

Oracle® Retail Predictive Application Server
Installation Guide
Release 13.0.1

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Preface

Oracle Retail Installation Guides contain the requirements and procedures that are necessary for the retailer to install Oracle Retail products.

Audience

This document is intended for the users and administrators of Oracle Retail Predictive Application Server. This may include merchandisers, buyers, and business analysts.

This Installation Guide is written for the following audiences:

- Database administrators (DBA)
- System analysts and designers
- Integrators and implementation staff

Related Documents

For more information, see the following documents in the Oracle Retail Predictive Application Server Release 13.0.1 documentation set:

- *Oracle Retail Predictive Application Server Release Notes*
- *Oracle Retail Predictive Application Server Administration Guide*
- *Oracle Retail Predictive Application Server User Guide*
- *Oracle Retail Predictive Application Server Online Help*
- *Oracle Retail Predictive Application Server Configuration Tools User Guide*

Customer Support

- <https://metalink.oracle.com>

When contacting Customer Support, please provide:

- Product version and program/module name.
- Functional and technical description of the problem (include business impact).
- Detailed step-by-step instructions to recreate.
- Exact error message received.
- Screen shots of each step you take.

Review Patch Documentation

For a base release (".0" release, such as 13.0), Oracle Retail strongly recommends that you read all patch documentation before you begin installation procedures. Patch documentation can contain critical information related to the base release, based on new information and code changes that have been made since the base release.

Oracle Retail Documentation on the Oracle Technology Network

In addition to being packaged with each product release (on the base or patch level), all Oracle Retail documentation is available on the following Web site:

http://www.oracle.com/technology/documentation/oracle_retail.html

Documentation should be available on this Web site within a month after a product release. Note that documentation is always available with the packaged code on the release date.

Conventions

Navigate: This is a navigate statement. It tells you how to get to the start of the procedure and ends with a screen shot of the starting point and the statement “the Window Name window opens.”

Note: This is a note. It is used to call out information that is important, but not necessarily part of the procedure.

This is a code sample
It is used to display examples of code

A hyperlink appears like this.

Introduction

Welcome to the Oracle Retail Predictive Application Server (RPAS) Installation Guide. This chapter outlines the contents of this guide, discusses the updated components with respect to the previous version, and defines commonly used notations and terms.

Terms

The following terms are used in this guide:

- **RPAS** – The Oracle Retail Predictive Application Server provides the foundation for Oracle Retail solutions such as Oracle Retail Demand Forecasting (RDF), Merchandise Financial Planning (MFP), and Advanced Inventory Planning (AIP). RPAS does not include any business logic, but it enables the solutions to store, manipulate and retrieve data. It provides the solutions with a standard interface based on wizards, templates, workbooks, and batch processes.
- **RPAS solution** – The software that uses RPAS. RPAS solutions are added on to RPAS domains as separate modules. All the business logic is encapsulated in the solution. An RPAS domain can support solutions.
- **RPAS domain** – The collection of server-side directories and files containing data and procedures that comprise the RPAS solution. Refer to the *RPAS Administration Guide* and the *RPAS Configuration Tools User Guide* for additional information.
- **RPAS Client** – The Windows-based client interface for end users and system administrators of an RPAS domain. An administrator may perform maintenance work in a domain using the RPAS Client, server-side RPAS utilities.
- **RPAS Configuration Tools** – The tools used to configure an RPAS solution. See the *RPAS Configuration Tools User Guide* for more information.

Getting Started

This chapter provides:

- An overview of the RPAS platform
- Typical installation scenarios
- A list of the system requirements
- An overview of the installation contents

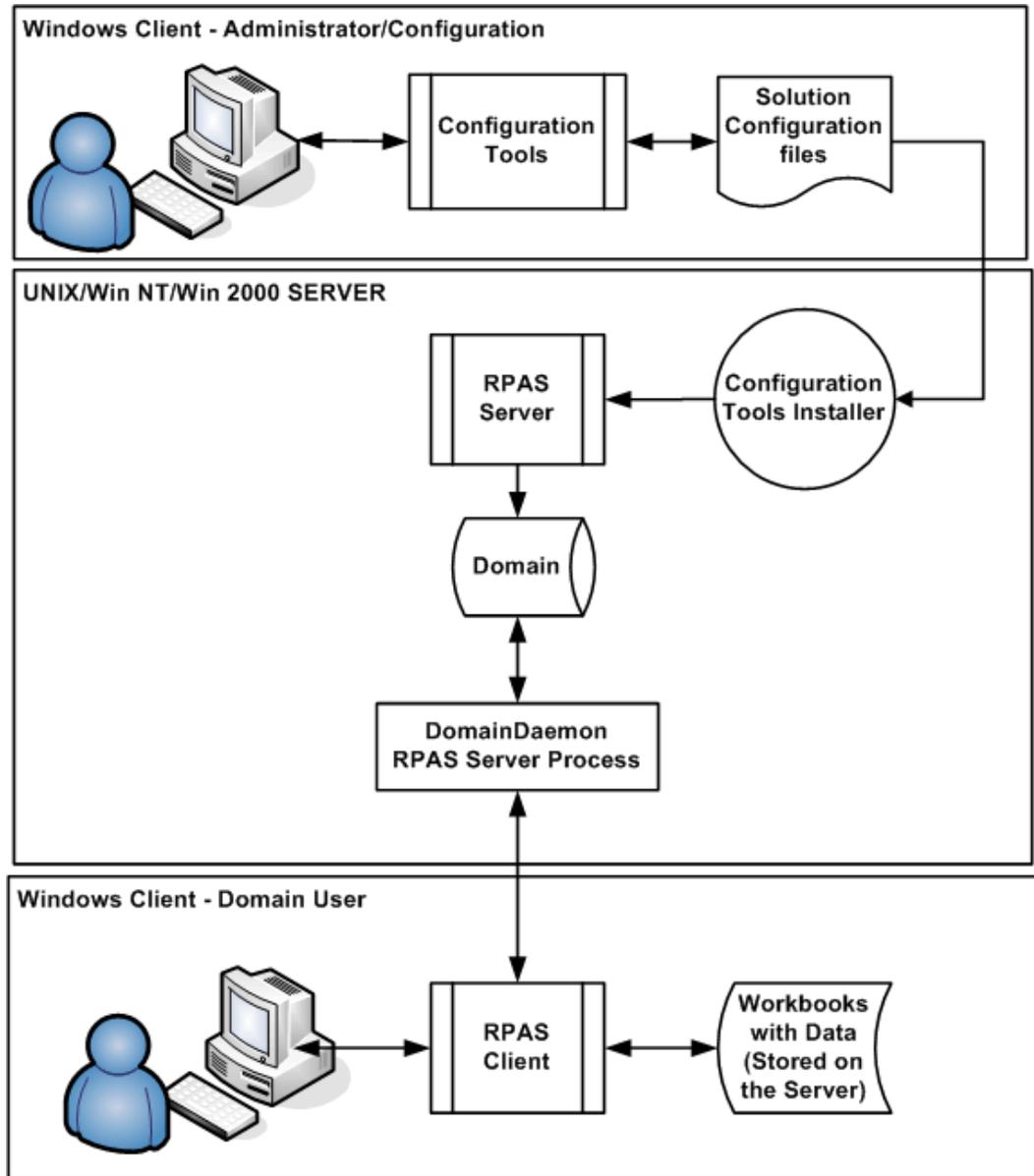
RPAS Platform Overview

RPAS 13.0 is supported on HPUX and AIX operating systems and is comprised of many components. In addition, there are solutions that have been developed using the RPAS 13.0 foundation. These solutions must be installed separately. Examples of these solutions include Oracle Retail Merchandise Financial Planning and Oracle Retail Advanced Inventory Planning.

The components of the RPAS software include the following:

- RPAS Server and related utilities
- RPAS Client
- RPAS Configuration Tools
- Sample configurations (Curve and Grade)
- Documentation
- Supported Translations

A typical RPAS Server-based installation is illustrated below. RPAS and the Configuration Tools may also be installed on a single Windows stand-alone machine. For instructions on installing on a Windows machine, refer to "Installing on a Windows Environment".



RPAS Environment

The following table indicates which software components are needed for each task. The reference to Windows includes Windows NT 4.0 (service pack 3+), Windows 2000, and Windows XP.

Task	Typical User	Platforms	RPAS Server	RPAS Client	Configuration Tools	Java v1.5
Log in to an existing (built) RPAS domain for the primary purpose of building workbooks.	End User	Windows	No	Yes	No	No
Use the Configuration Tools to create or modify solutions.	Solution/Product Administrator	Windows	No	No	Yes	Yes
Use the Configuration Tools to build configured solutions.	Solution/Product Administrator	Windows UNIX	Yes	No	Yes	Yes

Java 2 Runtime Environment (JRE) 1.5 can be acquired from java.sun.com for Sun Solaris and Microsoft Windows or from the respective vendor's Web site for IBM and HP.

Environment variables are automatically set when using the Oracle Retail Installer to install the RPAS components on a UNIX environment.

System Requirements

Server

The table below shows the supported server platforms available for RPAS.

Supported Platform	Compiled on Version	Versions Supported
HP-UX (Itanium)	11.23 aCC 6.15	11.23
IBM AIX	5.3 (TL05 or greater)	5.3
Sun Solaris	9 (gcc 4.1.1)	9
Oracle Enterprise Linux	5 (gcc 3.4.6)	5

- You will also need to install Java Run-time Environment (JRE) version 1.5 if you are installing the Configuration Tools. For AIX, you must use the 32-bit version of Java version 1.5.
- If you are installing the RPAS Server on Windows NT/2000, you must install the MKS Toolkit in order to emulate UNIX commands (required for starting the RPAS Server on Windows). Oracle employees and partners should contact Oracle IT Support to obtain a copy. Customers can go to www.mks.com for more information about downloading this product. Users running Windows XP should be using MKS version 8.7 as users running older versions of MKS encountered problems on Windows XP.
- Perl is an interpreted language that is included on all supported UNIX platforms (included with MKS Toolkit for NT). Perl is used by our patch sets, which are used to install an RPAS patch.
- An application for unzipping (.zip) components on UNIX must be installed and used for extracting the RPAS Configuration Tools. Unzip is an open source software package that can be used for this process.

RPAS Client

Desktop operating systems:

- Microsoft Windows 98, 2000, or XP
- Microsoft Windows NT 3.51 or higher

Minimum desktop configurations:

- CPU: Pentium 233 or better
- Memory: 64MB RAM
- Disk: 15 MB for install, no additional data saved on client.
- Monitor / Video Card: Minimum resolution of 800x600 (strongly suggest higher resolution)

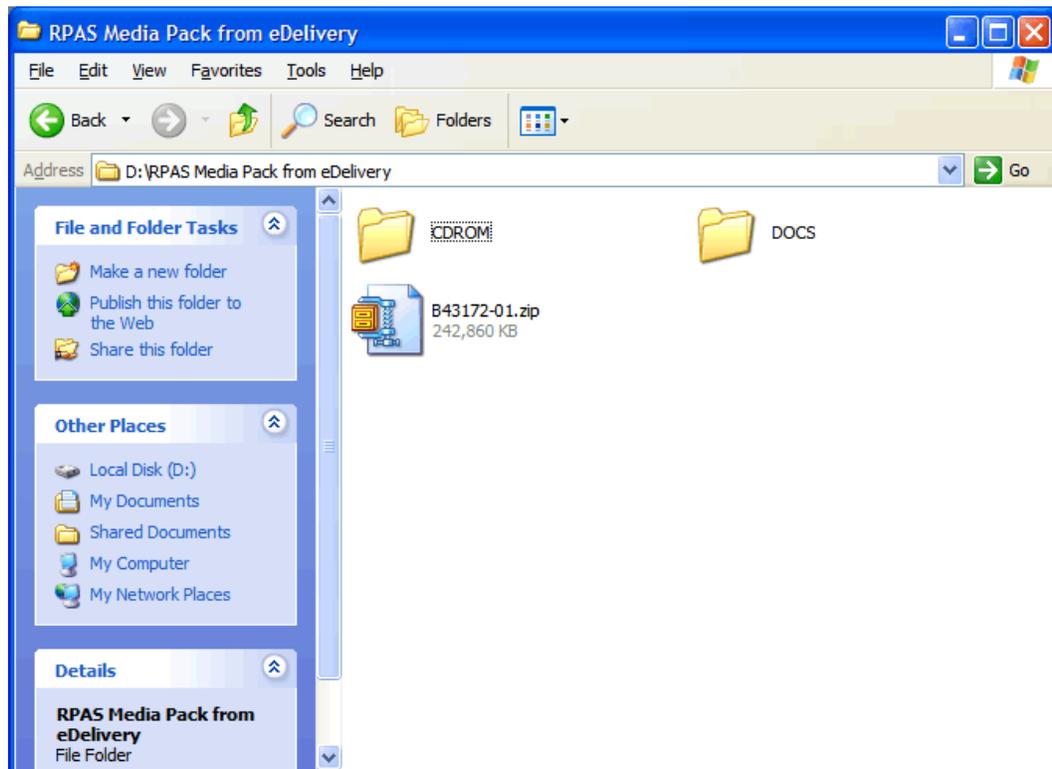
Configuration Tools

- Microsoft Windows NT, 2000, or XP
- Java Run-time Environment (JRE) v1.5
- CPU: Pentium 233 or better
- Memory: 256MB RAM minimum
- Disk: 15 MB for install, plus space for configurations.
- Monitor / Video Card: Minimum resolution of 800x600 (strongly suggest higher resolution)

Downloading and Extracting the RPAS Media Pack

The following procedure provides information about extracting the RPAS Media Pack and its contents.

1. Create a directory to store the RPAS Media Pack and download the media pack to this location.
2. Extract the media pack to this location. Once extracted, two folders appear, CDROM and DOCS.



Example of CDROM and DOCS Folder Created by Extracting Media Pack ZIP file

The CDROM folder contains three ZIP files, retail-OCM-withAnt.zip, RPAS-13.0.unix.zip and RPAS-13.0.windows.zip. The retail-OCM-withAnt.zip file contains the OCM software (refer to the OCM documentation on MetaLink for more information). The RPAS-13.0.unix.zip file contains all the RPAS components to be installed on your UNIX server. The RPAS-13.0.windows.zip contains the RPAS components that can be installed on a Windows environment. Refer to Installing on UNIX Environments and Installing on a Windows Environment for information on performing installations.

The DOCS folder contains the folders, which contain the RPAS documentation in PDF format.

- Administration Guide – This folder contains the *RPAS Administration Guide*.
- Configuration Guide – This folder contains the *RPAS Configuration Tools User Guide*, the *Grade Configuration Guide*, and the *Curve Configuration Guide*.
- Installation Guide – This folder contains the *RPAS Installation Guide*.
- Release Notes – This folder contains the *RPAS Releases Notes*.
- User Guide – This folder contains the *RPAS User Guide*, the *Grade User Guide*, and the *Curve User Guide*.

Installing on UNIX Environments

The installation of the server-side RPAS components on UNIX operating systems is accomplished by using a Java-based installation program that is included with the installation package.

This program automates the following:

- Installation of the RPAS Server
- Installation of Configuration Tools on the server
- Creation of sample domains
- Definition of DomainDaemon port

Preparation

The RPAS components included in this installation process are available inside the media pack of the solution downloaded from Oracle's E-Delivery Web site (<http://edelivery.oracle.com/>).

Overview

The RPAS components included in this installation process are available inside the media pack of the solution downloaded from Oracle's E-Delivery Web site.

Solutions built on RPAS 13.0 include Merchandise Financial Planning, Item Planning, Category Management, and Demand Forecasting.

There are two RPAS archives inside the media pack — one RPAS archive for UNIX and one for Windows.

Java Environment

Ensure that Java has been installed on the machine where RPAS will run and that the JAVA_HOME environment variable is properly set. Version 1.5 must be installed.

