - needs to include $ORACLE_HOME/bin;/usr/xpg4/bin
   SHLIB_PATH – set to $ORACLE_HOME/lib
   ORACLE_OWNER – oracle

   ⚠ Make sure the ORACLE_SID is set to **REPORTER**; otherwise the Reporter tables will be put in the wrong SID.
4. Enter the following to open the directory where the install program resides:
   cd /cdrom/oracle734/orainst
5. Run the program either in character mode (which is used in this example) by entering:

./orainst /c or in Motif mode by entering: **./orainst /m**

Note: You must set your DISPLAY environment variable to **<*nodename*>:0.0** before running the Motif version of Oracle Installer.

- Select **Default Install** at the Install Type screen.
- From the Installation Activity Choice screen - Select **Install**, **Upgrade, or De-install Software**
- From the Installation Options screen - Select **Install New Product – Do Not Create DB Objects**
- Confirm Environment variables **ORACLE_HOME** and **ORACLE_BASE**
- Verify Installation Options are correct
- Select the following products from the Software Asset Manager Screen:

Note: If you are in character mode you can scroll to view all the products available.

Oracle Intelligent Agent 7.3.4.0.0
Oracle Unix Installer 4.0.1.0.0
Oracle7 Server (RDBMS) 7.3.4.0.0
PL/SQL V2 2.3.4.0.0
SQL*Net (V2) 2.3.4.0.0
SQL*PLUS 3.3.4.0.0
TCP/IP Protocol Adapter (2.3.4.0.0)

- Enter the dba group_name and other defaults to match the DBA group created in Task1, step 6.
- Accept default OSOPER group.
- Select **Install** or Tab to Install
- Accept default for client-shared library **(no)**

5. Exit the Oracle install program

Skip to Task 3, Create REPORTER database objects

Top

Setup for existing installations of Oracle 7.3.4

Log on as the oracle software owner. Verify that the following Solaris environment variables are set:

ORACLE_SID - set to the database name you want to create (**REPORTER**)
ORACLE_BASE – set to admin pathname default (/opt/oracle)
ORACLE_HOME - set to full pathname of the Oracle system home directory
ORACLE_TERM – set to the appropriate value (hpterm, etc…)
PATH - needs to include $ORACLE_HOME/bin
SHLIB_PATH – set to $ORACLE_HOME/lib

Make sure the ORACLE_SID is set to **REPORTER**; otherwise the Reporter tables will be put in the wrong SID.

After you verify that the above environment variables are set as described above, you can complete **Task 3**, **Task 4**, and configure the NT system running Reporter (a link to these instructions appears at the end of the Task 5).

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Task 3 Create REPORTER database objects

1. Edit the file **$ORACLE_HOME/rdbms/install/rdbms/cnfg.orc**

    Note: you must do this step before creating objects.

   Remove the comment (pound sign #) in the line:
   #db_block_size = <blocksize> and change to:
   db_block_size = 8192
2. Enter the following to change to the directory where the installation program resides:
   cd $ORACLE_HOME/orainst
   (if the directory does not exist, mount the CD as described in Task 2 and run **/cdrom/oracle734/orainst**)
3. To create database objects, run the installation program (in character mode) by entering **./orainst /c** and proceed as follows:
   - Select **Default Install** at the Install Type screen
   - Select **Create/Upgrade Database Objects**
   - Select **Create Database Objects**
   - Confirm Environment variables.
   - Verify Installation Options are correct
   - From the left pane, select the following:

   Oracle7 Server (RDBMS) 7.3.4.0.0
   PL/SQL V2 2.3.4.0.0
   SQL*Net (V2) 2.3.4.0.0
   SQL*PLUS 3.3.4.0.0
   TCP/IP Protocol Adapter (V2)

   - Select **Install**.
   - Select **Create Product DB Objects**.
   - Select **File System-Based Database**.
   - Accept Default for control file distribution (**yes**).
   - Select **/opt/oracle** or the value of **$ORACLE_BASE** for the first mount point.

      Note: different mount points allow you to specify different file systems.
   - Select **/opt/oracle** or the value of **$ORACLE_BASE** for the second mount point.
   - Select **/opt/oracle** or the value of **$ORACLE_BASE** for the third mount point.
   - Accept Default for Character Set (**US7ASCII**).
   - Enter System password (confirm the password).

      Note: For new installations, you create a password and confirm; for existing installations, use the existing password.
   - Enter sys password (confirm the password).

      Note: For new installations, you create a password and confirm; for existing installations, use the existing password.
   - Accept default for internal users (**no**).
   - Select **Yes** for MTS and SQL*Net listener.
   - Confirm control files are correct. (Make sure SID is REPORTER.)
   - Accept DB Defaults sizes (**OK**).
   - Accept DB Defaults log files (**OK**).
   - Accept default DB (**Yes**).
   - Select **No** for Help Facility screen.
   - Select **No** for Demo tables.

Note: Error during actions starting up the TNS listener message normally appears; select **Ignore**.

- Exit the Installation.

4. Run the program **$ORACLE_HOME/bin/svrmgrl** and enter the following commands to shut down the REPORTER SID:
   - **connect internal**
   - **shutdown immediate**
   - **exit**
   - enter: **ORACLE_SID=<*next_Oracle_database_instance*>**
     export ORACLE_SID
     (to Reset to each Oracle database instance; then run the **svrmgrl** program with the above three commands to shut down all Oracle database instances.)
5. If you modified ORACLE_SID in step #4, reset it as follows:
   ORACLE_SID=REPORTER
   export ORACLE_SID
6. Log on as **root**
   Verify that the following Solaris environment variables are set:

   ORACLE_SID - set to the database name you want to create (**REPORTER**)
   ORACLE_BASE – set to admin pathname default (/opt/oracle)
   ORACLE_HOME – set to full pathname of the Oracle system home directory
   ORACLE_TERM – set to the appropriate value (hpterm, etc…)
   PATH - needs to include $ORACLE_HOME/bin
   SHLIB_PATH – set to $ORACLE_HOME/lib

   Make sure the ORACLE_SID is set to **REPORTER**; otherwise the script will not reference the correct SID.
7. Run **$ORACLE_HOME/orainst/root.sh**
8. Edit the /var/opt/oracle/oratab file line below to change the ending character "N" to "Y" to indicate that the SID should be started automatically on a system reboot.

   REPORTER:/opt/oracle/product/7.3.4:**Y**
9. To access data from the Oracle database, you need to configure a listener by using the configuration templates included with VantagePoint Reporter. Follow instructions in either (A) if you have a listener already configured or (B) if you do not have a listener configured.

   A Solaris with existing Oracle listener configuration: From the NT system in the `\rpmtools\newconfig\oracle\sun` directory or from the Reporter installation CD in the Solaris directory, copy the **listener.002** and the **tnsnames.002** files to the Solaris system **/$ORACLE_HOME/network/admin** directory. Use the templates to copy and paste the Reporter portions of the new listener configuration syntax into your existing configuration files. For help in editing your existing files, view the examples linked here: listener.002 example; tnsnames.002 example

   B Solaris with no existing Oracle listener configuration: From the NT system in the `\rpmtools\newconfig\oracle\sun` directory or from the Reporter installation CD in the Solaris directory, copy the **listener.001** and the **tnsnames.001** files to the Solaris system **/$ORACLE_HOME/network/admin** directory and rename them **listener.ora** and **tnsnames.ora** respectively. For help in editing these files, view the examples linked here: listener.001 example; tnsnames.001 example.
10. Log on as **oracle**.
    Verify that the following Solaris environment variables are set:

    ORACLE_SID - set to the database name you want to create (**REPORTER**)
    ORACLE_BASE – set to admin pathname default (/opt/oracle)

ORACLE_HOME – set to full pathname of the Oracle system home directory
ORACLE_TERM – set to the appropriate value (hpterm, etc…)
PATH - needs to include $ORACLE_HOME/bin
SHLIB_PATH – set to $ORACLE_HOME/lib

⚠ Make sure the ORACLE_SID is set to REPORTER; otherwise the Reporter tablespaces will be created in the wrong SID.

11. Edit the file **$ORACLE_BASE/admin/REPORTER/pfile/initREPORTER.ora** as follows:
    - Change compatible=7.1.0.0 to **compatible=7.3.4** and remove comment (pound sign #) if present.

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Task 4 Create Reporter tablespace, user, and privileges*

If you are migrating Reporter data from the default database to Oracle, complete steps **#5 and #10 only; omit steps #1-4 and #6-9*

1. Log on as root or su
2. *(If migrating data from the default database to Oracle, omit this step and steps #3-4.)*
   From the NT Reporter system `\rpmtools\newconfig\oracle` directory or from the Reporter installation CD in directory `/<cdrom>/reporter/oracle`, copy the `repconfig.sql` file to the Solaris server directory `$ORACLE_BASE/admin/REPORTER/create/`
3. Enter: **chown oracle:dba repconfig.sql**
4. Edit the file as follows (edits are highlighted) for size and performance considerations:

   Note: In the example below *maxsize* is set to *900M* where *maxsize* equals the maximum size your file system can handle. You must replace **/database/oradata** with the path you have established for your database data files. The data file names are only recommendations and can be changed to conform to the standards at your site. Also the user and password are highlighted; change as necessary.

   Note: For performance considerations Oracle recommends to place data (tablespace REPORTER), index (tablespace RPT_INDEXES), and rollback segments (tablespace RBS) on different disks if available. See the Scalability section of Chapter 6: Advanced Topics for tablespace sizing.

```
create tablespace REPORTER datafile
'/database/oradata/REPORTER/rptdb01.dbf' SIZE 200M,
'/database/oradata/REPORTER/rptdb02.dbf' SIZE 200M
autoextend on next 20M maxsize 900M
default storage (
initial 8192k
next 8192k
pctincrease 0
);
create tablespace RPT_INDEXES datafile
'/database/oradata/REPORTER/rptidx01.dbf' size 300M
autoextend on next 20M maxsize 500M
default storage (
initial 8192k
next 8192k
pctincrease 0
);
alter tablespace SYSTEM add datafile
'/database/oradata/REPORTER/sys02.dbf' size 20M;
alter tablespace RBS add datafile
```

'**/database/oradata**/REPORTER/rbs02.dbf' size 50M;
alter tablespace TEMP add datafile
'**/database/oradata**/REPORTER/tmp02.dbf' SIZE 20M;
create user **clark** identified by **kent** default tablespace REPORTER;
grant create session, create table, create any index, create sequence, create trigger, unlimited tablespace to **clark** identified by **kent**;

5. Log on as the oracle software owner.
6. *(If migrating data from the default database to Oracle, skip forward to step #10.)*
   Verify that the following Solaris environment variables are set:

   ORACLE_SID - set to the database name you want to create (**REPORTER**)
   ORACLE_BASE – set to admin pathname default (/opt/oracle)
   ORACLE_HOME – set to full pathname of the Oracle system home directory
   ORACLE_TERM – set to the appropriate value (hpterm, etc…)
   PATH - needs to include $ORACLE_HOME/bin
   SHLIB_PATH – set to $ORACLE_HOME/lib

   ⚠ Make sure the ORACLE_SID is set to **REPORTER**; otherwise the Reporter tablespaces will be created in the wrong SID.
7. Run the **ORACLE_HOME/bin/svrmgrl** program and enter the commands:
   connect internal
   startup
8. Enter the following SQL statement:

   @$ORACLE_BASE/admin/REPORTER/create/repconfig.sql
9. Enter the following to exit: **Exit**
10. Enter the following to start the SQL listener: **lsnrctl start**

Task 5 Configure Automatic Database Startup and Shutdown.

The following procedure installs a script which invokes **dbstart** to start up all Oracle database instances, with entries in the oratab file which have a "Y" as the startup flag.

⚠ **Warning!** If your database administrator already has the startup procedure in place, you should skip this step.

⚠ **Warning!** If the If the VPO (OpenView) database is installed on the same Oracle server, you must modify its oratab entry to change the startup flag from "Y" to "N" since it is restarted by a different facility. For example, change openview:$ORACLE_HOME:Y to openview:$ORACLE_HOME:**N**.

1. Log on as root.
2. Mount the Reporter Installation CD.
3. Change to the CDROM directory /cdrom/reporter/oracle/sun.
4. Enter **./postinstall** to execute the script

Note: If you do not have access to the Reporter installation CD, you may copy files **postinstall**, **reporacle**, and **repcnfg** from the Reporter NT system directory:\rpmtools\newconfig\oracle\sun to /tmp. Change permissions on the **/tmp/postinstall** file to 755, change to the /tmp directory, and enter **./postinstall** to execute the script.

Now you are ready to Configure Reporter to use the Oracle database.

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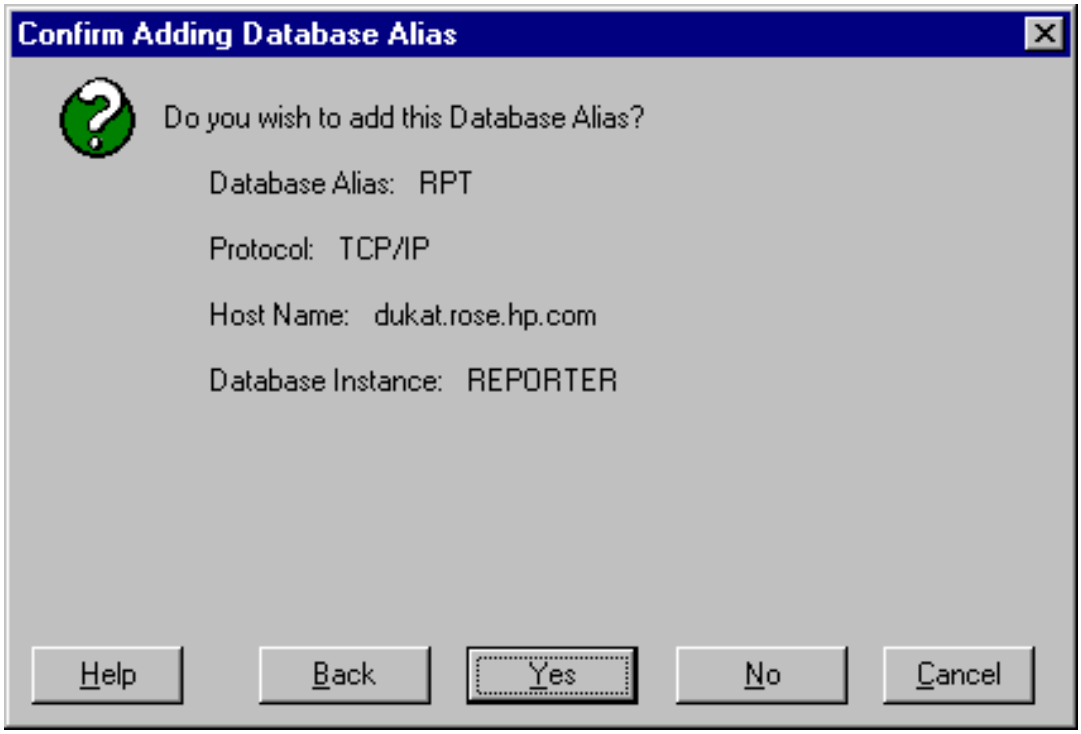
Configure Reporter on the NT System

This section covers the installation of the software that allows the Windows NT system, on which Reporter runs, to connect to the Solaris system, from which the Oracle database is accessed.

Task 1 Install Oracle Client software

To begin, you need the following Oracle product: Oracle® Client Software, version 7.3.4, for Windows NT and Windows 95. You also need administrator privileges on the NT client where Reporter is installed

At your Windows NT system, insert the CD in the CD-ROM drive and click

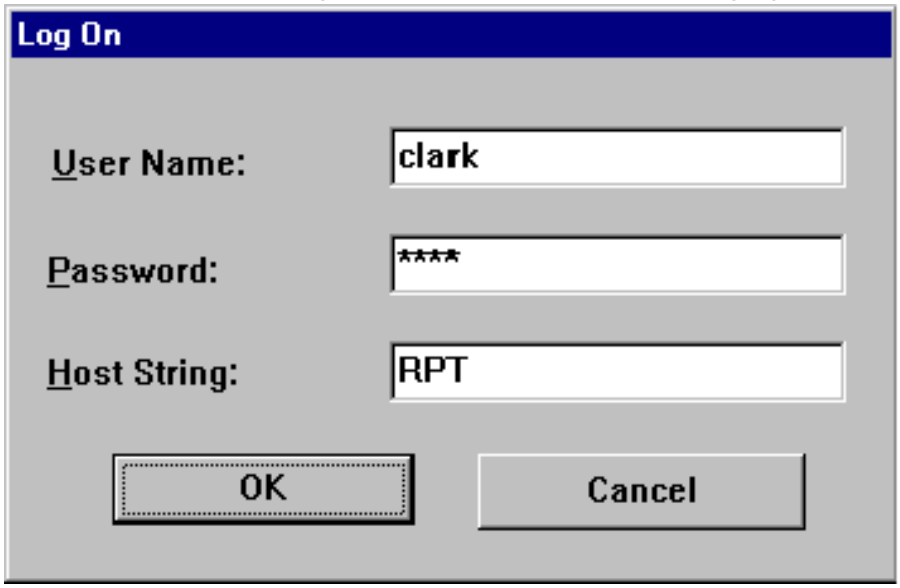


6. Select **Yes**
7. Click **Cancel** to exit SQL*Net Easy Configuration, and click OK to acknowledge the exit.

Task 3 Verify the SQL*NET connection to the REPORTER database

After you complete the SQL*Net configuration, perform the following steps to verify that you can contact the Reporter database from your NT system:

1. From the Start/Programs menu, select **Oracle for Windows NT** and **SQL Plus 3.3.**
2. In the Log On dialog box, enter the database User Name and Password that you used for the UNIX system configuration in Task 5, step 4 (**clark** identified by **kent**, but if you are migrating from the default database to Oracle, User Name is **system** and Password is **manager**).



3. Select the **OK** button. A good response would be similar to:

   Connected to:
   Oracle7 Server Release 7.3.4.0.0 - Production
   PL/SQL Release 2.3.4.0.0 - Production

SQL>

If you get error messages, you have an error in the connection from the NT system to the Oracle Reporter database.

4. At the SQL> prompt, enter the command:
   select tablespace_name, status from user_tablespaces;

   You should see all the tablespace names displayed below.

```
TABLESPACE_NAME STATUS
------------------------------ ---------
SYSTEM ONLINE
RBS ONLINE
TEMP ONLINE
TOOLS ONLINE
USERS ONLINE
REPORTER ONLINE
RPT_INDEXES

7 rows selected.
```

   Note: If you are migrating from the default database to Oracle, you will not see REPORTER ONLINE or RPT_INDEXES.

   If you successfully connected but do not see these tables, check with the database administrator for Oracle on the host system.
5. From the **File** menu select **Exit**.

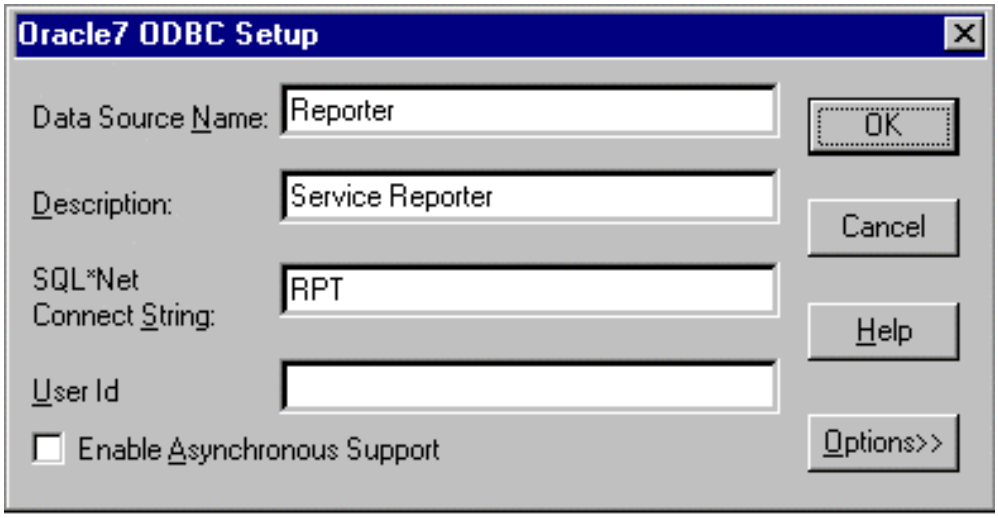
Task 4 Configure the ODBC data source in the NT Control Panel

After you have configured SQL*Net on the Windows NT system running VantagePoint Reporter, you must configure the ODBC data source.

On the Windows NT system where Reporter is (or will be) installed, complete the following steps:

1. Select **Control Panel** from the Windows NT Start/Settings menu.
2. Double-click **ODBC** in the Control Panel window .
3. Select the **System DSN** tabbed page.
4. *(If migrating data from the default database to Oracle, omit this step.)*
   Choose Reporter with the the default database driver and remove it.
5. Choose the **Add…** button and highlight **Oracle73 Ver 2.5** driver and select **Finish**.
6. In the dialog box that appears, enter the following:
   Data Source Name: **Reporter**
   Description: *<your_description>*
   SQL*Net Connect String: **RPT**
   User ID: (no entry necessary)

   Important: You must enter **Reporter** as the Data Source Name in mixed case (uppercase "R") to match references to it in Reporter executables.

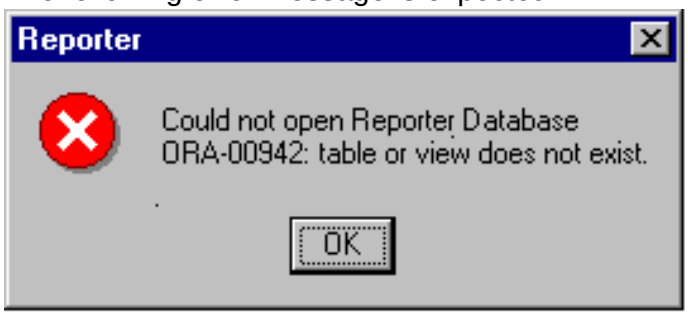


7. Click **OK**.
8. Close the **ODBC Data Source Administrator** window.
9. Close the **Control Panel** window.

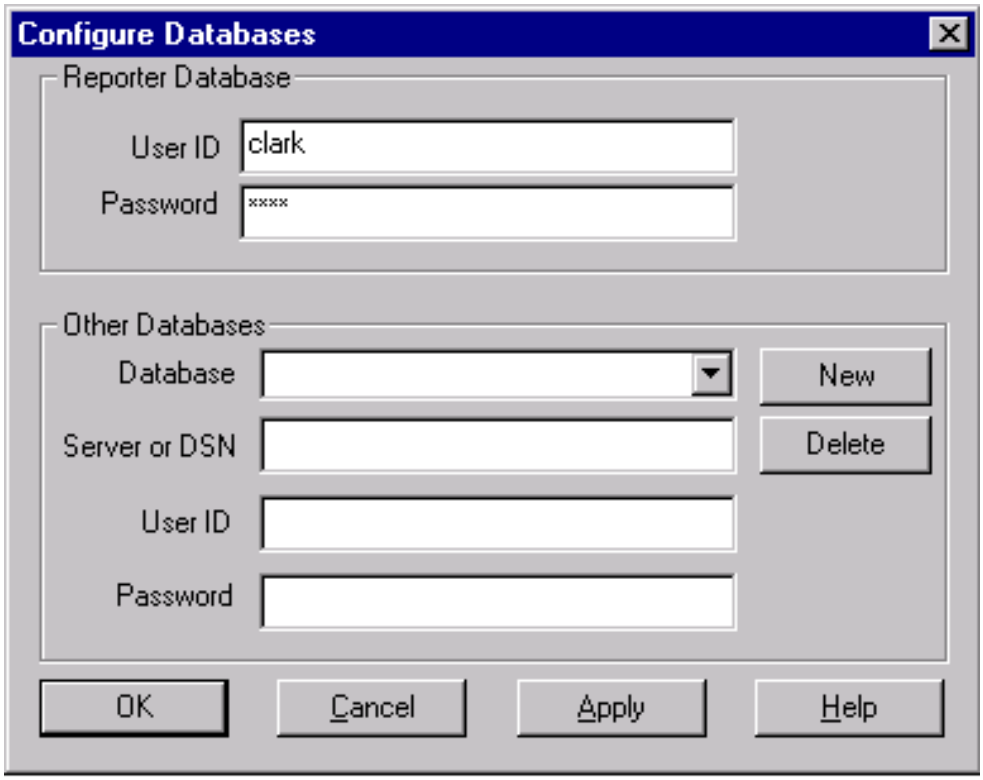
Task 5 Configure the Database in Reporter

(If migrating Reporter data from the default database to Oracle, complete all steps except step #6.)

1. Start **Reporter** from the Start/Programs/RPM Tools menu.
2. The following error message is expected.



3. In the Reporter main window, from the **File** menu select **Configure,** then **Databases** from the submenu. (The same error message appears as in the previous step; ignore and click OK to proceed.)
4. In the Configure Databases dialog box under the Reporter Database section, enter User ID *clark (or your previously selected User ID).* Enter your selected password.
But if you are migrating from the default database to Oracle, User Name is **system** *and Password is* **manager**.



5. Click **OK**
6. *(If migrating data from the default database to Oracle, omit this step and complete #7 and #8.)*
   Run **\rpmtools\bin\Newdb.exe**
7. Close Reporter main window.
8. Open Reporter main window.

Appendix F: Using Oracle 8.0.x for the Reporter Database

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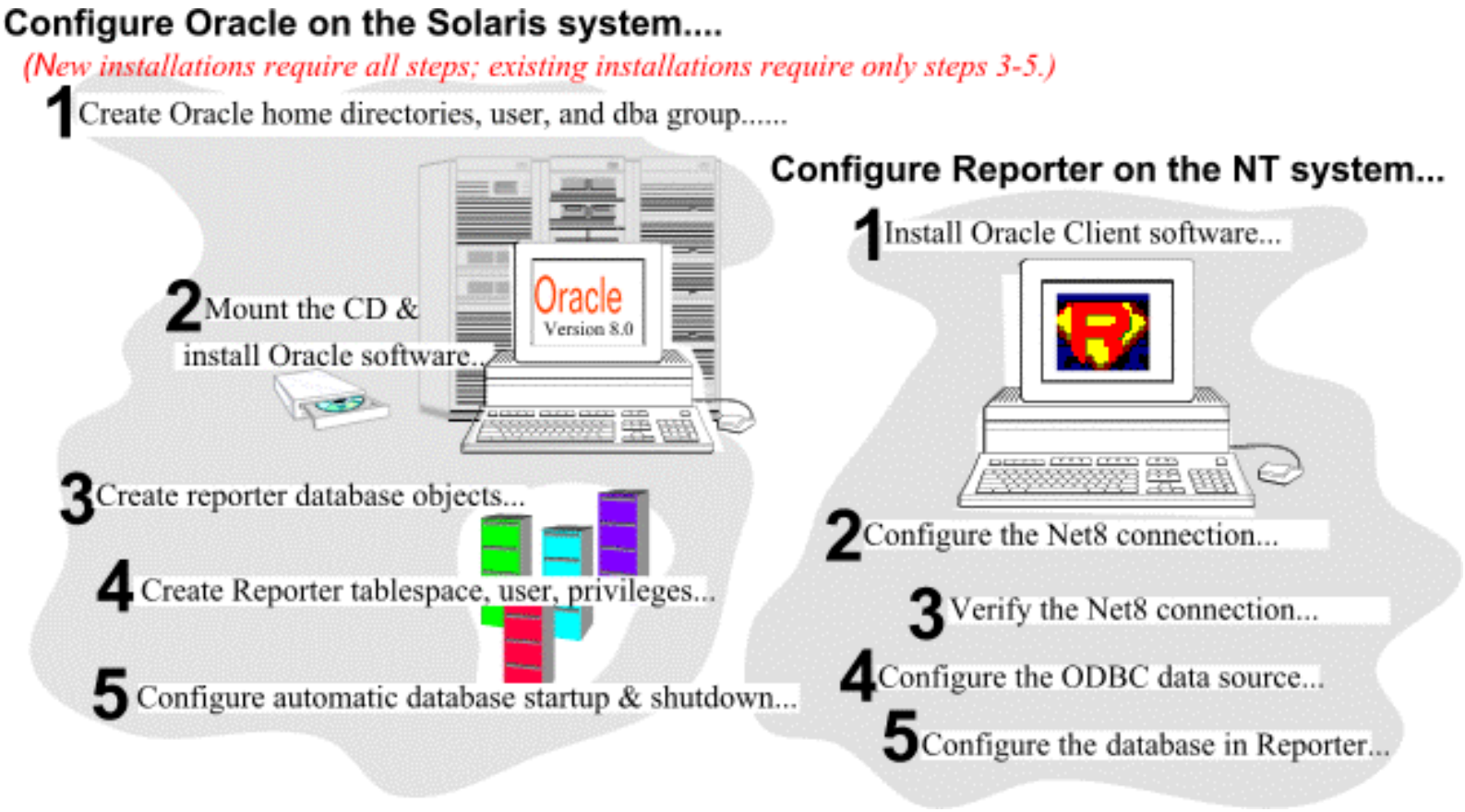
Set Up Oracle 8 on Solaris and Configure on NT

⚠ References to **Oracle 8.x** should be interpreted as version **8.0.5** and **8.0.6** as Reporter supports ONLY these Oracle 8 versions.

Prerequisites: Check your **Solaris system kernel parameters**. If they do not meet minimum requirements, you will have to modify them and reboot your system. Reporter requires 900MB disk space in the Oracle database.
For other disk, system, and memory requirements, please check the "Features and Requirements" section *of the Oracle8 Installation Guide for Solaris*.

The following illustration shows the tasks you must complete to set up Oracle as the Reporter database. To the left are the steps on the Solaris system which differ for new and existing installations of Oracle. To the right is the procedure for configuring the Oracle Reporter database on the NT system.

Note: You can click the task (in the illustration) to jump to those specific instructions.



On the Solaris system (choose the appropriate procedure by clicking it):

- Setup for **new** installations of Oracle 8
  (Task 1 — 5)
- Setup for **existing** installations of Oracle 8
  (Task 3 — 5)

On the Windows NT system running VantagePoint Reporter:

- Configure Reporter to use the Oracle database

Case Sensitivity: Some required entries in NT are case-sensitive; so we recommend you match instruction text exactly.

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Setup for new installations of Oracle 8.0.5 or 8.0.6

The following tasks cover the preliminary setup of directories and user accounts as follows:

Task 1 Create Oracle Home Directories, user, and dba group
Task 2 Mount the CD & install Oracle software using the orainst program
Task 3 Create Reporter database objects
Task 4 Create Reporter Tablespace, User, and Privileges
Task 5 Configure Automatic Database Startup and Shutdown

Task 1 Create Oracle home directories, user, and dba group

Before you begin, you need the following administrator privileges: root and dba privileges on the UNIX system where you are using Oracle; administrator privileges on the NT client where Reporter is installed.

1. You must be logged on as **root** or **su**
2. Set umask as follows:
   umask = 022
3. Create the the Oracle home directory by entering the following:
   mkdir –p /opt/oracle/product/8.0.5
4. Create oracle user in **/etc/passwd**
5. Run **pwconv** to create a password in **/etc/shadow**
6. Create dba group and add oracle user in **/etc/group**
7. Enter **cd /opt**
8. Enter **chown –R oracle:dba oracle**
9. The .profile needs to include PATH=$PATH:
   Include environment variables from Task 2, step 3, below.

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Task 2 Mount the CD & Install Oracle software using the orainst program

1. Put the CD in the CD-ROM drive.
2. Log on as root.
3. Set UNIX environment variables as follows:
   ORACLE_OWNER – oracle
4. Modify permissions and ownership on /var/opt/oracle/oratab by entering the following:
   chown oracle:dba /var/opt/oracle/oratab
5. Run **/cdrom/oracle805/orainst/oratab.sh**
6. Log on as the oracle software owner (user created in Task 1 in Setup for new installations of Oracle 8.0.5).
7. Set UNIX environment variables as follows:
   ORACLE_BASE – set to admin pathname default (/opt/oracle)
   ORACLE_SID – set to the database name you wish to create (REPORTER)
   ORACLE_HOME – set to full pathname of the Oracle system home directory

ORACLE_TERM – set to the appropriate value (hpterm, etc…)
PATH - needs to include $ORACLE_HOME/bin;/usr/xpg4/bin
SHLIB_PATH – set to $ORACLE_HOME/lib
ORACLE_OWNER – oracle

⚠ Make sure the ORACLE_SID is set to **REPORTER**; otherwise the Reporter tables will be put in the wrong SID.

8. Enter the following to open the directory where the install program resides:
   cd /cdrom/oracle805/orainst
9. Run the program either in character mode (which is used in this example) by entering:
   ./orainst /c or in Motif mode by entering: **./orainst /m**

   Note: You must set your DISPLAY environment variable to ***<nodename>*:0.0** before running the Motif version of Oracle Installer.

   - Select **Default Install** at the Install Type screen.
     The preamble.txt file appears, which contains information about changes to Oracle. At the end the text, you can select **OK** to display the README.FIRST file, which contains information about the installation. Select **OK** to proceed.
   - From the Installation Activity Choice screen - Select **Install**, **Upgrade, or De-install Software**
   - From the Installation Options screen - Select **Install New Product – Do Not Create DB Objects**
   - Confirm Environment variables **ORACLE_HOME** and **ORACLE_BASE**
   - Accept relinking default (**no**)
   - Verify Installation Options are correct
   - Select the following products from the Software Asset Manager Screen:

   Note: If you are in character mode you can scroll to view all the products available.

   Net8 8.0.5.0.0
   Net8 Protocol Adapter (8.0.5.0.0)
   TCP/IP Protocol Adapter 8.0.5.0.0
   Oracle Intelligent Agent 8.0.5.0
   Oracle Unix Installer 4.0.3.0
   Oracle8 Enterprise (RDBMS)
   PL/SQL 8.0.5.0.0
   SQL*PLUS 8.0.5.0.0

   Note: At the entry for Net8 Protocol Adapter (8.0.5.0.0), press Enter at the + (plus sign) to select "TCP/IP Protocol Adapter 8.0.5.0.0"; toggle to a "-" and use the space bar to select "TCP/IP Protocol Adapter."

   - Select **Install** or Tab to Install
   - Accept LSM default **(no)**
5. Exit the Oracle install program

Skip to Task 3, Create REPORTER database objects

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Setup for existing installations of Oracle 8

Log on as the oracle software owner. Verify that the following Solaris environment variables are set:

ORACLE_BASE – set to admin pathname default (/opt/oracle)
ORACLE_SID – set to the database name you wish to create (REPORTER)

ORACLE_HOME – set to full pathname of the Oracle system home directory
ORACLE_TERM – set to the appropriate value (hpterm, etc…)
PATH - needs to include $ORACLE_HOME/bin;/usr/xpg4/bin
SHLIB_PATH – set to $ORACLE_HOME/lib
ORACLE_OWNER – oracle

⚠ Make sure the ORACLE_SID is set to **REPORTER**; otherwise the Reporter tables will be put in the wrong SID.

After you verify that the above environment variables are set as described above, you can complete **Task 4**, **Task 5**, and configure the NT system running Reporter (a link to these instructions appears at the end of the Task 5).

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Task 3 Create REPORTER database objects

1. Edit the file **$ORACLE_HOME/rdbms/install/rdbms/cnfg.orc**

   Note: you must do this step before creating objects.

   Remove the comment (pound sign #) in the line:
   #db_block_size = <blocksize> and change to:
   db_block_size = 8192
2. Enter the following to change to the directory where the installation program resides:
   cd $ORACLE_HOME/orainst
   (if the directory does not exist, mount the CD as described in Task 2 and run **/cdrom/oracle805/orainst**)
3. To create database objects, run the installation program (in character mode) by entering
   ./orainst /c
   and proceed as follows:
   - Select **Default Install** at the Install Type screen
     The preamble.txt file appears, which contains information about changes to Oracle. At the end of the text, you can select **OK** to display the README.FIRST file, which contains information about the installation. Select **OK** to proceed.
   - Select **Create/Upgrade Database Objects**
   - Select **Create Database Objects**
   - Confirm Environment variables.
   - Verify Installation Options are correct
   - From the left pane, select the following:

     Net8 8.0.5.0.0
     Net8 Protocol Adapter (8.0.5.0.0)
       TCP/IP Protocol Adapter 8.0.5.0.0
     Oracle Intelligent Agent 8.0.5.0 (recommended if available)
     Oracle Unix Installer 4.0.3.0 (recommended if available)
     Oracle8 Enterprise (RDBMS)
     PL/SQL 8.0.5.0.0
     SQL*PLUS 8.0.5.0.0
   - Select **Install**.
   - Select **Create Product DB Objects**
   - Select **/opt/oracle** or the value of **$ORACLE_BASE** for the first mount point.

     Note: different mount allows you to specify different file systems.
   - Select **/opt/oracle** or the value of **$ORACLE_BASE** for the second mount point.
   - Select **/opt/oracle** or the value of **$ORACLE_BASE** for the third mount point.
   - Select **No** for Demo tables.

Note: Error during actions starting up the TNS listener message normally appears; select **Ignore**.

- Exit the Installation.