HP Itanium

If you are installing any RPAS 13.0 solution on HP Itanium, you need to set the 64-bit Configuration Tools environment variable for Java as shown below:

```
export RIDE_OPTIONS=-d64
```

Before You Begin

Before starting the RPAS Installer, the following software must be installed on your system:

- Java (5) 1.5
- Unzip utility

Running the RPAS Installer

1. Locate and extract RPAS-13.0.unix.zip into a newly created staging directory, which is referred to as [RPAS_Installer].
2. Begin the Installer by changing to the root of the [RPAS_Installer] directory and running the following command:

```
./install.sh
```

Note: The command must be executed with the preceding period and forward slash.

If this process is being run on an X-Windows emulator (such as Exceed), a graphical user interface to the Installer appears. If you are running in console mode through a terminal emulator, a text interface to the Installer appears.

In both cases, the requested information will be identical, but displayed differently. In the GUI, a checkbox may appear to indicate whether you want a component installed. In text mode, you will be prompted for a response of "yes" or "no".

Note: In text mode, the default value will appear in square brackets. To use the default value and continue, press the **Enter** key. If you want to use a different value, enter the new value. When prompted to create a directory, respond with "y" or "yes" and press the **Enter** key.

The RPAS Installer screen appears and displays the components that can be installed to your system.



RPAS Installer Screen

3. Click **Next** when ready. The Install Requirements screen appears.
This screen displays the software required to complete this installation. You should already have installed this software on your system. If you have not installed these items, please perform the necessary installations before continuing.



Install Requirements Screen

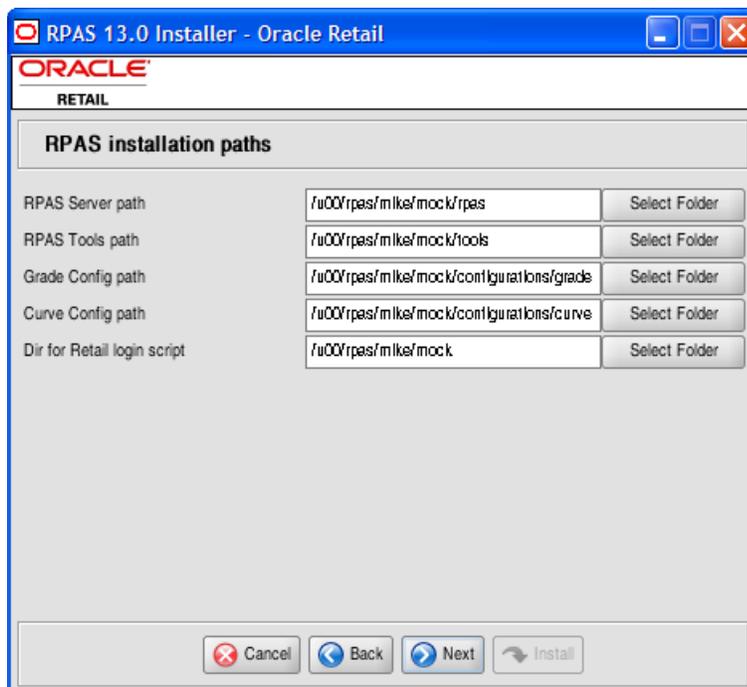
4. Click **Next** to continue. The RPAS Base Path screen appears.



Base RPAS Path Screen

5. Enter the path where the RPAS Server and components will be installed, and click **Next**. This path will be used when creating your domains, should you choose to create them. The RPAS Installations Paths screen appears.

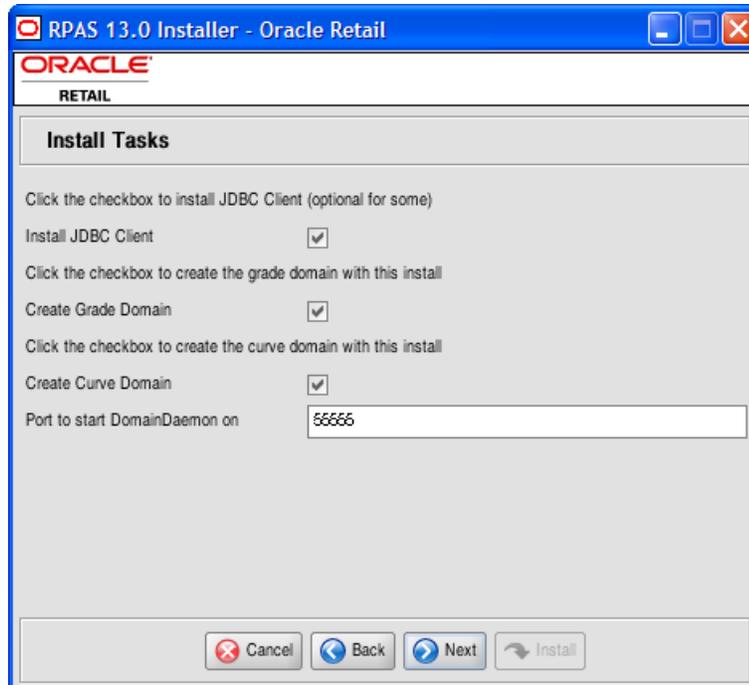
Note: If this directory does not exist, the Installer will prompt you to create it.



RPAS Installation Paths Screen

6. Enter the following path information and click **Next**:
 - RPAS Server path – Enter the target directory for your RPAS Server.
 - RPAS Tools path – Enter the target directory for your RPAS Configuration Tools.
 - Grade Config path – Enter the target directory for your Grade Configuration.
 - Curve Config path – Enter the target directory for your Curve Configuration.
 - Directory for Retail login script – Enter the target path where the retaillogin.hsh file will be created on your system.

The Install Tasks screen appears.

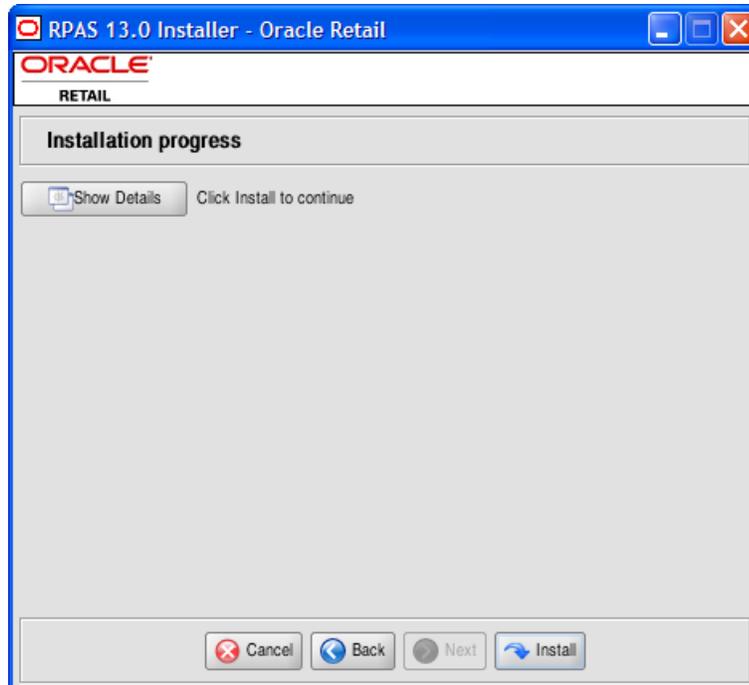


Install tasks Screen

7. Select the options to be performed by the RPAS Installer, enter the DomainDaemon port number, and click **Next**.
 - Select whether or not to install JDBC Client (default is yes). The JDBC client is not required for the solutions to function properly.
 - To create the domains for Grade and Curve, select the appropriate options on the Install tasks screen. These options are selected by default, meaning that they will be created.
 - Enter the port where the RPAS DomainDaemon will run. This port needs to be configured for use with the RPAS Client. This is done with the Econfigure utility as documented in the RPAS Client Installation and Configuration chapter. The Installer will validate that this port is not in use. The DomainDaemon will not be running at the end of this installation process, but can be started by using the “startrpas” alias created in the environment setup script.

Note: If you choose to create domains, they are created in a directory called domains under the **Base directory path** you defined on the Base RPAS path screen.

The Installation Progress screen appears.

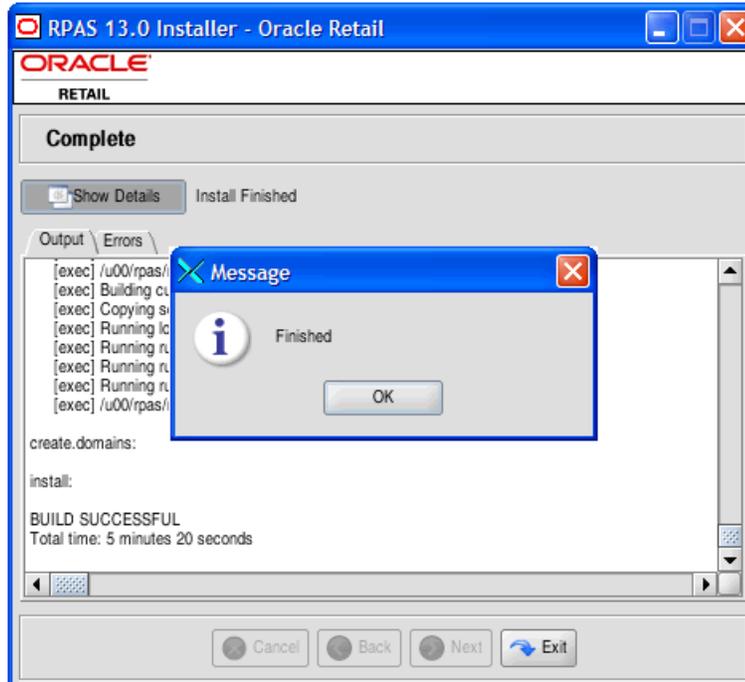


Installation Progress Screen

8. To display the progress of the components and tasks being performed by the Installer, select **Show Details**. Click **Install** to start the installation process. You can view the detailed mode at any time during or after the installation.

Note: The installation process can vary depending on your environment. If you chose to create the domains, installation time might take 10 to 30+ minutes depending on server.

When the installation process is complete, the Complete screen appears with Message dialog box.



Complete Screen

9. Click **OK** to close the dialog box.
10. To view the installation details, select the **Show Details** button. The screen displays two tabs, the **Output** tab and the **Error** tab. It is recommended that you review these tabs for any issues that may have occurred during the installation process.
If you wish to view the log again at a later date, a text copy was saved in the directory [RPAS_Installer]. The log file will be named based on the product, rpas, platform, and a timestamp, followed by the ".log" extension.
11. Click **Exit** to close the Installer.

Installing Oracle Configuration Manager (OCM)

The first OCM collector distribution that will be aware of the Oracle Retail applications is in development. This version of OCM is scheduled to be posted for download but is not yet available. Oracle Retail recommends that retailers download OCM 10.3.0 from ARU and use the "emCCR update_components" command to upgrade installed OCM collectors. See the OCM Installation and Administration Guide for further instructions. The Retail OCM Installer released with Oracle Retail 13.0 applications will install OCM 10.2.7. If the collector remains at version 10.2.7 and is installed in connected mode, an automatic update to version 10.3.0 is expected to occur later this year, the time at which 10.3.0 becomes a mandatory upgrade.

For more information, see the following:

Metalink Note: 559539.1

The Oracle Configuration Manager Installer Guide describes the procedures and interface of the Oracle Retail Oracle Configuration Manager Installer that a retailer runs near the completion of its installation process.

Installing OCM for RPAS and RPAS solutions requires running the OCM installer. The document referenced above on MetaLink contains the procedures to perform this installation process manually.

Environment Variable Setup Script

To begin using RPAS, run the **retaillogin.ksh** script. The script is located in the root of the base directory where RPAS was installed unless the default was overwritten when specifying directory paths.

Source the script from inside the directory where the script is located:

```
./retaillogin.ksh
```

OR

Include the full path after the period “.”:

```
./<base_directory>/retaillogin.ksh
```

Note: The preceding period and space (“.”) must be included at the beginning of the command when executing the script.

Note: Include this path and script in the .profile in your home directory (~/.profile) if you want to have this environment setup script run during login.

This script will set up environment variables, such as RPAS_HOME and RIDE_HOME, which are required for RPAS to run properly.

DomainDaemon

The RPAS DomainDaemon is the process that must be running on the server for a user to log into an RPAS domain. Before beginning the installation process, a port was specified where the DomainDaemon will run.

Use the aliases `startrpas` and `stoprpas` to start and stop the DomainDaemon on the port specified before installation. This alias is an automated mechanism of starting the DomainDaemon. Alternatively, you can start the DomainDaemon manually. Instructions for the DomainDaemon are included in the *RPAS Administration Guide*.

Installing on a Windows Environment

RPAS Server and Tools Installation on Windows

Installation Notes

For the purposes of this section, “/” will be used to delineate directories and files in paths. Users in a Windows Command Prompt environment will need to either use “\” as the delineation character or use double quotes around paths.

Note: Paths on Windows are not case-sensitive.

Extracting the RPAS Package

Unzip the RPAS-13.0.windows.zip to a newly created directory on the Windows machine. The RPAS-13.0.windows.zip contains all the RPAS components.

Once extracted, the following directories appear:

- Client – This directory contains the setup.exe used to install the RPAS Client.
- Curve– This directory contains the Curve base configuration file provided with RPAS.
- Grade – This directory contains the Grade base configuration file provided with RPAS.
- ODBC – This directory contains the JDBC and ODBC client drivers.
- RPAS - This directory will be referred to later in this document as **RPAS_HOME**.
- Tools - This directory will be referred to later in this document as **RIDE_HOME**.
- Translations – This folder contains the files for the various languages supported by RPAS.
- Web – This directory contains the files required for an RPAS Web deployment.

Install Java (5) 1.5

Java 1.5 is required to support the RPAS Configuration Tools installation on Windows operating systems. Oracle Retail provides no support or discounts to customers for the license. This must be done directly through Java. See the following for pricing:

<http://www.java.com/>

During the Java installation, a directory will be created to store the Java software. This directory will be referred to later in this document as **JAVA_HOME**.

Install ODBC Server Components (Optional)

1. Run setup.exe from Rpas/ODBCServerInstall/iwinnt folder where you extracted the RPAS-13.0.windows.zip file.
2. Follow the installation wizard to proceed to “Server Configuration” window. On this window, enter server name, IP address, and port number (if they are not already populated).
3. Proceed to the next window: “License Information”. Click **Browse** to find the license files that come with the installation package in the following paths:
Rpas/ODBCServerInstall/oaserverkey_oracle.lic
Rpas/ODBCServerInstall/oaclientkey_oracle.lic
4. Follow the rest of the installation wizard to finish the installation process.
5. Set environment variable OPENRDA_INI to {odbcServer_root}\bin\iwinnt\openrda.ini, where {odbcServer_root} is the destination location you choose during installation.

Refer to the *RPAS Administration Guide* for addition information on the ODBC Server.

Install ODBC or JDBC Client Components (Optional)

Perform the procedure below to install the JBBC or ODBC client driver.

1. To install the ODBC client software, run setup.exe from the ODBC\ODBCClient directory where you extracted the RPAS-13.0.windows.zip file. To install JDBC client software, run the setup.exe from the ODBC\JDBCClient directory where you extracted the RPAS-13.0.windows.zip file.
2. Follow the installation wizard to proceed to “Database Configuration” window. On this window, enter server name, IP address, and port number. If the server information is not known at this time, enter any characters for server name and IP address (incorrect information will not affect the installation process), and 1706 for port number.
3. Proceed to the next window: “License Information”. Click **Browse** to find the license file that comes with the installation package, which is located in the following path:
ODBC/oaclientkey_oracle.lic

Note: This license is used for installing both the ODBC and JDBC client software.

4. Follow the rest of the installation wizard to finish the installation process.

Refer to the *RPAS Administration Guide* for addition information on the ODBC Server.

Install MKS Developer Toolkit 8.7 (or higher)

MKS version 8.7 or higher is required if the RPAS Server is to be installed on Windows operating systems. Oracle Retail provides no support or discounts to customers for the license. This must be done directly through MKS. See the following link for pricing:

<http://www.mks.com/>.

Follow the vendor instructions for Windows installation.

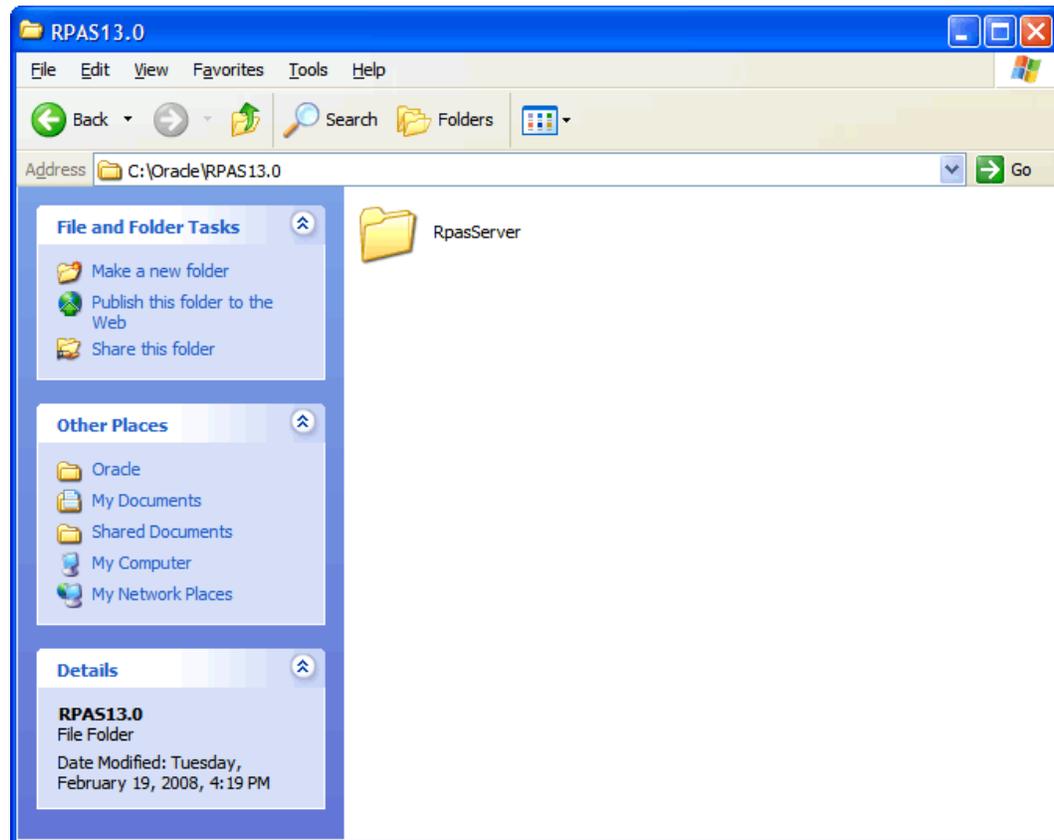
Determine the Path for the Domain(s)

1. Determine the location(s) of the domain(s) to be installed.
2. Create a directory at the root of the domain to be installed.

Installing the RPAS Server

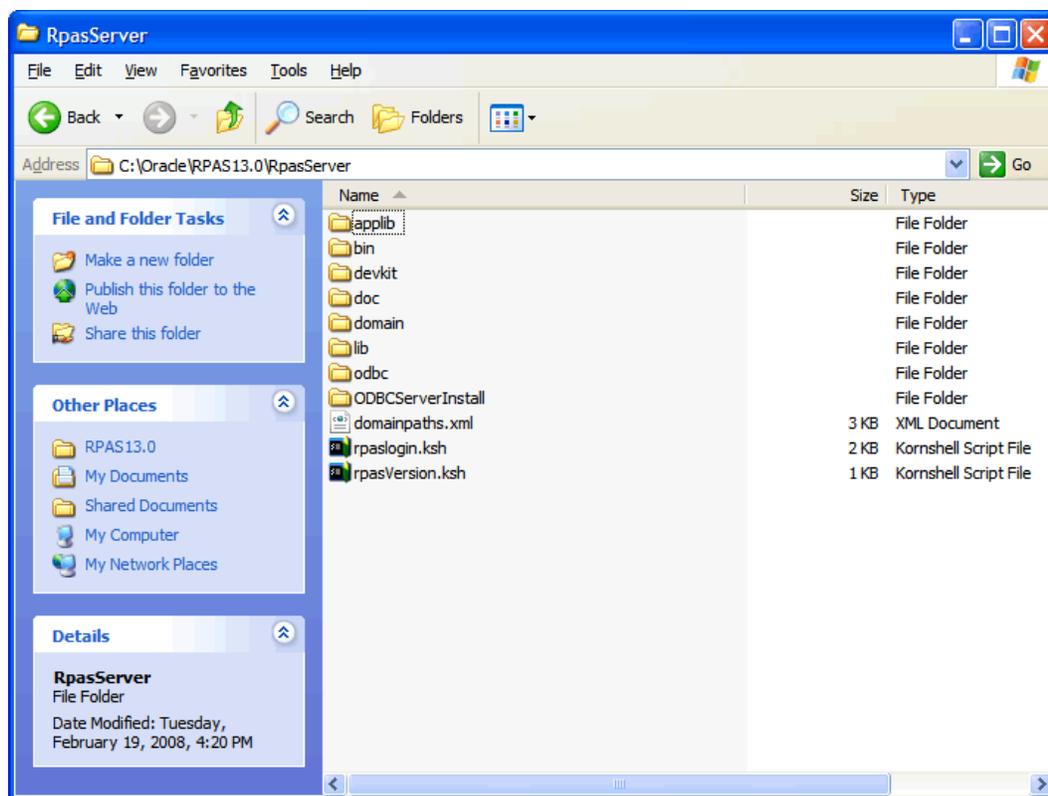
The procedures below provide information about creating the necessary folders on your Windows PC and copying the RPAS Server components to them.

1. On your C drive, create a folder named **Oracle**.
2. Open the Oracle folder and create a folder named **RPAS13.0**.
3. Open the RPAS13.0 folder and create a folder named **RpasServer**.



Example of RpasServer Folder Path

4. Copy all files and folders from the Rpas folder where you extracted the Media Pack to the C:\Oracle\RPAS13.0\RpasServer folder.



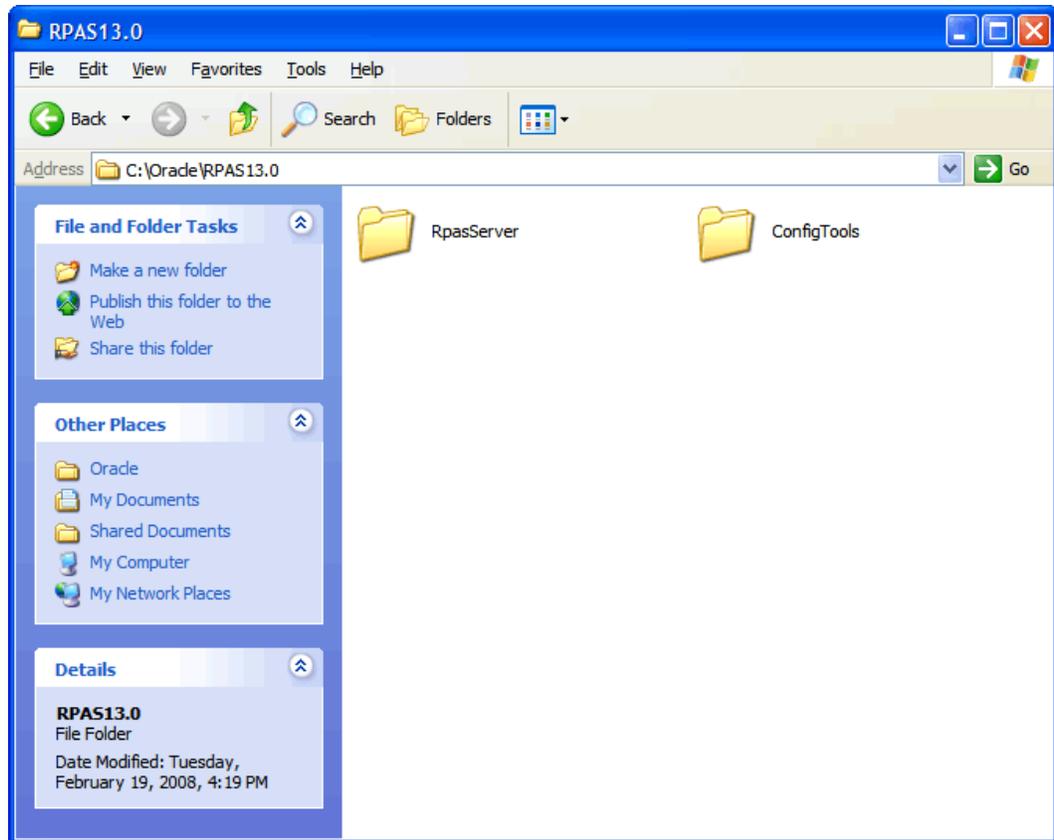
RpasServer Folder with All RPAS Server Components

This location is referred to as RPAS_HOME. An environment variable will be defined on your Windows PC to point to this location so that RPAS will function correctly. Refer to Creating the Required Environment Variables for information on creating the necessary RPAS variables.

Installing Configuration Tools

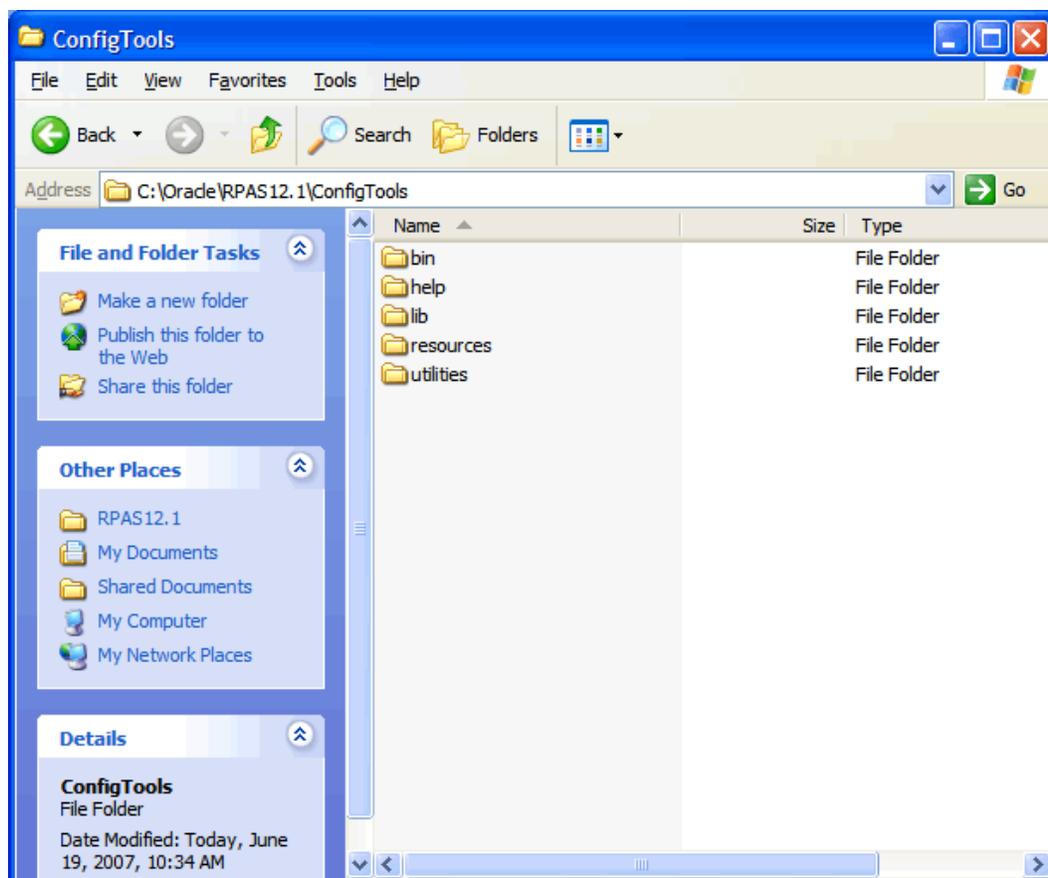
The procedures below provide information about creating the necessary folders on your Windows PC and copying the Configuration Tools components to them.

1. Using Windows Explorer, navigate to your C drive, create a folder named **Oracle\RPAS13.0** folder, which you created in Installing the RPAS Server.
2. Create a folder named **ConfigTools**.



Example of ConfigTools Folder Path

3. Copy all files and folders from the CDROM\Tools folder where you extracted the Media Pack to the C:\Oracle\RPAS13.0\ConfigTools folder.



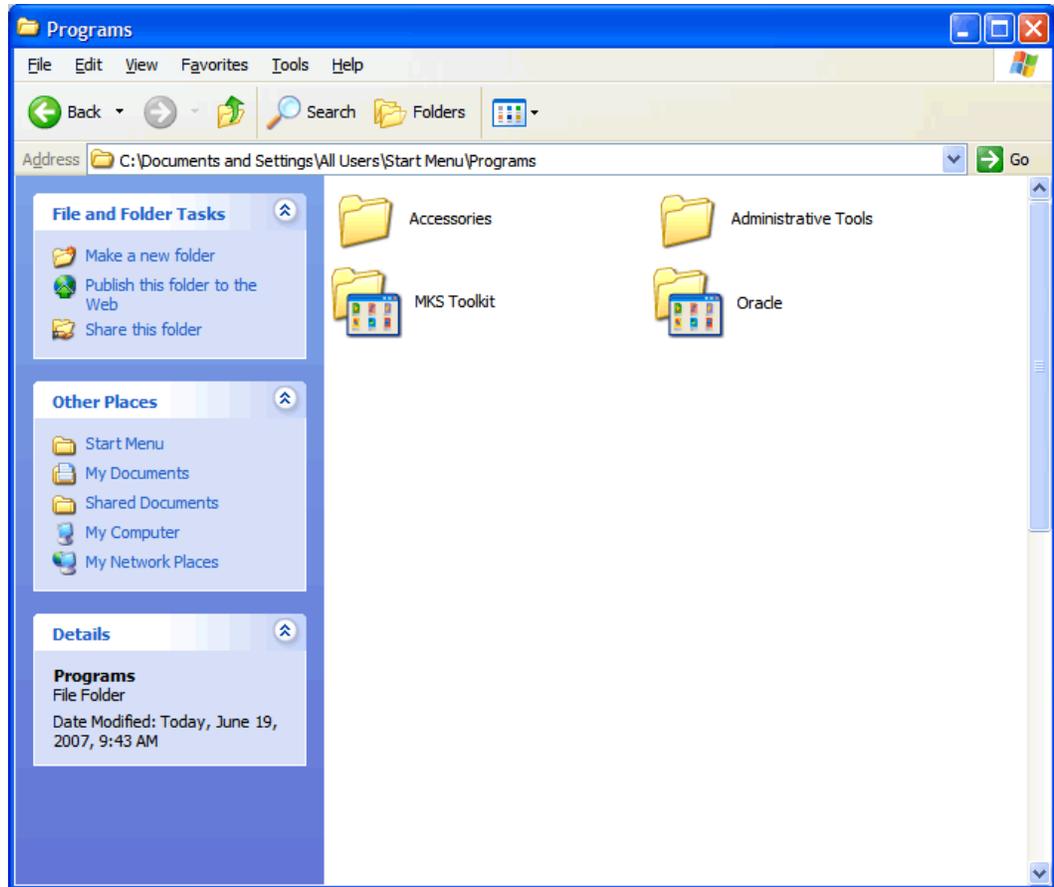
ConfigTools Folder with All Configuration Tools Components

This location is referred to as RIDE_HOME. An environment variable will be defined on your Windows PC to point to this location so that RPAS will function correctly. Refer to Creating the Required Environment Variables for information on creating the necessary RPAS variables.