4. Run the program **$ORACLE_HOME/bin/svrmgrl** and enter the following commands to shut down the REPORTER SID:
   - **connect internal**
   - **shutdown immediate**
   - **exit**
   - enter: **ORACLE_SID=<*next_Oracle_database_instance*>**
     export ORACLE_SID
     (to Reset to each Oracle database instance; then run the **svrmgrl** program with the above three commands to shut down all Oracle database instances.)
5. If you modified ORACLE_SID in step #4, reset it as follows:
   ORACLE_SID=REPORTER
   export ORACLE_SID
6. Log on as **root**
   Verify that the following Solaris environment variables are set:

   ORACLE_BASE – set to admin pathname default (/opt/oracle)
   ORACLE_SID – set to the database name you wish to create (REPORTER)
   ORACLE_HOME – set to full pathname of the Oracle system home directory
   ORACLE_TERM – set to the appropriate value (hpterm, etc…)
   PATH - needs to include $ORACLE_HOME/bin;/usr/xpg4/bin
   SHLIB_PATH – set to $ORACLE_HOME/lib
   ORACLE_OWNER – oracle

   Make sure the ORACLE_SID is set to **REPORTER**; otherwise the Reporter tables will be put in the wrong SID.
7. Run **$ORACLE_HOME/orainst/root.sh**
8. To access data from the Oracle database, you need to configure a listener by using the configuration templates included with VantagePoint Reporter. Follow instructions in either (A) if you have a listener already configured or (B) if you do not have a listener configured.

   A Solaris with existing Oracle listener configuration: From the NT system in the \rpmtools\newconfig\oracle\sun directory or from the Reporter installation CD in the `/cdrom/reporter/SUN` directory, copy the **listener.002** and the **tnsnames.002** files to the Solaris system **$ORACLE_BASE/network/admin** directory. Use the templates to copy and paste the Reporter portions of the new listener configuration syntax into your existing configuration files. For help in editing your existing files, view the examples linked here: listener.002 example; tnsnames.002 example

   B Solaris with no existing Oracle listener configuration: From the NT system in the \rpmtools\newconfig\oracle\sun directory or from the Reporter installation CD in the Solaris directory, copy the **listener.001** and the **tnsnames.001** files to the Solaris system **$ORACLE_BASE/network/admin** directory and rename them to **listener.ora** and **tnsnames.ora** respectively. For help in editing these files, view the examples linked here: listener.001 example; tnsnames.001 example.

9. Log on as **oracle**.
   Verify that the following Solaris environment variables are set:

   ORACLE_BASE – set to admin pathname default (/opt/oracle)
   ORACLE_SID – set to the database name you wish to create (REPORTER)
   ORACLE_HOME – set to full pathname of the Oracle system home directory
   ORACLE_TERM – set to the appropriate value (hpterm, etc…)
   PATH - needs to include $ORACLE_HOME/bin;/usr/xpg4/bin

SHLIB_PATH – set to $ORACLE_HOME/lib
ORACLE_OWNER – oracle

⚠ Make sure the ORACLE_SID is set to **REPORTER**; otherwise the Reporter tables will be put in the wrong SID.

10. Edit the file **$ORACLE_BASE/admin/REPORTER/pfile/initREPORTER.ora** by adding the following line to the end of the file:

    compatible = 8.0.5

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Task 4 Create Reporter tablespace, user, and privileges*

If you are migrating Reporter data from the default database to Oracle, complete **steps #5, and #10 only; omit steps #1-4 and #6-9.*

1. Log on as root or su
2. From the NT Reporter system `\rpmtools\newconfig\oracle` directory or from the Reporter installation CD in directory `/<cdrom>/reporter/oracle`, copy the `repconfig.sql` file to your Solaris server directory `$ORACLE_BASE/admin/REPORTER/create/`
3. Enter: **chown oracle:dba repconfig.sql**
4. Edit the file as follows (edits are highlighted) for size and performance considerations:

   Note: In the example below *maxsize* is set to *900M* where *maxsize* equals the maximum size your file system can handle. You must replace **/database/oradata** with the path you have established for your database data files. The data file names are only recommendations and can be changed to conform to the standards at your site. Also the user and password are highlighted; change as necessary.

   Note: For performance considerations Oracle recommends to place data (tablespace REPORTER), index (tablespace RPT_INDEXES), and rollback segments (tablespace RBS) on different disks if available. See the Scalability section of Chapter 6: Advanced Topics for tablespace sizing.

   ```
   create tablespace REPORTER datafile
   '/database/oradata/REPORTER/rptdb01.dbf' SIZE 200M,
   '/database/oradata/REPORTER/rptdb02.dbf' SIZE 200M
   autoextend on next 20M maxsize 900M
   default storage (
   initial 8192k
   next 8192k
   pctincrease 0
   );
   create tablespace RPT_INDEXES datafile
   '/database/oradata/REPORTER/rptidx01.dbf' size 300M
   autoextend on next 20M maxsize 500M
   default storage (
   initial 8192k
   next 8192k
   pctincrease 0
   );
   alter tablespace SYSTEM add datafile
   '/database/oradata/REPORTER/sys02.dbf' size 20M;
   alter tablespace RBS add datafile
   '/database/oradata/REPORTER/rbs02.dbf' size 50M;
   alter tablespace TEMP add datafile
   ```

'**/database/oradata**/REPORTER/tmp02.dbf' SIZE 20M;
create user **clark** identified by **kent** default tablespace REPORTER;
grant create session, create table, create any index, create sequence, create trigger, unlimited tablespace to **clark** identified by **kent**;

5. Log on as the oracle software owner.
6. *(If migrating Reporter data from the default database to Oracle, skip forward to step #10.)*
   Set UNIX environment variables as follows:
   ORACLE_BASE – set to admin pathname default (/opt/oracle)
   ORACLE_SID – set to the database name you wish to create (REPORTER)
   ORACLE_HOME – set to full pathname of the Oracle system home directory
   ORACLE_TERM – set to the appropriate value (hpterm, etc…)
   PATH - needs to include $ORACLE_HOME/bin;/usr/xpg4/bin
   SHLIB_PATH – set to $ORACLE_HOME/lib
   ORACLE_OWNER – oracle

   ⚠ Make sure the ORACLE_SID is set to **REPORTER**; otherwise the Reporter tables will be put in the wrong SID.
7. Run the **ORACLE_HOME/bin/svrmgrl** program and enter the commands:
   connect internal
   startup
8. Enter the following SQL statement:

   @$ORACLE_BASE/admin/REPORTER/create/repconfig.sql
9. Enter the following command to exit: **Exit**
10. Enter the following command to start the SQL listener: **lsnrctl start**

Task 5 ➡ Configure Automatic Database Startup and Shutdown

The following procedure installs a script which invokes **dbstart** to start up all Oracle database instances, with entries in the oratab file which have a "Y" as the startup flag.

⚠ **Warning!** If your database administrator already has the startup procedure in place, you should skip this step.

⚠ **Warning!** If the If the VPO (OpenView) database is installed on same Oracle server, you must modify its oratab entry to change the startup flag from "Y" to "N" since it is restarted by a different facility. For example, change openview:$ORACLE_HOME:Y to openview:$ORACLE_HOME:**N**.

1. Log on as root.
2. Mount the Reporter Installation CD.
3. Change to the CDROM directory /cdrom/reporter/oracle/sun.
4. Enter **./postinstall** to execute the script

Note: If you do not have access to the Reporter installation CD, you may copy files **postinstall**, **reporacle**, and **repcnfg** from the Reporter NT system directory:\rpmtools\newconfig\oracle\sun to /tmp. Change permissions on the **/tmp/postinstall** file to 755, change to the /tmp directory, and enter **./postinstall** to execute the script.

Now you are ready to Configure Reporter to use the Oracle database.

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Configure Reporter on the NT System

This section covers the installation of the software that allows the Windows NT system, on which Reporter runs, to connect to the Solaris system, from which the Oracle database is accessed.

Task 1 Install Oracle Client software

To begin, you need the following Oracle product: Oracle® Client Software, version 8.0.5, for Windows NT and Windows 95/98. You also need administrator privileges on the NT client where Reporter is installed

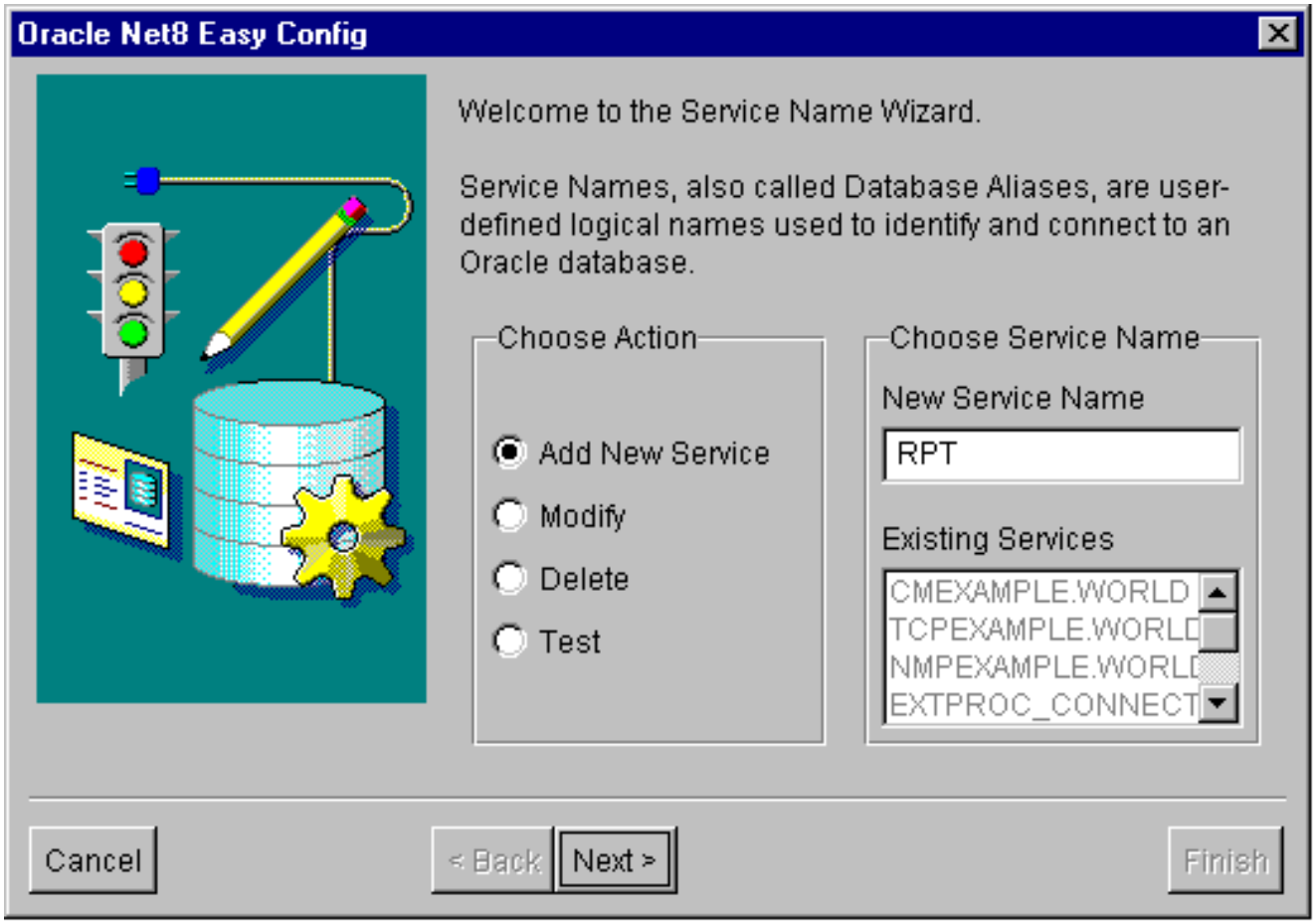
1. At your Windows NT system, insert the CD and select **Begin Installation** in the dialog box that appears.
2. In the introductory dialog boxes that appear, (a) select the appropriate language, (b) enter the installation settings for company name, and (c) accept or enter the directory to install software (c:\ORANT is the default).
3. Accept **Oracle8 Client** as the type of installation to perform.
4. Accept **Database Administrator** as the primary function you will be performing.
5. Select whether to access the documentation on the CD (recommended) or to store on your hard drive.
6. Click **OK** upon completion of the installation.
   The system displays the Windows directory (for example, \WINNT35\) and path to the current list of programs available from the Start menu, among them Oracle for Windows NT.

   Steps 7-10 install an Oracle ODBC driver patch. These steps may not be necessary if you already have a patch equivalent to or later than 8.0.5.6. In this case, the procedure below will warn you that you already have a more current version installed.
7. To install the Oracle ODBC patch:
   Run Oracle installer (default location: `c:\orant\bin\orainst.exe`).
8. Choose the **From** button.
9. Insert the Reporter CD and select **\Support\oracle\win32\install\Nt.prd,** then choose **OK**.
10. Select **Oracle8 ODBC driver** and click install button.
11. Exit the installer.
12. **Important:** You must **reboot your system** now.

Task 2 Configure the Net8 connection to the reporter database

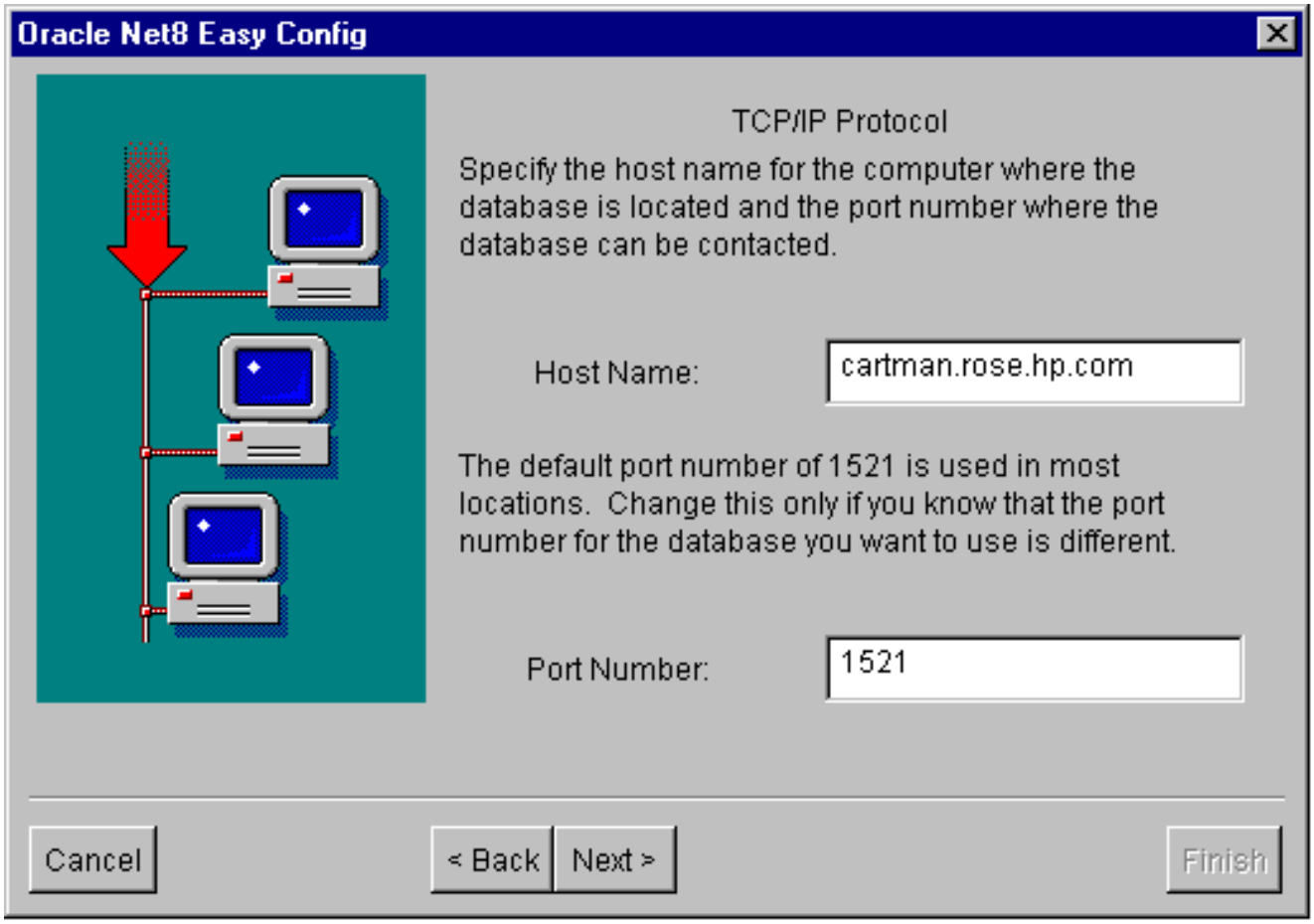
After you complete the installation of the Oracle client software on the Windows NT system running VantagePoint Reporter, on that same system complete the following steps:

1. From the Start/Programs menu, select **Oracle for Windows NT** and **Oracle Net8 Easy Config**.
2. Click **Yes** to Warning dialog that appears to continue. Select the check box to prevent this warning from appearing again.
3. Accept **Add New Service**, enter **RPT** in the New Service Name text box, and click **Next**.



4. Accept **TCP/IP** as the protocol to be used and click **Next**.
5. In the TCP/IP Host Name text box enter the **fully qualified** host name for ***<Solaris_database_server_name>***

   The information appears as follows with your specific Host Name substituted:



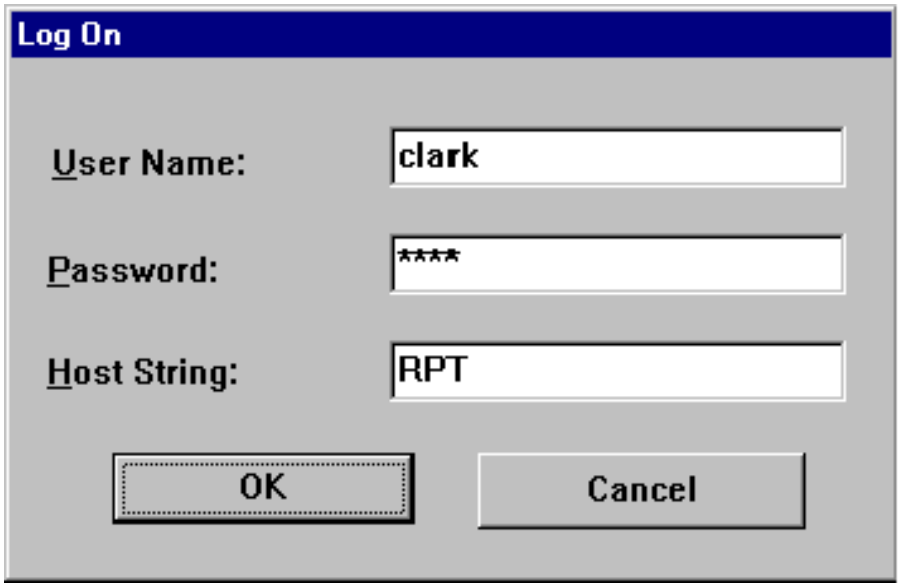
5. Enter **REPORTER** as the database SID and select **Next**

   ⚠**Important**: the database SID "REPORTER" must be all uppercase to match the Oracle SID name entered in the host configuration.
6. Click the **Test Service** button
7. In the Test Connection dialog enter the database Username ***clark*** (or the user name that you previously chose), the Password that you plan to use in the VantagePoint Reporter, select the **Test** button. Verify the test connection is successful and select the **Done** button.
8. In the Oracle Net8 Easy Config dialog box, click **Next**, then **Finish**.

Task 3 Verify the Net8 connection to the REPORTER database

After you complete the Net8 configuration, perform the following steps to verify that you can contact the Reporter database from your NT system:

1. From the Start/Programs menu, select **Oracle for Windows NT** and **SQL Plus 8.0.**
2. In the Log On dialog box, enter the database User Name and Password that you used for the UNIX system configuration in Task 5, step 4 (**clark** identified by **kent**, but if you are migrating from the default database to Oracle, User Name is **system** and Password is **manager**).



3. Select the **OK** button. A good response would be similar to:

   Connected to:
   Oracle8 Enterprise Edition Release 8.0.5.0.0 - Production
   With the Partitioning and Objects options
   PL/SQL Release 8.0.5.0.0 - Production

   SQL>
4. If you get error messages, you have an error in the connection from the NT system to the Oracle Reporter database.
5. At the SQL> prompt, enter the command:
   select TABLESPACE_NAME, STATUS from user_tablespaces;

   You should see all the tablespace names displayed below.

```
TABLESPACE_NAME STATUS
------------------------------ ---------
SYSTEM ONLINE
RBS ONLINE
TEMP ONLINE
TOOLS ONLINE
USERS ONLINE
REPORTER ONLINE
RPT_INDEXES

7 rows selected.
```

   Note: If you are migrating from the default database to Oracle, you will not see REPORTER ONLINE or RPT_INDEXES.

   If you successfully connected but do not see these tables, check with the database administrator for Oracle on the host system.
6. From the **File** menu select **Exit**.

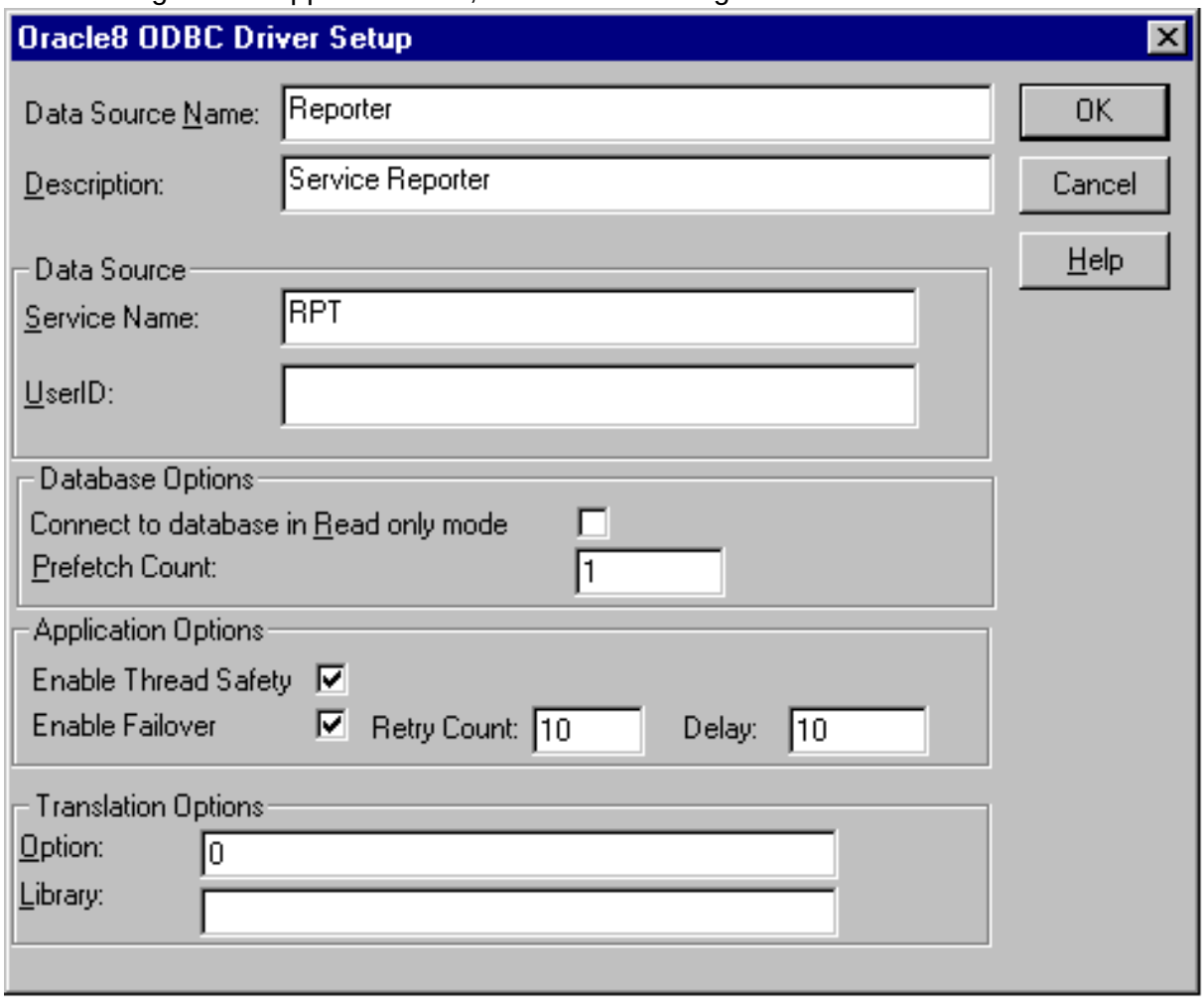
Task 4 Configure the ODBC data source in the NT Control Panel

After you have configured SQL*Net on the Windows NT system running VantagePoint Reporter, you must configure

the ODBC data source.

On the Windows NT system where Reporter is (or will be) installed, complete the following steps:

1. Select **Control Panel** from the Windows NT Start/Settings menu.
2. Double-click **ODBC** in the Control Panel window .
3. Select the **System DSN** tabbed page.
4. *(If migrating data from the default database to Oracle, omit this step.)*
   Choose Reporter with the default database driver and remove it.
5. Choose the **Add…** button and highlight **Oracle ODBC** driver and select **Finish**.
6. In the dialog box as appears below, enter the following:



Data Source Name: **Reporter**
Description: *<your_description>*
Service Name: **RPT**
User ID: (no entry necessary)

⚠**Important**: You must enter **Reporter** as the Data Source Name in mixed case (uppercase "R") to match references to it in Reporter executables.

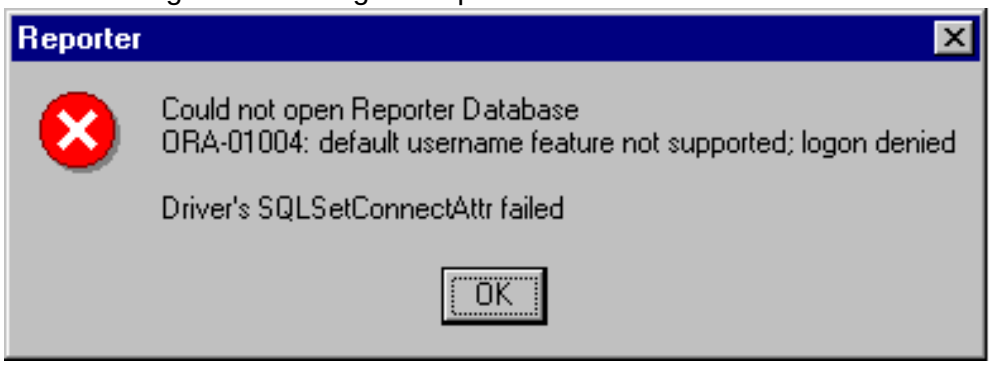
7. Click **OK**.
8. Close the **ODBC Data Source Administrator** window.
9. Close the **Control Panel** window.

Task 5 Configure the Database in VantagePoint Reporter*

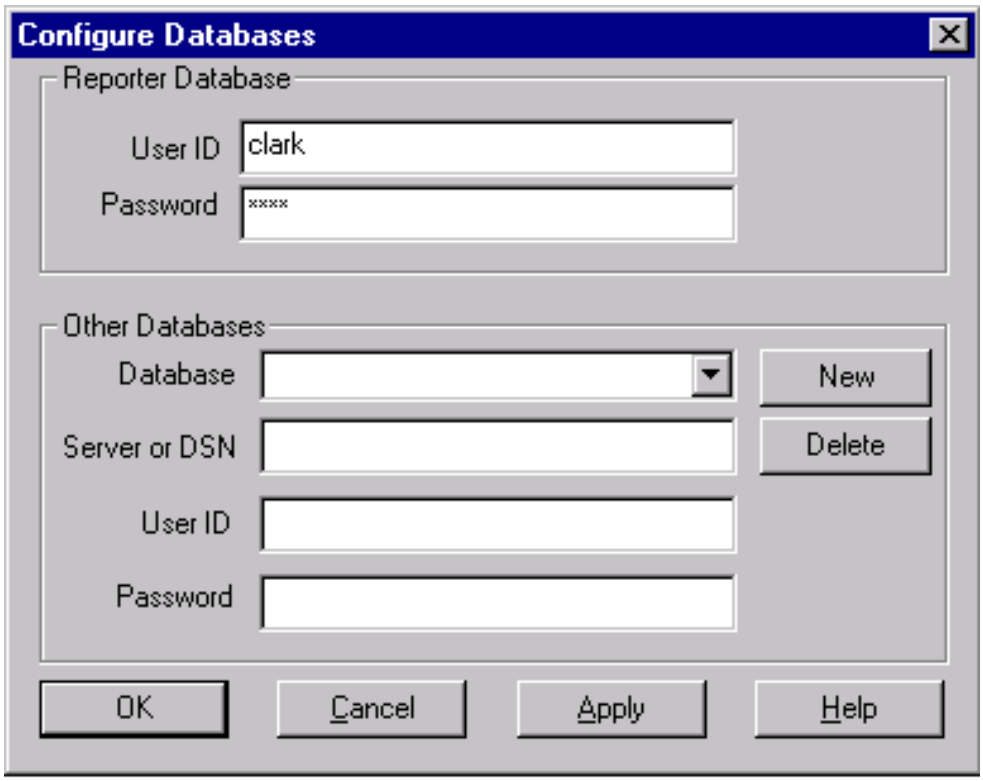
*(*If migrating Reporter data from the default database to Oracle, complete all steps except step #6.)*

1. Start **Reporter** from the Start/Programs/RPM Tools menu.

2. The following error message is expected.



3. In the Reporter main window, from the **File** menu select **Configure,** then **Databases** from the submenu. (The same error message appears as in the previous step; ignore and click OK to proceed.)
4. In the Configure Databases dialog box under the Reporter Database section, enter the database User Name and Password that you used for the UNIX system configuration in Task 5, step 4 (**clark** identified by **kent**). *But if you are migrating from the default database to Oracle, User Name is* **system** *and Password is* **manager**.



5. Click **OK**
6. (*If you are migrating Reporter data from the default database to Oracle, skip this step*)
   Run **rpmtools/bin/Newdb.exe**
7. Close Reporter main window.
8. Open Reporter main window.

Appendix G: Transferring Data from the Default Database to Oracle

If you have data stored in the Reporter's default database and want to transfer that data to Oracle, you can use an Oracle utility for the transfer. Even though the Oracle utility should maintain the data in its original form, you should still back up your Reporter database before you get started.

> **Prerequisite:** To migrate data within the Reporter database, you must have installed the A.02.00 Reporter upgrade.
>
> **Note:** At the end of Task #2 below, you open another *Concepts Guide* appendix for configuring the Reporter connection to Oracle. Choose the appendix (C, D, E, or F) according Oracle version. After you have completed the tasks, you return to Task 3 in this appendix to continue with the migration process.

Task 1 Download the Oracle Migration Workbench

Note: The Migration Workbench does not support the migration of MS Access 2000 databases. However, MS Access 2000 offers a capability to save your .mdb file as an MS Access 97 .mdb file (Tools->Database Utilities->Convert Database->To prior Access Database Version…). The Reporter database does not contain any MS Access-2000 specific features, so you could save it as an MS Access 97 file and then use the Migration Workbench to migrate it to Oracle.

1. Become a member of the Oracle Technology Network (FREE) http://technet.oracle.com.
2. Download the Oracle Migration Workbench (current version 1.2.5.0.0):

Additional Documentation is available at http://technet.oracle.com/docs/tech/migration/workbench/doc_index.htm

Task 2 Stop Reporter services and configure the ODBC connection

p Rep428d (6eTt.36s 1 .9 j / 357.26 od (81 cm /lm3ilsoter services an.94Td (http 10.p(p Re10.4914 40 1er)T Td (\

Next.

7. Select the Oracle database version that you are using and click **Next**.
8. Type in the Database SID: REPORTER; then click **Next**.
9. Select the **TCP** protocol and click **Next**.
10. Type in the Host Name where the Oracle database will reside and click the Next button.
11. Select **Yes** to perform a connection test (the test connection should be successful). Then click the **Next** button.
12. Enter the Net Service Name: **RPT**, then click the **Next**.
13. When prompted to configure another service, select **No** and click **Next**.
14. Click **Next** to the completion message that appears and exit.

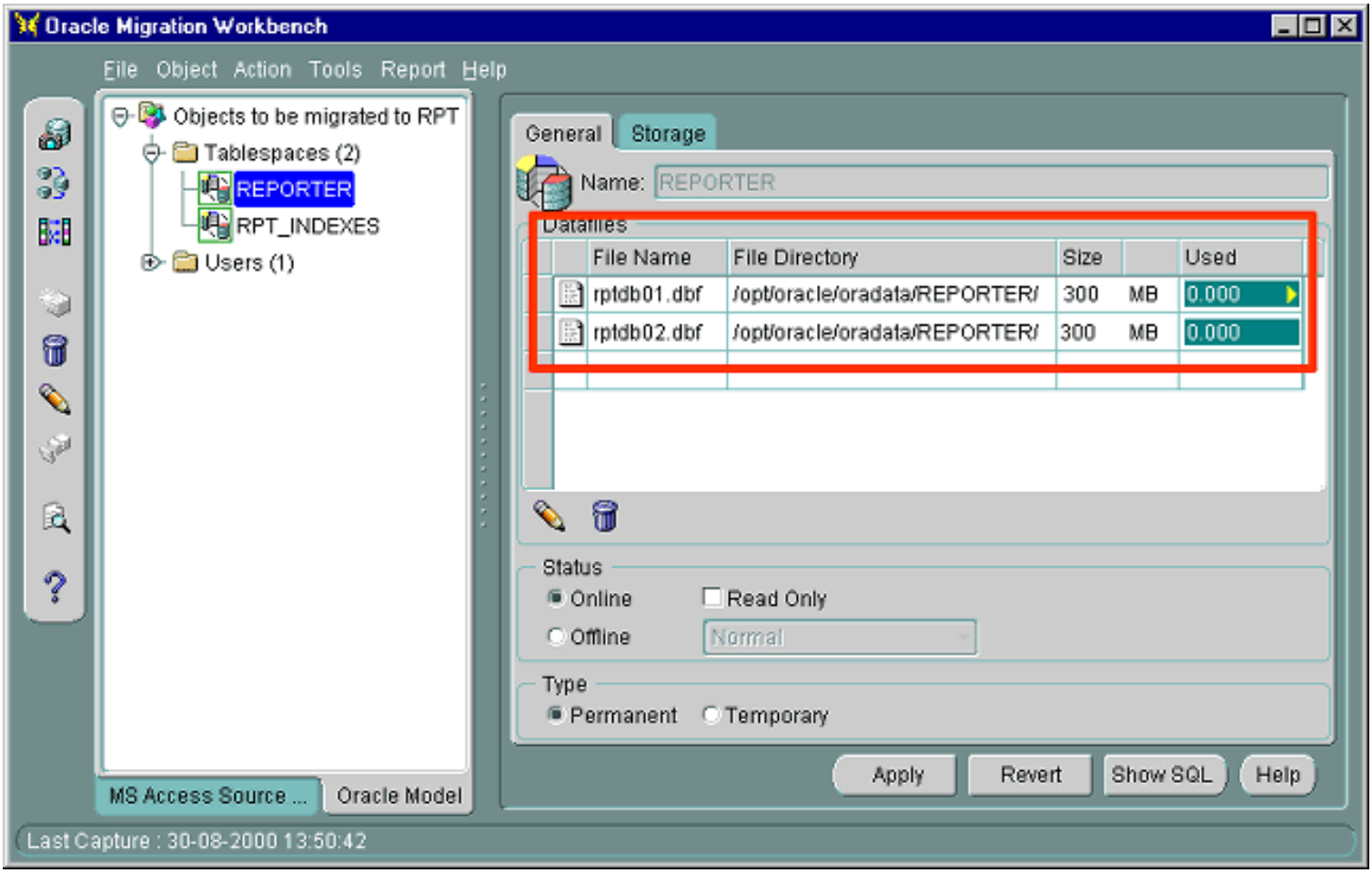
Task 4 Start the Migration Workbench and create the data repository

1. To start the Migration Workbench, select Start->Programs->Oracle – omw_home->Migration Utilities->Migration Workbench
2. In the Login window enter:
   Login name: **system**
   Password: **manager**
   Service: **RPT**

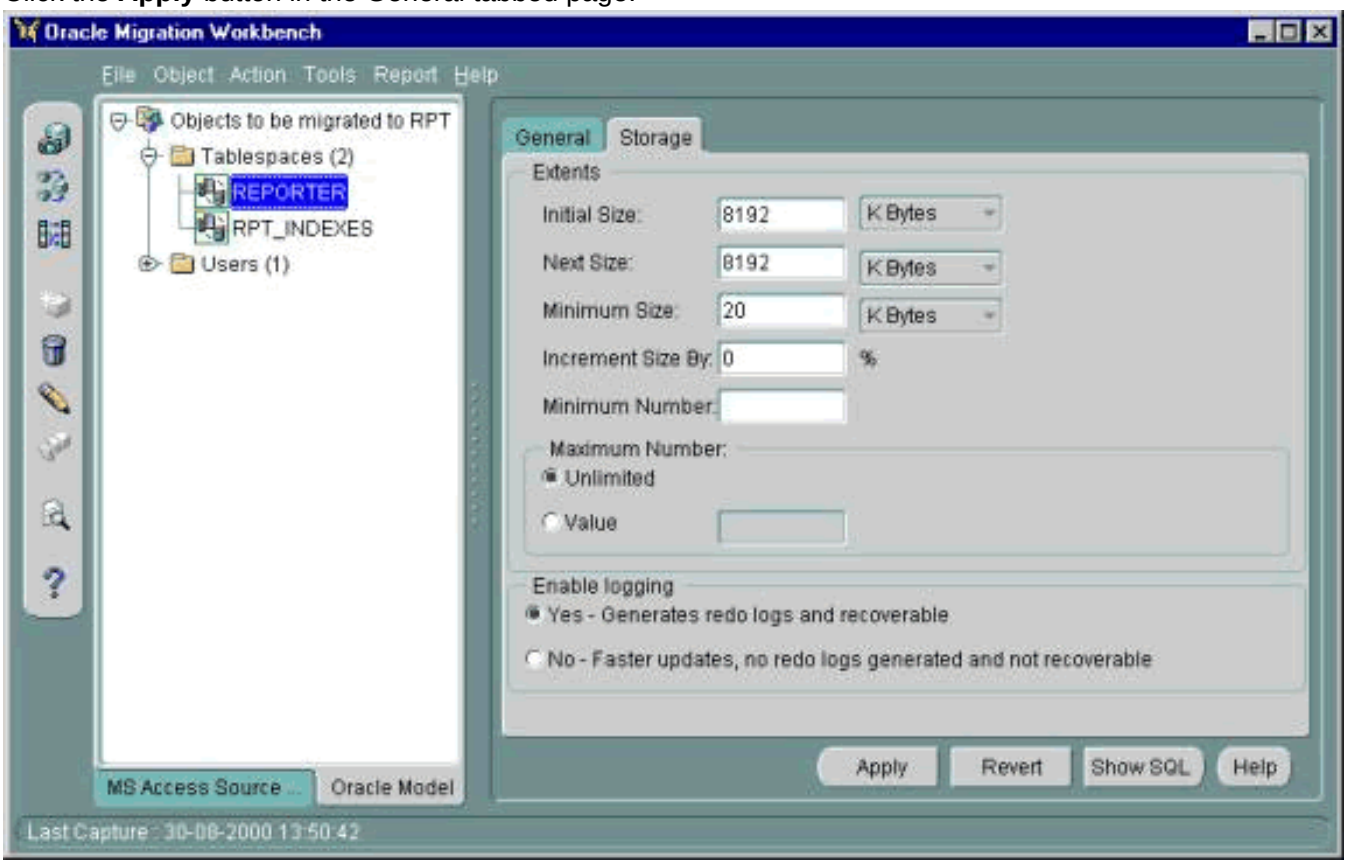
   Note: The "system" Login Name must have all default permissions associated with it; if you have changed any of these permissions, you will need to create a Login Name that includes those permissions.
3. To create the Migration Workbench Repository, select **Yes**.
4. Select **MS Access** as the Migration Source and click **OK**.
5. In the Capture Wizard dialog that appears click **Next**.
6. Enter **OldReporter** as the MS Access OBDC Data Source and click **Next**.
7. Click the **Add Database** button and select the MS Access 97 (i.e., the Reporter database) as the database from which you are migrating data; click **Next**.
8. Accept defaults in the Data Type Mapping dialog and click **Next**.
9. When prompted to create the Oracle Model, select **Yes**, then **Next**.
10. After the Summary window appears, click **Finish**.
    (The Loading Source Model window should appear along with the status where a message should indicate that the Oracle Model is complete with no errors or warnings.)
11. In the Loading Source Model window click **OK** and when prompted to run the Migration Wizard, click **No**.
12. Click the Oracle Model tab and expand the Tablespaces folder.
13. Right-click T_<*Microsoft_Access_ database_name*> Tablespace and in the tree view select Rename and type: REPORTER.
14. Click REPORTER in the tree view and within the General Tab replace T_<*Microsoft_Access_database_name*> with rptdb01.dbf and add a datafile titled "rptdb02.dbf."