Creating Start Menu Shortcuts to RPAS Applications and Utilities

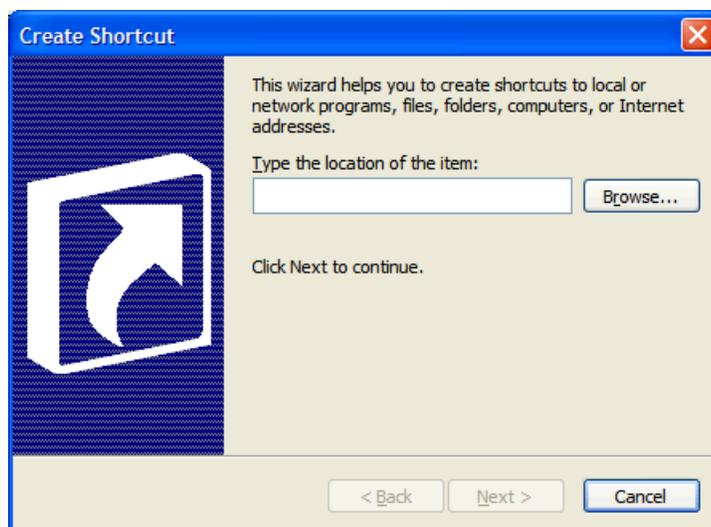
The procedures below provide information on creating shortcuts to the following applications:

- Configuration Tools
 - Configuration Converter
1. Open Windows Explorer and navigate to C:\Documents and Settings\All Users\Start Menu\Programs. The Programs window displays all applications and shortcuts available to all users accessing the PC.
 2. Right-click in the window and select **New – Folder**. Name this folder **Oracle**.



Programs Windows with Oracle Folder

3. Double-click the Oracle folder. The folder opens in Windows Explorer.
4. Right-click in the Oracle window, and select **New- Folder**. Name the folder **RPAS 13.0**.
5. Create a shortcut to Configuration Tools.
 - a. Double-click the RPAS 13.0 folder, right-click in the right-click in the folder window, and select **Shortcut**. The Create Shortcut wizard dialog box appears.



Create Shortcut Wizard Dialog Box

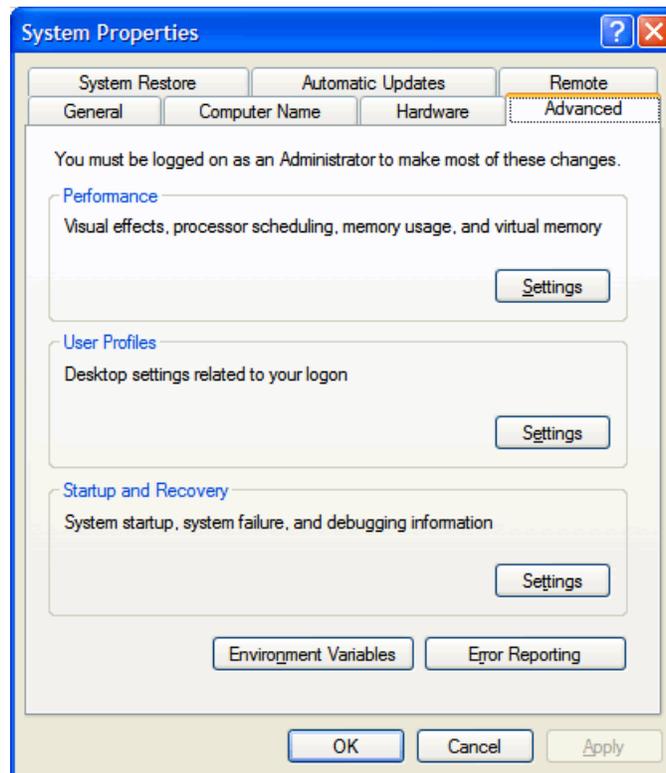
- b. Click **Browse** and navigate to the Oracle\RPAS13.0\ConfigTools\bin folder on your C drive.
 - c. Select **ConfigTools.exe** and click **OK**. The selected path appears in the Create Shortcut wizard.
 - d. Click **Next**. The Select a Title for the Program wizard screen appears. By default, this screen displays the file name and extension selected.
 - e. In the text field, enter **Configuration Tools** as the shortcut name and click **Finish**. The shortcut wizard closes and the Oracle window displays the shortcut to the Configuration Tools.
6. Create a Utilities folder in the Oracle window. Right-click in the window and select **New – Folder**. Name this folder **Utilities**.
7. Double-click the **Utilities** folder. The folder opens in Windows Explorer.
8. Create a shortcut for the Configuration Converter.
 - a. Right-click in the Utilities folder window, and select **Shortcut**. The Create Shortcut wizard dialog box appears.
 - b. Click **Browse** and navigate to the Oracle\RPAS13.0\ConfigTools\utilities folder on your C drive.
 - c. Select **RpasConverter.exe** and click **OK**. The selected path appears in the Create Shortcut wizard.
 - d. Click **Next**. The Select a Title for the Program wizard screen appears.
 - e. In the text field, enter **Configuration Converter – g** as the shortcut name and click **Finish**. The **–g** after the name is required to display the Windows interface for the converter. The shortcut wizard closes and the Oracle window displays the shortcut to the Installer.
9. Verify your shortcuts appear in the Start menu. From the Start menu, select **All Programs – Oracle – RPAS 13.0**. The Configuration Tools and Installer shortcuts should appear. Select the **Utilities** folder and verify the Configuration Converter shortcut appears.

Now that the necessary files and shortcuts are defined, you need to create the necessary environment variables in order to open the applications.

Creating the Required Environment Variables

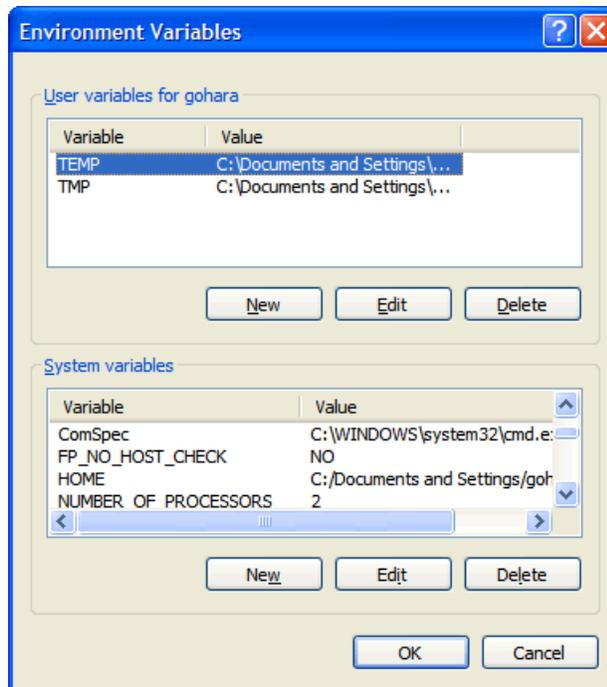
The following steps outline the process to follow and environment variables required to support the RPAS installation and domain install.

1. From the Control Panel, open the System window.
 - a. If your system is using Category view, from the Windows XP Start menu, go to **Control Panel – Performance and Maintenance – System**. If your system is using the Classic view, from the Windows XP Start menu, select **Control Panel** and double-click the **System** icon.
The System Properties window appears.
 - b. Select the **Advanced** tab.



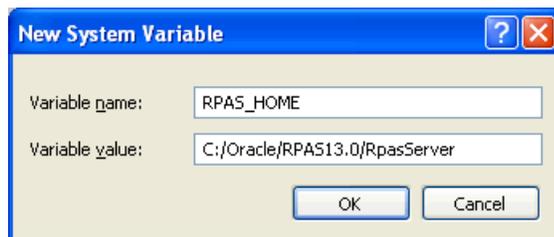
System Properties – Advanced Tab

- c. At the bottom of the window, click **Environment Variables**. The Environment Variables window appears.



Environment Variables Window

2. Create the RPAS_HOME environment variable.
 - a. Under the System variables box, click **New**. The New System variable dialog box appears.
 - b. Enter **RPAS_HOME** in the **Variable** name field.
 - c. Enter the path the RPAS Server folder in the **Variable value** field.



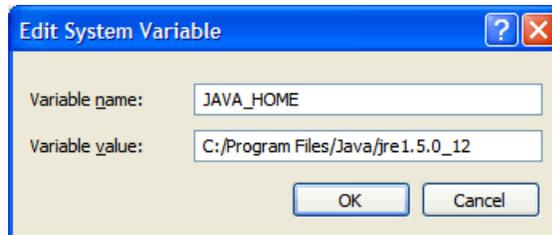
Example of RPAS_HOME Variable

- d. Click **OK**. **RPAS_HOME** now appears in the System variables box.
3. Create the RIDE_HOME environment variable.
 - a. Under the System variables box, click **New**. The New System variable dialog box appears.
 - b. Enter **RIDE_HOME** in the Variable name field.
 - c. Enter the path the ConfigTools folder in the **Variable value** field.



Example of RIDE_HOME Variable

- d. Click **OK**. **RIDE_HOME** now appears in the System variables box.
4. Create the **JAVA_HOME** environment variable.
 - a. Under the System variables box, click **New**. The New System variable dialog box appears.
 - b. Enter **JAVA_HOME** in the Variable name field.
 - c. Enter the path the Java folder under Program Files in the **Variable value** field.



Example of JAVA_HOME Variable

- d. Click **OK**. **JAVA_HOME** now appears in the System variables box.
5. Update the Path variable.
 - a. Under the System variables section, select the **Path** environment variable and click **Edit**.
 - b. Insert the complete paths for **RPAS_HOME**, **RIDE_HOME**, and **JAVA_HOME** as shown below:


```
%RPAS_HOME%/bin; %RPAS_HOME%/applib; %RPAS_HOME%/lib;
          %RIDE_HOME%/bin; %RIDE_HOME%/lib; %JAVA_HOME%/bin;
          %JAVA_HOME%/bin/client; %JAVA_HOME%/lib;
```

Note: Remember to separate all path statements with semi-colons (;).

- c. Select **OK** to save your changes.
6. Close all open windows.

Create a Global Domain Configuration Directory (Optional)

If installing a Global Domain environment, an xml file may be created to determine how the domains will be partitioned and the label of each domain. The following is an example of the structure of the **globaldomainconfig.xml** file. The items in **bold** in our example below are as follows:

Path: The location of the root of the domain.

Partitiondim: The partition dimension. Using the below example, 'pgrp' (Group) is the dimension in which the local domains will be partitioned. There can only be one partition dimension.

Subpath: The path and name of the local (sub-domain) that contains a specific partition position. 'ldom+#' is the default name given by RPAS to local domains.

Subposition: The position from the partition dimension that will be located in the local domain. For example, 'ldom0' will include all product positions at or below 'pgrp' 1100.

Example file structure:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
<rpas>
  <globaldomain>
    <path>/Domains/RDF12/D01</path>
    <partitiondim>pgrp</partitiondim>
    <subdomain>
      <subpath>/Domains/RDF12/ldom0</subpath>
      <subpositions>1100</subpositions>
    </subdomain>
    <subdomain>
      <subpath>/Domains/RDF12/ldom1</subpath>
      <subpositions>1300</subpositions>
    </subdomain>
    <subdomain>
      <subpath>/Domains/RDF12/ldom2</subpath>
      <subpositions>2500</subpositions>
    </subdomain>
  </globaldomain>
</rpas>
```

Configure the RPAS Client to Use the Domain

The RPAS Client must be configured to point to the newly created domain(s).

Refer to the *RPAS Administration Guide* for instructions on how to configure the RPAS Client.

Using Multiple Versions of RPAS on the Same Windows Machine

If you have multiple versions of RPAS installed on your PC, it is important to note that the environment variables will reference RPAS 13.0 after the installation process is complete.

Note: Previously set environment variables for other versions or installations of RPAS will still exist in the “Path” System variable, but Windows uses the first set of variables defined in the path, which is where the installation process places them.

To switch to a different version of RPAS that is installed on your machine, you will need to manually update the environment variables each time you want to switch. You can either insert the path to the version you want to use and leave the path to 13.0, or delete the path and either reinstall the 13.0 components or manually reinsert the paths when you want to revert back to 13.0.

Base Configuration Installation

Overview and Setup

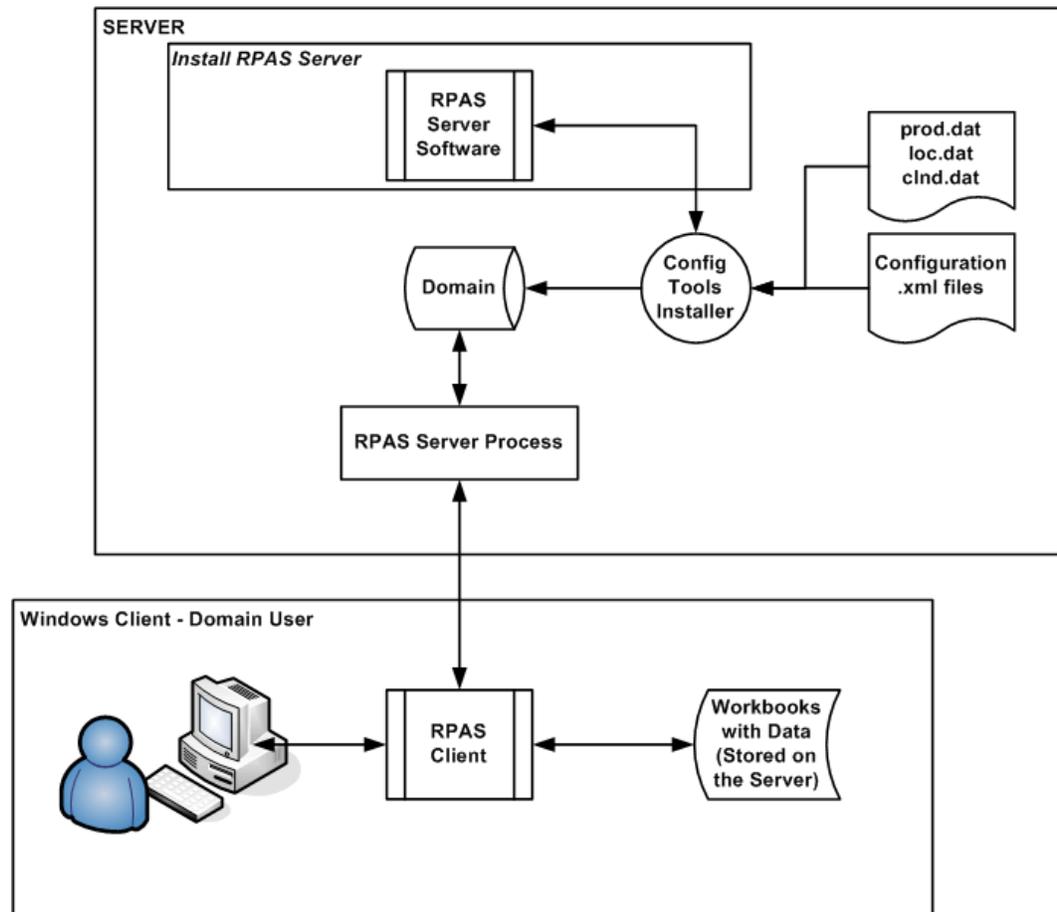
There are three base configurations available with the RPAS archive that can be used to build a domain. These configurations are initially stored in the following folders that were created in the CDROM folder when you extracted the RPAS-13.0.windows.zip file in the location where you downloaded the RPAS Media Pack.

- Grade – Grade is a clustering tool that provides insight into how various parts of a retailer’s operations can be grouped together.
- Curve – Curve is a profile generation tool used to produce ratios (profiles) from historical data at user-specified intersections.

The following section describes how to use these configurations to build a domain.

Process Overview

The diagram below shows an overview of the steps involved in using a configuration to build and an RPAS domain. This section will review and document each of the steps in this diagram.



Process Overview Diagram

Verify the Environment Variable Settings

Prior to beginning the domain build process you should have installed RPAS and the Configuration Tools on your server. During that process, you should have set up the necessary environment variables for RPAS and the Configuration Tools.

Perform the following steps to verify that environment variables have been successfully configured.

Open an MKS Korn shell window. Use the commands below to verify your environment settings:

```
echo $RPAS_HOME
echo $RIDE_HOME
echo $JAVA_HOME
echo $PATH
```

Note: The path for the RPAS_HOME variable may change from release to release.

If you make any changes to the environment variable settings, remember to exit and restart your UNIX session in order to execute your .profile and make the changes effective. This step is very important before you continue to the remaining steps.

Note: The paths for your RIDE_HOME and RPAS_HOME variables cannot have spaces in them, unless short file naming conventions are utilized. Given this restriction, do not place your Tools build, Tool Configurations or RPAS installation under Program Files or My Documents. If you do, define all RPAS related environment variables using short (8dot3) file names.

Setting Up Base Configuration Files

Locate and copy/move the desired configuration zip file to a location on your machine. For the purposes of these instructions assume that location is called C:/root/testenv/<Configuration>.

The following subfolders will be created in C:/root/testenv/<Configuration>:

- data/ – hierarchy and sample data files (this path is used in conjunction with the -in [input] option of the rpaInstall command)
- configuration/<Configuration_Name> – Configuration files for use in building the domains where <Configuration_Name> will be Sample_Configuration, Grade, or Curve.
Do not change the directory name for the configuration or alter the contents in any way.
- scripts – Scripts used to complete the domain build process.
- resources – Contains the plug-ins for the Configuration Tools. These have already installed to your system.

Building the Domain on your Windows PC

This section provides instructions for how to create a domain from the base configurations.

Because building an RPAS domain on Windows is currently a manual process, the person building the domain should be skilled in administering UNIX or NT servers and should have scripting skills.

Note: The Configuration Tools are supported on all platforms (HPUX, AIX, and NT); however, they require Java v1.5. Make sure that the server you will be using has this version of Java.

1. Create a **testenv** (test environment) folder on your C drive.
2. Copy the Curve and Grade folders from the CDROM directory, which is located where you extracted the RPAS-13.0-windows.zip file, to the testenv folder.

Sample Data Files

The domain build process requires the following data files to be available:

- prod.dat
- loc.dat
- clnd.dat
- input data files for measures (<measure>.ovr)

These files should be located in the C:/root/testenv/<Configuration>/**data** directory. This directory path will be used during the domain build process as the input directory.

Domain Environment Setup

The path that the domain will be created must exist prior to running the domain build process.

For the domain, manually create the directory structure:

C:/root/testenv/domain

The name of the domain will automatically be created under the domain path based on the configuration name. So, for the above domain path, the full path to the domain will be as follows once the domain build process is completed.

C:/root/testenv/domain/<Configuration>

Build the Domain

Use the Tools Installer, the **rpasInstall** script, to build the domain. This executable is located in bin directory of your Tools installation. There are different scripts to run based on which configuration is being used to build a domain.

Refer to the *RPAS Configuration Tools User Guide* for more information on the Tools Installer and the specific options available when using the **rpasInstall** command.

Note: The **rpasInstall** script only loads the hierarchy files and builds the domain. It does not load any measure data. The hierarchy files are copied to the /input/processed directory of the domain and appended with a time-date stamp.

Grade

Enter the following command to build a domain for the Grade configuration:

```
rpasInstall -fullinstall -dh <path to the domain> -cn Grade_12 -ch <path to the
configuration> -in <path to the data files> -log <path to the location and name of
the installation log> -rf AppFunctions -rf ClusterEngine -p pgrp
```

After the domain installation has completed the sales data must be loaded into the domain using the “loadmeasure” utility. Open a command prompt from the master domain (/Curve_12 or /Grade_12) and type the following commands:

```
loadmeasure -d . -measure dpos
loadmeasure -d . -measure rsal
loadmeasure -d . -measure csal
loadmeasure -d . -measure psal
```

Open a command prompt from the local domain (/Grade_12/lDom0) and type the following command:

```
mace -d . -run -group common_batch
```

Repeat this step for each of the remaining local domains (/Grade_12/lDom1, /Grade_12/lDom2).

Curve

Enter the following command to build a domain for the Curve configuration:

```
rpasInstall -fullinstall -dh <path to the domain> -cn <Curve_12> -ch <path to the
configuration> -in <path to the data files> -log <path to the location and name of
the installation log> -rf AppFunctions -rf ClusterEngine -p pgrp
```

After the domain installation has completed the sales data must be loaded into the domain using the “loadmeasure” utility. Open a command prompt from the master domain (/Curve_12 or /Grade_12) and type the following commands:

```
loadmeasure -d . -measure dpos
loadmeasure -d . -measure rsal
loadmeasure -d . -measure csal
loadmeasure -d . -measure psal
```

Open a command prompt from the local domain (/Grade_12/lDom0) and type the following command:

```
mace -d . -run -group common_batch
```

Repeat this step for each of the remaining local domains (/Grade_12/lDom1, /Grade_12/lDom2).

Start the RPAS Server (DomainDaemon)

In order to use the domains built from the sample configurations, the RPAS Server must be running on the server/machine where the domain is located.

The RPAS Server is started by executing the RPAS DomainDaemon executable, which provides a centralized process for managing domain connections between the client and the server.

Below are the basic instructions for running the DomainDaemon, which will allow a user to connect to the RPAS Server and a domain using the RPAS Client. Complete information about the Domain Daemon is located in the *RPAS Administration Guide*.

Execute the following command from a UNIX command line (or using MKS on Windows). If the environment variables paths have been properly set, this command can be run from any directory.

```
DomainDaemon -port <port_number> -start
```

Where <port_number> is an integer between 1025 and 65535.

This port number must be used in the configuration file for the RPAS Client. Refer to the chapter for installing and configuring the RPAS Client for additional information.

Installing and Configuring the RPAS Client

Installation

This section describes the installation of the RPAS Client on Windows machines, and describes how to configure the client to connect to a domain.

Make RPAS Client Files Generally Accessible

Perform the following procedure to make the RPAS Client available.

1. Create a directory on the network from where users will install the RPAS Client.
The location and the name of the directory are up to the system administrator's preferences. This directory is henceforth referred to as the [RPASCLIENT] directory.
2. Copy the files from the following directory on the server:
[RPAS Installation]/Client
to the [RPASCLIENT] directory.

Installing the RPAS Client

The RPAS Client installation procedure is the same for all of the RPAS applications. Perform the following procedures to install the application onto a PC.

1. Run the **setup.exe** file located in the [RPASCLIENT] directory on the network.
2. The welcome page is displayed. Follow the installation procedures as prompted.
The setup program exits after the installation is complete.

Configuration

After creating an RPAS domain and starting the DomainDaemon (see the *RPAS Administration Guide*), you must configure the RPAS Client to connect to the domain on a server. This section provides instructions for configuring the RPAS Client on a local computer using a Microsoft Windows operating system.

The EConfigure Utility

EConfigure is a Windows application that configures the client-server communication for RPAS. EConfigure lets you specify communication parameters and produces a file that is used as input to the client. These files must be in FCF (Foundation Configuration File) format/extension. The files contain the necessary information for the client to start up the communication with the server. These files can be stored on the client machine or on the network.

When the client is executed, a file named "Foundation.FCF" is expected in the same directory. If the file has a different name or if it is stored somewhere on the network, the path to this file must be passed in as an argument to the client.

EConfigure consists of a menu bar, a main view, and the advanced settings dialog box. Passwords saved in the FCF file are encrypted. To launch EConfigure, double-click the EConfigure.exe file, which is by default located in the root directory of the RPAS Client.

The Menu Bar

The files produced by EConfigure may contain multiple connections. Each connection will be specific for a server with certain communication settings. Connections need to have unique descriptions, and they can be added and deleted using the menu bar.



The Main View

The main view has the basic connection parameters. On this view, three groups of controls are available:

- The connection group
- The domains group
- The Advanced Settings dialog

The Connection Group

Database Server

The hostname or the IP address of the server. For example: atldev03 or 10.2.1.23. This value should be "localhost" when running the RPAS Server on a Windows machine.

Daemon Port

The port number on which the domain daemon is listening. This must be an integer between 1025 and 65535 (for example: 55278).

The Domains Group

Domain

This is the name of the domain that will be displayed to the user when logging in. Select a domain from the list or type the name of a new domain and click **Add Domain**. You can delete a domain from the list by selecting it and then clicking **Delete Domain**.

Domain Path

Domain path is the full path to the directory containing the domain. For example: /root/testenv/domain/Sample_Project

User

Provide the user ID if you do not wish to force the user to provide it when logging in. The user ID must be defined in the associated domain.

Password

Provide the password for the above user if you do not want to force the user to provide it when logging in. This password must match the password defined in the domain for the associated user.

The Advanced Settings Dialog

Default Database Login

User

The database user that will be used by the client if a domain specific user has not been entered. For example: adm

Password

Like the default database user, default database password will be used if a domain specific password has not been entered. For example:adm

Database Port Range

Port range is used to specify the range of ports on which the RPAS Server processes will be started by the DomainDaemon (the "rpasDbServer" processes). The port "Start" and port "End" fields are the lower and upper limits of this range respectively.

These fields must be integers between 1025 and 65535, which are also the default values if values are not specified. For example: Start: 40000, End: 45000

Compression Threshold

The number of bytes above which client and server will be using compression. Only advanced users should be manipulating this number.

Web Tunneling

The configuration of Web tunneling.

Proxy Settings

The configuration of the RPAS Client to support a proxy server is not completed in this utility.

RPAS Web Deployment

Overview of RPAS Web Deployment Support

The RPAS Client can be deployed through traditional installation or through Web-based environments. This chapter describes the RPAS Web deployment installation process.

Web-based deployment allows you to perform the following:

- Use a Web browser to install the RPAS Client application to the user's computer.
- Launch the RPAS Client when it has already been installed.
- Reinstall the RPAS Client when an updated version is available.

Web deployment has been tested and is supported for the following components:

- Oracle Application Server (OAS) version 10.1.3.3, which includes JDK 1.5. If Oracle Single Sign-On (SSO) is used, the OAS server must be registered with an OID provider.
- Apache Tomcat version 6.0 with JDK 1.5.
- Microsoft Internet Explorer version 6.0/7.0 with Sun JVM plug-in of Java version 1.5.0.

These instructions assume that the software specified above has been properly installed and configured. Consult the documentation of each component for installation and configuration information, as well as hardware and software requirements.

For the RPAS Web deployment to function properly, users must have sufficient access to their PCs (typically administrator rights) which allow them to install software, unless the administrator configures the applet to launch only preinstalled RPAS Client. Specifically, they need permission to write into the Windows Registry.

Installation and Configuration Process Overview

The following is an overview of the process that must be followed to install RPAS for Web deployment.

- Install the RPAS Web Application – This installation is completed onto the Web server and involves two components that are included with the RPAS archive (RPAS.war or RPAS_osso.war, and RPASWebData.tar).
- Install multiple versions of RPAS Client files on Web server (as needed).
- Configure the RPAS Servlet – Using the deployment descriptor “web.xml” to specify servlet properties.
- Configure Oracle Single Sign-On for RPAS Web application (if Oracle SSO is used).
- Start the RPAS Web Configuration Utility – Using the URL of the RPAS Web Launch application, administrators and users follow this process to log in to the system.
- Configure Web Launch and Web Tunneling – Using the Enterprise Configuration component of the Administration Console, the administrator indicates whether Web tunneling is to be used.
- Perform other Web client administration activities – Once the Web deployment environment is prepared, additional configuration and administration activities, such as domain configuration and managing administrative users, may need to be performed.

Installing the RPAS Web Application

Installing the RPAS Web Application consists of the following procedures:

- Preparing your environment
- Installing the necessary files and configuring the environment based on your type of installation. Three different processes may be used for RPAS Web deployment:
 - Installing on an Oracle Application Server (OAS) with Single Sign-On (SSO) Support
 - Installing on an Oracle Application Server (OAS) without Single Sign-On (SSO) Support
 - Installing on an Apache Tomcat Server, which is a standalone server that is not part of the Single Sign-On (SSO) infrastructure
- Configuring the RPAS Servlet
- Configure and Administer the Web application

Preparing Your Environment

1. Log in to the UNIX server and determine where the RPAS Web files will be installed. A minimum of 50 MB disk space available is required for the application installation files. More space may be needed if multiple versions of RPAS Client are supported on the Web server.
2. Copy the RPAS Web files (RPAS.war, RPAS_osso.war and RPASWebData.tar), located in [RPAS Installation]/Web/ directory, to a newly created staging directory on the UNIX server. This directory will be referred to as STAGING_DIR.
3. Extract the RPASWebData.tar to the appropriate location. This location is referred to as [RPAS_WEB_DATA_DIR] in this document. If the Web server is running in a load balance environment with multiple servers, the RPASWebData files must be deployed to a network drive accessible to all Web server instances. A new directory RPASWebData/ and three subdirectories (client/, db/, and logs/) are created. Verify that the client directory has read permissions and that the db and logs directories have read and write permissions.
4. For each release of RPAS Client, there are two files: buildNumber.txt and client.zip. These files are not part of RPAS Web files. They generally come with RPAS release package. The default installation location for the files is [RPAS_WEB_DATA_DIR]/RPASWebData/client. If multiple client versions are to be supported, both files of each version must be placed under [RPAS_WEB_DATA_DIR]/RPASWebData/client/[VERSION] where [VERSION] is the version number of that release (12.1.2, 11.1.15 etc.).
5. Perform the necessary procedures based on your type of implementation.

Installing on Oracle Application Server with SSO Support

Perform the following procedure if you are implementing RPAS Web on an Oracle Application Server with Single Sign-On (SSO) Support. This process consists of several steps:

- Step I: Deploying the WAR File
- Step II: Configuring the RPAS Web Launch
- Step III: Protecting the RPAS Root
- Step IV: Setting RPAS Role for Oracle Single Sign-On Logins

Prerequisites for RPAS Web Deployment Using Oracle Single Sign-On (SSO)

Make sure the following procedures have been performed before installing RPAS Web using Oracle Single Sign-on:

1. Install the Oracle Identity Management Infrastructure server, including the Oracle Internet Directory (OID) LDAP and Oracle Single Sign-On (OSSO) servers.
2. Register the RPAS HTTP server with the OSSO server via the `ssoreg.sh` script. The output of this command will be a binary file, denoted here as the `osso.conf` file. Copy `osso.conf` to the the RPAS HTTP server (`$ORACLE_HOME/Apache/Apache/conf/osso/osso.conf`) and configure the RPAS HTTP Server to enable the `mod_osso` module. See the Oracle Single Sign-On documentation for further details.
3. Obtain the OID information (TCP/IP address and port, whether SSL is used as a transport mechanism and the realm name) from Oracle SSO server administrator. You will also need an administrative login and password, such as that used by the `orcladmin` user.
4. Set the instance security provider for the RPAS OC4J to Oracle Identity Management (the OID server). You will need to use the information gathered in step 3. Verify this by checking the file, `$ORACLE_HOME/j2ee/<RPAS_OC4J_INSTANCE>/config/jazn.xml`.

An example file is shown below :

```
<?xml version = '1.0' encoding = 'UTF-8'?>
<jazn xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="http://xmlns.oracle.com/oracleas/schema/jazn-
10_0.xsd" schema-major-version="10" schema-minor-version="0" provider="LDAP"
location="ldap://myhost.mycompany.com:636" default-realm="us">
  <property name="ldap.cache.purge.initial.delay" value="1200000"/>
  <property name="ldap.password"
value="{903}1DjczxpuY0o2BQg2MqM0YReAax9p+Po0wuU0oKU67as"/>
  <property name="ldap.cache.initial.capacity" value="20"/>
  <property name="ldap.user"
value="orclApplicationCommonName=jaznadmin2,cn=JAZNContext,cn=products,cn=OracleContext"/>
  <property name="ldap.cache.policy.enable" value="true"/>
  <property name="ldap.cache.purge.timeout" value="1200000"/>
  <property name="ldap.cache.realm.enable" value="true"/>
  <property name="ldap.cache.session.enable" value="true"/>
</jazn>
```

Note: Only LDAP specific properties are listed above. Your values of these may also differ. See the Oracle Application Server administration documentation for further details.

5. Restart the RPAS OC4J to incorporate your changes.

Step I: Deploying WAR File

Perform the following procedure to deploy the WAR file to the Oracle Application Server.

1. Log on Oracle Enterprise Manager/Application Server Control as oc4jadmin.
2. Select the intended application group for your deployment.
3. Click **Deploy**.
4. Select **Archive is already present on the server where Application Server Control is running** (second option) and type the following in **Location on Server** field:
[STAGING_DIR]/RPAS_osso.war
5. Click **Next**.
6. Type **RPAS Web Launch** in the **Application Name** field.
7. Type **RPAS** (or anything you choose) in **Context Root** field.
This name is referred to as [CONTEXT_ROOT] in this document.
8. Click **Next**.
9. Click the pen icon for **Select Security Provider**, and select **Oracle Identity Management** from the list.
10. Select **Enable SSO Authentication** check box.
11. Click **OK**.
12. Click **Deploy**.

Step II: Configuring RPAS Web Launch

To configure RPAS Web Launch, you need to modify one property file (propfile). This file is located in the following path:

[OAS_INSTALL_DIR]/j2ee/home/applications/RPAS Web Launch/[CONTEXT_ROOT] /WEB-INF/config

where [OAS_INSTALL_DIR] is the installation location of the OAS server.

1. Locate the following information in propfile and replace [RPAS_WEB_DATA_DIR] with the actual location and [HOSTNAME] with the host name of the server)

```
dbPath=[RPAS_WEB_DATA_DIR]/RPASWebData/db
clientSourceDir=[RPAS_WEB_DATA_DIR]/RPASWebData/client
tunnelLogFile=[RPAS_WEB_DATA_DIR]/RPASWebData/logs/tunnel.[HOSTNAME].log
webLogFile=[RPAS_WEB_DATA_DIR]/RPASWebData/logs/rpasPortal.[HOSTNAME].log
isOSSO=true
debug=false
classicMode=false
launchPreinstalledOnly=false
supportMultipleVersions=true
```

Please note that isOSSO flag must be set to true. Set launchPreinstalledOnly to true if only pre-installed RPAS Client can be launched. Set classicMode to true to support RPAS Client release 9.4. To support multiple versions of RPAS Client, set supportMultipleVersions to true.

2. Restart RPAS Web Launch Application from the Oracle Enterprise Manager/Application Server Control screen.

Step III: Protect RPAS Root

Perform the following to protect the RPAS root location in the Oracle HTTP Server configuration.

1. In the file `$ORACLE_HOME/Apache/Apache/conf/mod_osso.conf`, add the following protected resource to `<IfModule mod_osso.c>` section.