    Note: In the example below maxsize is set to 900M where maxsize equals the maximum size your file system can handle. The data file names are only recommendations and can be changed to conform to the standards at your site.

    Note: For performance considerations Oracle recommends placing data (tablespace REPORTER) and index (tablespace RPT_INDEXES) on different disks if available. See the Scalability section of Chapter 6: Advanced Topics for tablespace sizing.
15. In the General tab enter the following for the REPORTER tablespace (file directory location must match the location of your Oracle database):



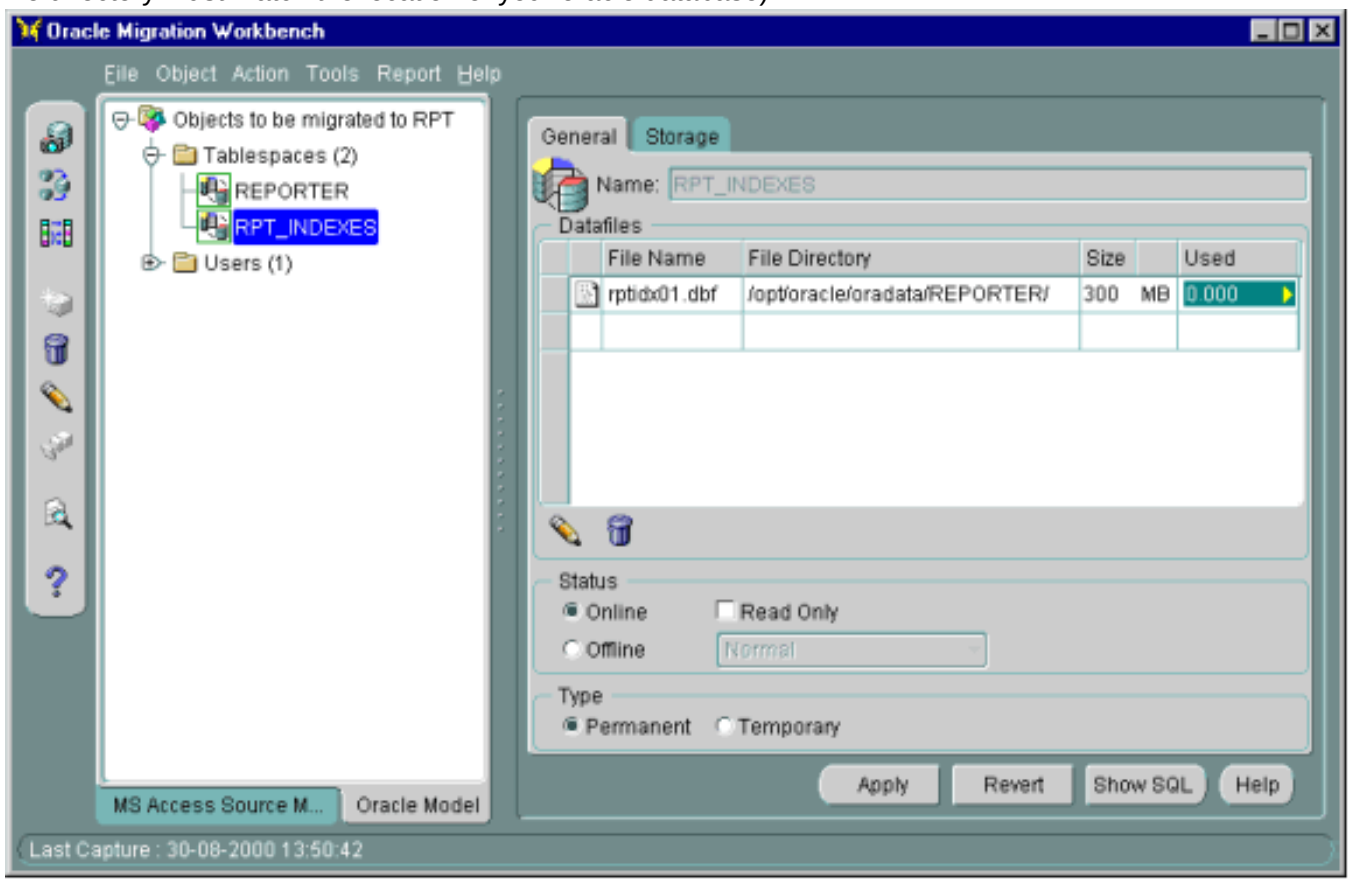
16. Click the **Apply** button in the General tabbed page.



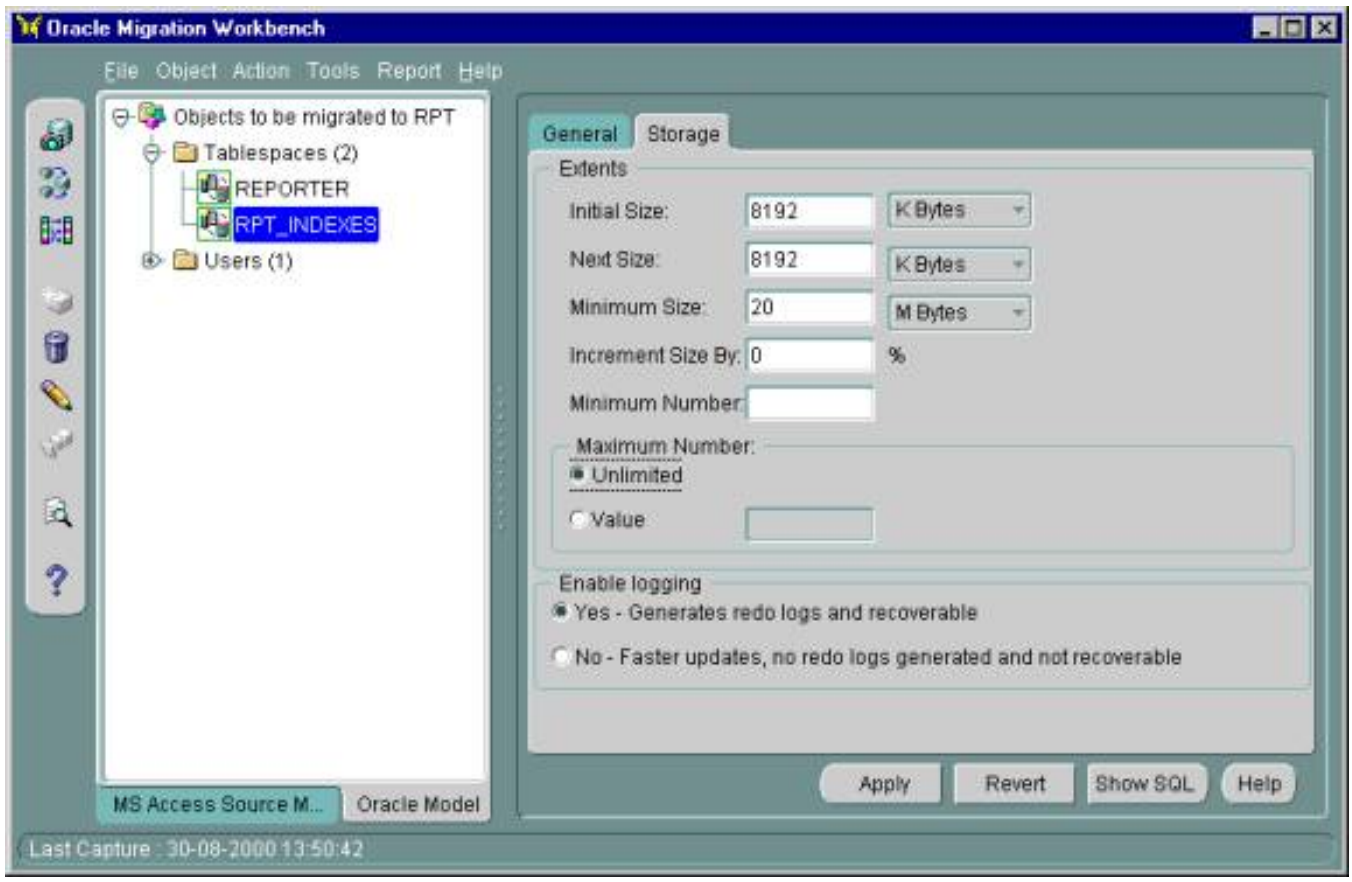
17. Click the **Apply** button in the Storage tabbed page.
18. Right-click I_<*Microsoft_Access_database_name*> Tablespace in the left pane and select **Rename**; type: `RPT_INDEXES`.

Select the renamed `RPT_INDEXES` and in the General tabbed page select and replace the `I_<Microsoft_Access_database_name>` with `rptidx01.dbf`.

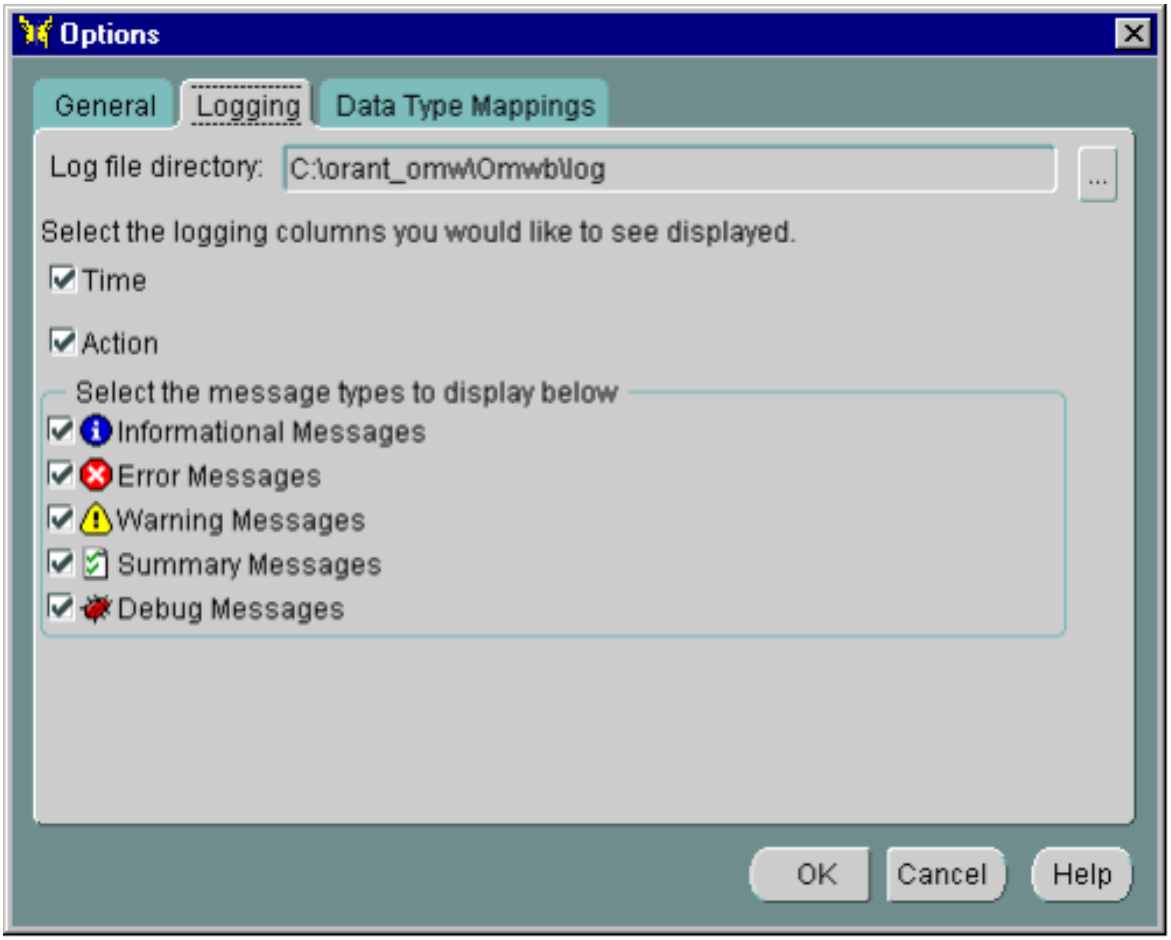
19. On both the General and Storage tabbed pages enter the following information for the RPT_INDEXES tablespace (the file directory must match the location of your oracle database):



20. Click the **Apply** button.



21. Click the **Apply** button in the Storage tabbed page.
22. Expand the **Users** folder in the left pane.
23. Right-click <*Microsoft_Access_database*> user and rename user to **clark**.
24. From the Tools menu select **Options** and the **Logging** tab.
    Click the elipsis button to browse to the `C:\orant_omw\Omwb\log directory` (location of your Oracle log directory) and click **OK**.



25. From the Action menu select **Migrate to Oracle…**
26. In the Migration Wizard window click **Next**.
27. In the Destination Database details window enter the Destination Password for the:
    User: **system**
    Password: **manager**
    Service: **RPT**

    Click **Next**.
28. In the next three dialogs accept the default selections by clicking Next:
    Migrate User and Tables: (Yes)
    Migrate Table Data dialog: (Yes)
    Select Schema Object to Migrate: Primary and Foreign Keys, and Indexes
29. Review the Summary page and click **Finish**.

    (The Migrating Oracle Model screen appears with the status of the migration.)

    Note: The following warnings can be ignored: clark.[Table_name] contains date column: Milliseconds not migrated.
30. When complete, the Modify MS Access Database dialog appears where you can click **Cancel**. Finally, a message should appear indicating zero errors with a number of warnings (the above warnings only; if any other errors or warnings appear, you must address those). You can click **OK** and then again click OK again to close the Migration Workbench.

Task 5 Oracle Database configuration

1. Log on as **root** or **su**.
2. From the NT Reporter system directory **\rpmtools\newconfig\oracle**
   or
   from the Reporter installation CD in directory /<*cdrom*>/**oracle**

   copy the **repmigrate.sql** file to your HP-UX server directory $ORACLE_BASE/admin/REPORTER/create/
3. Enter: **chown oracle:dba repmigrate.sql**
4. Enter: **chmod 744 repmigrate.sql**
5. Edit the file as follows (edits are highlighted) for size and performance considerations:

   Note: For performance considerations Oracle recommends placing data rollback segments (tablespace RBS) on different disks if available. See the Scalability section of Chapter 6: Advanced Topics for tablespace sizing.

```
connect system/manager;
alter tablespace SYSTEM add datafile
'/opt/oracle/oradata/REPORTER/sys02.dbf' size 20M;
alter tablespace RBS add datafile
'/opt/oracle/oradata/REPORTER/rbs02.dbf' size 50M;
alter tablespace TEMP add datafile
'/opt/oracle/oradata/REPORTER/tmp02.dbf' SIZE 20M;
alter user clark default tablespace REPORTER;
grant create any index to clark;

##########################################################
# The following will change the default oracle
# password to kent. The Oracle password is required
# by the migration tool.
##########################################################

alter user clark identified by kent;
```

6. Log on as the oracle software owner.
7. Set UNIX environment variables as follows:
   ORACLE_BASE - set to admin pathname default (/opt/oracle)
   ORACLE_SID - set to the database name you wish to create (REPORTER)
   ORACLE_HOME - set to full pathname of the Oracle system home directory
   ORACLE_TERM - set to the appropriate value (hpterm, etc…)
   PATH - needs to include $ORACLE_HOME/bin
   SHLIB_PATH - set to $ORACLE_HOME/lib

   Make sure the ORACLE_SID is set to REPORTER; otherwise the Reporter tables will be put in the wrong SID.
8. Run the ORACLE_HOME/bin/svrmgrl program and enter the commands:

```
connect internal
startup
```

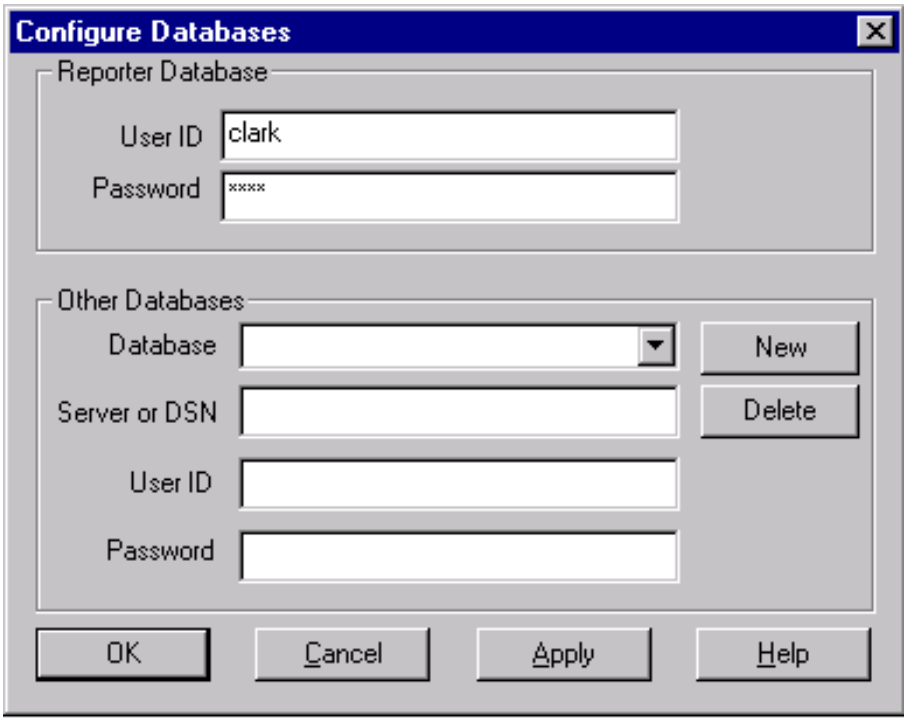
9. Enter the following SQL statement:

```
@$ORACLE_HOME/admin/REPORTER/create/repmigrate.sql
```

10. To exit, at the command line enter: `Exit`

Task 6 Configure the Database in Reporter

1. Open the Reporter main window and select **File**>**Configure**>**Databases**.
2. In the dialog box that appears under the Reporter Database section, enter the database User Name and Password that you used Task 5, step #5 (**clark** identified by **kent**).


Configure Databases
Reporter Database
User ID
clark
Password
****
Other Databases
Database
New
Server or DSN
Delete
User ID
Password
OK
Cancel
Apply
Help

3. Click **OK**

Appendix H: Using Microsoft SQL Server (7.0) as the Reporter Database

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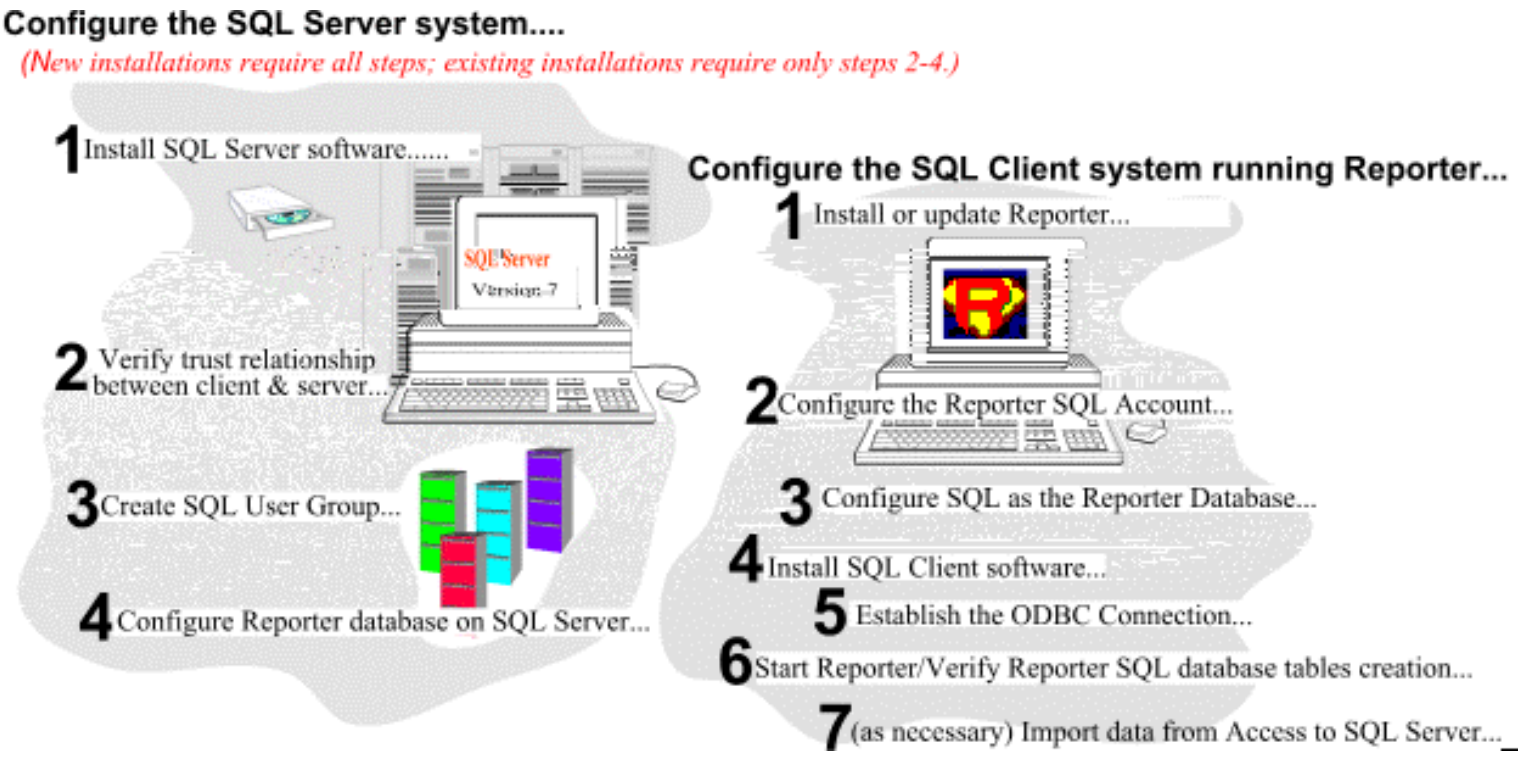
Set Up SQL Server 7 as the Reporter Database

To use Microsoft SQL Server as the Reporter database requires that you install and configure both server and client software. The first section of this procedure covers server installation and configuration. The second section covers both SQL client software installation and Reporter configuration as an SQL Server account.

Note: For those of you migrating data from the default database to SQL Server, skip Task 6 toward the end of the procedure and go directly to Task 7. Task 6 instructs you on how to migrate your current data to the SQL Server database (you should allow approximately 1.5 times the space you used in the default database for the new SQL Server database configuration)..



Install & Configure SQL Server Software

If you have already installed SQL Server, you can skip Task #1. If your Reporter and the SQL Server system are in the same domain, you can skip task Task #2 and go directly to Task #3.

Prerequisites include: (1) Windows NT 4.0, Service Pack 4 (or higher) or Windows 2000 and (2) Internet Explorer 4.01, Service Pack 1 or higher

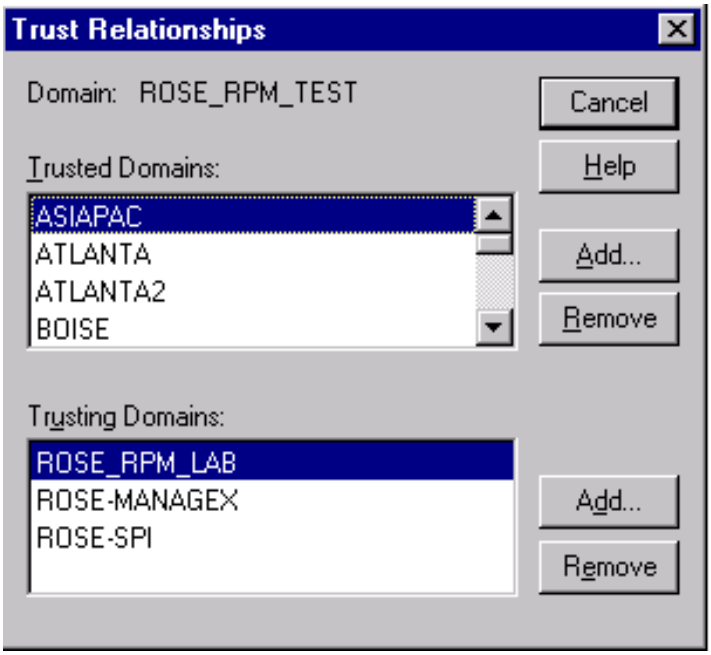
Task 1 Install SQL 7 Server Software

1. Insert the SQL Server 7.0 CD into the CD-ROM drive.
2. Select **Install SQL Server 7.0 Components**.
3. Select **Database Server – Standard Edition**.
4. Select **Local Install** and respond to prompts as they appear.
5. Restart the system.

Task 2 Verify Trust Relationship Between Client and Server

Note: A trust relationship should be set up if the Reporter client and SQL Server are in separate domains in NT4 or if the client and server run on mixed systems (Windows NT4 or Windows NT4 and Windows 2000). If the Reporter client and SQL Server are running on Windows 2000, skip this task.

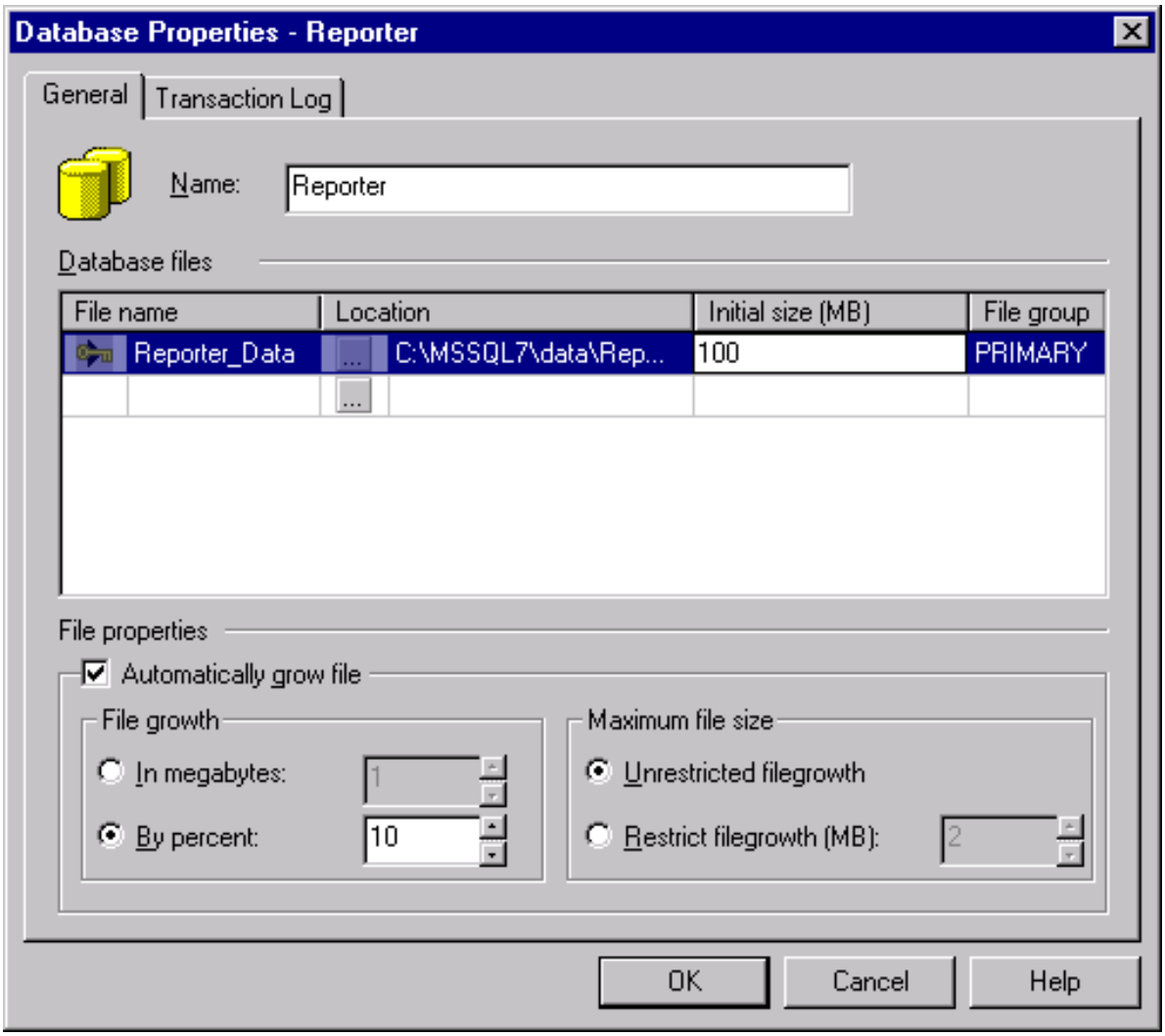
1. Log on to the SQL Server-installed system with Administrator privileges.
2. From the Start menu select Programs>Administrative Tools>**User Manager for Domains**.
3. From the Policies menu select **Trust Relationships**.



4. In the Trusting Domains dialog box, look for the Domain where Reporter is located. If the appropriate domain is displayed, continue to the next task.
   If not, add the trusting domains as needed. If you have questions about trusting domains, click the **Help** button (if Reporter and SQL Server systems are in separate domains, you must configure a trust relationship between the systems).