```
<Location /[CONTEXT_ROOT]/web>
require valid-user
AuthType Basic
</Location>
```
2. Restart the Oracle HTTP Server to ensure the modification is applied.

Note: Protect `/[CONTEXT_ROOT]/web` instead of `/[CONTEXT_ROOT]` to let through `/[CONTEXT_ROOT]/tunnel` for Web tunneling.

Step IV: Setting RPAS Role for Oracle Single Sign-On Logins

There are two types of roles for RPAS Web Launch users: `RPAS_ADMIN_ROLE` and `RPAS_USER_ROLE`.

Both roles can launch the RPAS Client and connect to a domain. Only `RPAS_ADMIN_ROLE` has the privilege to access the ADMIN interface.

It is recommended that `RPAS_USER_ROLE` be assigned to most Oracle Single Sign-On (OSSO) users (such as "planner") and `RPAS_ADMIN_ROLE` be assigned for a few power users (such as "executive"). This needs to be performed on the LDAP server storing the OSSO user information.

The roles can be created manually by using the OID DAS application. The `oidadmin` application or LDIF scripts may also be used to create users and roles. See the OID documentation for more details.

Creating a Group Using the DAS Application

Use the following procedure to use the DAS application to create the `RPAS_USER_ROLE` and `RPAS_ADMIN_ROLE` accounts.

1. Access the DAS application.

The DAS application is found in the following location:

```
http://<host>:<port>/oiddas
```

where `<host>` and `<port>` are the infrastructure or Oracle Identity Management OAS.

Example: `http://mspdev65.us.oracle.com:7778/oiddas`
2. Click the **login** link and log in as **orcladmin** or another privileged user.
3. On the right-side of the page, select the **Directory** tab., and on the left side, select the **Groups** link.
4. Click **Create**.
5. Enter the name of the group to create (for example, `RPAS_ADMIN_ROLE`), the Display name, and a description.
6. Make sure the **Group Visibility** option is set to **Public**.
7. If you would like, add additional users. Scroll to the **Members** section and select the **Add User** button to add users to this group. You can also nest other groups as well. Members can be added at a later time as needed.
8. When all members have been added, click the Submit button.

Creating Groups from an LDIF Script

Alternatively, you can create the groups using an LDIF script. A template is given below. Note that the following token `@BASE_REALM_DN@` needs to be replaced with installation specific value of the Realm Distinguished Name. Also, this script creates the group with a single member, `orcladmin`, as part of the group. Additional members may be added via more `uniquemember` attributes. You can execute the script via the `ldapadd` command supplied with the Oracle Identity Management infrastructure OAS server.

Example:

```
# The LDIF template for creating RPAS_ADMIN_ROLE and RPAS_USER_ROLE groups in OID.
# RPAS_USER_ROLE
dn: cn=RPAS_USER_ROLE,cn=groups,@BASE_REALM_DN@
objectclass: top
objectclass: groupOfUniqueNames
objectclass: orclGroup
cn: RPAS_USER_ROLE
displayname: RPAS user role
description: RPAS user role
orclisvisible: true
owner: cn=orcladmin,cn=users,@BASE_REALM_DN@
uniquemember: cn=orcladmin,cn=users,@BASE_REALM_DN@

# RPAS_ADMIN_ROLE
dn: cn=RPAS_ADMIN_ROLE,cn=groups,@BASE_REALM_DN@
objectclass: top
objectclass: groupOfUniqueNames
objectclass: orclGroup
cn: RPAS_ADMIN_ROLE
displayname: RPAS Administrator role
description: RPAS Administrator role
orclisvisible: true
owner: cn=orcladmin,cn=users,@BASE_REALM_DN@
uniquemember: cn=orcladmin,cn=users,@BASE_REALM_DN@
```

Once the RPAS groups have been created via the LDIF script, you could use the OID DAS application to add more members to them.

Installing on Oracle Application Server without SSO Support

Perform the following procedure if you are implementing RPAS Web on an Oracle Application Server with Single Sign-On (SSO) Support. This process consists of several steps:

Step I: Deploying the WAR File

Step II: Configuring the RPAS Web Launch

Step I: Deploying the WAR File

Perform the following procedure to deploy the WAR file to the Oracle Application Server without SSO.

1. Log on Oracle Enterprise Manager/Application Server Control as `oc4jadmin`.
2. Select the intended application group for your deployment.
3. Click **Deploy**.
4. Select **Archive is already present on the server where Application Server Control is running** (second option) and type the following in **Location on Server** field:
[STAGING_DIR]/RPAS.war
5. Click **Next**.

6. Type **RPAS Web Launch** in the **Application Name** field.
7. Type **RPAS** (or anything you choose) in **Context Root** field.
This name is referred to as [CONTEXT_ROOT] in this document.
8. Click **Next**.
9. Click **Deploy**.

Step II: Configuring RPAS Web Launch

To configure RPAS Web Launch, you need to modify one property file (propfile). This file is located in the following path:

[OAS_INSTALL_DIR]/j2ee/home/applications/RPAS Web Launch/[CONTEXT_ROOT] /WEB-INF/config

where [OAS_INSTALL_DIR] is the installation location of the OAS server.

1. Locate the following information in propfile and replace [RPAS_WEB_DATA_DIR] with the actual location and [HOSTNAME] with the host name of the server)

```
dbPath=[RPAS_WEB_DATA_DIR]/RPASWebData/db
clientSourceDir=[RPAS_WEB_DATA_DIR]/RPASWebData/client
tunnelLogFile=[RPAS_WEB_DATA_DIR]/RPASWebData/logs/tunnel.[HOSTNAME].log
webLogFile=[RPAS_WEB_DATA_DIR]/RPASWebData/logs/rpasPortal.[HOSTNAME].log
isOSSO=false
debug=false
classicMode=false
launchPreinstalledOnly=false
supportMultipleVersions=true
```

Please note that isOSSO flag must be set to false. Set launchPreinstalledOnly to true if only pre-installed RPAS Client can be launched. Set classicMode to true to support RPAS Client release 9.4. Set supportMultipleVersions to true to support multiple versions of RPAS Client.

2. Restart RPAS Web Launch Application from the Oracle Enterprise Manager/Application Server Control screen.

Installing on Apache Tomcat

Perform the following procedure if you are deploying RPAS Web launch on a standalone Apache Tomcat server, which implies a non-SSO environment.

Installing RPAS Web Launch on Apache Tomcat consists of two steps:

- Step I: Deploying the RPAS WAR File
- Step II: Configuring RPAS Web Launch on Apache Tomcat

Step I: Deploying the RPAS WAR File

Please refer to your Apache Tomcat documentation for more details of how to deploy a Web archive.

1. Log on to the Tomcat Web server URL: `http://server:port/manager/html`.
2. Scroll down to **Deploy directory or WAR file located on server** section.
3. Type **/RPAS** (or anything else you choose) in the **Context Path** field.
This location is referred to (without the “/”) as [CONTEXT_ROOT] in this document.
4. Type [STAGING_DIR]/RPAS.war in the **WAR or Directory URL** field.
5. Click **Deploy**.

The display name should show “**RPAS Web Launch**” for a successful deployment. In the event you need to a re-deploy RPAS Web Launch, it is recommended that the following be performed:

- Undeploy the Web application.
- Restart the Web server to clear any caching.
- Re-deploy the Web application.

Step II: Configuring RPAS Web Launch on Apache Tomcat

To configure RPAS Web Launch, you need to modify one property file (propfile). This file is located in the following path:

[TOMCAT_INSTALL_DIR]/webapps/[CONTEXT_ROOT]/WEB-INF/config

where [TOMCAT_INSTALL_DIR] is the installation location of the Tomcat Web server. If the Web server is running in a load balance environment with multiple servers, this file must be modified for all Web server instances.

1. Locate the following information in propfile and replace [RPAS_WEB_DATA_DIR] with the actual location and [HOSTNAME] with the host name of the server.