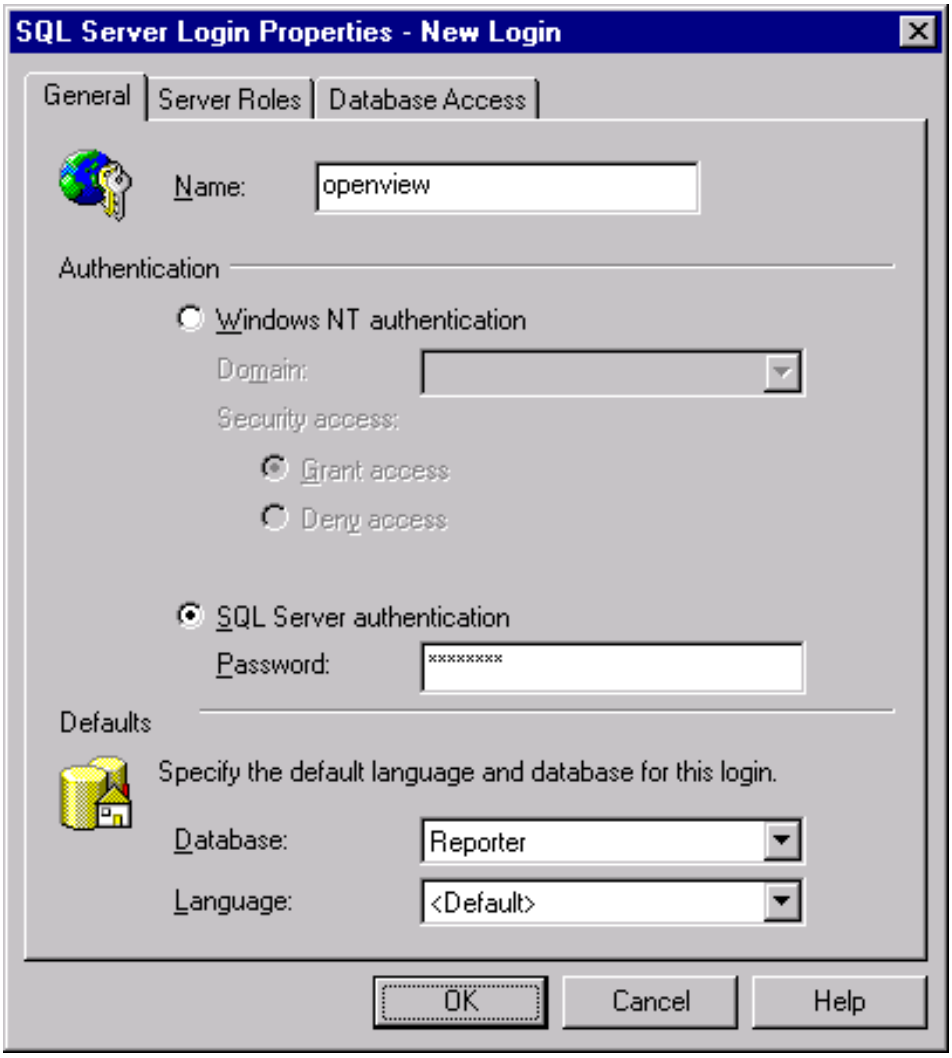
Task 3 Configure the Reporter Database on SQL Server 7

1. From the Start menu select Programs>**Microsoft SQL Server 7.0 >Enterprise Manager.**
2. In the Microsoft Console Root window, select your SQL Server Group.
3. If your SQL Server system is not listed under the SQL Server Group, right-click SQL Server Group, select **New SQL Server Registration** from the drop-down menu and follow the wizard online steps to register.
4. Right-click **Databases – New Database**

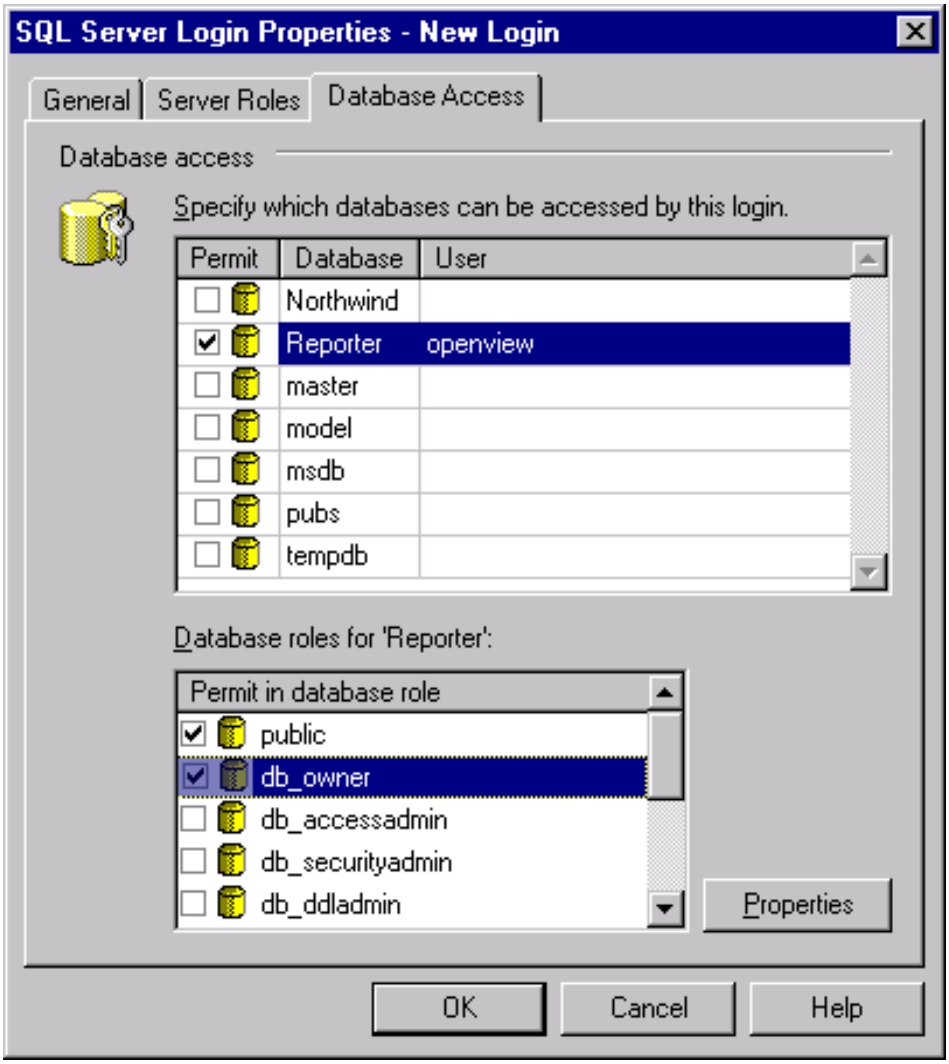


5. In General tab for the Name box, enter **Reporter**.

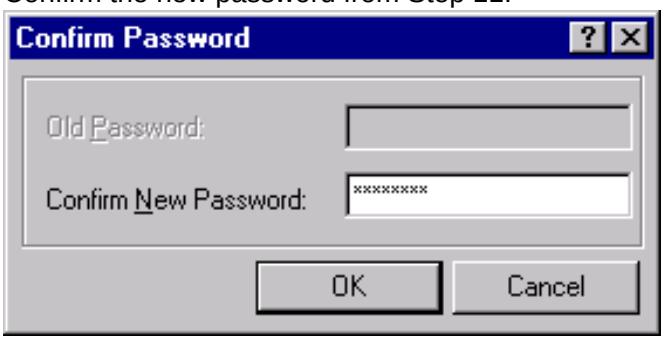
   Note: The SQL Server database must be named Reporter so the Reporter program NewDB (and other routines) can successfully send an SQL 'Use Reporter' command. This is only on SQL Server Databases.
6. In the Database files, Initial size (MB) column, enter **100**.
7. Select the Transaction Log tab and set the maximum transaction log file size; select **Restrict file growth [MB]** and set to **100**.
8. Click **OK** to close the window.
9. After the database is created, expand Security.



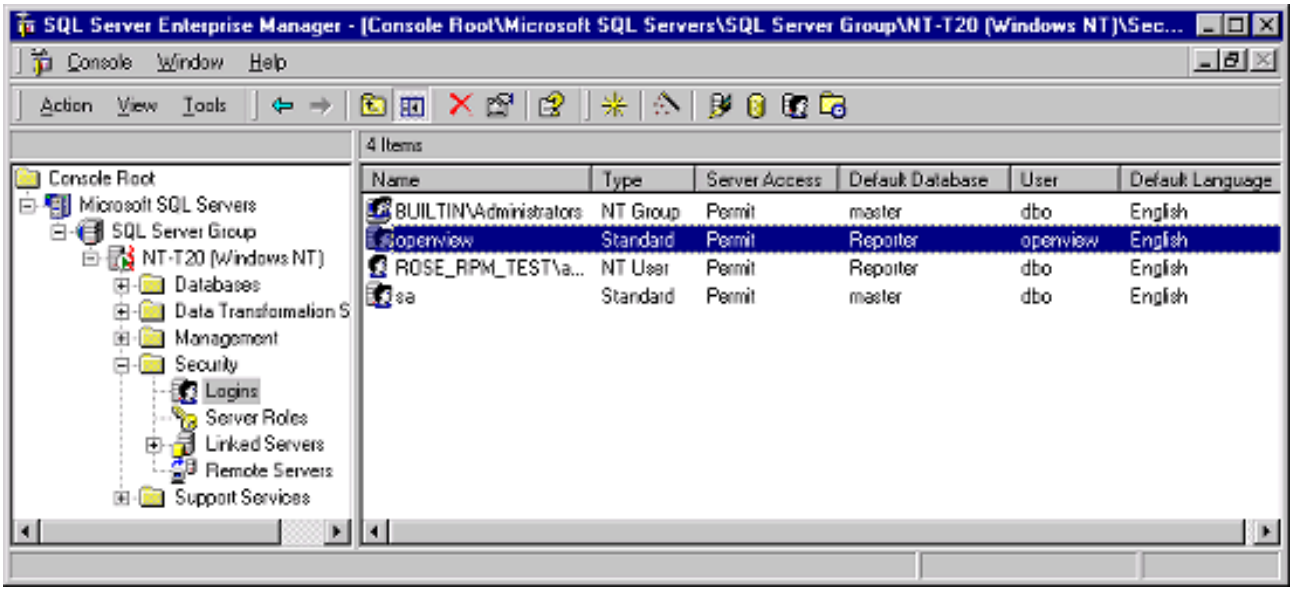
10. Right-click **Logins – new login**.
11. Select General Tab and in the Name box enter the user name **openview** or your specified user.
12. Under Authentication select the **SQL Server authentication** radio button and enter your password.
13. Under the Defaults, select **Reporter** from the Database list box.
14. Select the Database Access tab and under Database access check the Permit box that corresponds to Reporter.
15. Under Database roles for Reporter, check **public** and **db_owner** and select OK to exit.



16. Confirm the new password from Step 11.



16. To verify User has Database Access, in the left pane expand the security folder, or click the plus sign next to each item: **Security>Logins** and you should see **openview** in the right pane.



17. Exit Enterprise Manager and go to the client system (where Reporter is installed).

Top

Install & Configure SQL Client Software

Installing SQL 7.0 Client includes three general areas:

- Upgrade newer versions of Reporter or the SQL database, or install Reporter
- Configure Reporter ODBC connection
- Install SQL 7.0 software

SQL 7.0 Client Installation Prerequisites

- Internet Explorer 4.0 SP 1
- 500 MB Free Disk Space
- SQL Server 7 CD
- Product License – 10 digit code

Task 1 Upgrade or Install Reporter

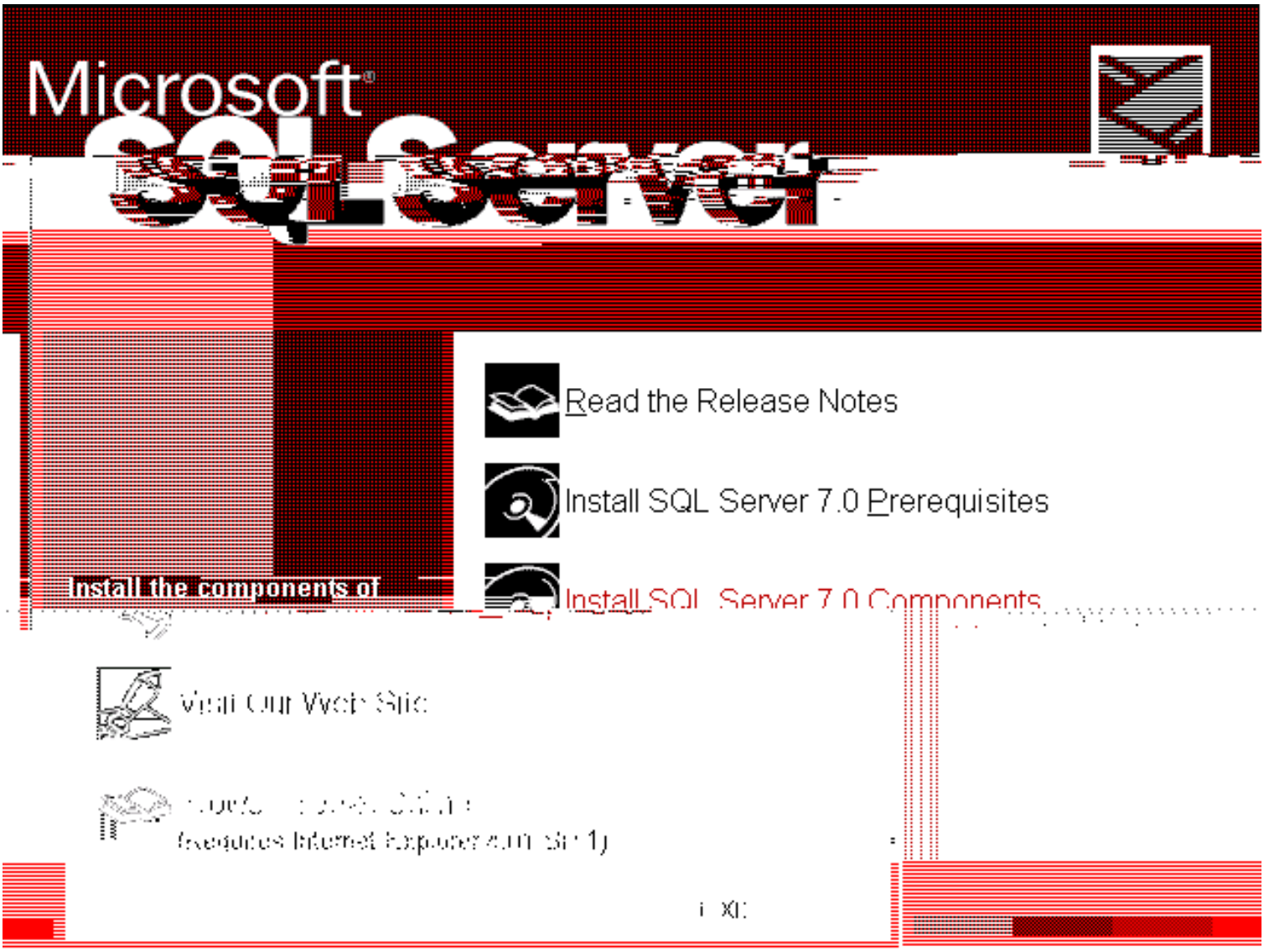
(If migrating current data from the default database to SQL Server, skip this task.)

1. Install Reporter.
2. At the completion of the installation, select **No** in response to choosing Automatic Service startup.

Task 2 Install SQL Client Software

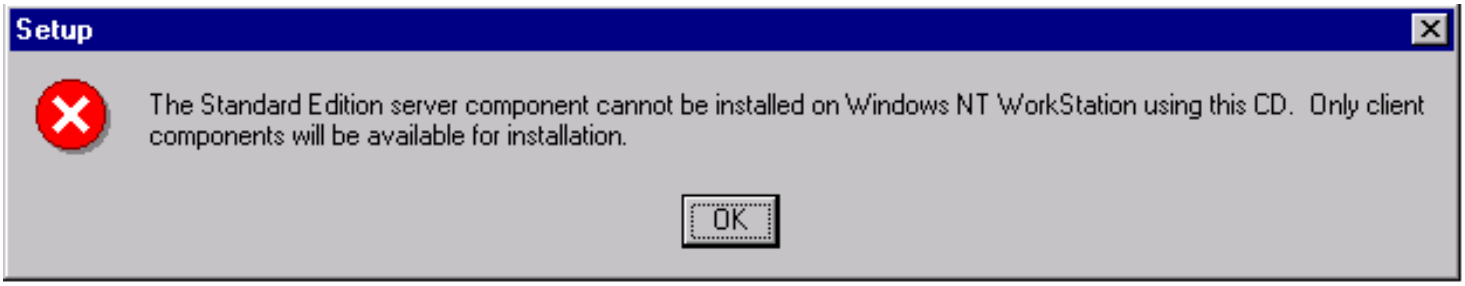
Important: This task is unnecessary if Reporter and SQL Server are installed on the same system.

1. Insert the SQL Server 7 CD to install the SQL Client 7 software.
2. Click **autorun.exe**.
3. Click **Install SQL Server 7.0 Components**.

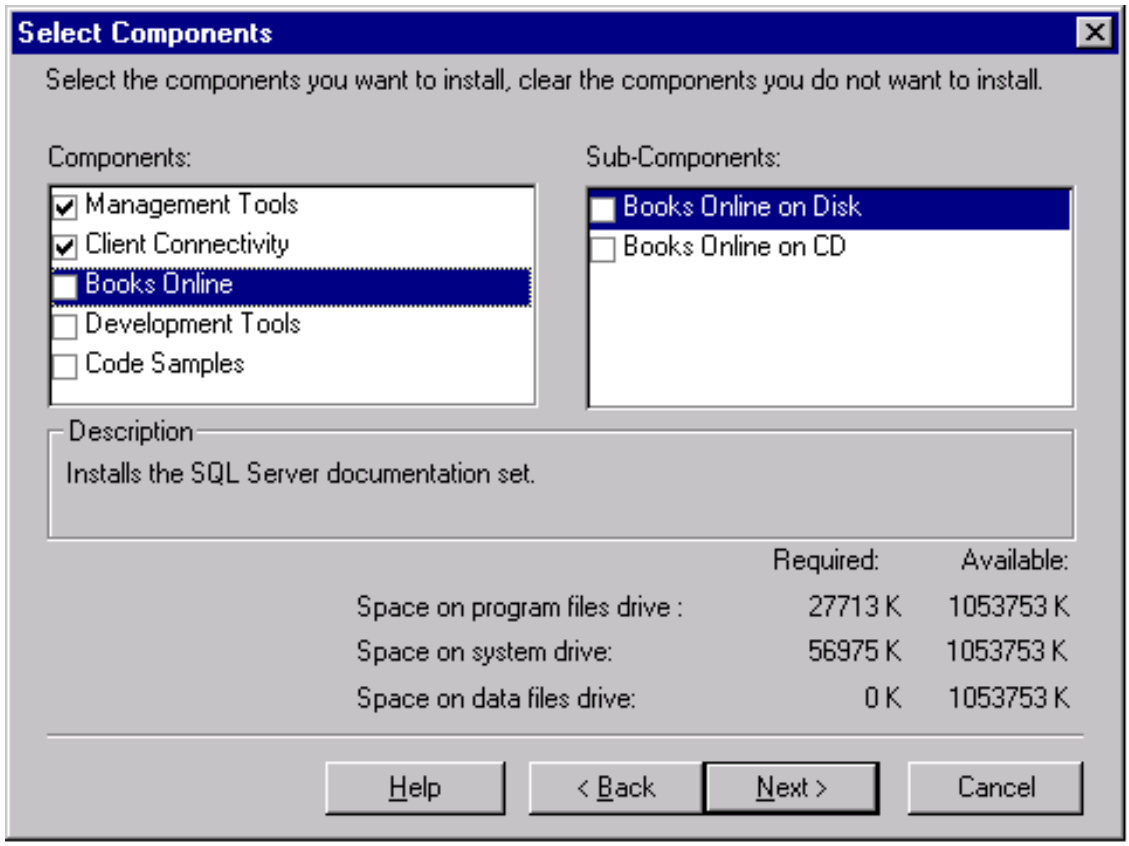


4. Select Database Server – Standard Edition

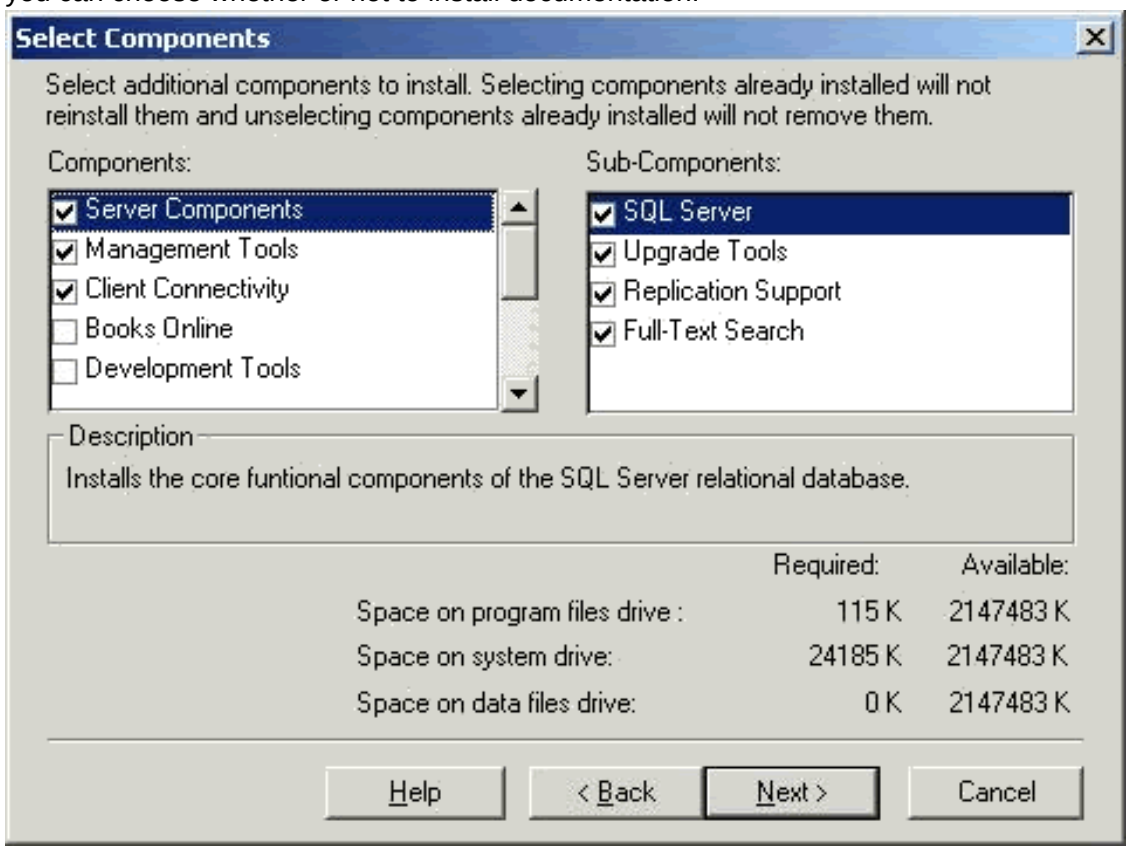
5. Choose **Next** for Select Install Method screen and click **OK** in response to the following message.



6. Follow the instructions as they appear.
7. (**NT4**) Select Management Tools and Client Connectivity as the components to install; you can choose whether or not to install documentation.



(**Windows 2000**) Select Server Components, Management Tools, and Client Connectivity as the components to install; you can choose whether or not to install documentation.



8. Reboot the system after installation is complete

Task 3➡ Establish the ODBC Connection

If you are migrating data from the default database to SQL Server, stop the Reporter Service before continuing. Use the Reporter toolbar button.

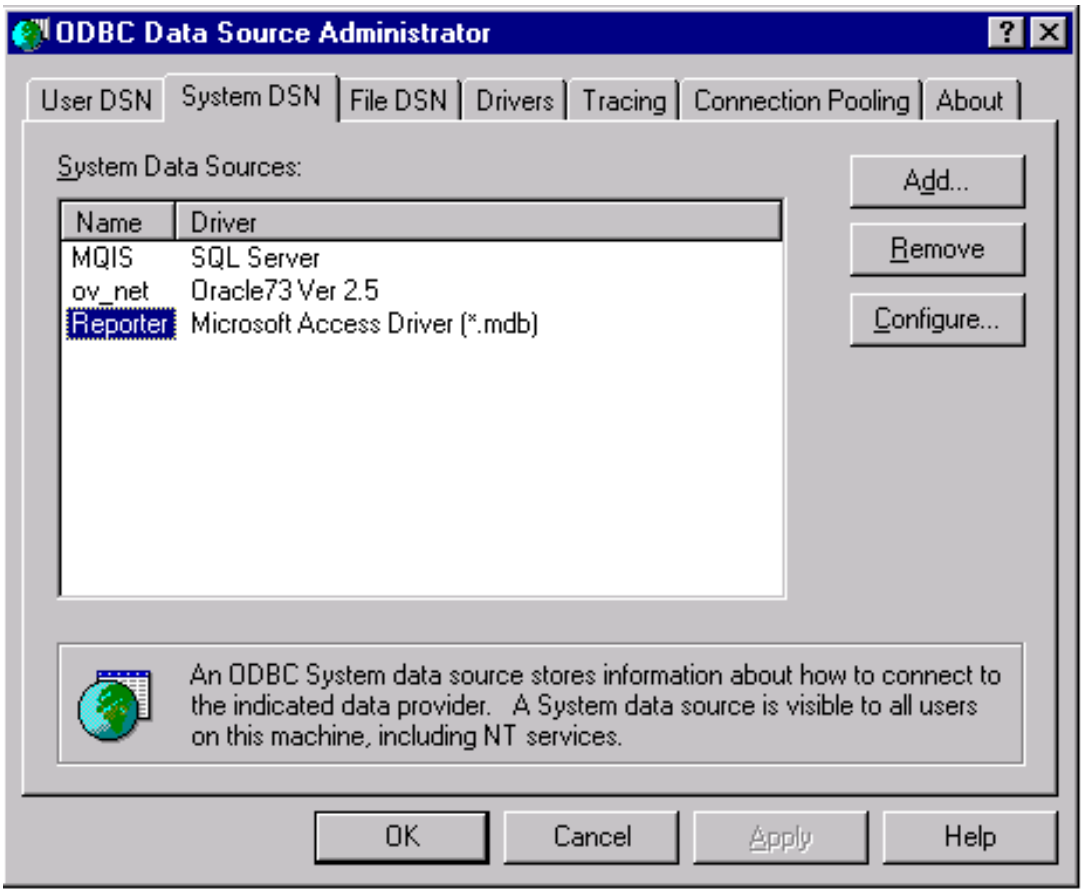
Windows 2000

1. From the Start menu, select Settings>**Control Panel**.
2. Double-click **Administrative Tools**.
3. Double-click **Data Sources (ODBC)**.

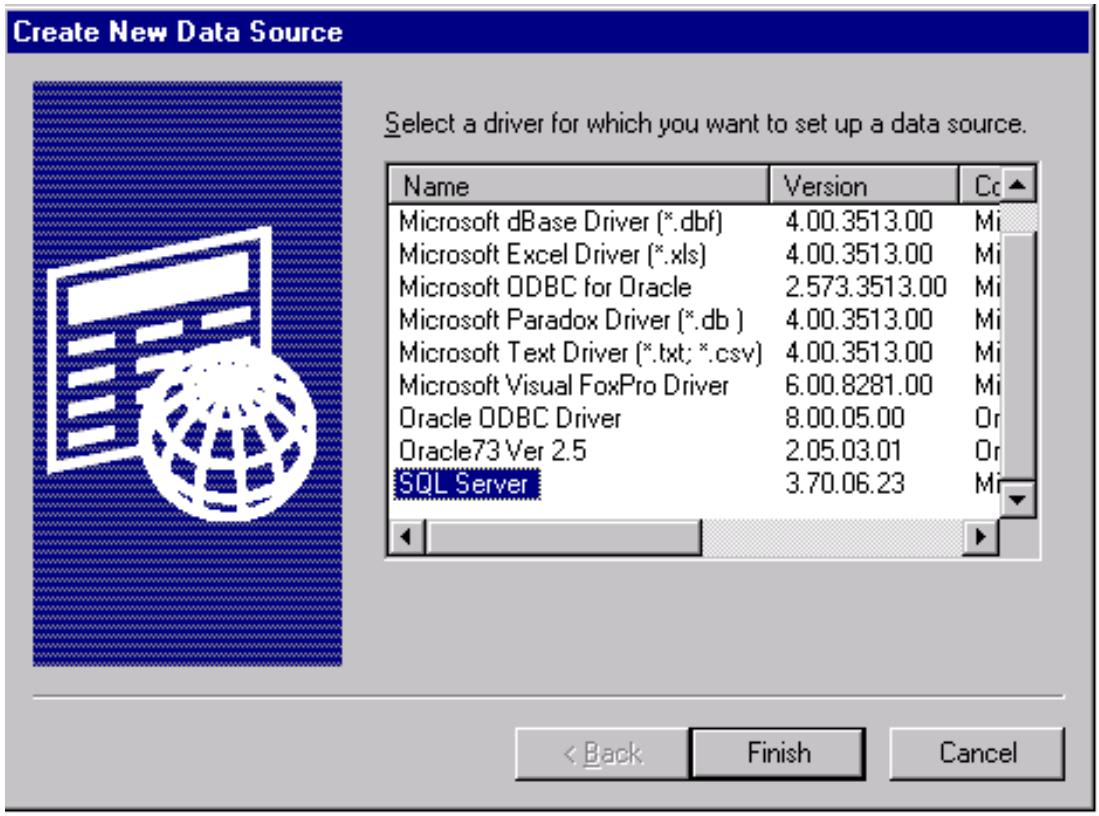
The Windows 2000 ODBC connection steps hereafter are the same as the process described for Windows NT4. Refer below to step 2 and continue to establish the ODBC Connection.

Windows NT4

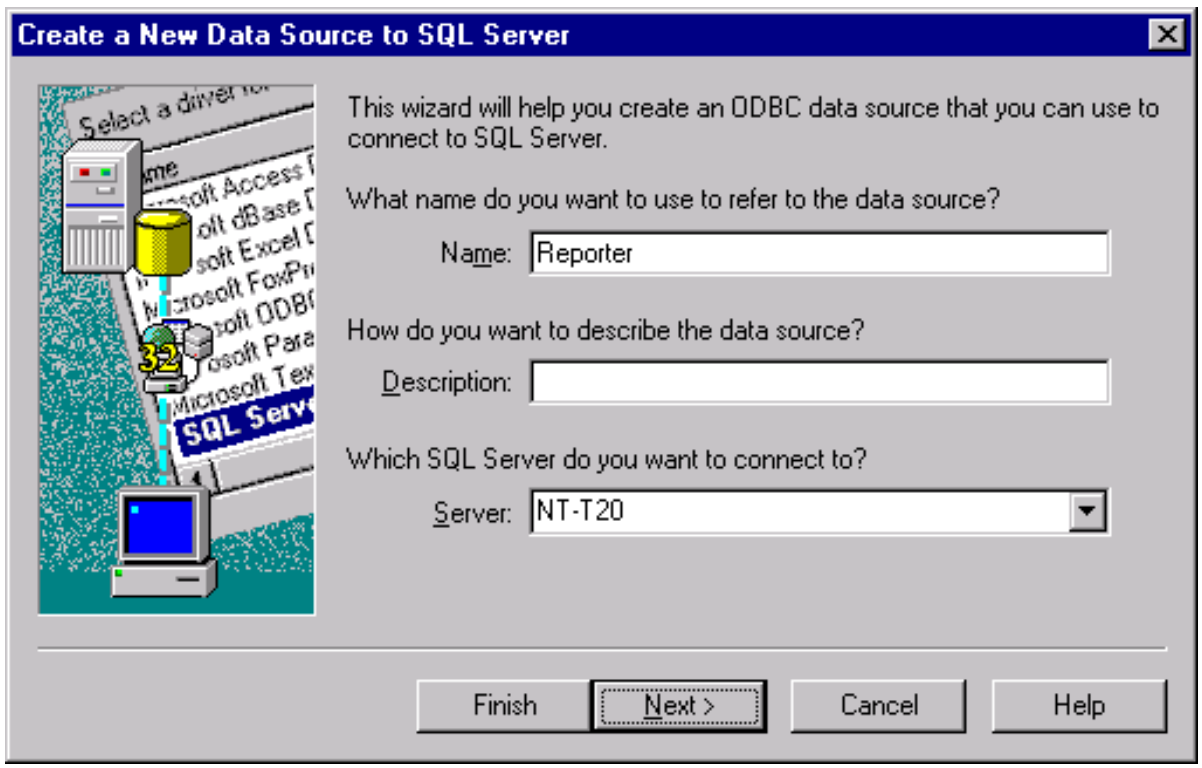
1. From the Start menu select Settings>Control Panel and double-click **ODBC**.
2. In the ODBC Data Source Administrator window select the **System DSN tab**.
3. Highlight Reporter and select the **Remove** button.



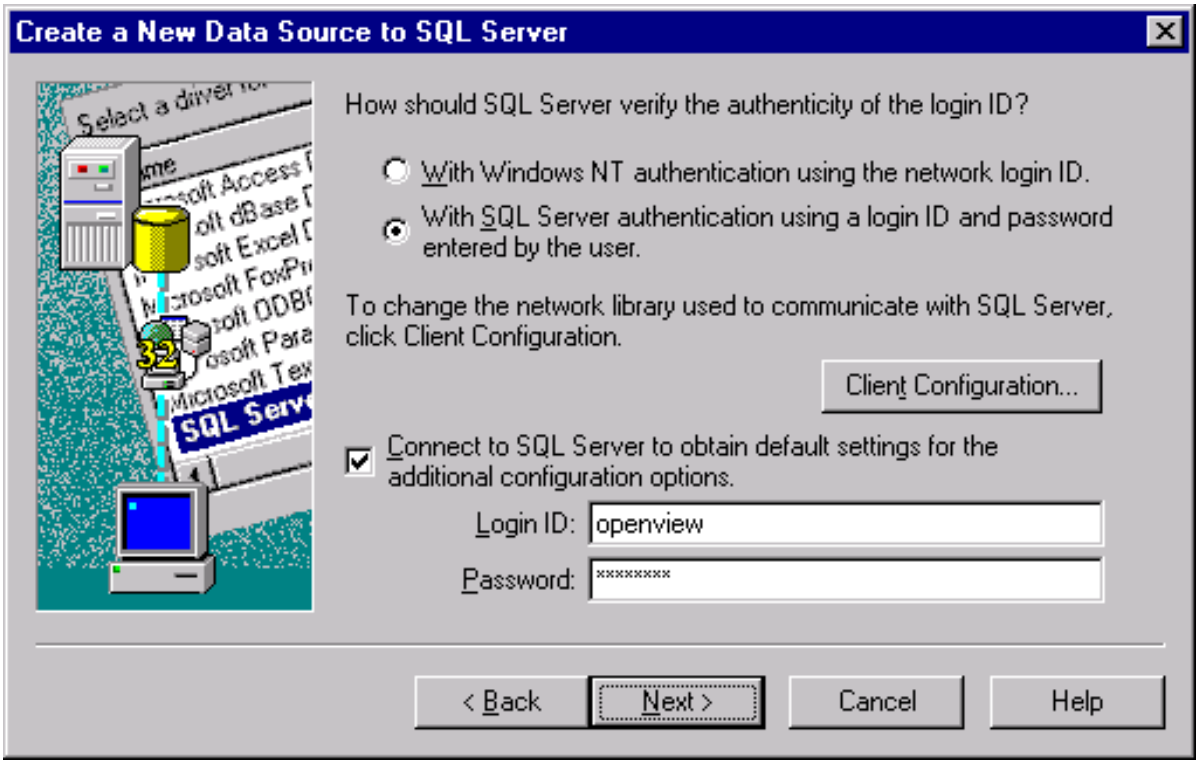
4. Select the **Add...** button to create a new Reporter data source.
5. In the Create New Data Source dialog box select the **SQL Server** driver and the **Finish** button.



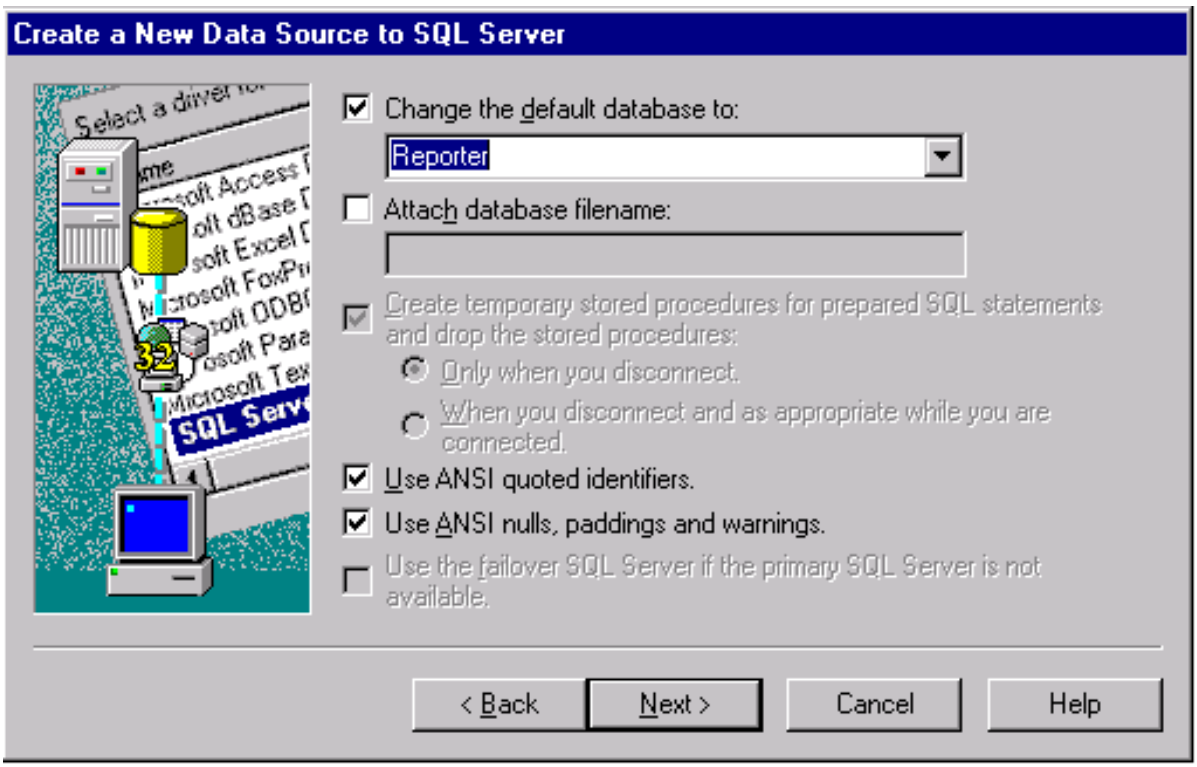
6. In the Create a New Data Source to SQL Server dialog, make sure that the server name appears in the Server: text box. Then select **Next**.



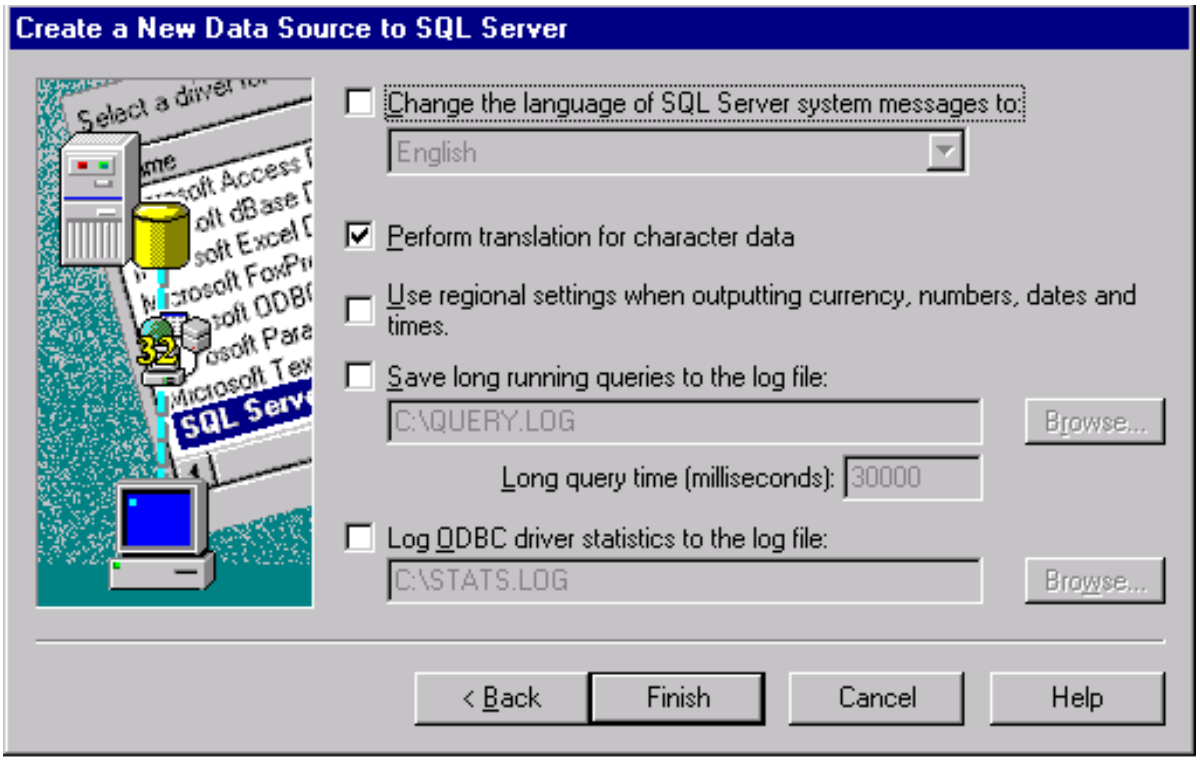
7. Select - **With SQL Server authentication using a login ID and password entered by user**.
   Also check the box for **Connect to SQL Server to obtain default settings**.
   Enter the login ID and password that you used in the first section Install & Configure SQL Server 7: Task 3 - Configure the Database on SQL Server 7. Then select **Next**.