```
dbPath=[RPAS_WEB_DATA_DIR]/RPASWebData/db
clientSourceDir=[RPAS_WEB_DATA_DIR]/RPASWebData/client
tunnelLogFile=[RPAS_WEB_DATA_DIR]/RPASWebData/logs/tunnel.[HOSTNAME].log
webLogFile=[RPAS_WEB_DATA_DIR]/RPASWebData/logs/rpasPortal.[HOSTNAME].log
isOSSO=false
debug=false
classicMode=false
launchPreinstalledOnly=false
supportMultipleVersions=true
```

Please note that `isOSSO` flag must be set to `false`. Set `launchPreinstalledOnly` to `true` if only pre-installed RPAS Client can be launched. Set `classicMode` to `true` to support RPAS Client release 9.4. Set `supportMultipleVersions` to `true` to support multiple versions of RPAS Client.

2. Restart the RPAS Web Launch application.

Migrating from Previous Versions

If you have been running an older version of RPAS Web Launch, here are the steps to migrate old data to the new deployment.

1. Migrate client binary

Copy `buildNumber.txt` and `client.zip` files to the location specified by property “`clientSourceDir`”. If multiple versions are supported, they should be copied to “`clientSourceDir/[VERSION]`” where [VERSION] is the version number of that release (12.1.2, 11.1.15 etc.).

2. Migrate admin user data

Copy `userdata.dat` file to the location specified by property “`dbPath`”.

3. Migrate domain registration data

Copy `domaindata.dat` to the location specified by property “`dbPath`”.

4. Restart Web application **RPAS Web Launch**

Please note that after the migration, if an admin user fails to log on, that would indicate that the `userdata.dat` file is corrupt. Please remove the file, and log on the administration interface using default user **adm** (default password **adm**) and re-create all admin users.

Configuring the RPAS Servlet

The class for the RPAS servlet is *com.retek.mdap.servlet.ServletManager*. The servlet properties have been configured in the deployment descriptor “web.xml” that is originally archived in **RPAS.war**.

This deployment descriptor provides two sets of initialization parameters to the RPAS servlet.

Note: The deployment descriptor should not be modified. All of the servlet initialization parameters should not be modified, except the “timeout” and “sleep” parameters (which specify the time in seconds) for Web tunneling.

After the servlet is configured, load it into your Web server. You might be required to reload your Web server to activate the new servlet.

Configuring and Administering the Web Application

The following topics provide information on accessing the RPAS Web Administration console to perform administrative tasks such as defining the RPAS enterprise configuration, and adding, modifying and deleting domain configurations.

Start the RPAS Web Configuration Utility – Administration Console

1. To access the RPAS Web configuration utility, start a Web browser (Internet Explorer 6 recommended) and go to the following location:

`http://[WEB_SERVER_ADDRESS]/[CONTEXT-NAME]/web`

where

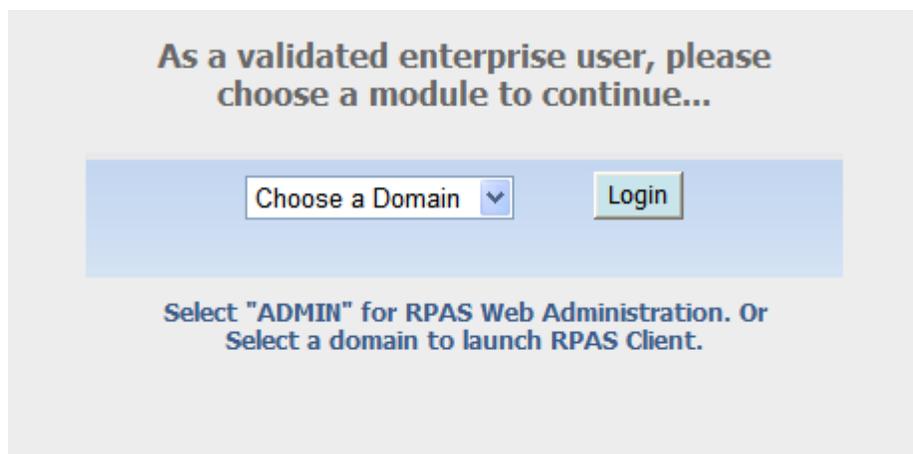
`WEB_SERVER_ADDRESS` is the address you use to access your Web server.

`CONTEXT_NAME` is the value you defined for the **Context Root** field in “Install the RPAS Web Application” procedure above.

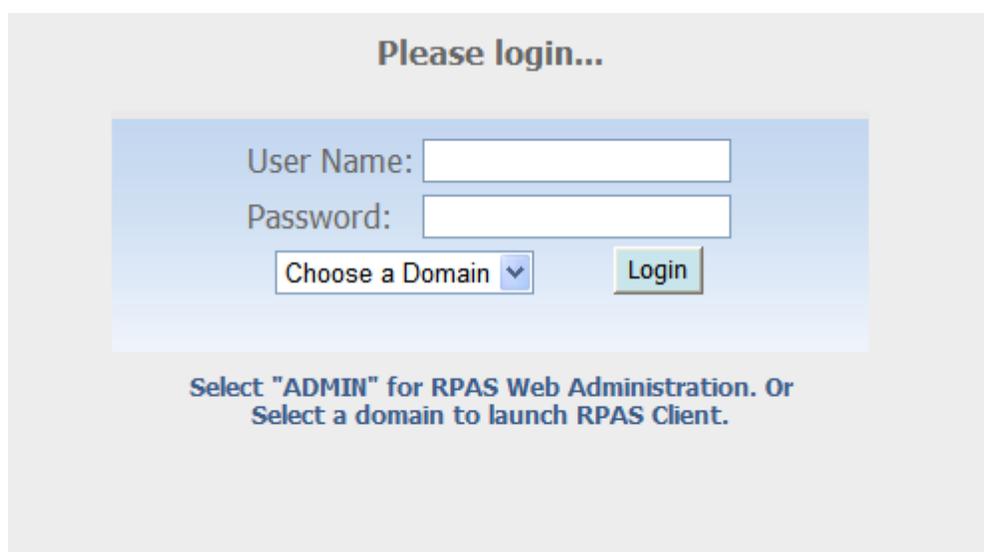
Note: The Web application support internationalization. It uses the locale from the browser to determine the appropriate language to display in the Web interface. The default language is English.

Example: `http://mspdev18:13085/RPAS/web`

Depending the type of RPAS deployment being implemented (with SSO or without SSO), one of the following screens appears.



Login Screen after OSSO Authentication



Login Screen for non-OSSO Configuration

Note: If there is a very long list of domains, use URL `http://[WEB_SERVER_ADDRESS]/[CONTEXT-NAME]/web?app=[AppID]` to filter domains on the login page. Only domains with an “application ID” field matching `AppID` will be displayed in the list.

2. Perform one of the following:
 - If you are using an SSO environment, select **ADMIN** as the domain and click **Log On** to access the Administration Console.
 - If you are not using an SSO environment, enter an Administrator user name and password (the initial administration user name is **adm** and the password is **adm**). Select **ADMIN** as the domain and click **Log On** to access the Administration Console.

A security warning dialog box appears.

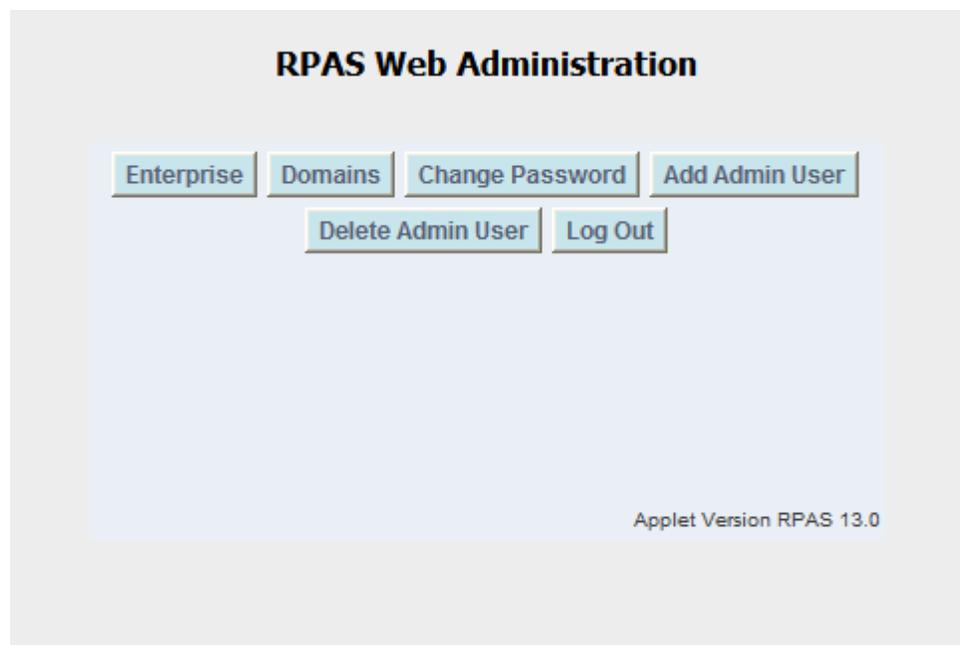


Security Warning on Internet Explorer

3. Click **Run**. To avoid seeing this message in the future, make sure **Always trust content from this publisher** option is selected. The RPAS Web Administration console appears.



RPAS Web Administration Console in SSO Environment



RPAS Web Administration Console without SSO

4. Refer to the following topics to configure RPAS Web Launch or perform other administration activities.

Configure Web Launch and Web Tunneling – Enterprise Configuration

The following section describes how to configure the use of the Web launch or the Web tunneling architecture. Both the Web launch and Web tunneling architectures allow domain location setup, client application installation, and application launch processes to be initiated from a Web browser. The difference between the two architectures is in how data is communicated between the RPAS Client application that runs on a user's PC and the RPAS domain that runs on the database server.

The Web tunneling architecture sends all data through the Web server as it travels from a user's PC to the database server. This method allows PCs that are located outside a company's network to communicate through the Internet to a database server that is located inside a company's network.

The Web launch architecture sends all data directly from a user's PC to the database server. This architecture assumes that the database server is on a network directly accessible by each user's PC (that is, the company's LAN).

1. Click **Enterprise** to open the RPAS Enterprise Configuration window.

This dialog allows you to define the communications architecture that connects client PCs to the database server.

From a configuration perspective the key differentiator, between the two options is in the value of the Web Server Name field (described below). To use the Web tunneling architecture, this field must be populated; if it is empty, the Web launch architecture is used.

2. To configure the Web launch architecture, make sure the **Web Server Name** field in the RPAS Enterprise Configuration dialog is empty, and click the **Confirm** button. All other fields in this window are ignored.

RPAS Enterprise Configuration Window

3. To configure the Web tunneling architecture, the RPAS Enterprise Configuration window must be filled with appropriate values following the table below.

Filed Name	Value Description
Web Server Name	The hostname or the IP address of the Web server and the port number of the Web server. They must be entered sequentially with a colon in between. If the Force SSL checkbox is checked, replace the port with the SSL port number. Required.
Tunnel Servlet Name	The path to the servlet that tunnels the information between the client and server. Formatting: <code>/[CONTEXT_NAME]/tunnel</code> . Required.
Proxy Server Name	The hostname or the IP address of the proxy server.
Proxy Server Port	The port number on which the proxy server is active. Must be an integer between 1 and 65535.
Staging Server Name	Leave blank. Not used right now.
Staging Input Path	Leave blank. Not used right now.
Staging Output Path	Leave blank. Not used right now.

Filed Name	Value Description
Socks Port	If HTTP 1.1 is being used along with a proxy server, then the proxy server must enable SOCKS protocol. Must be an integer between 1 and 65535.
SSL Encryption Level	If SSL is to be used, this value should be 128 Bit US, or 64 Bit International encryption level. 128 bit encryption should be preferred.
Message Timeout	Used in HTTP 1.1 to specify the number of milliseconds of inactive communication after which the client will timeout and reconnect. Must be an integer between 1 and 65535.
Compression Threshold	The number of bytes above which client and server will be using compression.
Force SSL	This is a check box that specifies whether SSL is used for transferring data between client and server.
Use HTTP 1.1	This is a check box that specifies whether HTTP 1.1 should be used. If not selected, HTTP 1.0 will be used.

The screenshot shows the 'RPAS Enterprise Configuration' dialog box with the following settings:

- Web Server Name: mspdev43:8888
- Tunnel Servlet Name: /RPAS/tunnel
- Proxy Server Name: (empty)
- Proxy Server Port: (empty)
- Staging Server Name: (empty)
- Staging Input Path: (empty)
- Staging Output Path: (empty)
- Socks Port: (empty)
- SSL Encryption Level: None
- Message Timeout: Client Default (with an empty input field)
- Compression Threshold: Client Default (with an empty input field)
- Force SSL:
- Use HTTP 1.1:

Buttons for 'Confirm' and 'Cancel' are visible at the bottom.

Sample Web Tunneling Configuration

Other Web Client Administration Activities

Adding, Modifying and Deleting Domain Configuration

1. Click **Domains** in the RPAS Web Administration Console. The RPAS Domain Dialog appears. This dialog is used to specify the location of RPAS domains. Each domain that can be accessed by a user must be specified with the dialog.

RPAS Domain Dialog

2. To add a new domain, click **New**, enter the following information, and click **Confirm**.

Field Name	Value Description
Description	This is displayed to users when they are selecting a domain to log in to. Required.
Application ID	Used in domain filtering. Can be any string without spaces. Leave blank if preferred.
Client Version	The version number of the RPAS Client to launch. It must match exactly the version number in the path of the client files on the Web server. Leave blank if multiple version support is not enabled.

Field Name	Value Description
Path	The full path to the directory containing the domain on the database server. Required.
Database Server Name	The hostname of the database server containing the domain. Required.
Daemon Port	The port number of the DomainDaemon process running on the database server. The port must be between 1025 and 65535 (inclusive). Required.
Memory Size	Leave Blank. Not used right now.
Start Port	Start of the range of ports used by a client PC (Web launch architecture) or the Web server (Web tunneling architecture) to connect to the database server. This value must be great than (>) 1025. If it not specified, the RPAS database server attempt to find a free port whenever a client connects.
End Port	End of the range of ports used by a client PC (Web launch architecture) or the Web server (Web tunneling architecture) to connect to the database server. This value cannot be greater than 65535.

3. To change an existing domain configuration, select the domain from the **Domains List**, modify the fields as necessary, and click the **Confirm** button. Select the **Cancel** button to discard any changes that have been made.
4. To remove a domain, select a domain from the **Domains List** and click **Delete**. The selected domain configuration is removed.
5. To copy all of the domain settings of a domain, perform the following:
 - a. Select the domain from the **Domains List** and click **Copy**.
 - b. Selecting another domain from the **Domains List** and click **Paste**. The domain is updated the domains settings you have copied.
 - c. Click **Confirm** to save the updated information.

Changing Administrator Password

Perform the following procedure from the RPAS Web Administration Console.

1. Click **Change Password**. The RPAS Change Password window appears. This allows the currently logged in administrator to change his/her password that allows access to the administrative console.
2. Enter the current password in the **Old Password** field. Passwords should not exceed 30 characters in length.
3. Enter the new password in the **New Password** and **Confirm New Password** fields.
4. Click **Confirm** to save the new password.

Adding a New Administrator Account

Perform the following procedure from the RPAS Web Administration Console.

1. Click **Add Admin User** to open the RPAS Add Admin User window. This window is used to add another RPAS administrative user.
2. Enter the administrative user's name in the **User Name** field. The user name must not be used by other people.
If the user name has been used, an error dialog appears. Click **OK** on this error dialog if this occurs, and enter another name for this new administrative user.
3. Enter the initial password in the **Password** and **Confirm Password** fields.
4. Click **Confirm** to create the new administrator account.

Deleting an Administrator Account

Perform the following procedure from the RPAS Web Administration Console.

1. Click **Delete Admin User** to open the RPAS Delete Admin User window. This allows you to delete an RPAS administrative user.
2. Select the administrative user's name from the list in the window, and click **Confirm** to delete the user account.

Logging Out

From the RPAS Web Administration Console, click **Logout** to exit the administrative console. This returns you to the Login screen.

Install and Launch the RPAS Client Application

Perform the following procedure to install the RPAS Client and log in to a domain using RPAS Web Launch:

1. Start a Web browser (Internet Explorer 6 is recommended) and go to the following location/URL: `http://[WEB_SERVER_ADDRESS]/[CONTEXT_NAME]/web`

Example: `http://mspdev18:13085/RPAS/web`

This address is established during the initial installation and configuration. Administrators must provide this location/URL to end users. The `[WEB_SERVER_ADDRESS]` portion of the URL is the host address where the Java application service is running. This address may also include an alternate TCP/IP port number to communicate on (for instance, for port 8080, `webss:8080`). The login screen appears.

2. Perform one of the following based on your environment:
 - If your environment is not using Oracle Single Sign-On (SSO), enter a user name and password, select a domain from the list, and then click **Login**.
 - If you are using SSO, you will enter your SSO credentials for authentication. A login screen appears. Select a domain from the list and click **Login**. The user name must have been added to the domain to allow access.

Note: When using SSO, you can by-pass the login page by specifying the domain in the URL:
`http://[WEB_SERVER_ADDRESS]/[CONTEXT_NAME]/web?domain=[Desc]`. The domain with a "Description" field matching `Desc` will be launched automatically after the authentication. No spaces are allowed in the description field if this direct triggering mechanism feature is used.

When the **Login** button is selected, the **DomainDaemon** on the database server is contacted to verify that the specified user is allowed to access the selected domain. Ensure that the **DomainDaemon** process is running on the database server before clicking on **Login**.

If access to the domain is allowed, a security dialog window may appear.

3. If the security window appears, click **Run**.

After you click **Run** in the security window, a check is made to see if the RPAS Client application needs to be installed on the user's PC. The Web server administrator is able to define a common installation location of the RPAS Client for all users' PCs. This is accomplished by setting the appropriate value in the server-side `clientPath.txt` file (note the mixed-case filename) under the `clientSourceDir/[VERSION]` directory where the optional `[VERSION]` is the client version number if multiple versions are supported. The file "clientPath.txt" is an optional file which must reside under the same directory as "buildNumber.txt" does. RPAS Web installation files do not contain it. The administrator, or person responsible for installing RPAS Server components, must decide whether or not to define the installation location on user's PC by creating this file and specifying the full path of installation directory in the first line of the file. If `launchPreinstalledOnly` flag is set to `true`, the Web Launch applet will try to launch RPAS Client from that location without downloading and installing the client. It will fail if the RPAS Client has not been installed, and the applet will display an error message. If `launchPreinstalledOnly` flag is set to `false` and the user has not previously installed the RPAS Client, or a newer version has become available on the server, the RPAS Client will be downloaded and installed. If `launchPreinstalledOnly` flag is set to `false` and the RPAS Client path is not specified, the user is prompted for an installation location for the RPAS Client. The RPAS Client installation directory must have at least 50 MB storage space.

4. If necessary, select a directory that has at least 50 MB of free storage for installing RPAS Client, and click **OK**. A status dialog box appears as files are copied from the server to the user's PC. After the files have been copied, a RPAS installation program runs, and the RPAS Client starts. If everything is successful, the user sees a **Login Successful** message in the bottom left corner of the RPAS Client window.

Note: If the RPAS Client does not need to be installed on the user's PC after you click **Login**, the RPAS Client immediately starts and connects the user to the selected domain.

Troubleshooting

If a problem is encountered when using RPAS Web Launch, review any log files and record the output to determine the causes. Any support ticket submitted to Oracle must have the logging output attached.

On the server side, the log files are specified by the properties “webLogFile” and “tunnelLogFile”. On the client side, logging output is written to Java Console which can be accessed via **Tools – Sun Java Console** from Internet Explorer and **Tools – Java Console** from Firefox.

If the browser fails to launch the client without displaying an error message or behaves abnormally, we recommend that the user clear all browser cookies and try again.

If an instance of RPAS client is already running when the Web Launch applet is trying to install RPAS client, the installation may fail. We recommend that the user stop all RPAS client processes and try again.

Note: You can turn on the debug flag to obtain additional logging information by setting property `debug` to `true` in property file “propfile” and restarting the web application.

RPAS Web Launch and Oracle Retail Workspace

If you plan to implement RPAS Web Launch in conjunction with Oracle Retail Workspace, refer to the *RPAS Administration Guide* as well as the Oracle Retail Workspace documentation for more information.

Installing the Translation Pack

Overview

RPAS is available in the following languages:

- English
- French
- German
- Spanish
- Korean
- Japanese
- Portuguese
- Simplified Chinese
- Russian
- Traditional Chinese

The use of RPAS in a language, other than English, requires the following:

- Build a domain with the multi-language flag set to True/Yes (refer to the *RPAS Configuration Tools User Guide* for additional information).
- Install the translation client library – this library contains the translated strings of the components in the RPAS Client, including menus, toolbars, dialog windows, and so on.
- Set the language of the client if not using the RPAS Client in the language of the client-side operating system.
- Load the translated strings into the domain.
- Set the Regional Options in the Windows settings and reboot the machine (required only for Japanese, Korean, Simplified/Traditional Chinese).

Refer to the *RPAS Administration Guide* for addition information about RPAS internationalization and administration.

Installation and Configuration

RPAS Client

Locate the “Translations” folder in the root directory where the RPAS package was extracted. Go to the subfolder of the desired language and copy the translation library (<language>.dll) to the directory where the RPAS Client is installed (the directory in which *foundation.exe* is located).

By default, the language of the RPAS Client is determined by the language of the client-side operating system. This setting can be overridden by setting the Language number entry in the `Options` section of the `foundation.ini` file:

```
[Options]
Language=10
```

If the RPAS Client cannot find the library for the language you specify, it will default to English. The table below displays the languages currently released.

Language	Code
English	9
French	12
German	7
Italian	16
Japanese	17
Korean	18
Portuguese	22
Russian	25
Simplified Chinese	2052
Spanish	10
Traditional Chinese	1028

Load the Translated Strings

Within the folder of the desired language under the “Translations” directory are a collection of data files that are loaded into the domain as measures. Copy all the files with an .ovr extension for the desired language into the “input” directory of the domain.

To minimize the number of space used for translated data, it is recommended (but not required) that the **lngs.dat** file is edited to remove languages that are not required in the domain. This file is located in either the “input” or “processed” directory of the domain. If it is located in the “processed” directory, move the file back to the “input” directory and rename it to remove the timestamp extension. If changes to **lngs.dat** were made it is necessary to load the hierarchy:

```
loadhier -d <pathtodomain> -load lngs
```

Load each translation file in the input directory using the `loadmeasure` utility; the name of the measure will be the name of name of the input file without the extensions (.ovr, .solution, etc).