8. Check **Change the default database to,** select **Reporter**, and click **Next**.



9. Check **Perform translation for character data** and select **Finish**.



10. In the ODBC Microsoft SQL Server Setup dialog select the **Test Data Source...** button.
11. Exit the SQL Server ODBC Data Source Test by clicking **OK**.

Task 4 Configure SQL as the Reporter Database

1. From the Start menu select Programs>HP VantagePoint Reporter**>Reporter**.
2. An error message is expected; click **Yes** to proceed.

3. In the Reporter main window select File>Configure>**Databases**.
   (Another error message is expected; click **Yes** to proceed.)
4. In the Configure Databases in the uppermost section (Reporter Database), enter the login ID and password that you used in the first section Install & Configure SQL Server 7: Task 3 - Configure the Database on SQL Server 7, and click **OK**.
   (No entries required for remaining text boxes.)
5. Verify that Reporter Service and Reporter UI are stopped

Task 5 Install or Upgrade Reporter Database to the SQL Database

To migrate data from the default database to SQL Server, skip this section and see Task 6.

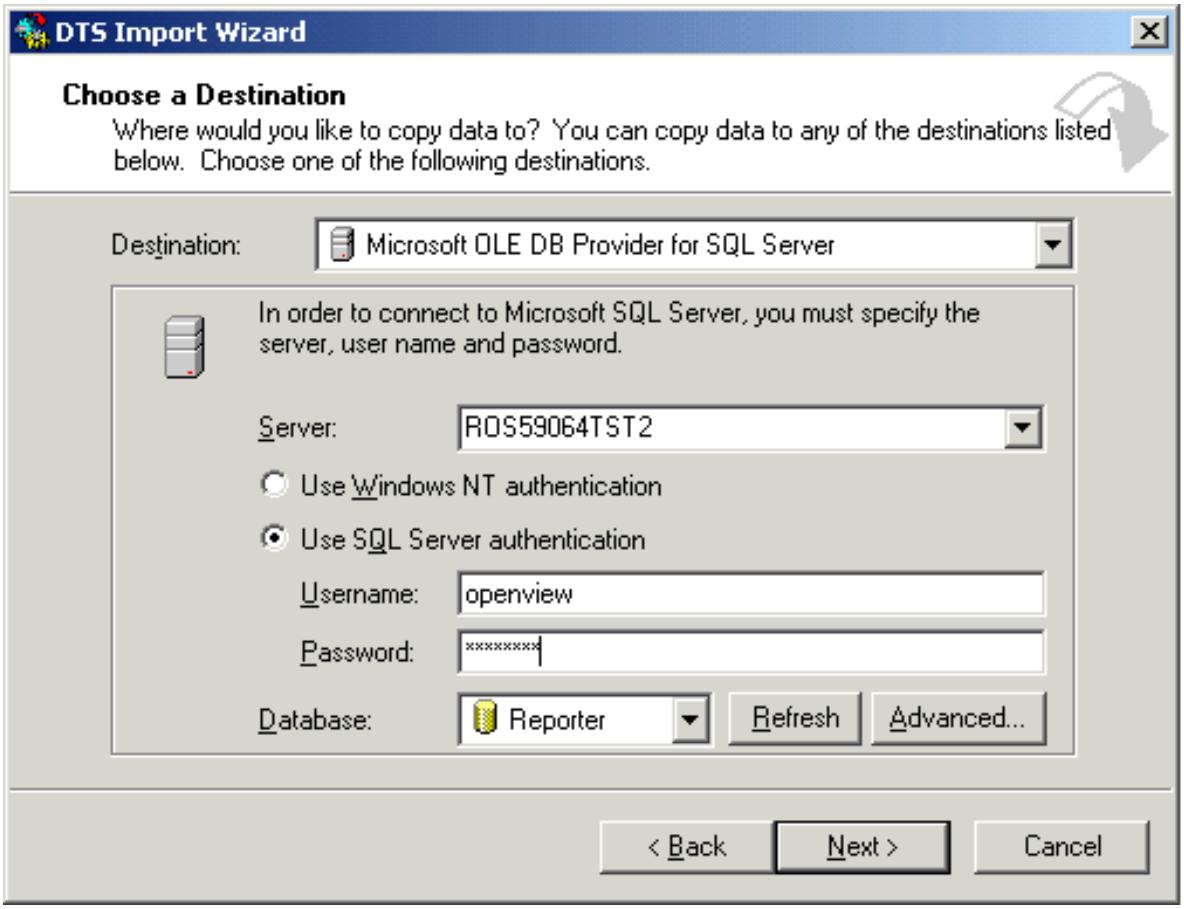
1. Run \rpmtools\bin**NewDB.exe**
2. Start Reporter by double-clicking \rpmtools\bin**Reporter.exe**, and in the Status Pane, look for the message: Completed creation/modification of required Reporter database tables.

Task 6 Migrate Data from the default database to SQL Server

(optional—use if migrating data from the default database to SQL Server)

1. Run \rpmtools\bin**NewDB.exe -empty**
2. Open the Reporter main window and stop all services (accessing the source database) by clicking the **Stop/Start Reporter Service** toolbar button (or by selection Action>Stop Reporter Service).

3. In the SQL Server Enterprise Manager console start the DTS Import Wizard by right-clicking the newly created Reporter database.
4. Select All Task -> Import Data…, and click Next.
5. From the Source drop down list choose **Microsoft Access**.
6. Enter the location to the Reporter.mdb file in the Filename text box, click Next (A login and password is not required)
7. In the Server: box click the down-arrow and select the SQL Server system that has the newly created Reporter database.
8. Select the Use SQL Server authentication radio button.
9. Enter the login ID and password that you used in the first section Install & Configure SQL Server 7: Task 3 - Configure the Database on SQL Server 7.



10. Select **Reporter** from the Database Name drop-down list and click **Next**.
11. Select the radio button next to **Copy table(s) from the source database** and click **Next**.
12. Press the **Select All** button under the source tables and click **Next**.
13. Select the **Run immediately** check box and click **Next**.
14. View the Summary information box to ensure the source and destination information is correct, and select **Finish**. (The status pane should appear with the progress of the import, finally a message should appear with the number of successful tables imported from the default database to Microsoft SQL Server. All tables should have transferred without errors.)
15. Open the Reporter main window and select the Start/Stop Reporter Service toolbar button to restart the Reporter service.

Task 7 Confirm that the Database is Set Up

1. From the Start menu, select **Programs>Microsoft SQL Server 7.0>Query Analyzer**.
2. Connect to your SQL Server using SQL Server authentication using the user name and password you created.
3. In the SQL Server Query Analyzer dialog, select DB: **Reporter.**
4. Enter a query to verify the database connection.

Appendix I: Kernel Parameter Minimum Values

Kernel parameters setting for HP-UX and Solaris systems are outlined below.

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HP-UX Systems

For your system to run more efficiently, modify (as necessary) the HP-UX kernel parameters to meet or exceed the minimum values listed below. To modify kernel values, run SAM and use the Kernel Parameters area to change the specific parameters within the Action menu.

maxdsiz 32 MB
maxfiles 120
maxssiz 2 MB
maxuprc 100
nfile 3000
nproc 700
semmni 20
semmns 128
shmmax 64 MB
shmmni 100
shmseg 12

 **IMPORTANT!** To activate changes to settings, **you must reboot your system**.

Solaris Systems

For your system to run more efficiently, modify (as necessary) the Solaris shared memory parameters to meet or exceed the miminum values listed below. To modify shared memory values, edit the `/etc/system` file and change the specific parameters as listed below:

set shmsys:shminfo_shmmax=67108864
set shmsys:shminfo_shmmin=1
set shmsys:shminfo_shmmni=100
set shmsys:shminfo_shmseg=40
set semsys:seminfo_semmns=200
set semsys:seminfo_semmni=100
set semsys:seminfo_semmsl=30

 **IMPORTANT!** To activate changes to settings, **you must reboot your system**.

Appendix J: UNIX Environment Variables

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New Oracle Installations

1. You must be logged on as **root** or **su**
2. Set UNIX environment variables as follows:

ORACLE_BASE – set to admin pathname default (/opt/oracle)
ORACLE_SID - set to the database name you want to create (reporter)
ORACLE_HOME - set to full pathname of the Oracle system home directory
$ORACLE_TERM – set to the appropriate value (hpterm, etc…)
PATH - needs to include **$ORACLE_HOME/bin**
UMASK = 022

Existing Oracle Installations

Verify that the following HP-UX environment variables are set:

ORACLE_BASE – set to admin pathname default (/opt/oracle)
ORACLE_SID - set to the database name you want to create (reporter)
ORACLE_HOME - set to full pathname of the Oracle system home directory
ORACLE_TERM – set to the appropriate value (hpterm, etc…)
PATH - needs to include $ORACLE_HOME/bin

Appendix K: Templates for configuring/editing Oracle listener.ora & tnsnames files

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Template 1 (listener.001)is for situations where no listener has been configured for Oracle. This template allows you to insert text pertaining to the host system and directory where Oracle resides and use the file to replace the existing listener file.

Template 1/A (tnsnames.001) is for configuring one Oracle database instance (for Reporter data). You can use this template to insert text pertaining to the database instance you will use for the Reporter database.

Template 2 (listener.002) is for situations where a listener is already configured. This template allows you to copy and paste settings relating to Reporter into your existing template.

Template 2/A (tnsnames.002) is for adding the configuration of an Oracle database instance for Reporter data to the existing tnsnames.ora file that already is configured to recognize other Oracle database instances.

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Template 1: Configuring the listener.ora file

The sample file below helps you edit the template included with Reporter (listener.001) for setting up a listener for the Oracle database instance connection to VantagePoint Reporter. Before using the template:
(1) Replace the host name in two places
(2) If necessary, change the ORACLE_HOME path (where Oracle resides).
(3) Rename the template to listener.ora. and copy it to the **/etc** directory for HP-UX or the **$ORACLE_HOME/network/admin** directory for Solaris.

```
#######################################################
# FILENAME: listener.ora
# DATE....: Jun 16 1999
# NETWORK.: openview
# NODE....: Server
# SERVICE.: LISTENER
# COMMENT.: For use with HP OpenView Reporter
#######################################################

LISTENER =
   (ADDRESS_LIST =
      (ADDRESS=
      (PROTOCOL=IPC)
      (KEY= REPORTER)
      )

      (ADDRESS =
        (PROTOCOL = TCP)
        (HOST = host_name) #### Insert your host name for <host_name>
        (PORT = 1521)
        (QUEUESIZE = 50) ##### Increased queue size for REPORTER
      )
```

```
      (ADDRESS =
         (PROTOCOL = TCP)
         (HOST = host_name) #### Insert your host name for <host_name>
         (PORT = 1526)
         (QUEUESIZE = 50) ##### Increased queue size for REPORTER
      )
   )

SID_LIST_LISTENER =
  (SID_LIST =
     (SID_DESC =
        (SID_NAME = REPORTER)
        (ORACLE_HOME= /opt/oracle/product/7.3.4)
        (ENVS='EPC_DISABLED=TRUE')
     )
  )

STARTUP_WAIT_TIME_LISTENER = 0
CONNECT_TIMEOUT_LISTENER = 30 ##### Increased timeout for REPORTER
LOG_DIRECTORY_LISTENER = /opt/oracle/product/7.3.4/network/log
LOG_FILE_LISTENER = listener
TRACE_LEVEL_LISTENER = OFF
```

Template 1A: Configuring the tnsnames.ora file, using the template

The sample file below helps you edit the template included as tnsnames.001 for configuring one Oracle database instance connection to VantagePoint Reporter. Before you can use the file:
(1) Replace the host name.
(2) Rename the file to tnsnames.ora and copy into the **/etc** directory for HP-UX or the **$ORACLE_HOME/network/admin** directory for Solaris.

```
####################
# FILENAME: tnsnames.ora
# DATE....: Jun 16 1999
# NETWORK.: openview
# NODE....: Server
# SERVICE.: LISTENER
# COMMENT.: For use with HP OpenView Reporter.
####################

RPT.world =
   (DESCRIPTION =
     (ADDRESS = (PROTOCOL= TCP)(Host= <host_name>)(Port= 1521))
     (CONNECT_DATA = (SID = REPORTER))
   )
```

Top

Template 2: Editing the Existing listener.ora file, copying from the template

The sample file below helps you edit the template included with Reporter (listener.002) to set up a listener for the database instance connection to VantagePoint Reporter. Before using the template:
(1) Replace the host name in two places.
(2) If necessary, modify the path where Oracle is located in two places.
(3) Paste the REPORTER blocks and the "Increased que size" line into

the appropriate places in your existing listener.ora file.

(4) Paste in or change the CONNECT_TIMEOUT_LISTENER line so that the timeout value is at least 30.

```
#########################
# FILENAME: listener.ora
# DATE....: Jun 16 1999
# NETWORK.: openview
# NODE....: Server
# SERVICE.: LISTENER
# COMMMENT: For use with HP OpenView Reporter
#########################

LISTENER =

  (ADDRESS_LIST =
    (ADDRESS=
           (PROTOCOL=IPC)
           (KEY= openview)
    )

##### Begin REPORTER block number 1 #######
    (ADDRESS=                              #
           (PROTOCOL=IPC)                  #
           (KEY= REPORTER)                 #
    )                                      #
##### End REPORTER block number 1 #########

    (ADDRESS =
            (PROTOCOL = TCP)
            (HOST = <host_name>)
            (PORT = 1521)
            (QUEUESIZE = 50) #### Increased que size for REPORTER
    )

##### Begin REPORTER block number 2 ########
    (ADDRESS =                             #
            (PROTOCOL = TCP)               #
            (HOST = <host_name>)           #
            (PORT = 1526)                  #
            (QUEUESIZE = 50)               #
    )                                      #
##### End REPORTER block number 2  #########

  )

SID_LIST_LISTENER =
  (SID_LIST =
      (SID_DESC =
         (SID_NAME = openview)
         (ORACLE_HOME= /opt/oracle/product/7.3.4)
      )
  )
##### Begin REPORTER block number 3 ##################
      (SID_DESC =                                    #
         (SID_NAME = REPORTER)                       #
         (ORACLE_HOME= /opt/oracle/product/7.3.4)    #
         (ENVS='EPC_DISABLED=TRUE')                  #
```

```
      )                                                    #
  )                                                        #
##### End REPORTER block number 3 ####################

)
STARTUP_WAIT_TIME_LISTENER = 0
CONNECT_TIMEOUT_LISTENER = 30 #### Increased timout for REPORTER
LOG_DIRECTORY_LISTENER = /opt/oracle/product/7.3.4/network/log
LOG_FILE_LISTENER = listener
TRACE_LEVEL_LISTENER = OFF
```

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Template 2A: Editing the existing tnsnames.ora file, copying from the template

The sample file below helps you edit the template included as tnsnames.002 for use in changing your existing tnsnames.ora file to recognize an Oracle database instance connection to VantagePoint Reporter. To use the template:

(1) Replace the host name in two places.
(2) Paste the REPORTER blocks into the appropriate places in your existing tnsnames.ora file.

```
########################
# FILENAME: tnsnames.ora
# DATE....: Jun 16 1999
# NETWORK.: openview
# NODE....: Server
# SERVICE.: LISTENER
# COMMENT.: For use with HP OpenView VantagePoint Reporter.
########################

ov_net =
(DESCRIPTION =
(ADDRESS = (PROTOCOL= TCP)(Host= <host_name>)(Port= 1521))
(CONNECT_DATA = (SID = openview))
)

##### Begin REPORTER block#################################
RPT.world =                                               #
(DESCRIPTION =                                            #
(ADDRESS = (PROTOCOL= TCP)(Host= <host_name>)(Port= 1521)) #
(CONNECT_DATA = (SID = REPORTER))                         #
)                                                         #
##### End REPORTER block ##################################
```

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Appendix L: Upgrading Procedure for an Access Database

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If you have data stored in a database that is an older version of Microsoft Access and would like to upgrade to Access 2000, follow the instructions below.

Task 1 Stop Reporter Services and Install Access 2000

1. Use the **Start/Stop Reporter Services** toolbar button to stop all Reporter services.
   
2. Install MS Access 2000
3. Select **Yes** to the prompt to restart the system.
4. Start MS Access

Task 2 Convert Data for Storage in Access 2000

1. Select **File>Open>Reporter.mdb**
   (default location c:\rpmtools\data\datafiles\Reporter.mdb
   (A message appears letting you know that the database was created by an older version of Access.)
2. Select **Convert** and press the **OK** button.
3. Save the converted database with a new name (i.e. Reporter_2000.mdb) to the c:\rpmtools\data\datafiles\ directory.
4. After the database has been converted, rename the Reporter.mdb to another name (i.e., Reporter_bak.mdb).
5. Rename the converted database (i.e. Reporter_2000.mdb) to **Reporter.mdb**.
6. Use the **Start/Stop Reporter Services** toolbar button to restart Reporter Services.
   

Appendix M: Using Oracle 8.1.6 or 8.1.7 for the Reporter Database

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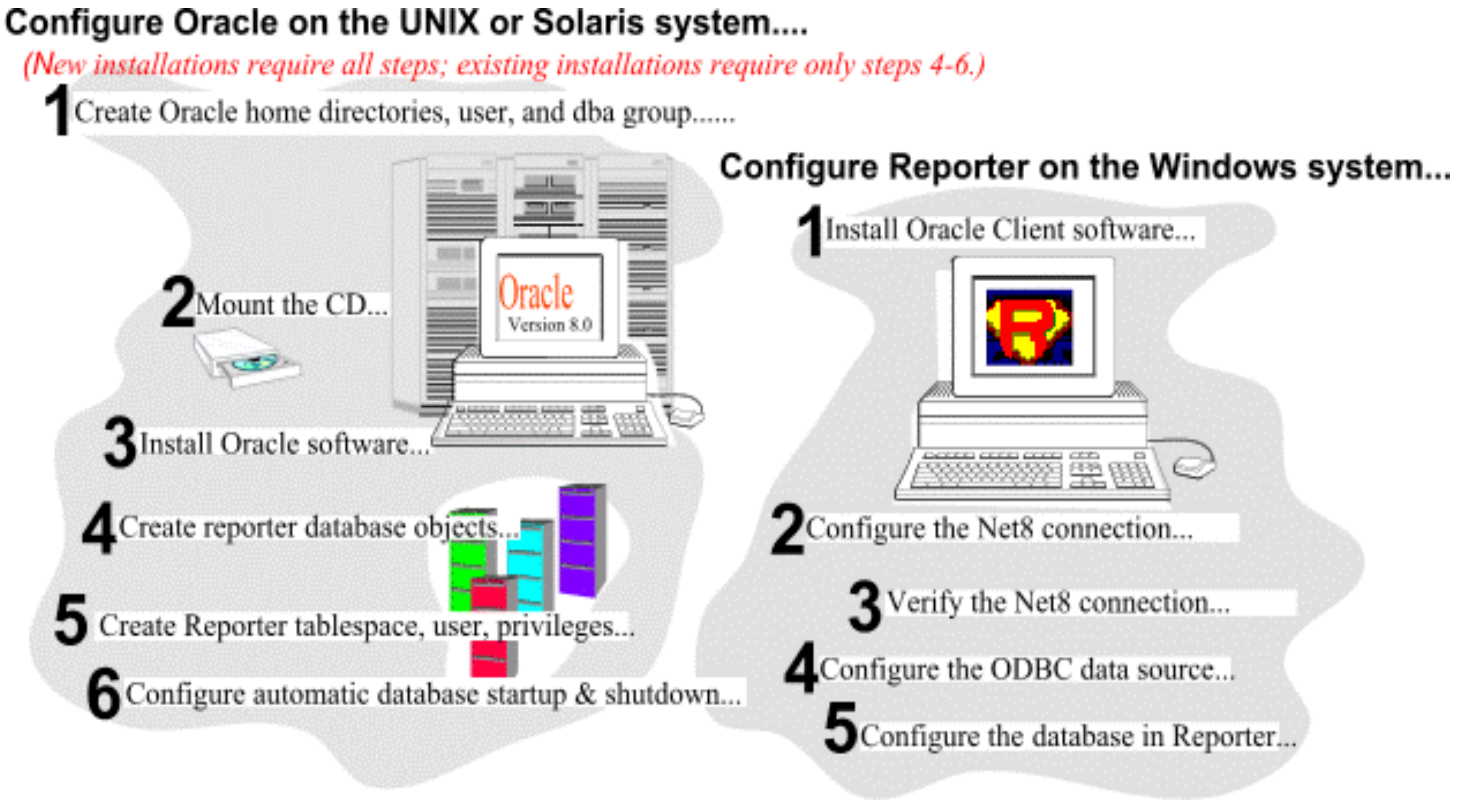
Set Up Oracle 8.1.6 or 8.1.7 on HP-UX or Solaris and Configure on Windows

Prerequisites: Check your HP-UX or Solaris system kernel parameters and modify as necessary. Reporter requires 900MB disk space in the Oracle database.

For other system, memory, and disk requirements, please check the "System Requirements" section of the Oracle 8i Installation Guide included with the software distribution. Oracle has specific recommendations regarding optimal database installation and architecture. This document does not discuss all aspects of database installation and administration. We suggest that you consult Oracle technical literature and qualified Oracle professionals to achieve optimum database performance in your particular environment.

The following illustration shows the tasks you must complete to set up Oracle as the Reporter database. To the left are the steps on the HP-UX or Solaris system which differ for new and existing installations of Oracle. To the right is the procedure for configuring the Oracle Reporter database on the Windows system.



On the UNIX or Solaris system (choose the appropriate procedure by clicking it):

- Setup for new installations of Oracle 8
  (Task 1 — 6)
- Setup for existing installations of Oracle 8
  (Task 4 — 6)

On the Windows system running Reporter:

- **Configure Reporter to use the Oracle database**
- **Case Sensitivity: Some required entries in Windows are case-sensitive; so we recommend you match instruction text exactly.**

Setup for new installations of Oracle 8.1.6 or 8.1.7

Task 1 Create Oracle groups, user, and home directory

Before you begin, you need the following administrator privileges: root and dba privileges on the UNIX system where you are using Oracle; administrator privileges on the Windows client where Reporter is installed.

1. You must be logged on as root or su.
2. For HP-UX: Use System Administration Manager (SAM) utility on HP-UX 11.0 to create UNIX group dba.
   For Solaris: Use **admintool** or (**groupadd** utility) to create UNIX group dba.
3. For HP-UX: Use SAM utility to create UNIX group oinstall.
   For Solaris: Use **admintool** or (**groupadd** utility) to create UNIX group oinstall.
4. For HP-UX: Use SAM utility to create UNIX user oracle.
   For Solaris: Use **admintool** (or **useradd** utility) to create UNIX user oracle.

   a. Login name: **oracle**
   b. Primary Group Name: **oinstall**
   c. Home directory: consistent with local standards
   d. Login shell: consistent with local standards
5. Create Oracle Home mount point: **mkdir –p /opt/oracle/product/8.1.6** or **8.1.7**
6. Enter: **cd /opt**
7. Enter chown –R oracle:oinstall oracle

Task 2 Mount the CD

For HP-UX:

1. Edit the **/etc/pfs_fstab** file to add the following line:
   Syntax:
   <device_file> <mount_point> <filesystem_type> <translation_method>
   Definitions of the syntax above:
   <device_file> = CD-ROM device file (discover with **ioscan –nFC disk**)
   <mount_point> = path name of the mount point
   <filesystem_type> = CD-ROM is in IS09660 format, Rockridge extension <translation_method> = unix
   For example:
   /dev/dsk/c1t2d0 /SD_CDROM pfs-rrip xlat=unix 0 0

2. Perform the following steps as the root user:
   Enter: **/usr/sbin/pfs_mountd &** (Note:pfs creates the correct format to read the CD)
   Enter: **/usr/sbin/pfsd &**

3. Insert the CD into the CD-ROM and mount the device as follows:
   /usr/sbin/pfs_mount /SD_CDROM
4. Change directories to **/SD_CDROM** where you can see a lower-case listing of the directories and files on the CD-ROM. The mounted CD should appear as another read-only file system.
5. Leave the root user window available for executing a script during installation .

For Solaris:

If you are using Volume Management software (available by default on Soalaris) the CD-ROM is mounted automatically to /cdrom/oracle8i when you put it into the disk drive.

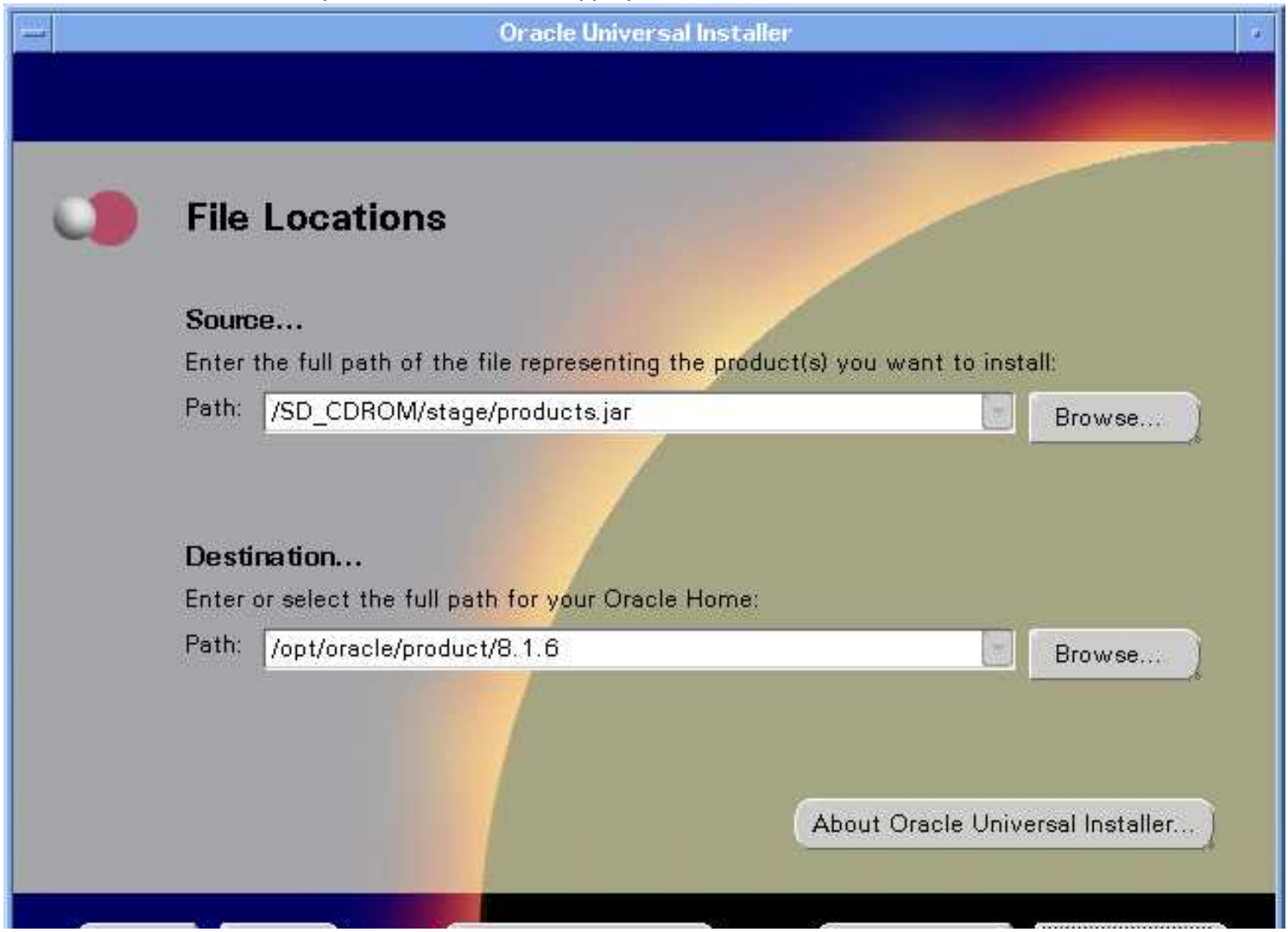
If you are not using the Volume Management software, you must mount the CD-ROM manually.

1. Place the Oracle 8i CD-ROM in theCD-ROM drive.

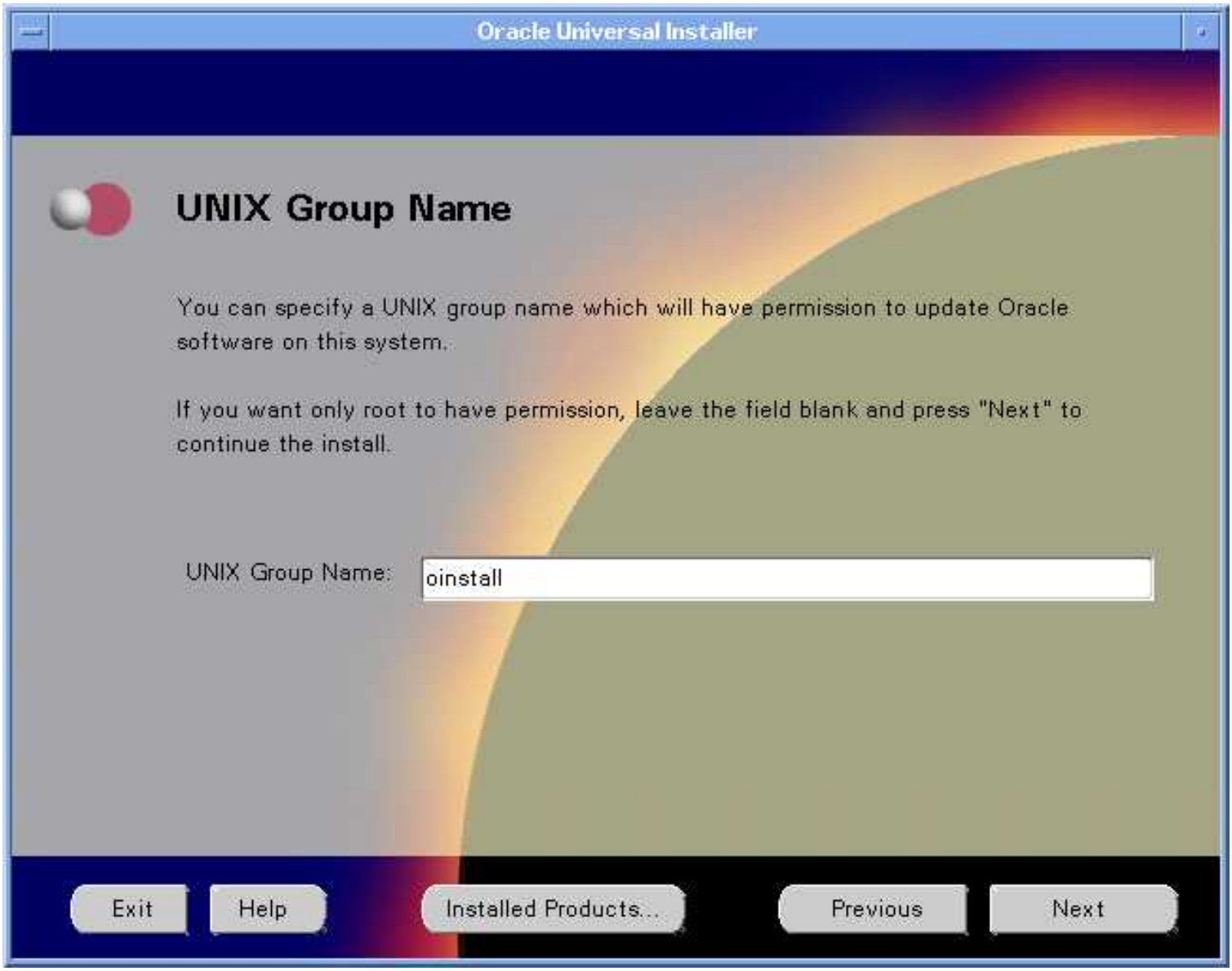
2. Log in as the root or su user and create a CD-ROM mount point directory:
   $ **su root**
   # **mkdir *cdrom_mount_point_directory***
3. Mount the CD-ROM drive on the mount point directory and exit:
   # **mount option *device_name cdrom_mount_point_directory***
   # **exit**

Task 3 Install Oracle software using the Universal Oracle Installer

1. Log in to the oracle account
   a. Verify **umask** command returns **022**
   b. Set **umask 022** in .profile if needed
2. Set UNIX environment variables as follows: (add to .profile,or set manually)
   DISPLAY=<*workstation_name*>:0.0 (<*workstation_name*> is computer where output from the Oracle Universal Installer should be displayed)
   ORACLE_BASE=/opt/oracle
   ORACLE_HOME=/opt/oracle/product/8.1.6 or **8.1.7**
   ORACLE_SID=REPORTER
   PATH includes $ORACLE_HOME/bin, /usr/bin, /etc, /usr/ccs/bin, /usr/local/bin
3. Change to the CD-ROM mount point:
   For HP-UX: **cd /SD_CDROM**
   For Solaris: **cd */cdrom_mount_point_directory*** (default= /cdrom/oracle8i)
4. Start the Installer: **./runInstaller**
   Note: The order for the following dialog boxes may vary according to your version of Oracle.
   In the Welcome dialog, click **Next**.
5. In File Locations do not change the product Source...Path entry.,
   The Oracle Home Destination...Path entry should display the value for ORACLE_HOME if previously set; click **Next**. *The illustration uses 8.1.6 for example; substitute 8.1.7 as appropriate.*

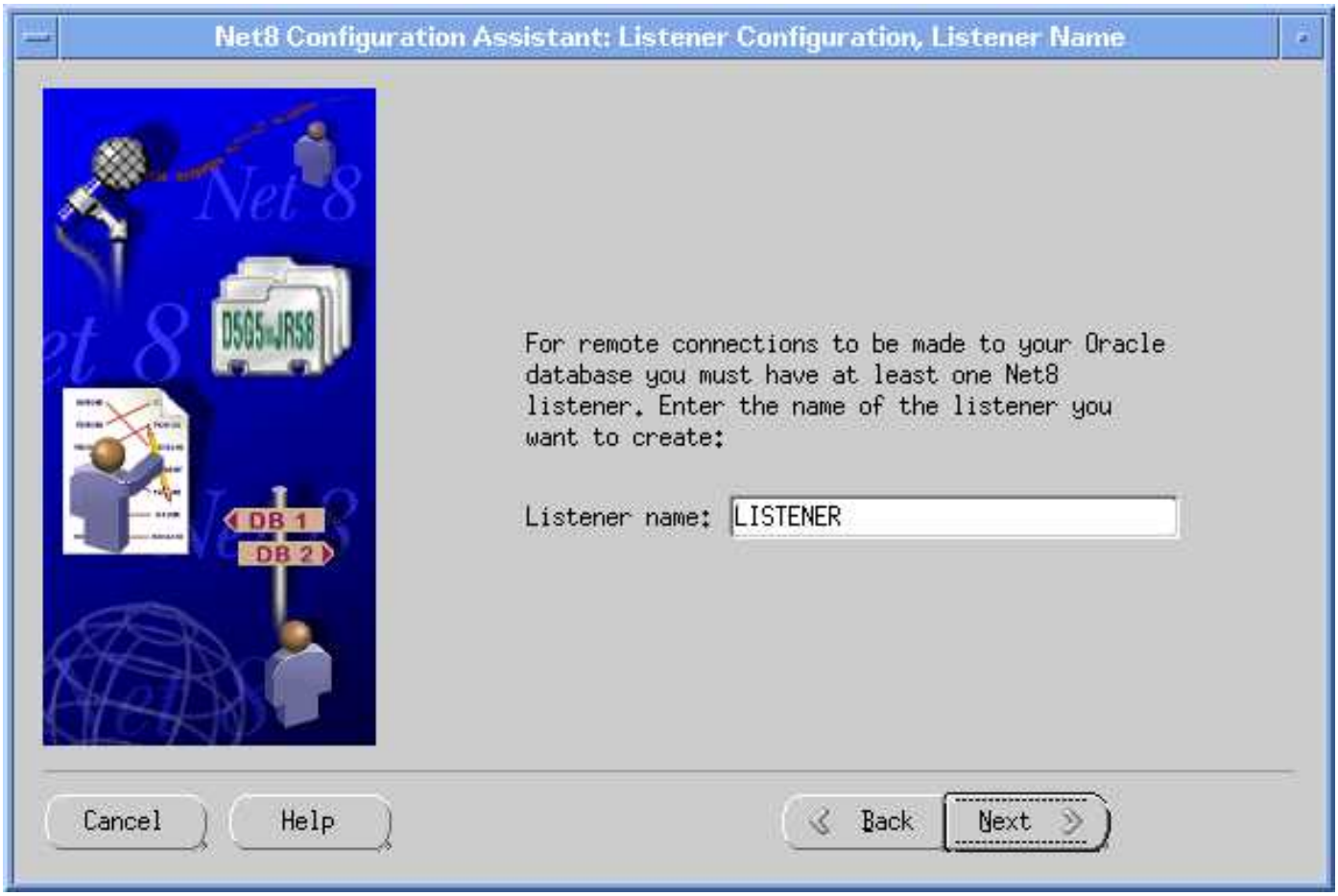


6. For the UNIX Group Name enter **oinstall** and click **Next**.



7. If /var/opt/oracle does not exist or can not be edited by the oracle user, you are prompted to run /tmp/Orainstall/orainstRoot.sh.
   After running this script, click **Retry** to continue.
8. Under Available Products select **Oracle8i Enterprise Edition 8.1.6.0.0** or **8.1.7.0.0**, click **Next**.
9. Under the Installation Types select **Minimal installation**; click **Next**.
10. In the Privileged Operating System Groups enter **dba** for the UNIX groups and click **Next**.
11. In Select Starter Database select **No**, and click **Next**.
12. In the Summary verify Space Requirements and select the **Install** button.
    The Install dialog appears.
13. In the Setup Privileges dialog run **root.sh** as instructed.
14. When the "Install successful" message appears, click **Next**.
    The Configuration Tools dialog appears.
15. In the Net8 Configuration Assistant Welcome window click **Next**.

16. Select **No** to defer directory naming; click **Next**.
17. Select a Listener name—**LISTENER** is recommended—and click **Next**.



18. Select **TCP** for the connection protocol, click **Next**.
19. Select the standard port number of **1521**, click **Next**.
20. Select **No** for configuring another listener, click **Next**.
21. At "Listener configuration complete" message, click **Next**.
22. Select **No** for changing the naming methods, click **Next**.
23. At the "Net8 Configuration Complete" message, click **Finish**.
24. In the End of Installation dialog click **Exit**.

Task 4 Create REPORTER database objects

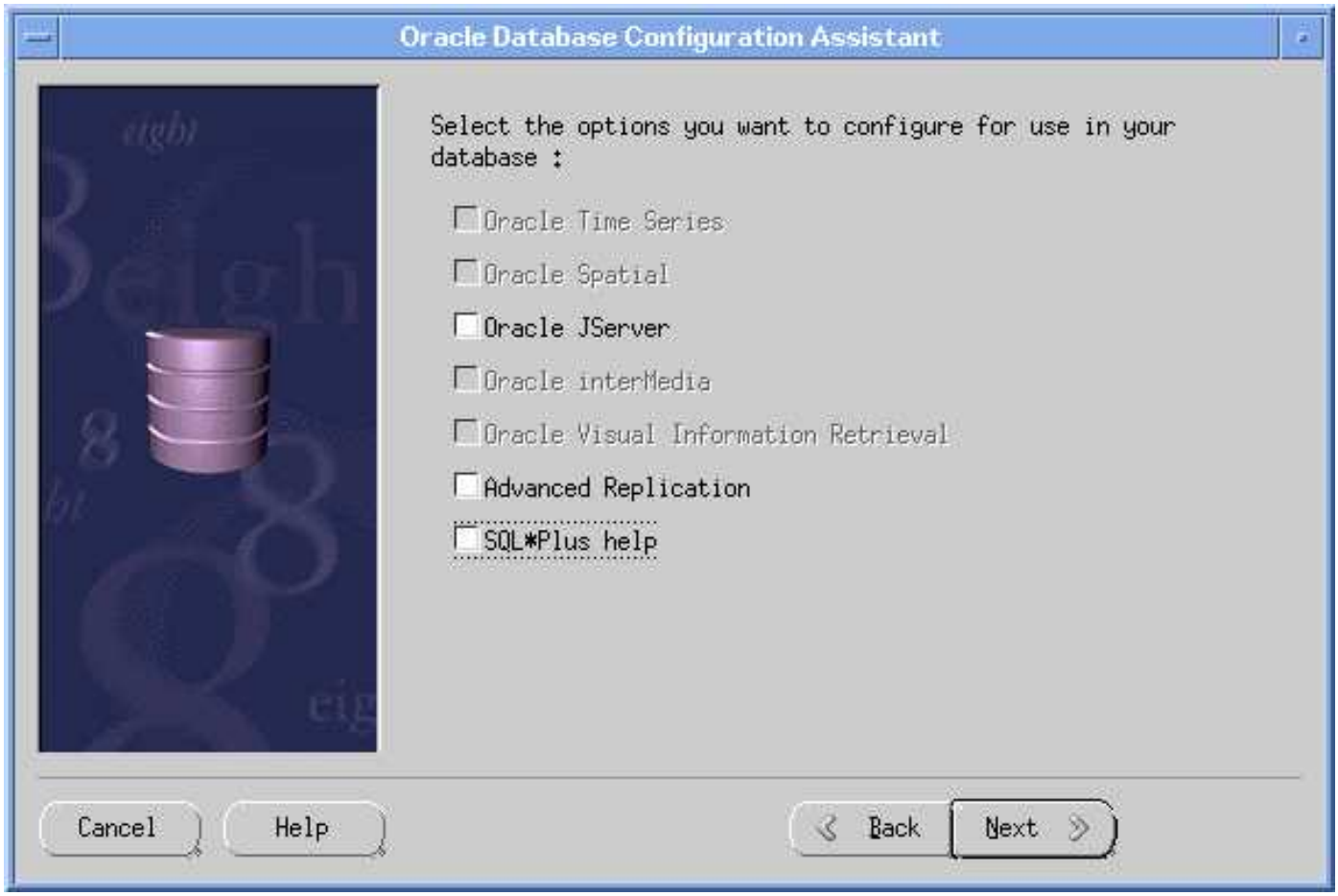
1. Log in to the **oracle** account
2. Update UNIX environment variables as follows: (add to .profile,or set manually)

   DISPLAY=<workstation_name>:0.0
   (<*workstation_name*> is computer where output from the Oracle products should be displayed)
   ORACLE_BASE=/opt/oracle
   ORACLE_HOME=/opt/oracle/product/8.1.6 or 8.1.7
   ORACLE_SID=REPORTER
   PATH includes $ORACLE_HOME/bin, /usr/bin, /etc, /usr/ccs/bin, /usr/local/bin

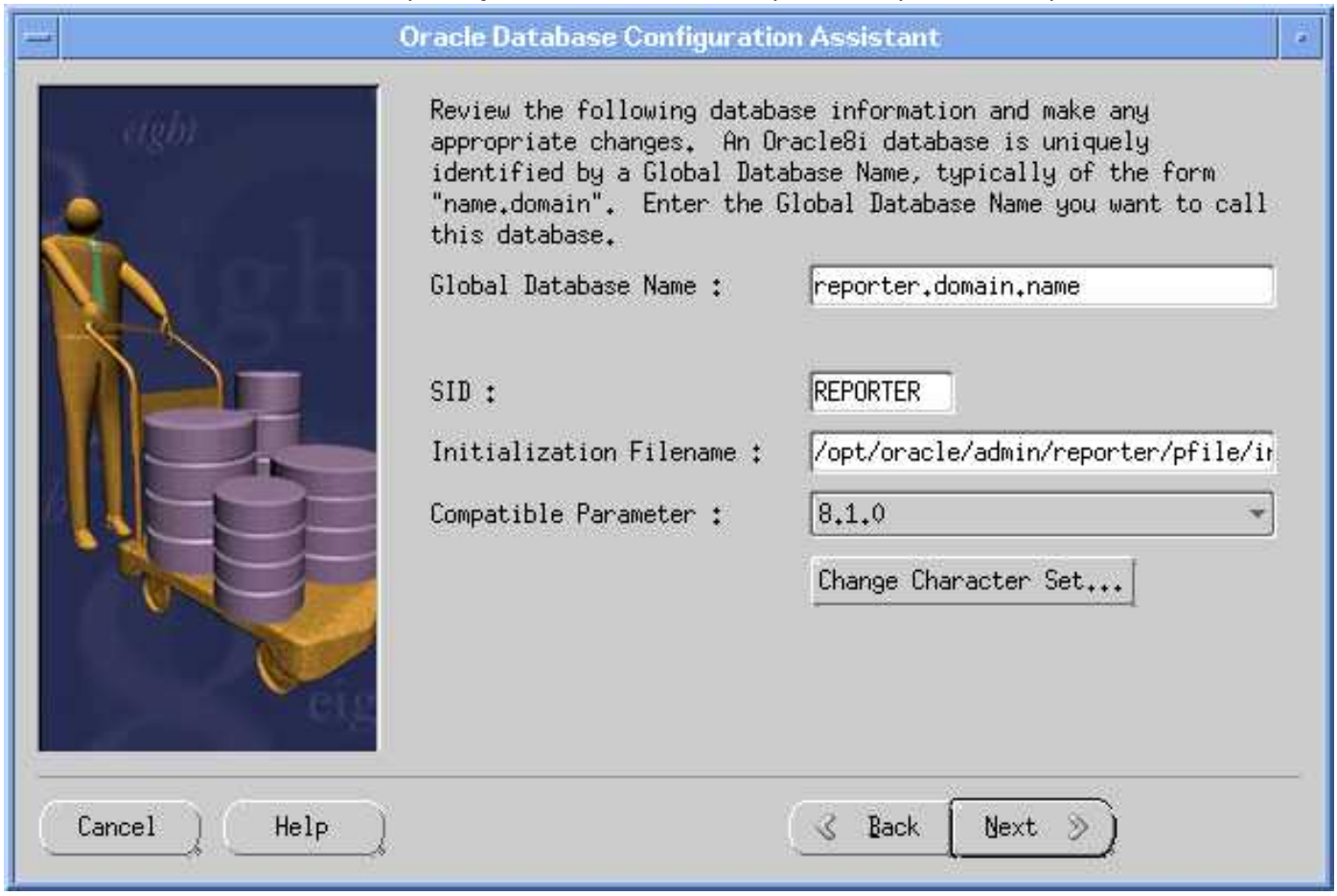
   for HP-UX: SHLIB_PATH=$ORACLE_HOME/lib
   for Solaris: LD_LIBRARY_PATH=$ORACLE_HOME/lib

   for Oracle 8.1.6:
   CLASSPATH=$ORACLE_BASE/JRE:$ORACLE_HOME/JRE:$ORACLE_HOME/jlib:
   $ORACLE_HOME/network/jlib:$ORACLE_HOME/rdbms/jlib:$ORACLE_HOME/assistants/jlib
   TNS_ADMIN=$ORACLE_HOME/network/admin

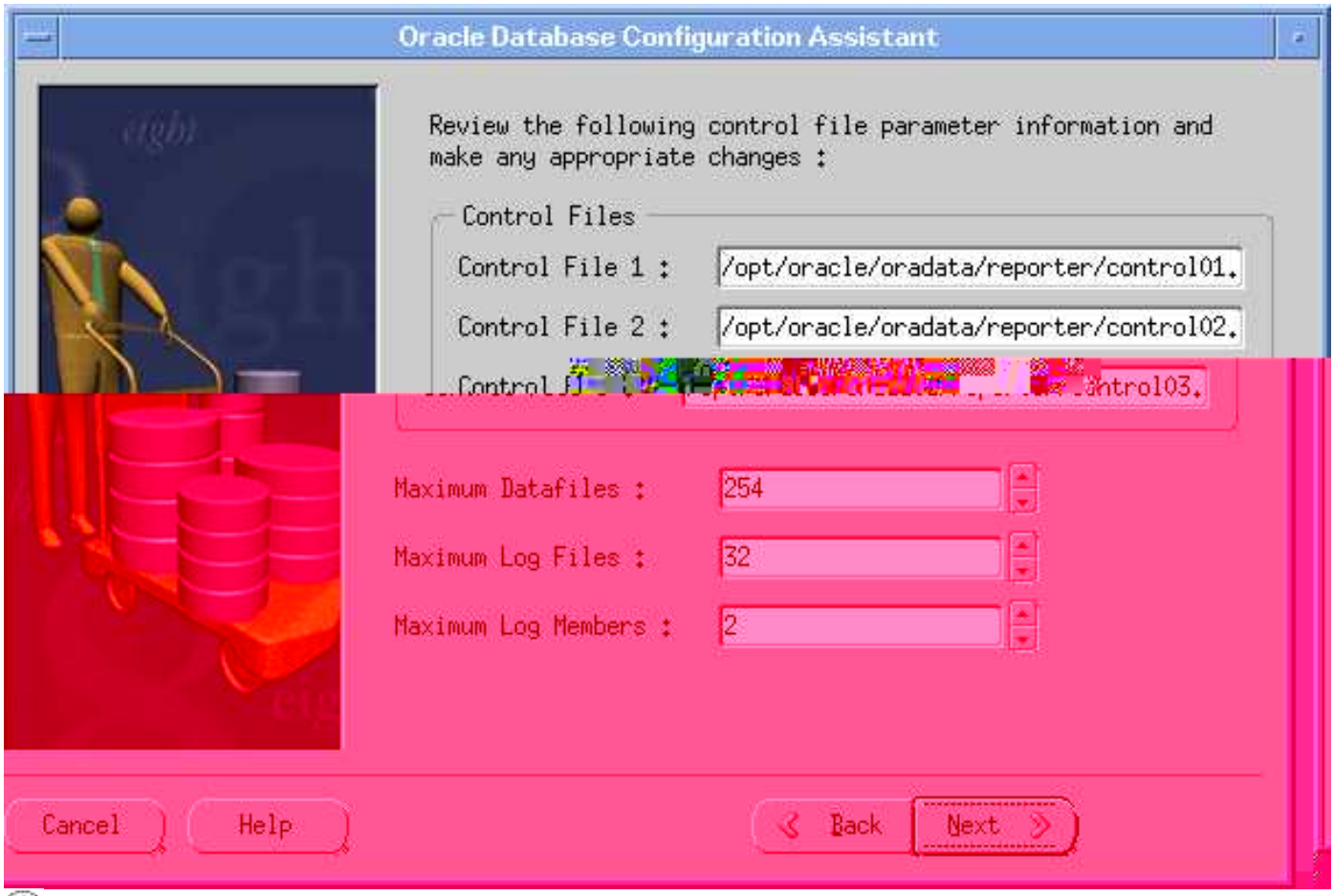
   for Oracle 8.1.7:
   CLASSPATH=$ORACLE_HOME/JRE/lib:$ORACLE_HOME/jlib:
   $ORACLE_HOME/network/jlib:$ORACLE_HOME/rdbms/jlib:$ORACLE_HOME/assistants/jlib
   TNS_ADMIN=$ORACLE_HOME/network/admin
3. Run the Database Configuration Assistant by entering **dbassist**
4. In the startup window select Create a database, click **Next**.
5. Select **Custom** as the database type, click **Next**.
6. Select **Multipurpose** as the type of application, click **Next**.
7. Select number of concurrently connected users (suggest **40**), click **Next**.
8. Select **Dedicated Server Mode**, click **Next**.
9. No options required for reporter; click **Next**.



10. Enter the Global Database Name (i.e. **reporter<*.domain.name*>**) and SID (**REPORTER**), click **Next**.

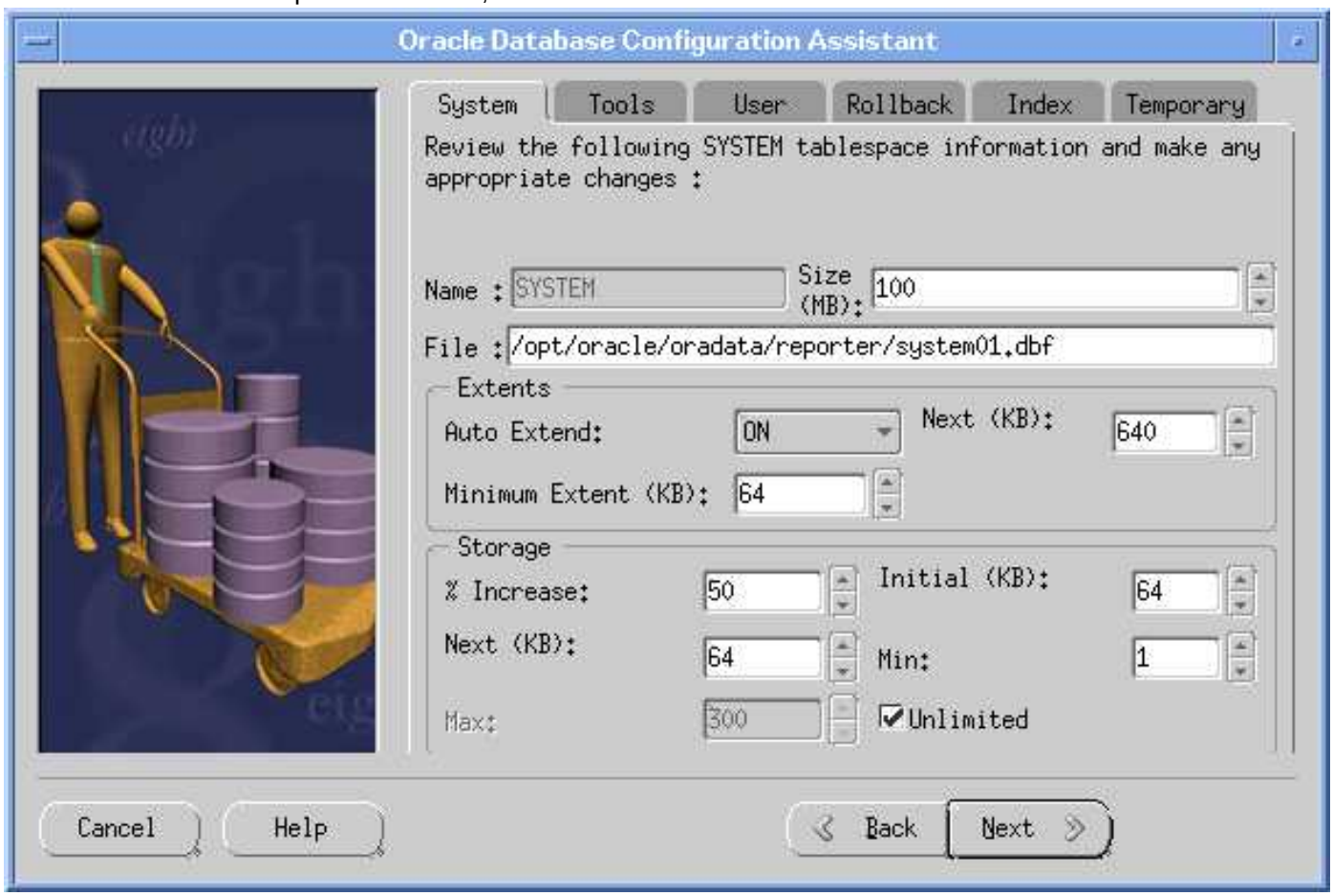


11. Review the Control File information, click **Next**.

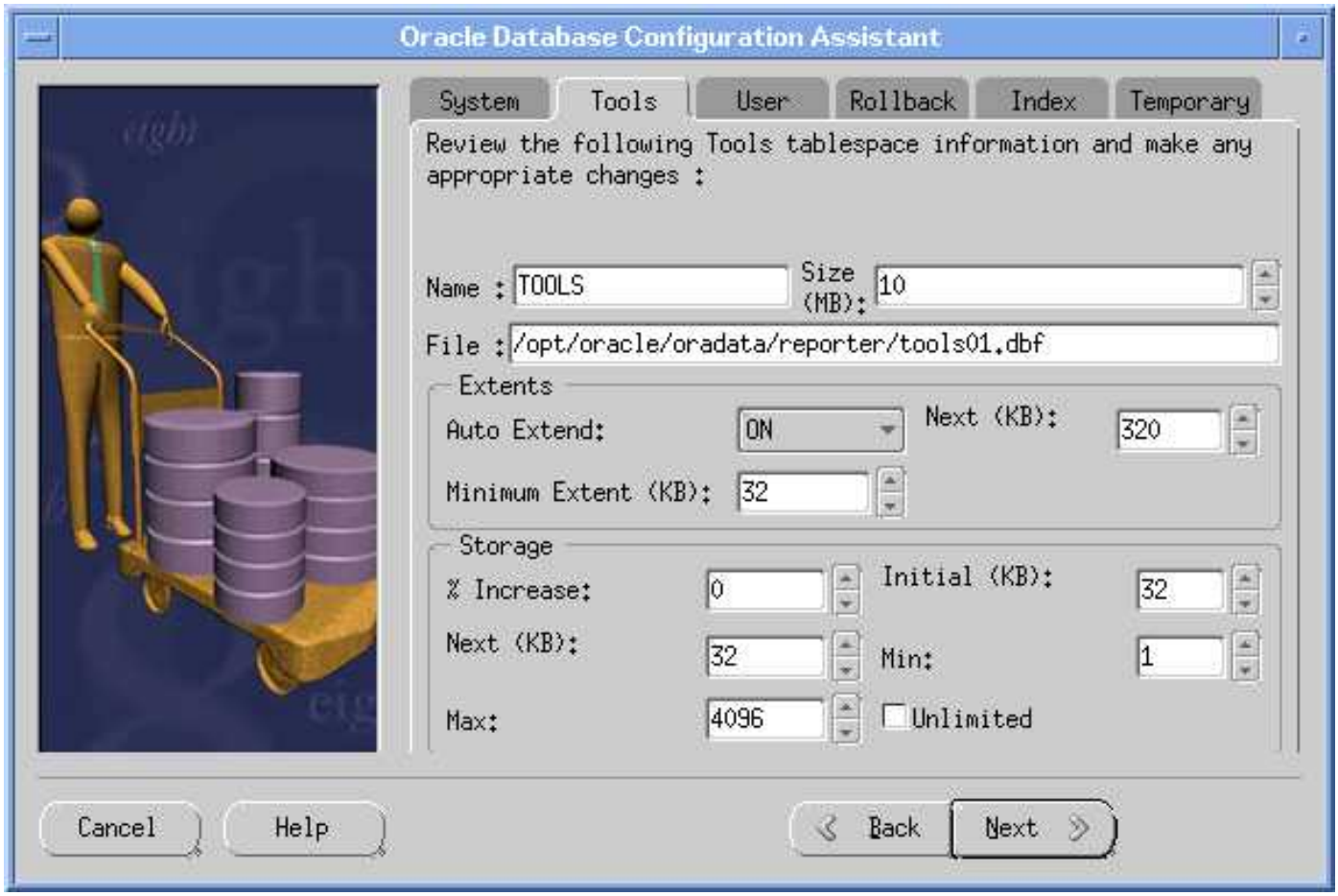


Note: Oracle recommends multiplexing controls files on different disks to support database recoverability.

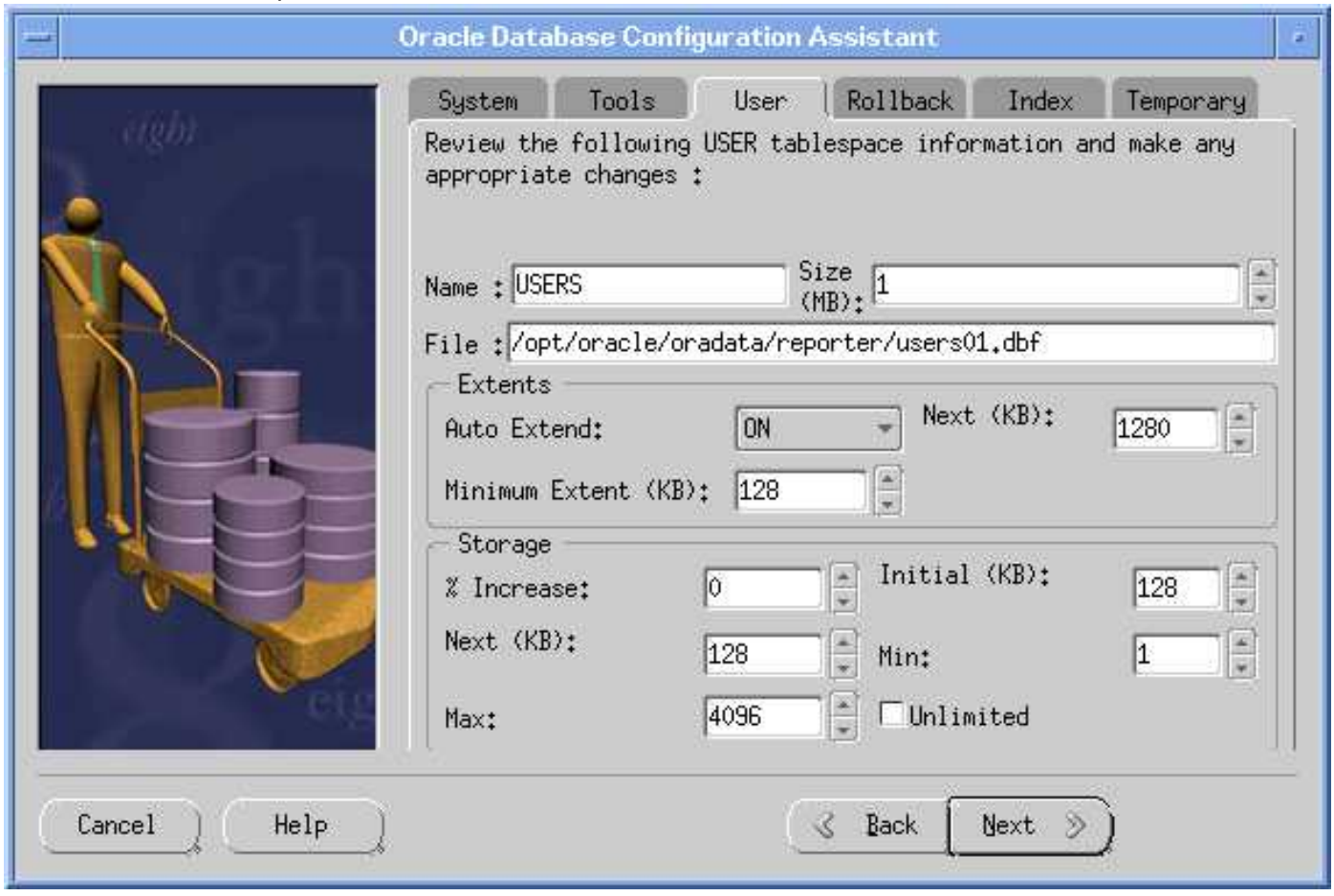
12. Size the SYSTEM tablespace at **100 MB**; then click the Tools tab.



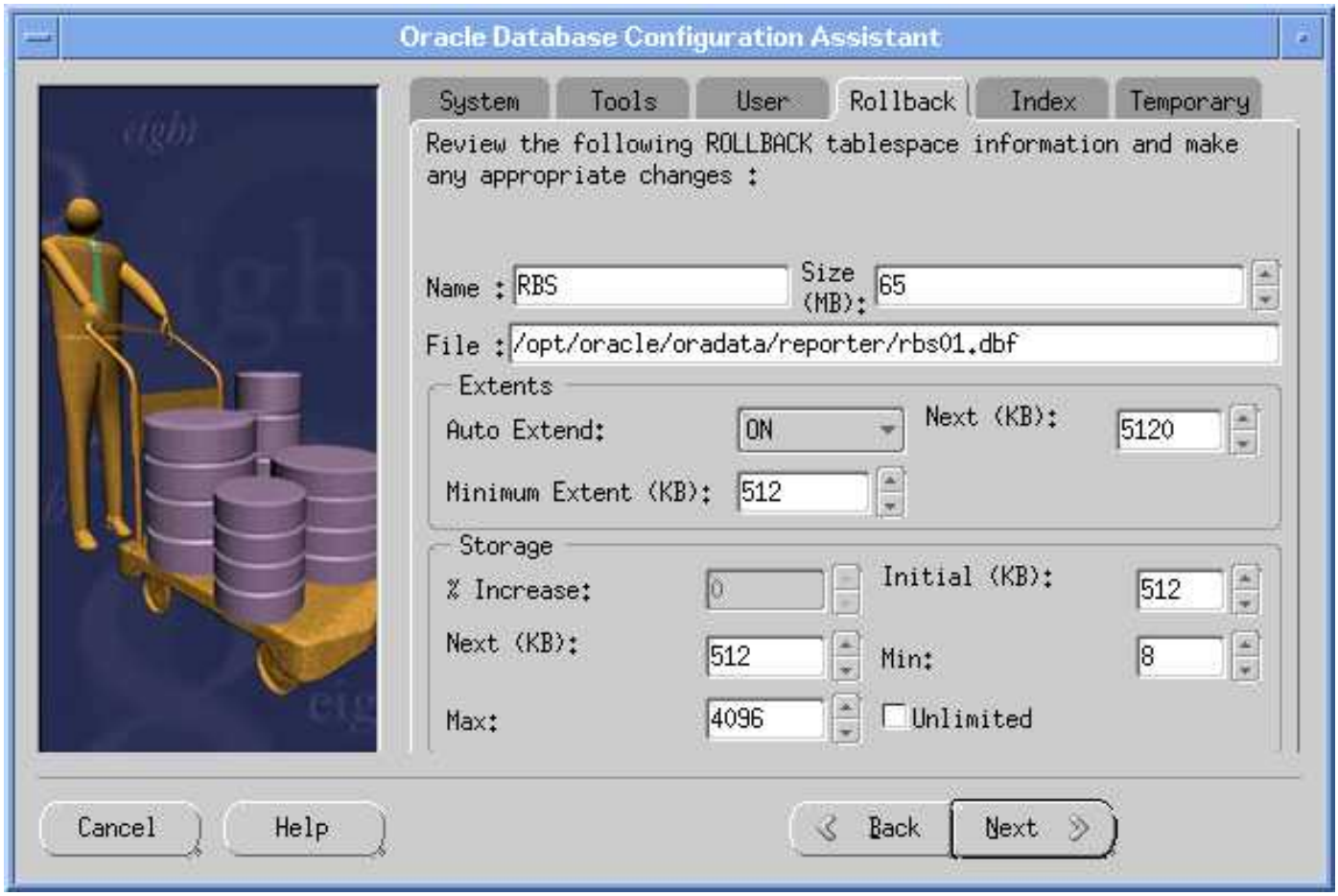
13. Size the TOOLS tablespace at **10 MB**, click User tab.



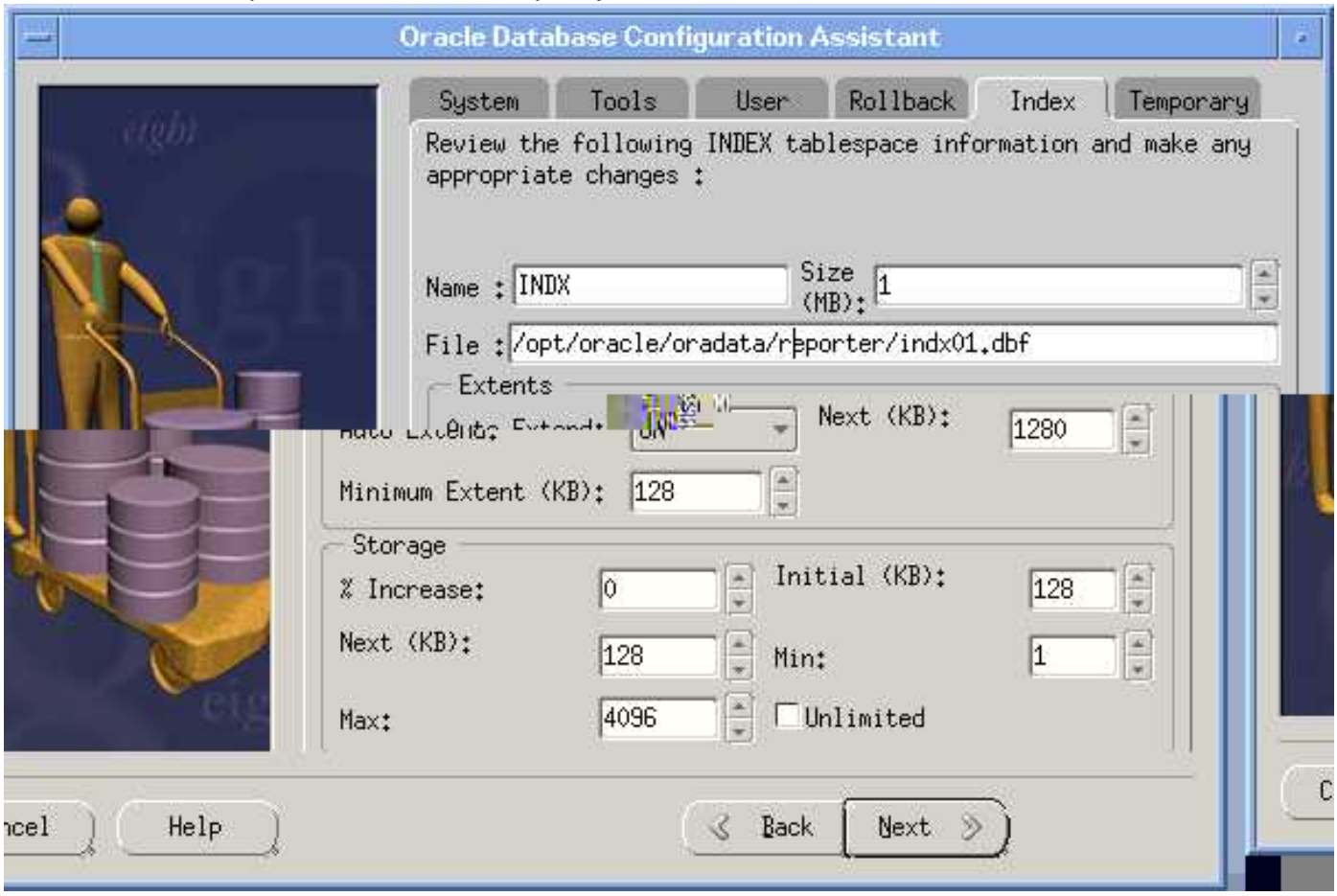
14. Size the USERS tablespace at **1 MB**; click Rollback tab.



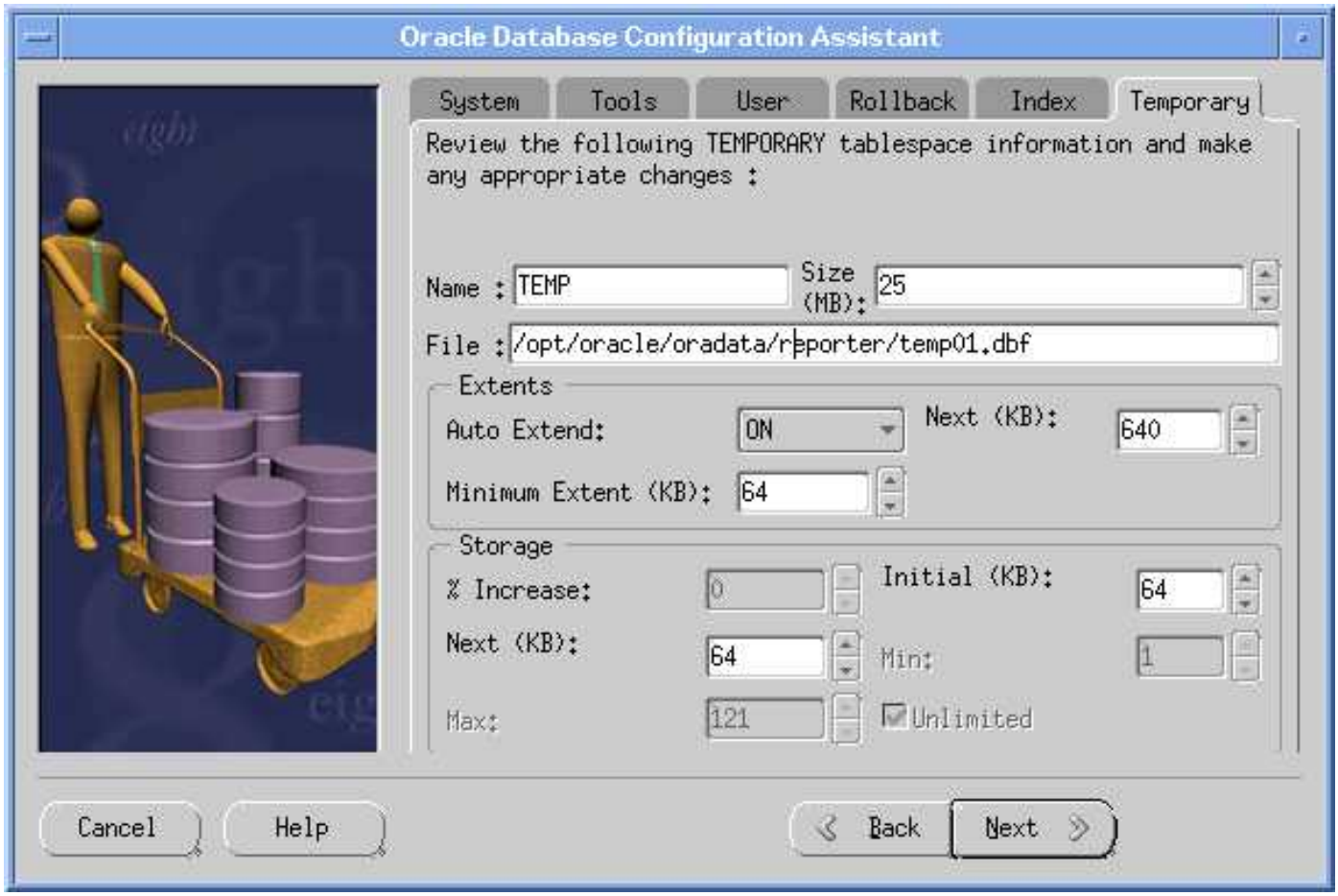
15. Size the RBS tablespace at **65 MB**; click Index tab.