```
loadmeasure -d <pathtodomain> -measure <measure_name>
```

Note: Files are moved to the “processed” directory once they have been loaded.

Once all of the translation input files have been loaded the domain should be ready for use.

Building and Patching Domains

Build a Domain

Overview

After a fully defined configuration is created, an RPAS domain can be installed. Since building an RPAS domain is a manual process, it is expected that this process is supported by UNIX administration if installing the domain on a UNIX platform. If the domain is being installed on NT servers for prototyping and demonstration purposes, it can be built using the RPAS Configuration Tools GUI installer.

Prerequisites

The following are the prerequisites for building a domain:

- MKS 8.7 Developer's Toolkit installed
- Installation of RPAS on the server that will store the domain(s). Refer to the *RPAS Installation Guide* for more information.
- Installation of the Configuration Tools on the server that will store the domains. Refer to the *RPAS Installation Guide* for more information.
- A configuration built using the Configuration Tools.
- A collection of hierarchy input files that contain positions for the domain. A hierarchy data file (name.dat) is required for each defined hierarchy.

Client-Side Procedures

Export the Configuration Project from the Configuration Tools

To begin the domain build process, a configuration project built using the Configuration Tools is required. This can be a packaged template or a configuration created with the customer's specific hierarchies, measures, and workbooks. If using a new configuration, be sure to note the path where the configuration is saved on the local disk.

Note: The remainder of the section assumes that the domains are being built on a different server than NT while the configuration is created on the NT platform. If the domain is being built on the same server as the configuration, the steps regarding adding the configuration to the zip file and transferring to a different server can be eliminated.

Zip up the Configuration Project Folder

1. Find the location where the configuration project is saved.
2. Using Windows Explorer, go to the path of the configuration project.
3. Right-click on the **Configuration** folder, and select **Add to Zip**. Package the entire contents of the project beginning with the configuration project root folder such that the zip file will include all Solution(s). It is important to zip the entire configuration project for the entire directory structure and not just the specific .xml files. Do not change the name of the configuration project folder or alter the contents of the folder in any way.

In the following example, TPGA is the configuration selected to create the TPGA.zip.



4. Using FTP, transfer the .zip file over to the server in binary mode. This can be placed in the home directory for now.

Load Measure Data

Note: The following is optional. If installing a packaged template that contains a script to load data, the following section can be skipped. Proceed with the installation process of the solution template.

During the initial domain build process, all of the hierarchy and measure data files in the input home directory will be copied to the input directory domain. If necessary, move or copy any new measure data files to the input directory of the domain. The measure data file must have a valid measure filename, such as xxx.ovr, xxx.rpl, xxx.inc, or xxx.clr, where xxx is the measure name.

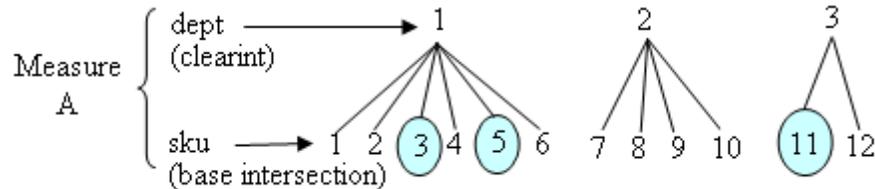
The meanings of the extensions are as follows:

- ovr – The data from the incoming file will overlay the data that is already present at the base intersection for the measure. If a particular cell at the base intersection does not receive a new record from the incoming file, that cell's current value will be preserved.
- inc – The data from the incoming file will be added to any existing data at the base intersection of the measure.
- rpl – All data at the base intersection for the measure will be removed before cells are populated with the data from the incoming file.
- clr – Data at the base intersection of a measure will be partially cleared based on incoming data and the clearint attribute for the measure. The clearint attribute defines an intersection above the base intersection. All cells at the base intersection that are descended from a given position at the clearint level will be removed if there is data in the incoming file for at least one of those descending positions.

Example:

Measure “A” has a base intersection of “sku” and a clearint of “dept.”

If there is data for only a few skus (3, 5, and 11) in the incoming file, and skus 3 and 5 roll up to dept1 while sku11 rolls up to dept3, the data in all of the skus that rolls into dept1 and dept3 will be cleared.



- The base intersection is sku.
- The clearint is dept.
- Data is present for skus 3, 5, and 11; which fall under dept 1 and dept3.
- Data will be cleared for dept1 (skus 1, 2, 3, 4, 5, 6) and dept3 (skus 11, and 12).
- Data for skus in dept2 (7, 8, 9, and 10) will be untouched.

Procedure

Refer to the *RPAS Administration Guide* for the following procedures:

- Loading data using the `loadmeasure` utility.
- Disabling the timestamp header.
- Information on Measure Loading Properties.

Server-Side Procedures**Import the Configuration to RPAS**

Note: If building the domain directly from the GUI Installer, this section may be omitted.

After the configuration project is exported, it can be imported to the server and begin building the domain. A new domain can be built or an existing domain can be updated (patched).

Note: Though the RPAS Configuration Tools are supported only on the Windows platforms, the installation tools are supported on all platforms (HPUX and AIX). However, they require Java 1.5. Make sure that the server being used for the domain install has the correct version of Java.

Unzip the Configuration File

1. Find the location where to save the configuration project file.

Note: Always put an updated configuration project in a new directory path. Do not overwrite an existing configuration project.

2. Move the <Configuration Project>.zip file to this location.
3. Unzip the <Configuration Project>.zip file using the UNIX command:
`unzip a <Configuration Project>.zip`
4. Do not change the directory name for the configuration project or alter the contents in any way.

Verify the Environment Variable Settings

Prior to this step, RPAS and the Configuration Tools should be installed on the server that will store the domain(s). During that process, the necessary environment variables for RPAS and the Configuration Tools should be defined. Refer to Environment Variable Setup Script if the environment variables below have not been set up. Additional details on environment variables can also be found in the *RPAS Administration Guide*.

Log on to the server. Use the commands below to verify the environment settings:

```
echo $RPAS_HOME
echo $RIDE_HOME
echo $JAVA_HOME
echo $PATH
```

Note: The path for the RPAS_HOME variable changes with each new RPAS release.

If any changes to the environment variable settings, remember to exit and restart the UNIX session in order to execute the corrected .profile. This step is very important before continuing with the remaining steps.

Get the Input Files Ready

1. Designate a directory for the location of the input files, and move the files into this directory.

Note: As a recommendation, use the directory name **to_rpas** as a standard for the location of input files. At a minimum, the hierarchy files (product, location, and calendar hierarchy files) are needed to build the domain. At this time, a calendar file must be loaded.

2. If necessary, rename the hierarchy files to prod.dat, loc.dat, and cldn.dat. These file names are required. The format of these files must match the hierarchy configuration specified using the Configuration Tools.

Building the Domain Manually or by Using a Command-Line Interface

Run the `rpasInstall` script to build the domain. This executable is located in the path to `$RIDE_HOME/bin`. The syntax for the `rpasInstall` script is as follows:

```
rpasInstall [-version | -testinstall | -fullinstall | -patchinstall] cn
<config_name- ch <config_home- dh <domain_home- in <input_directory-
[-rf <function_name-] log <logfile_name-
```

Required Syntax:

- `[-fullinstall | -patchinstall | -testinstall]` – The type of installation to be performed.
where:
 - fullinstall – Builds a full domain and loads the hierarchy data files.
 - patch install – Patches an existing domain. Updates or unregisters/registers measures that have changed (as necessary).
 - testinstall – Used for testing only. Only generates configuration files.
- `ch <config_home>` – Where `<config_home>` is path to the directory that contains the configuration.
- `-cn <config_name>` – Where `<config_name>` is the name of the configuration.
- `-in <input_home>` – Where `<input_home>` is the directory that contains the input files for the domain to be created.
- `-log <log_name>` – Where `<log_name>` is the name of the log file to be created.

Optional Syntax:

- `-v-version` – Provides the version number of the Tool build as it relates to the release or patch number.
- `-rf <function_name>` – Where `<function_name>` is the filename of the function to be registered. This pairing may be repeated for multiple functions.
- `-updatestyles` – Will update styles. In patch install, this results in loss of manual formatting (if any) to measures.
- `-verbose` – Results in more detailed log information.

Conditional Syntax:

- `-configdir <config_directory>` – Where `<config_directory>` is the path to the directory that contains the xml files that are used by RPAS. This is a required argument if supplying a `globaldomainconfig.xml` or `calendar.xml`.
- `-dh <domain_home>` – Where `<domain_home>` is the path to the directory where the domain will be created. This does not include the root of the domain. This is a required option if `globaldomainconfig.xml` is not used.
- `-p <dim_name>` – Where `<dim_name>` is the partitioning dimension. Use this if the global domain is being implemented without the use of `globaldomainconfig.xml`.

Note: When building a domain for the first time, an installs directory is created inside the domain. The installs directory is essential for the patch process and should not be removed, moved, or renamed.

Note: When sending in an issue to Oracle Retail Customer Support, if asked to provide a domain, be sure to provide the installs directory as well. The following information should be provided in order to help Customer Support better diagnose the issue:

- The configuration
 - The script used to run the rpaInstall script
 - The domain
 - The log output file
-
-

Validate Domain Build Results

Once the domain build process is complete, the logfile should be reviewed to verify that the process executed successfully. Search for the words **ERROR**, **FAILURE**, and **exception** inside the logfile. The end of the logfile should look similar to the output below:

```
Time: 58.451
COMPLETE
```

After Building the Domain

After building the domain and loading measure data, perform the following procedures:

1. Use the RPAS EConfigure utility to specify the location of the domain on the server and designate a port number where the RPAS Server (DomainDaemon) is running.
2. Begin the RPAS Server process (DomainDaemon) with the port number specified in the EConfigure utility. Refer to the *RPAS Administration Guide* for instructions on executing the DomainDaemon.
3. Log on to the domain using the RPAS Client.
4. Set up the appropriate permissions on the measures in the domain using the Measure Administration workbook, and view the measures by building a Measure Analysis workbook. Refer to the *RPAS Administration Guide* for instructions on using these workbooks.

Patch a Domain

In order to patch the RPAS domain with changes to the configuration project, perform one of the following options:

- Use the `-patchinstall` option when running the command-line installer.
- Select the **Patch Install** option if using the RPAS Configuration Installer.

Before beginning the `patchinstall` process, it is recommended that you perform the following:

- Save all workbooks.
- Create a backup copy of the domain.
- Verify that the `-patchinstall` option in the `rpaInstall` command is being used instead of the `-fullinstall` option.

Note: Change **ONLY** the `fullinstall` option to `patchinstall` inside the call to `rpaInstall`. No other options in the `rpaInstall` call must be changed when running a `patchinstall`.

Patching a domain does not update any hierarchy or dimension changes in the configuration with the exception of user-defined dimensions. It does not patch changes to the hierarchy purge age, the security dimension, or change the multi-language setting for a domain.

Note: If updating the hierarchy purge age inside an existing domain, use the `loadHier` RPAS utility in batch mode to update the current settings. Refer to the *RPAS Administration Guide* for further details regarding the usage of the `loadHier` utility.

Patching a domain allows for any changes to measure properties, rule sets, rule groups, and workbook templates. During the process, the rule sets, rule groups, and rules are completely rebuilt, but measures and templates are updated with the changes.

Applying a New Tools Build Patch Release

When there is a new release of the RPAS Configuration Tools, replace the entire Tools directory with the new release. Make a backup copy of the existing configuration before using it with the new Tools release. Also, create a new directory for the new Tools release rather than overlaying the old release. Remember to update the `RIDE_HOME` environment variable as needed to point to the new Configuration Tools release. For additional information, refer to Environment Variable Setup Script. Additional details on environment variables can also be found in the *RPAS Administration Guide*.

Patching Measure Properties

Certain measure properties cannot be updated without unregistering and reregistering measures, which results in the loss of measure data. Updateable measure properties are those that can be modified, and not updateable measures are those cannot be modified. If all of the measure properties that are changed are “updateable,” simply update the measure properties, and measure data will not be lost in the domain during the patch process. If even one of the measure properties that change are not updateable, the patch process results in un-registration and re-registration of the measure. Therefore, the data that was in the domain for that measure before the patch process will not be there after the patch process is complete.

Appendix: Bandwidth Requirements

Understanding Bandwidth Requirements

The bandwidth requirements for a Web-based deployment of the RPAS Client are minimal. The only large data transfer that occurs in this configuration is installation of the RPAS Client to a PC (approximately 5 MB of data). This happens very infrequently. The client software is installed the first time a PC tries to connect to a domain or if the PC has an older version of the software that needs to be upgraded.

Each time a user logs in to the RPAS Web launch software through a Web browser, approximately 70 KB of data is transferred from the server to the client PC. Data transfers from the PC back to the server are, at most, only a couple of kilobytes. Other than these data transfers, for Web launch configuration, there is no communication between a PC and the Web server, only between the PC and the database server; however, for Web tunnel configuration, all data transfer goes through Web server.

One way to estimate the bandwidth requirements centers on a “burst” scenario where a particular number of users logs into RPAS at once. To calculate for this scenario, take the total number of users that might be launching an application at one time, multiply this number by **560,000** (70 KB * 8 bits per byte), then divide the result by the desired maximum launch time (the number of seconds lapsed between clicking the **Login** button and the appearance of a usable application window) to get the approximate maximum bandwidth rate that would be needed in terms of bits per second. For example, ten simultaneous user launches with a launch time of ten seconds calculates to a bandwidth requirements of $10 * 560000 \text{ bits} / 10 \text{ seconds} = 560000 \text{ bps}$ bandwidth.

Another metric for estimating bandwidth requirements focuses on the time it takes to download the client software. To calculate this particular metric, divide **40,000,000** (5 MB client download * 8 bytes per byte) by the desired installation time to get bandwidth in bits per second. For example, the download of one copy of the client software in 60 seconds would take $40,000,000 \text{ bits} / 60 \text{ seconds} = 666667 \text{ bps}$.

Appendix: Installation Order

This section provides a guideline for the order in which the Oracle Retail applications should be installed. If a retailer has chosen to use only some of the applications, the order is still valid, less the applications not being installed.

1. Oracle Retail Merchandising System (RMS), Oracle Retail Trade Management (RTM), Oracle Retail Sales Audit (ReSA)
2. Oracle Retail Service Layer (RSL)
3. Oracle Retail Extract, Transform, Load (RETL)
4. Oracle Retail Active Retail Intelligence (ARI)
5. Oracle Retail Warehouse Management System (RWMS)
6. Oracle Retail Allocation
7. Oracle Retail Invoice Matching (ReIM)
8. Oracle Retail Price Management (RPM)

Note: During installation of RPM, you are asked for the RIBforRPM provider URL. Since RIB is installed after RPM, make a note of the URL you enter. If you need to change the RIBforRPM provider URL after you install RIB, you can do so by editing the `jndi_provider.xml` file.

9. Oracle Retail Central Office (ORCO)
10. Oracle Retail Back Office (ORBO) or Back Office with Labels and Tags (ORLAT)
11. Oracle Retail Store Inventory Management (SIM)

Note: During installation of SIM, you are asked for the AIP provider URL. Since AIP is installed after SIM, make a note of the URL you enter. If you need to change the AIP provider URL after you install AIP, you can do so by editing the `jndi_providers_ribclient.xml` file.

12. Oracle Retail Predictive Application Server (RPAS)
13. Oracle Retail Advanced Inventory Planning (AIP)
14. Oracle Retail Integration Bus (RIB)
15. Oracle Retail Point-of-Service (ORPOS)
16. Oracle Retail Mobile Point-of-Service (ORMPOS)
17. Oracle Retail Analytics Applications
18. Oracle Retail Data Warehouse (RDW)
19. Oracle Retail Workspace (ORW)