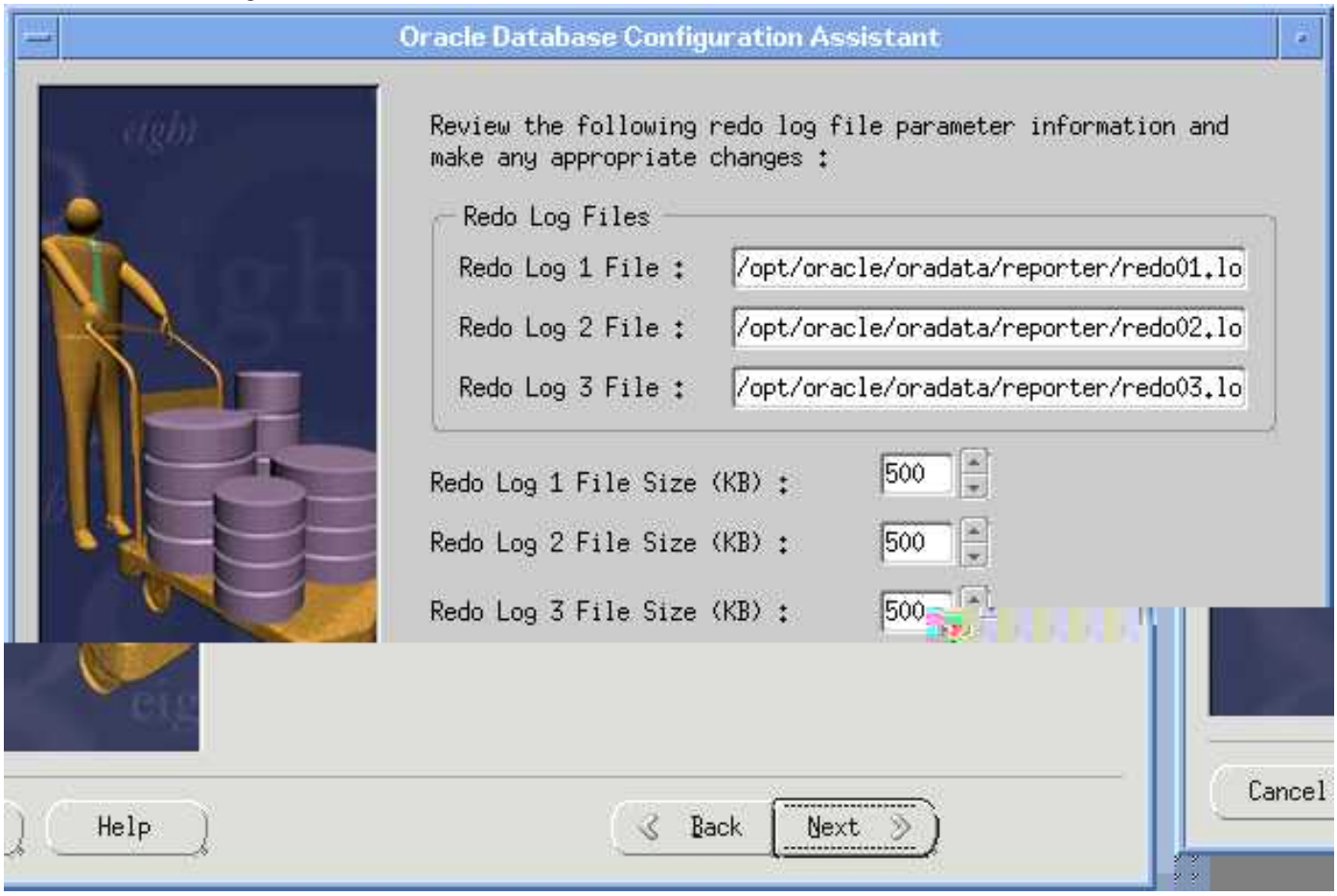
16. Size the INDX tablespace at **1 MB**; click Temporary tab.



17. Size the TEMP tablespace at **25 MB**; click **Next**.



18. Review the Redo Log Files information; click **Next**.



19. Review the logging parameter information; click **Next**.
20. Review the SGA parameter information; click **Next**.
21. Review the Trace File Directory information; click **Next**.
22. Select **Create database now**; click **Finish**.

Task 5 Create Reporter tablespace, user, and privileges*

**If you are migrating Reporter data from the default database to Oracle, complete steps #3 and #8; omit steps #1-2 and #4-7.*

1. *(If migrating Reporter data from the default database to Oracle, skip forward to step #5.)*
   Log on as root or su.
2. Create the file (below) and save as **repconfig_ora8i.sql** in the **$ORACLE_BASE/admin/reporter/create/** directory:
   (the edits you need to make are highlighted) :

   Note: In the example below maxsize is set to 900M where maxsize equals the maximum size your file system can handle. You must replace /database/oradata with the path you have established for your database data files. The data file names are only recommendations and can be changed to conform to the standards at your site. Also the user and password are highlighted; change as necessary.

   Note: For performance considerations Oracle recommends to place data (tablespace REPORTER), index (tablespace RPT_INDEXES), and rollback segments (tablespace RBS) on different disks if available. See the Scalability section of Chapter 6: Advanced Topics for tablespace sizing.

   ```
   create tablespace REPORTER datafile
   '/database/oradata/reporter/rptdb01.dbf' SIZE 600M
   autoextend on next 20M maxsize 900M
   default storage (
   initial 4096k
   next 4096k
   pctincrease 0
   );
   create tablespace RPT_INDEXES datafile
   '/database/oradata/reporter/rptidx01.dbf' size 300M
   autoextend on next 20M maxsize 500M
   default storage (
   initial 4096k
   next 4096k
   pctincrease 0
   );
   create user openview
   default tablespace REPORTER;
   grant create session, create table, create any index, create sequence,
   create trigger, unlimited tablespace to openview;
   ```
3. Log on as the oracle software owner.
4. *(If migrating Reporter data from the default database to Oracle, skip forward to step #8.)*
   Make sure the ORACLE_SID is set to **REPORTER**; otherwise the Reporter tables will be put in the wrong SID.
5. Run the **$ORACLE_HOME/bin/svrmgrl** program and enter the following commands to start the database (the database may have already been started)
   connect internal
   startup
6. Enter the following SQL statement:
   @$ORACLE_BASE/admin/reporter/create/repconfig_ora8i.sql
7. Enter the following command to exit: **Exit**
8. Enter the following commands to restart the SQL listener:
   lsnrctl stop
   lsnrctl start

Task 6 Configure Automatic Database Startup and Shutdown

You may optionally configure the database for automatic startup and shutdown. See the Oracle documentation for details on this

procedure.

> ⚠ **Warning**! If your database administrator already has the startup procedure in place, you should skip this step.
>
> ⚠ **Warning**! If the OVO (also known as VantagePoint Operations or ITO) (openview) database is installed on same Oracle server, you must modify its oratab entry to change the startup flag from "Y" to "N" since it is restarted by a different facility. For example, change openview:$ORACLE_HOME:Y to openview:$ORACLE_HOME:**N**.

Now you are ready to configure Reporter to use the Oracle database.

Configure Reporter on the Windows System

This section covers the installation of the software that allows the Windows system, on which Reporter runs, to connect to the HP-UX or Solaris system, from which the Oracle database is accessed.

Task 1 ➡ Install Oracle Client software

To begin, you need the following Oracle product: Oracle8i Client, Release 2 (8.1.6) or Release 3 (8.1.7) for Windows (NT 4 or 2000). You also need administrator privileges on the Windows client where Reporter is installed

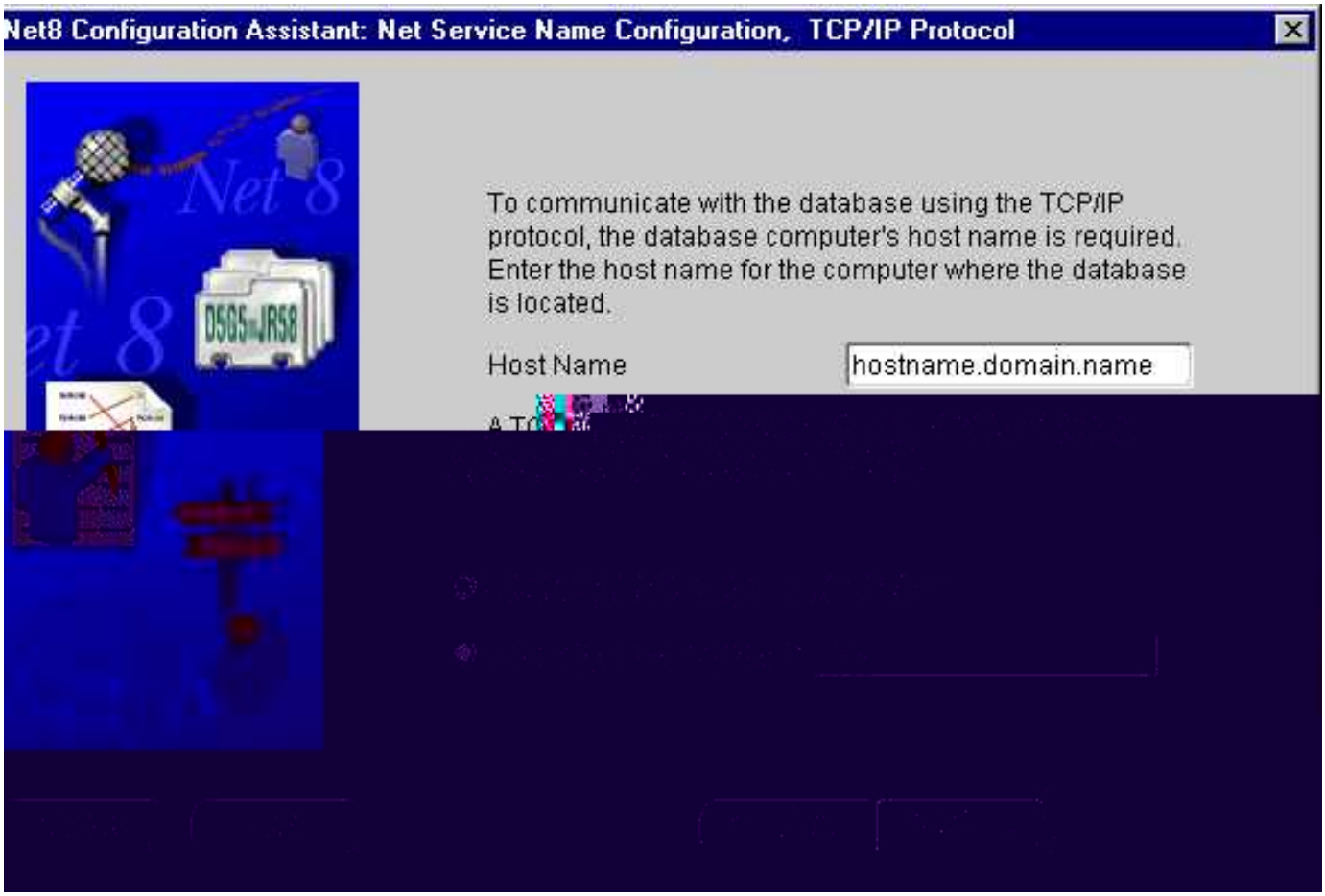
1. At your Windows system, insert the Oracle8i Client CD and select **Install/Deinstall Products** in the dialog box that appears.
2. In the Oracle Universal Installer Welcome dialog click **Next**.
3. In the File Locations dialog enter the Source and Destination file locations and click **Next**.
4. In the Installation Types dialog select **Administrator** as the installation type and click **Next**.
5. Verify information in the Summary dialog and click **Install**.

The installation process starts the Configuration Tools dialog. The Net8 Configuration Assistant will optionally be run.

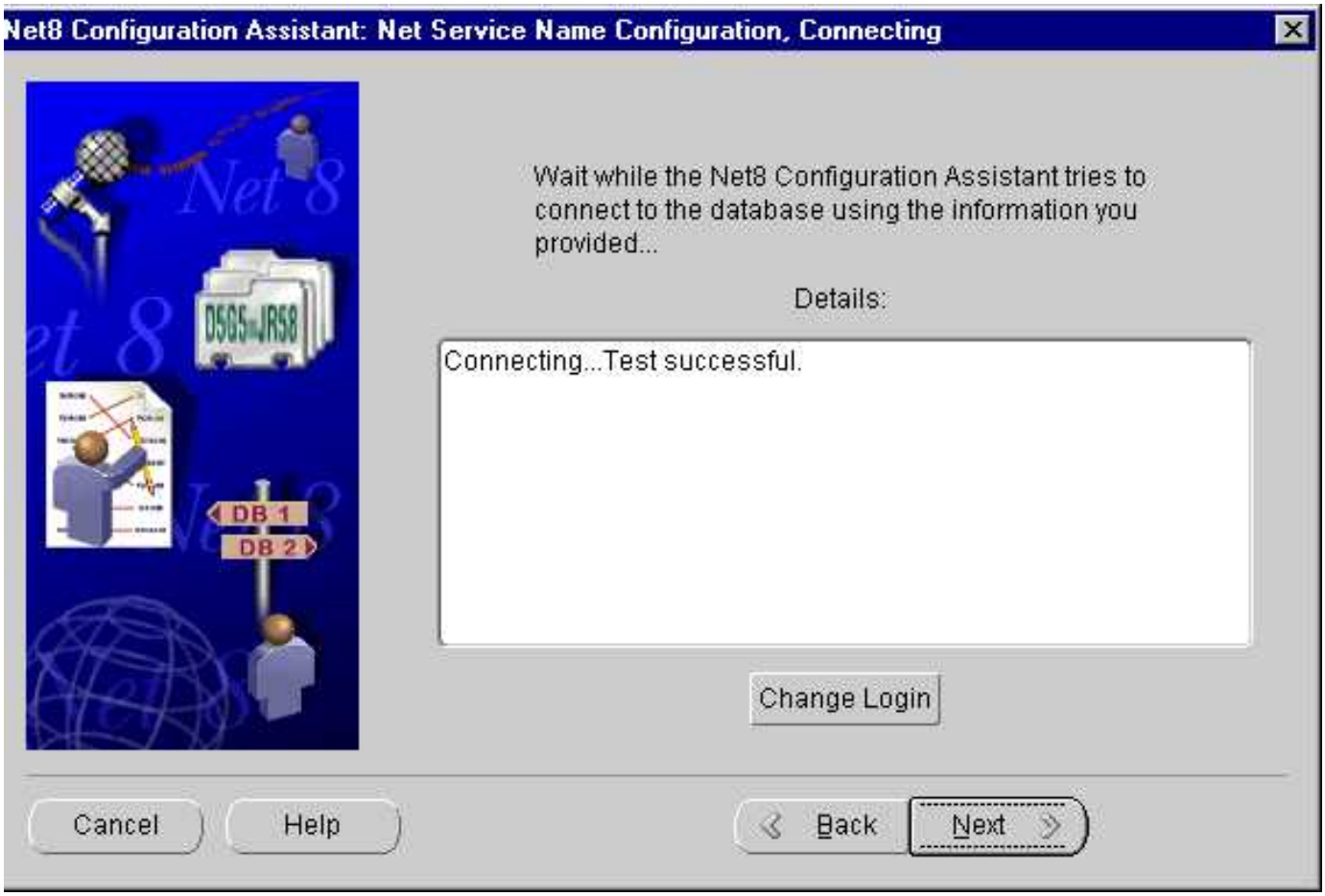
Task 2 ➡ Configure the Net8 connection to the Reporter database

After you complete the installation of the Oracle client software (the Net8 Configuration is optionally part of the client install and dialog steps may differ slightly) on the Windows system running VantagePoint Reporter, on that same system complete the following steps:

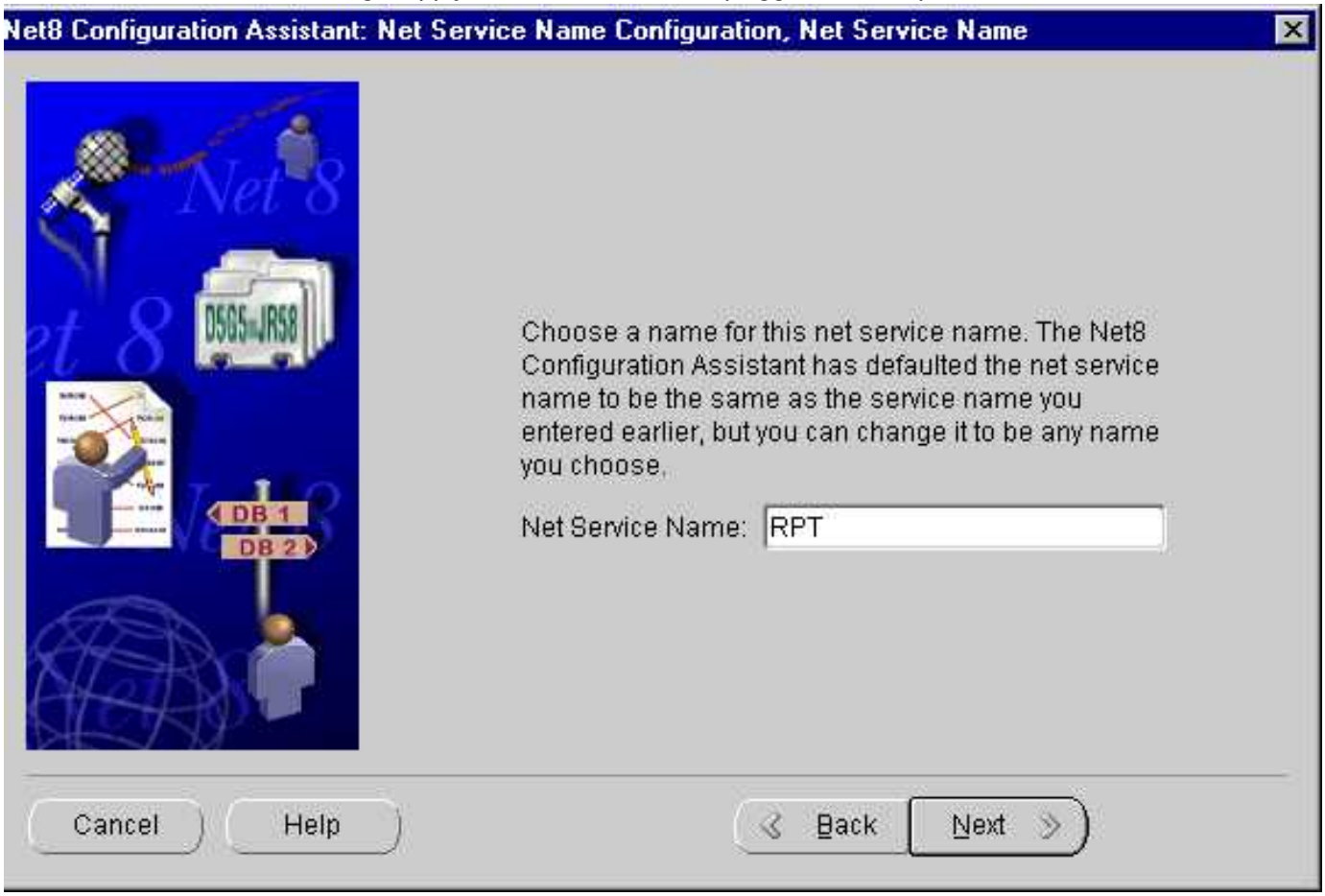
1. From the Start/Programs menu, select **Oracle**><***Oracle_Home***>:**Network Administration**:**Net8 Configuration Assistant**.
2. In the Welcome dialog select **Local Net Service Name configuration** and click **Next**.
3. Select the **Add** radio button; click **Next**.
4. In the Database Version dialog, select **Oracle8i database or service** (select the other option if connecting to a previous Oracle version), click **Next**.
5. In the Service Name dialog supply the global database name you entered in Task 4, step #10, of Configure reporter on UNIX; (i.e. reporter.<*domain.name*>); click **Next**.
6. At the Select Protocols dialog, select **TCP**, click **Next**.
7. At the TCP/IP Protocol dialog, supply the Host Name and port number (typically **1521**), click **Next**.



8. At the Test dialog, select **Yes**, perform a test; click **Next**.
9. At the Connecting dialog, verify that the connection was successful (you may have to change the login credentials (i.e., openview/openview) for the test to succeed); click **Next**.



10. At the Net Service Name dialog, supply a Net Service Name (suggested: **RPT**), and click **Next**.



11. In the Another Net Service Name? dialog, select **No**, and click **Next**.

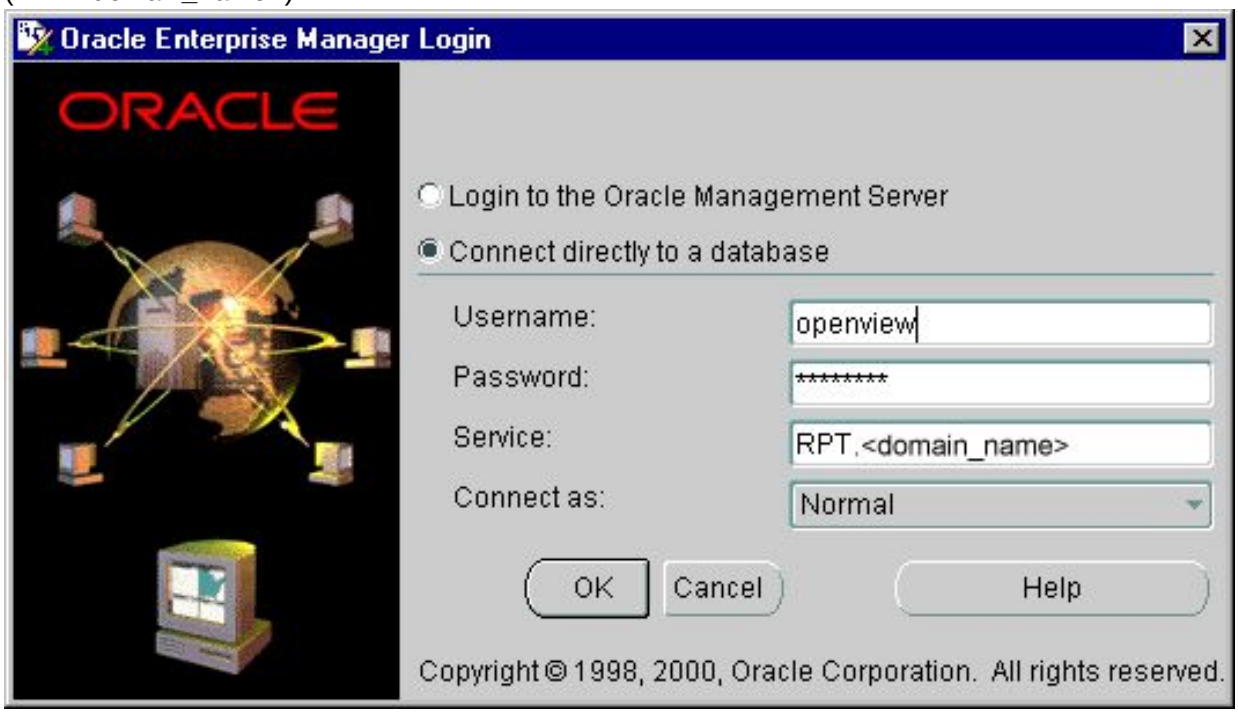
12. In the Done dialog, click **Next**, and then **Finish**.

    Note: The Net Service Name (i.e., RPT) may have the network domain appended to its name, for example RPT.<DOMAIN.NAME>. Rerun the Net8 assistant and select test to verify the actual, full Net Service Name.

Task 3 Verify the Net8 connection to the REPORTER database

After you complete the Net8 configuration, perform the following steps to verify that you can contact the Reporter database from your Windows system:

1. From the Start/Programs menu, select **Oracle** <***Oracle_Home***>, **Database Administration**, and **SQLPlus Worksheet**.
2. In the Oracle Enterprise Manager Login dialog, enter the database Username and Password that you used for the UNIX system configuration in Task 5, step 2 (username: **openview**, password:**openview**). Enter the Service name (**RPT**.<*domain_name*>)



3. Click the **OK** button.
4. In the SQL*Plus Worksheet, enter the command:
   select TABLESPACE_NAME, STATUS from user_tablespaces

   The following tablespace names should be displayed:

```
TABLESPACE_NAME                STATUS
------------------------------------
SYSTEM                         ONLINE
TOOLS                          ONLINE
RBS                            ONLINE
TEMP                           ONLINE
USERS                          ONLINE
INDX                           ONLINE
REPORTER                       ONLINE
RPT_INDEXES                    ONLINE
8 rows selected.
```

   If you cannot connect to the database, or do not see these tables, check with the Oracle database administrator for the UNIX host system.
5. From the File menu select **Exit**.

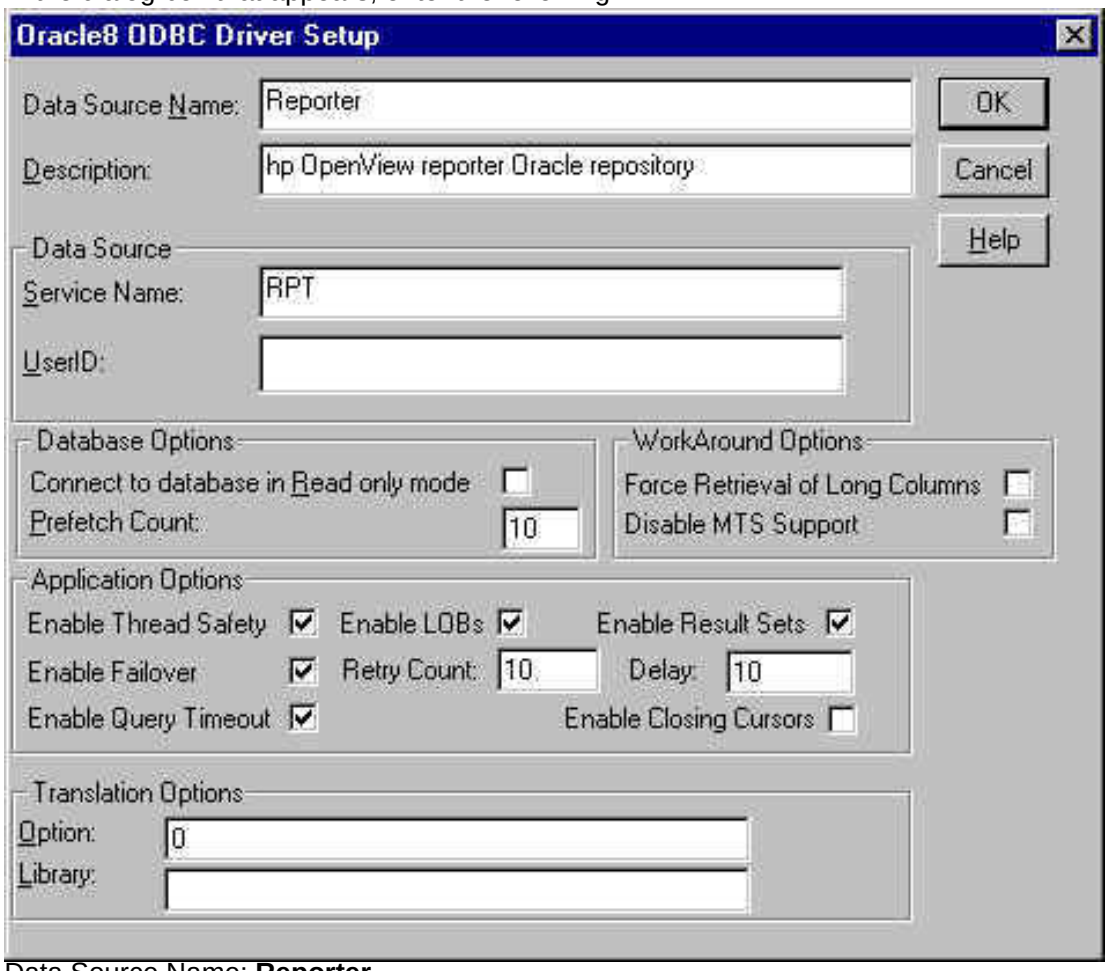
Task 4 Configure the ODBC data source in the Windows Control Panel

After you have configured Net8 on the Windows system running Reporter, you must configure the ODBC data source.

On the Windows system where Reporter is (or will be) installed, complete the following steps:

1. Select **Start**>**Settings**>**Control Panel**.

2. In the Control Panel window::
   for Windows 2000 double-click **Administrative Tools** (Windows 2000), then **ODBC Data Sources**.
   for NT 4 double-click **ODBC Data Sources**.
3. Select the System DSN tabbed page.
4. *(If migrating data from the default database to Oracle, omit this step.)*
   Choose **Reporter** with the default database driver and remove it.
5. Select the **Add…** button and highlight **Oracle ODBC Driver** and select **Finish**.
6. In the dialog box that appears, enter the following:



Data Source Name: **Reporter**
Description: <your_description>
Service Name: **RPT**.<*domain_name*>
User ID: (no entry necessary)

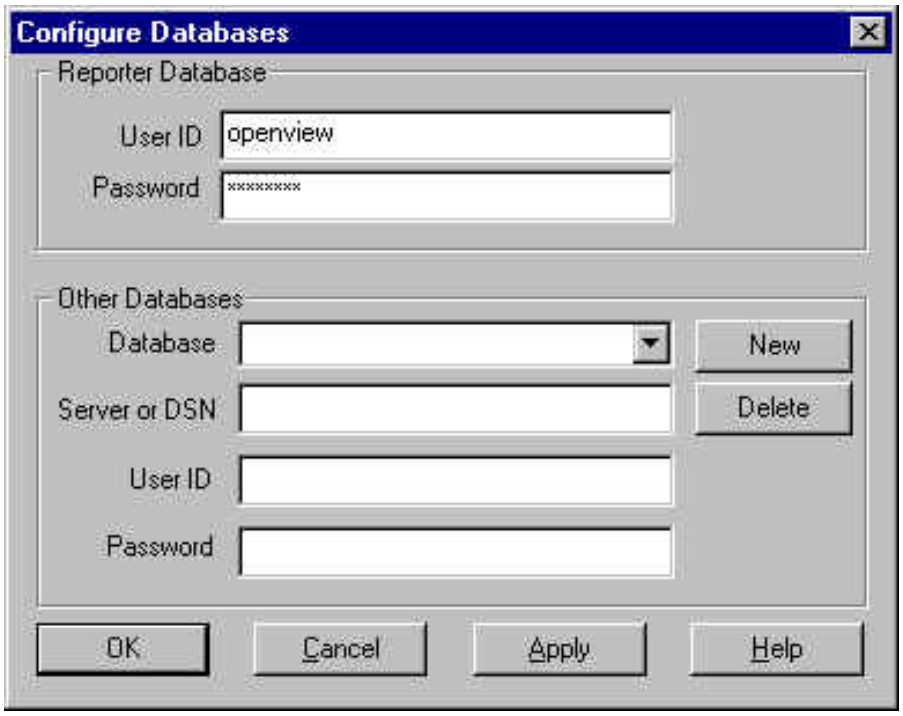
⚠ **Important**: You must enter Reporter as the Data Source Name in mixed case (uppercase "R") to match references to it in Reporter executables.

Task 5 ➧Configure the Database in Reporter*

**If you are migrating data from the default database to Oracle, OMIT step #7.*

1. To start Reporter, select>**Start**>**Programs**>**HP OpenView**>**Reporter**.
2. An error message is expected; click **OK** to proceed.

3. In the Reporter main window, from the File menu select **Configure**>**Databases**.
   The same error message appears as in the previous step; ignore and click **OK** to proceed.
4. In the Configure Databases dialog box under the Reporter Database section, enter the database User Name and Password that you used for the UNIX system configuration in Task 5, step 2 (username: **openview**; password: **openview**).
   If you are migrating from the default database to Oracle, User Name is **system** and Password is **manager**.



5. Click **OK**
6. Close, then re-open the Reporter main window.
7. *(If migrating data from the default database to Oracle, OMIT this step.)*
   Run **\rpmtools\bin\Newdb.exe**

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Appendix N: Connecting VPO 6

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Set Up Oracle 8.1.6 or 8.1.7 on HP-UX System and on the Windows System

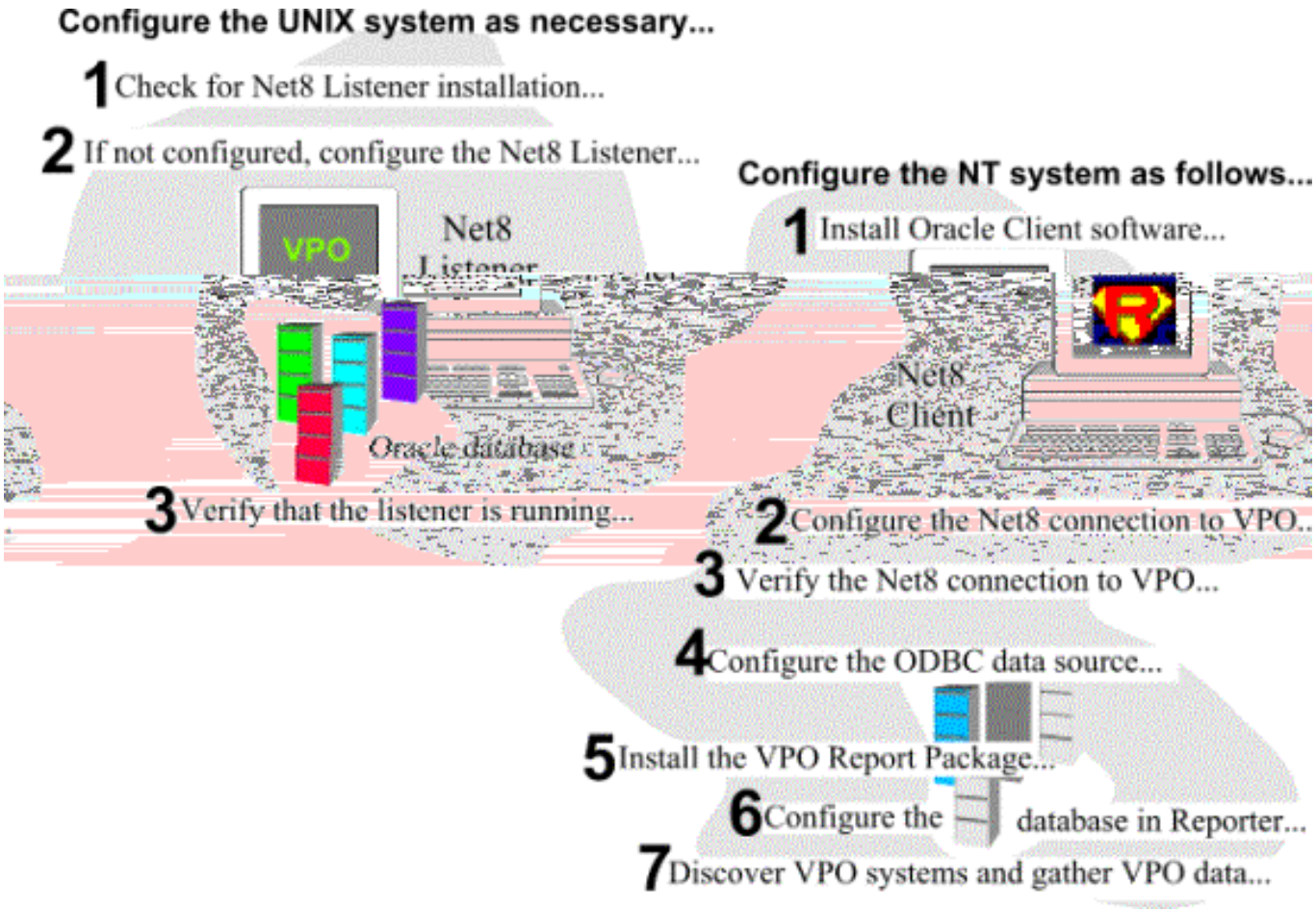
Prerequisites: Check your settings as compared with those in Hp-UX system kernal parameters. If you need to modify them, you must reboot your system.

For other system, memory and disk requirements, pleas check the “System Requirements” section of the *Oracle8i Installation Guide Release 2 (8.1.6 or 8.1.7) for HP 9000 Server and Workstations* that is published by Oracle and included with the software distribution.

Oracle has specific recommendations regarding optimal database installation and architecture.This document does not discuss all aspects of database installation and administration. We suggest that you consult Oracle technical literature and qualified Oracle professionals to achieve optimum database performance in your particular environment.

Connecting the VantagePoint Operations Database to VantagePoint Reporter (using Oracle 8.1.6 or 8.1.7)

Before VantagePoint Reporter can create reports containing VantagePoint Operations (VPO), formerly known as ITO, data, you must configure the connection between the VPO database (Oracle on the UNIX system) and VantagePoint Reporter (on the Windows NT system). The following illustration gives you an overview of the steps you complete on the two systems.



Prerequisites and Preparations

- **Software on the VPO management server:** VPO 6.0 using Oracle 8.1.6 or 8.1.7 must be installed and running.
- **Software on the VantagePoint Reporter system:** Oracle Client Software, version 8.1.6 or 8.1.7 a software package from Oracle.
- **Information:** Know the fully qualified VPO Oracle database server name, the ORACLE_HOME directory, and the user name and password for logging into the VPO database.
- **Case Sensitivity**: Some required entries in NT are case-sensitive; so we recommend you match instruction text exactly.
- **UNIX Shells**: Since HP-UX users typically use the Korn shell and Solaris users typically use the Bourne shell, the syntax for exporting variables differs.
  For the Korn shell, the format is:
  export VARIABLE_NAME=<*value*>
  For the Bourne shell, the format is:
  VARIABLE_NAME=<*value*>
  export VARIABLE_NAME
  In the discussion below the Korn shell format is used; if you are running a Bourne shell, substitute the correct format.

Configure the UNIX Server System

This section covers checking for installation of the Net8 listener on the UNIX system which is the Oracle database server for VPO, and if necessary, installing it.

Task 1 Check for Net8 listener installation

On the Oracle database server for systems running VPO 6, the Net8 listener should already be installed and running. Check to see if the Net8 listener is already installed and running as follows. It is assumed you are logged on to the Oracle database server system for VPO as root.

- To see if the listener is configured, enter the command:
  grep listener /etc/services
- If the output includes a line beginning with "listener," such as
  listener 1521/tcp #Oracle listener
  the listener is already configured and you can proceed to **Task 3**.

  If the port number in the output is different from **1521/tcp**, consult with your Oracle database or VPO administrator to see if the port number can be changed to 1521 and the listener restarted. If not, you can change the port number on the client side in two ways (whichever you prefer) as follows:
  - Select a different port in the NT configuration in Task 2, step #7 to match the port specified on the UNIX Oracle server.
    OR
  - Modify the `\Oracle\Ora81\network\admin\tnsnames.ora` file to enter the port number you specified in Task 2, step #7 (below) on the NT system.

If no output appears, the listener is not configured, and you must proceed to the next task.

Task 2 If necessary, configure the Net8 listener

To configure the Net8 listener on the HP-UX Oracle database server system, run the **opcsqlnetconf** script. For VPO 6 installations, this script is located on the VPO server system in directory /opt/OV/bin/OpC.


Note: If you run the the script and receive the WARNING: "Above Net8 files already exist. Do you want to replace them?," respond "No" to end the script execution. Call your VPO or database administrator for assistance.

The script assumes the VPO Oracle database instance "openview" is on the same system where VPO is installed, and prompts you with the system name where the script is running as the default "listener" system. The script must be run on the system where the VPO Oracle database instance "openview" resides.

- **To configure the VPO 6 UNIX server, follow these steps:**

1 At the UNIX server on which VPO is installed, log on as root
2 Run the **/opt/OV/bin/OpC/opcsqlnetconf** script.

(Most responses require only that you press **Enter**.)

The script prompts and output are as follows:

```
VPO Net8 configuration script opcsqlnetconf.
Verify/Set Variables:
Please enter ORACLE_SID [openview]: [Enter]
Please enter ORACLE_HOME [/opt/oracle/product/8.1.6 or 8.1.7]: [Enter]
Please enter the name of the database server node
(normally management server) [voyager]: [Enter]
Do you want to enable automatic startup of the Net8 listener at system boot (y/n) [y] ? [Enter]
Do you want to start the Net8 listener now (y/n) [y] ? [Enter]

LSNRCTL for HPUX: Version 2.3.4.0.0 - Production on 18-NOV-98 14:39:39
Copyright (c) Oracle Corporation 1994. All rights reserved.
Starting /opt/oracle/product/8.0x/bin/tnslsnr: please wait...
TNSLSNR for HPUX: Version 2.3.4.0.0 - Production
System parameter file is /etc/listener.ora
Log messages written to /opt/oracle/product/8.1.6 or 8.1.7/network/log/listener.log
Listening on: (ADDRESS=(PROTOCOL=ipc)(DEV=10)(KEY=openview))
Listening on: (ADDRESS=(PROTOCOL=tcp)(DEV=14)(HOST=15.8.153.173)(PORT=1521))
Connecting to (ADDRESS=(PROTOCOL=IPC)(KEY=openview))
STATUS of the LISTENER
------------------------
Alias LISTENER
Version TNSLSNR for HPUX: Version 2.3.4.0.0 - Production
Start Date 18-NOV-98 14:39:46
Uptime 0 days 0 hr. 0 min. 1 sec
Trace Level off
Security OFF
SNMP OFF
Listener Parameter File /etc/listener.ora
Listener Log File /opt/oracle/product/8.1.6 or 8.1.7/network/log/listener.log
Services Summary...
openview has 1 service handler(s)
The command completed successfully
VPO Net8 configuration script opcsqlnetconf finished.
#
```

Task 3 Verify that the Listener is Running

Enter the commands:

export ORACLE_HOME=<*pathname***>**
(***pathname*** is typically /opt/oracle/product/8.1.6 or 8.1.7 or 8.1.7)
$ORACLE_HOME/bin/lsnrctl status

Look in the resulting status summary for a **Services Summary** indicating that **openview** has **<*number*> service handler(s)** (showing one or more for the number). If an error message appears, indicating "no listener," ask your Oracle database or VPO administrator to start the listener.

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Configure the Windows Client System (Running Reporter)

This section covers the Windows NT client configuration. This configuration allows Reporter to connect to the UNIX system, from which the VPO database is accessed.

Task 1 Install Oracle 8.1.6 or 8.1.7 Client software

To begin, you need the following Oracle product: Oracle8i Client, Release 2 (8.1.6 or 8.1.7) for Windows NT/2000. You also need administrator privileges on the NT client where Reporter is installed.

1. If you have Oracle installed on your system, at your Windows NT system insert the Oracle8i Client CD and in the dialog box that appears select **Install/Deinstall Products**.
   If you have no Oracle Products on your system skip this step.
2. In the Oracle Universal Installer **Welcome** dialog click **Next**.

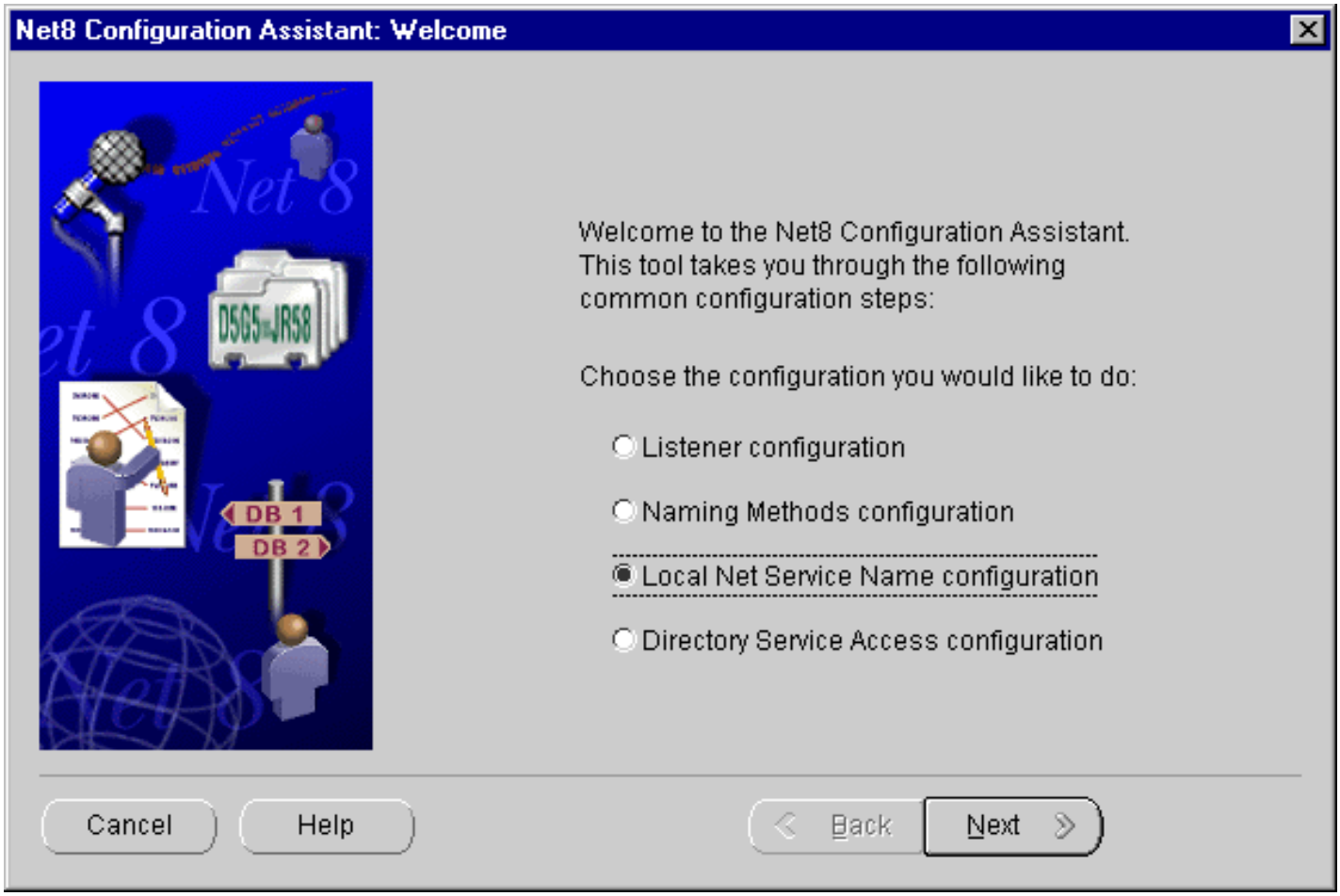
3. In File Locations enter the **Source** and **Destination** file locations for this product; click **Next**.
4. In the Installation Types select **Administrator** as the installation type and click **Next**.
5. Verify information in the **Summary** dialog that appears. Click **Install**

The install process automatically starts the **Configuration Tools** dialog where you can choose to run the **Net8 Configuration Assistant**.

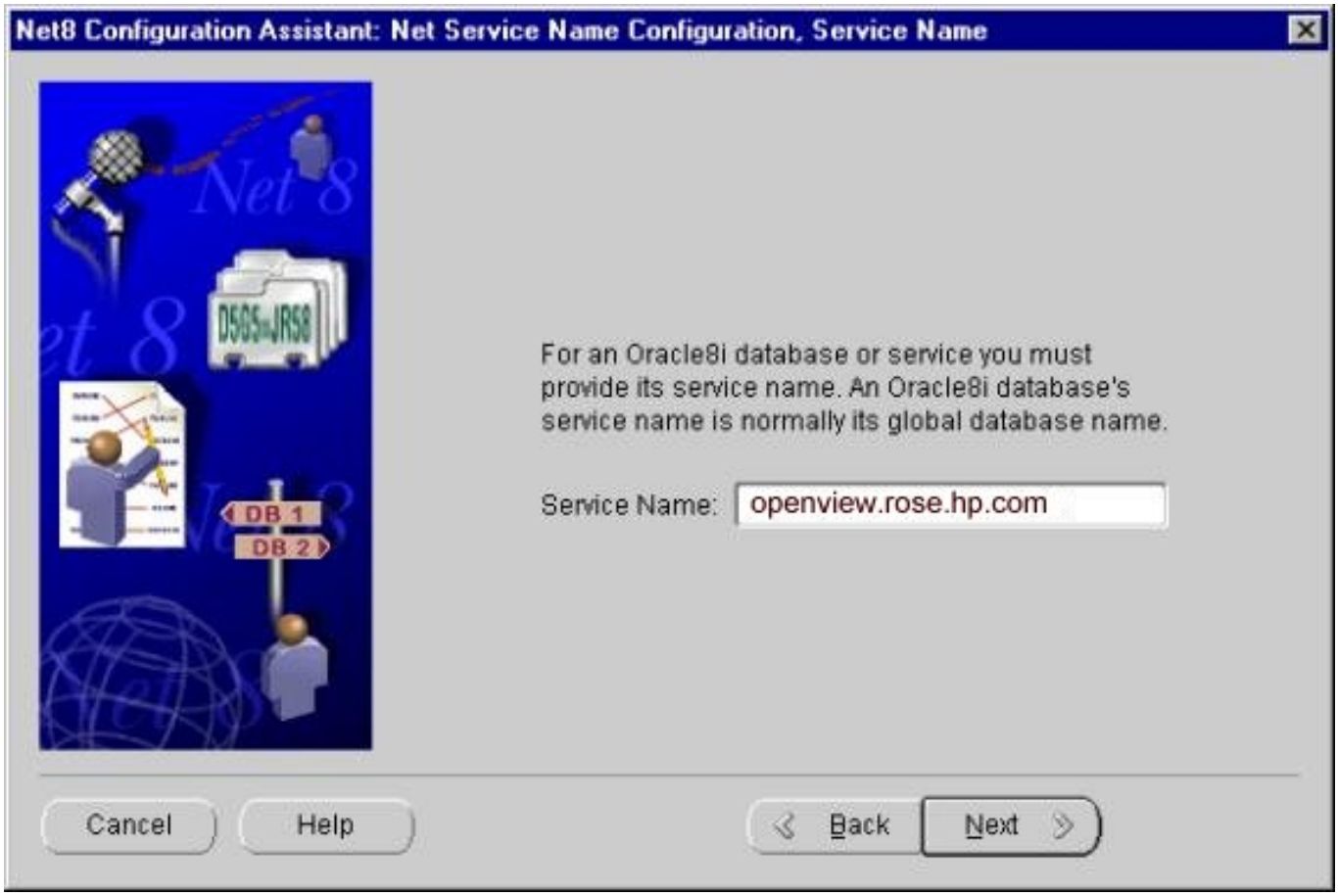
Task 2 Configure the Net8 connection to the VPO database

After you complete the installation of the Oracle client software (the Net8 Configuration is optionally part of the client install and dialog steps may differ slightly) on the Windows NT system running VantagePoint Reporter, on that same system complete the following steps:

1. From the Start>Programs menu, select **Oracle - <*Oracle Home*>, and Network Administration,** and **Net8 Configuration Assistant**.
2. At the Welcome dialog select **Local Net Service Name Configuration**, click **Next**.

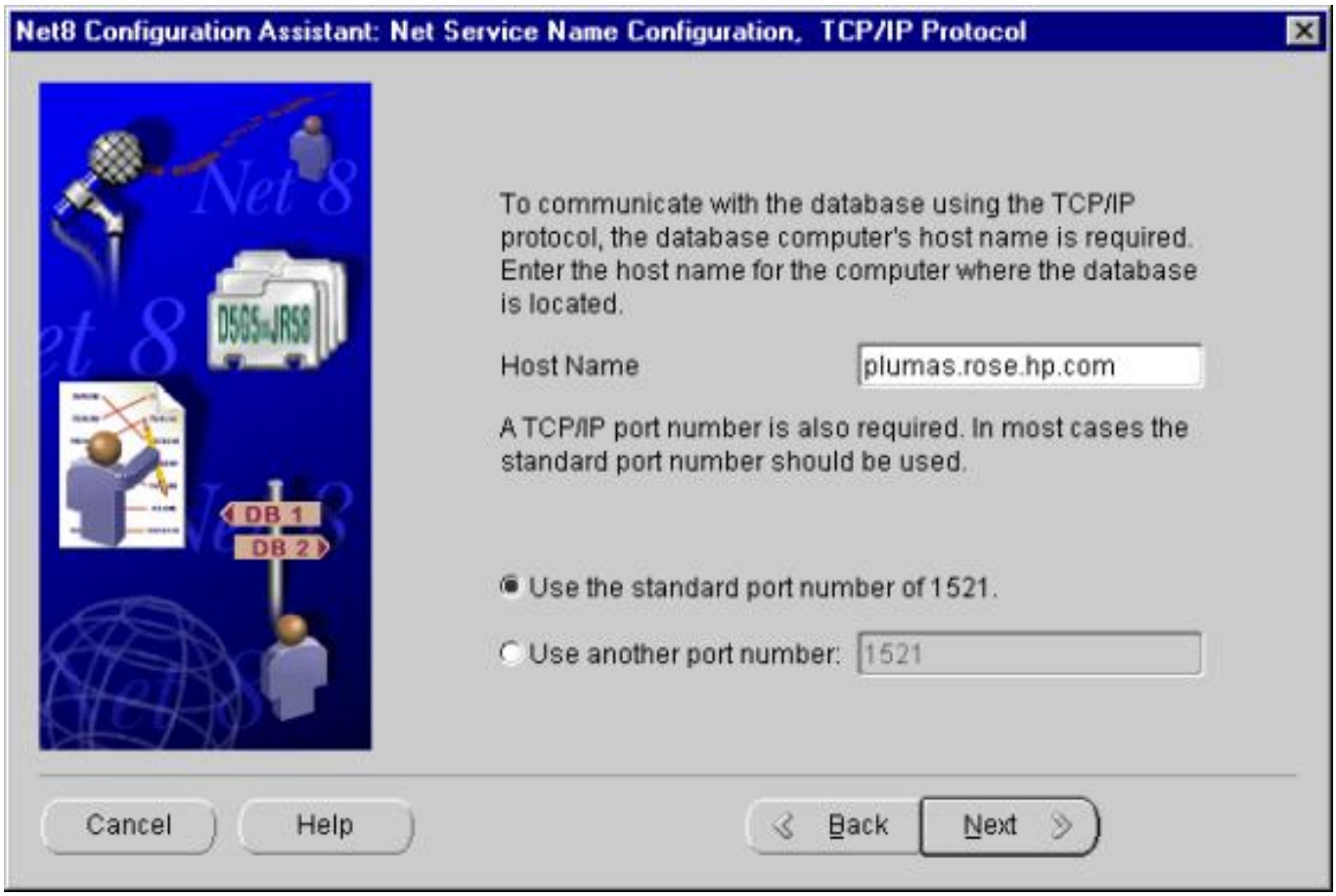


3. In the Net Service Name Configuration dialog select **Add** and click **Next**.
4. In the Database Version dialog, select **Oracle8i database or service** (select the other option if connecting to a previous Oracle version), click **Next**.
5. At the Service Name dialog supply the global database name specified during database creation. Click **Next.**



The Net Service Name (i.e., **openview**) may have the network domain appended to its name. (For example, **openview.rose.hp.com**, where "rose.hp.com" is the domain name. Domain name may or may not be necessary, depending on how your system is set up.)
Rerun the Net8 assistant and select test to verify the actual, full Net Service Name.

6. At the Select Protocols dialog, select **TCP**, click **Next**.
7. At the TCP/IP Protocol dialog, supply the **Host Name** and **port number** (typically 1521), click **Next**.



8. At the Test dialog, select **Yes, perform a test**, and click **Next**.
9. At the Connecting dialog, verify that the connection was successful (you may have to change the login credentials for the test to succeed; the login/password should match those set up for VPO connecting to the database). Click **Next**.
10. At the Net Service Name dialog, supply a **Net Service Name**, (suggested: **openview**) click **Next**.

11. At the **Another Net Service Name?** Dialog, select **No**, click **Next**.
12. At the **Done** dialog, click **Next**, then click **Finish**.

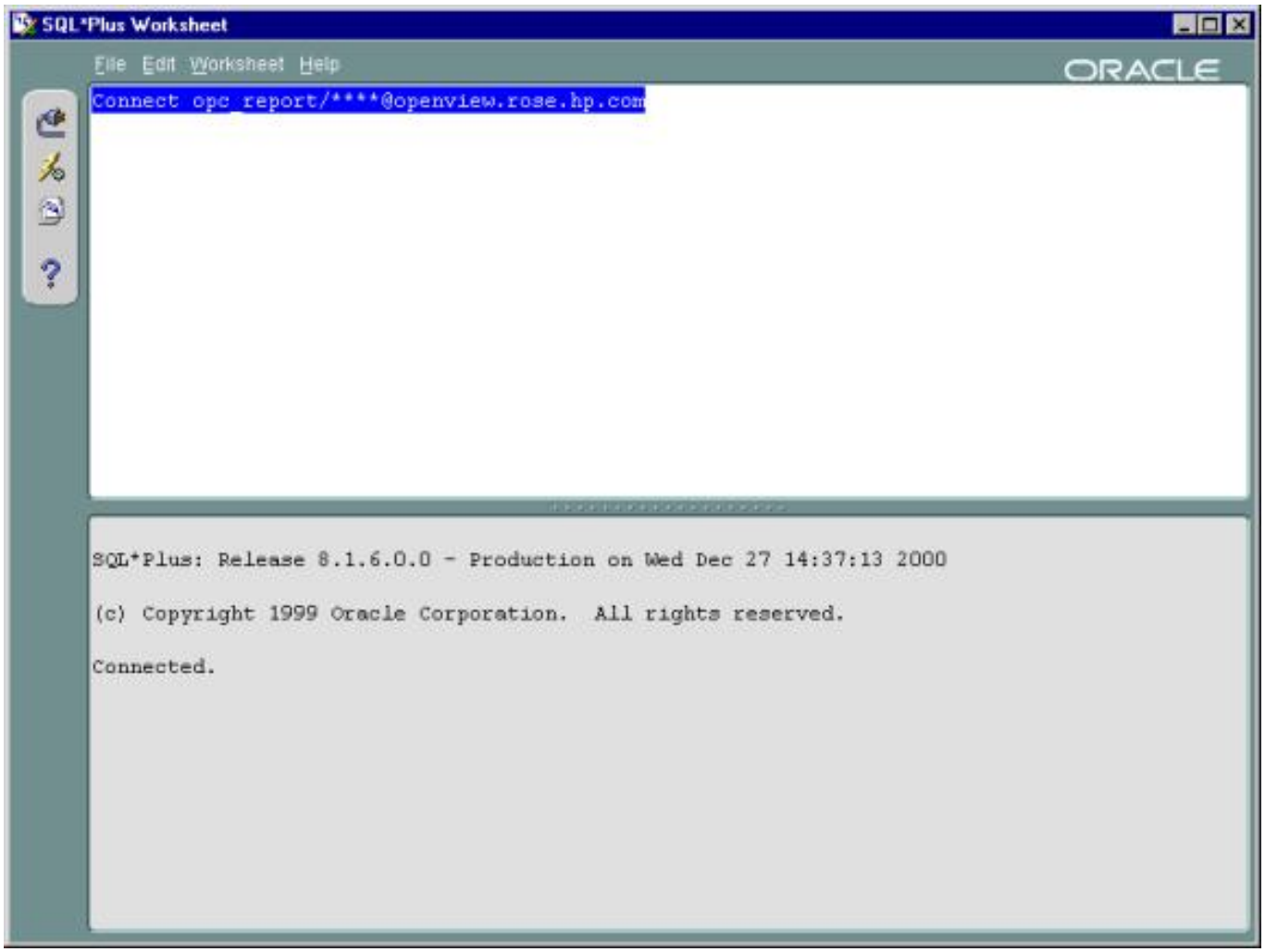
Note: The Net Service Name (i.e., **openview**) may have the network domain appended to its name. (For example, **openview.rose.hp.com**, where "rose.hp.com" is the domain name. Domain name may or may not be necessary, depending on how your system is set up.)
Rerun the Net8 assistant and select test to verify the actual, full Net Service Name.

Task 3 Verify the Net8 connection to the VPO database

After you complete the Net8 configuration, verify that you can contact the VPO database from your NT system as follows:

1. From the **Start/Programs** menu, select **Oracle <Oracle Home>, Database Administration**, and **SQLPlus Worksheet**.
2. In the **Oracle Enterprise Manager Login** dialog, enter the database **User Name** (the recommened user name is opc_report) and **Password**. Enter the **Service** name (**openview<.DOMAIN.NAME>**).

3. Click the **OK** button. The SQL*PLUS Worksheet should appear. If error messages appear, you have an error in the connection from the NT system to the Oracle VPO database. Review previous tasks in this section.



4. In the SQL*Plus Worksheet, enter the command to retrieve data from one of the Oracle database tables:

   select node_group_name from opc_node_groups;

A response like the following indicates successful access to the VPO database. If you receive errors, you need to correct them before proceeding. Contact your Oracle database administrator for assistance.

```
NODE_GROUP_NAME
--------------------------------
hp_ux
net_devices
NT40
```

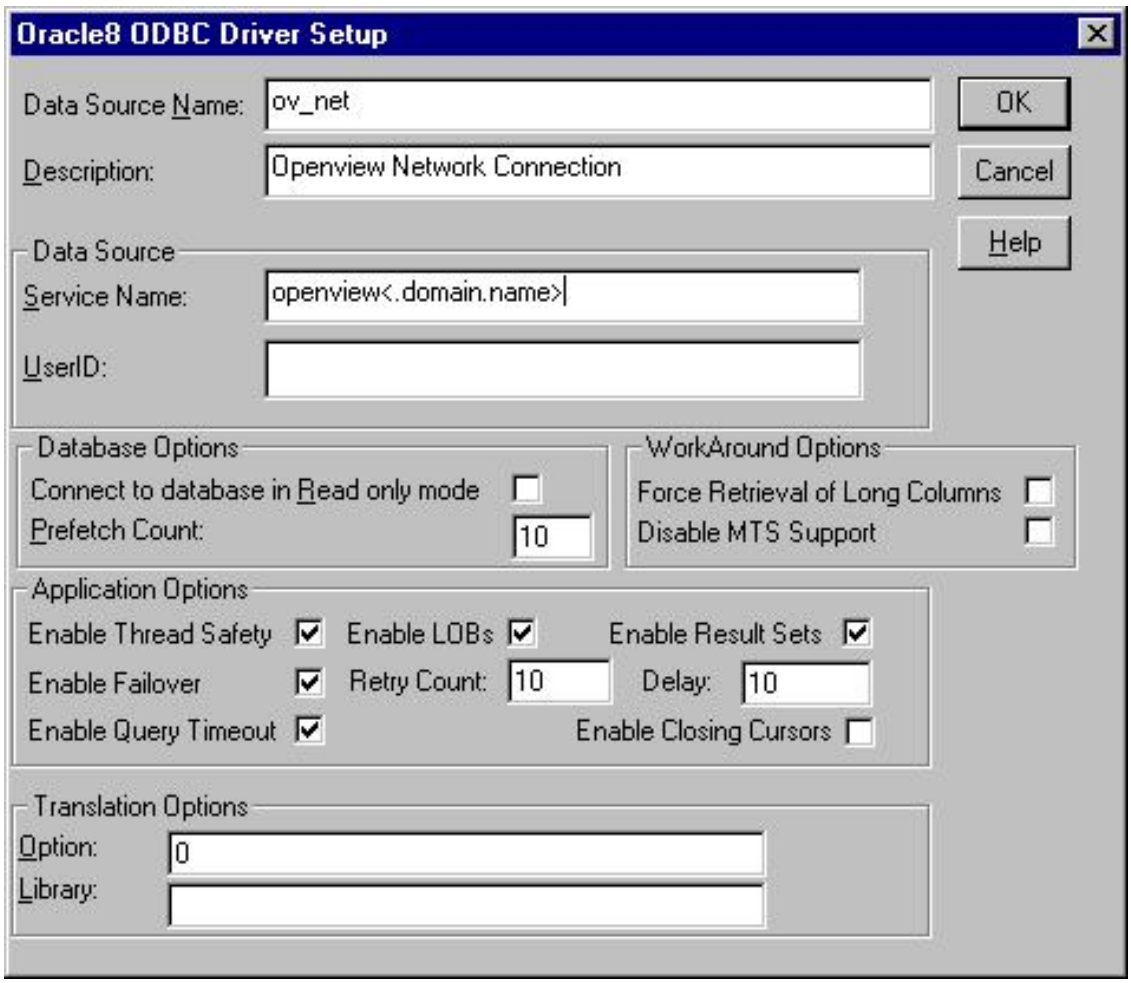
5. From the **File** menu select **Exit**.

Task 4 Configure the ODBC data source in the NT Control Panel

After you have configured Net8 on the Windows NT system running VantagePoint Reporter, you must configure the ODBC data source.

On the Windows NT system where Reporter is (or will be) installed, complete the following steps:

1. Select **Control Panel** from the Windows NT Start>Settings menu.
2. Double-click **ODBC** in the Control Panel window .
3. Select the **System DSN** tabbed page.
4. Choose the **Add…** button and highlight **Oracle ODBC** driver and select **Finish**.
5. In the dialog box that appears, enter the following:
   Data Source Name: **ov_net**
   Description: *<your_description>*
   Service Name: **openview<.domain.name>** for the
   User ID: (no entry necessary)



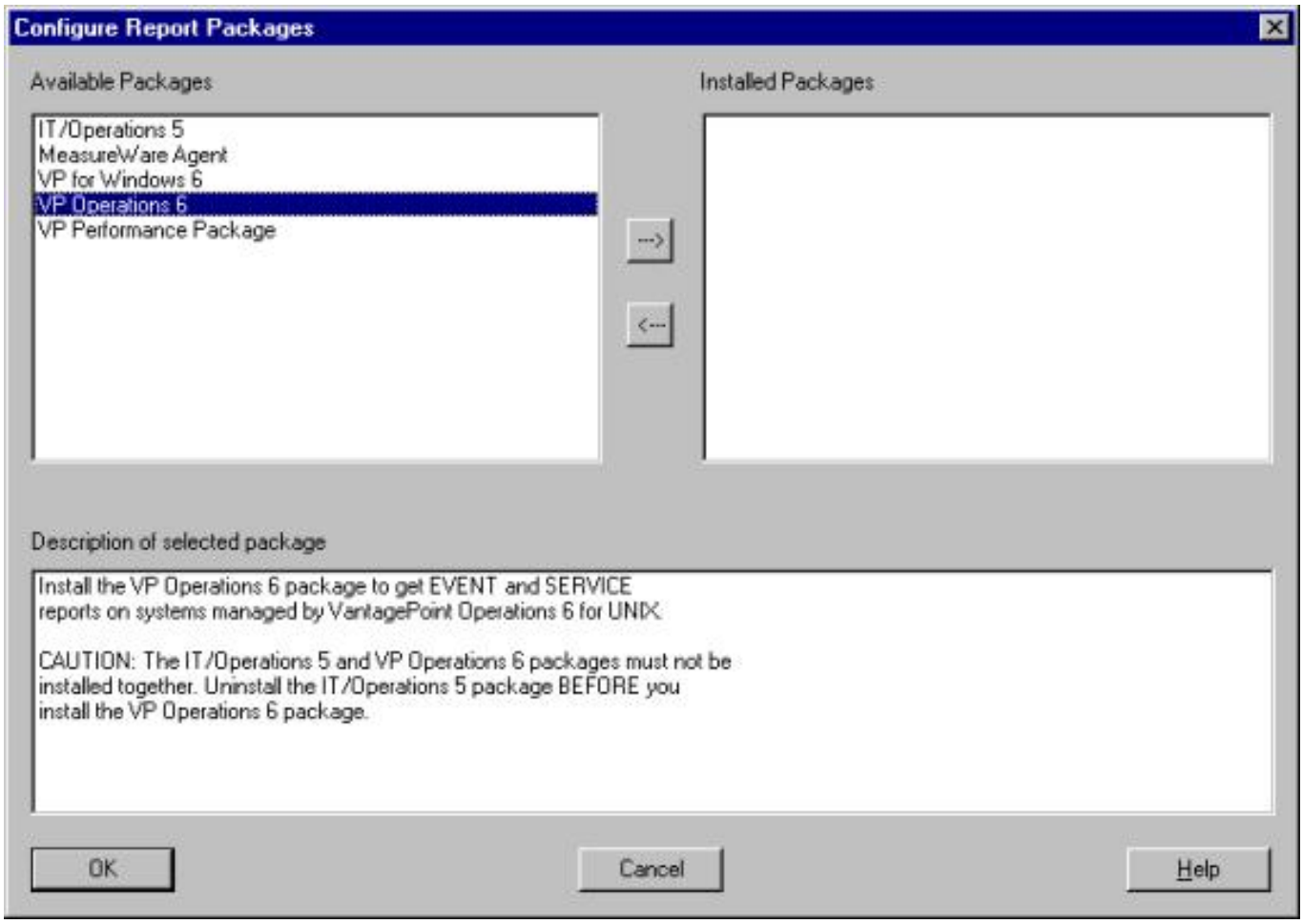
6. Click **OK**.
7. Close the **ODBC Data Source Administrator** window.

8. Close the **Control Panel** window.

Task 5 Install the VPO Report Package

To add report definitions and configuration information, you need to add the VP Operations 6 package. To add the package:

1. Start **Reporter** from the Start/Programs/HP Openview/VantagePoint Reporter menu.
2. In the Reporter main window from the **File** menu select **Configure**>**Report Packages**



3. Select the appropriate VP Operations version from the Available Packages box; click the right-arrow to move to the Installed Packages box, and click **OK**.
4. Verify that the Reporter service is running
   (the service is not running if the 3rd through 6th toolbar buttons are greyed-out); if not, start it by clicking the 2nd button.
5. In the Status pane, check for the messages:
   RepLoad:Loading package for " VP Operations 6"
   RepLoad:Completed loading template file
   (to indicate successful package installation)

Task 6 Configure the Database in VantagePoint Reporter

Now that you have configured the database connection to the Windows NT system and installed the VP Operations Report Package, you can configure VantagePoint Reporter to recognize the VP Operations database as the source for its data. With VantagePoint Reporter installed on the Windows NT system, follow the steps below:

1. In the Reporter main window, from the **File** menu select **Configure,** then **Databases** from the submenu.
2. In the Other Databases section (lower area) of the Configure Databases dialog box select the down-arrow in the Database text box, and choose **openview**.
   (If **openview** does not appear, you will need to review the steps of the previous sections to configure the ODBC setup.)
3. Complete the remaining text boxes as follows:
   Server: ov_net
   User ID:< your_VP Operations_ database_user_name>

Password:<your_VP Operations_database_password>

⚠ Even though asterisks appear for the password, you must enter the correct password for the VP Operations user ID.

4. Click **OK**.

Task 7 Discover VP Operations Systems and Gather VPO Data

1. Select **Schedule** in the left pane to display a list of all scheduled actions in the right pane.
2. In the right pane, right-click **Discover_ITO.exe** and select **Run Now**.
3. In the Status pane, check for messages such as:
   2000/12/27 15:12:19 Discover_ITO: Begin Discovery of ITO database openview2000/12/27 15:12:19 Discover_ITO: Found NEW ITO Agent on plumas.rose.hp.com
   2000/12/27 15:12:19 Discover_ITO: Found NEW ITO Agent on zephram.rose.hp.com
   2000/12/27 15:12:19 Discover_ITO: Found NEW ITO Agent on ros59102raw.rose.hp.com
   2000/12/27 15:12:19 Discover_ITO: Found NEW ITO Agent on highbeam.rose.hp.com
   2000/12/27 15:12:19 Discover_ITO: Examined 4 systems, found 4 new ITO Agents for a total of 30 known
   2000/12/27 15:12:20 Discover_ITO: Examined systems in groups for 3 systems, found 3 new
   2000/12/27 15:12:20 Scheduler: Next scheduled action at 12/28/00 00:15:0

   If you see errors, return to Task 6 and make sure the password and other fields have been correctly filled in.
4. In the right pane, right-click **Gather_ITO.exe** and select **Run Now**.
5. In the Status pane, check for messages such as:
   2000/12/27 15:12:40 Scheduler:
   Starting program "Gather_ITO.exe" 2000/12/27 15:12:40 Gather_ITO: Begin synchronizing with ITO database openview
   2000/12/27 15:12:41 Gather_ITO: Processing Historical messages
   2000/12/27 15:13:19 Gather_ITO: Processed 2775 Historical messages, Added 860 Summaries, 854 Operator Sums
   2000/12/27 15:13:19 Gather_ITO: Processing Active messages
   2000/12/27 15:13:21 Gather_ITO: Processed 755 Active messages, Added 9 Summaries, 6 Operator Sums
   2000/12/27 15:13:22 Scheduler: Next scheduled action at 12/28/00 00:15:00
6. If you want to see reports immediately, in right pane right-click **RepCrys.exe** and select **Run Now**.

Your configuration of the VP Operations database with VantagePoint Reporter is now complete. VP Operations reporting will now run in the normal nightly reporting cycle.