

**Oracle® Retail Predictive Application Server**  
Installation Guide  
Release 12.1

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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 12.1 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
- Oracle Retail Predictive Application Server Configuration Tools Online Help

## 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.

## 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.”

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

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

A hyperlink appears like this.



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# 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 Guide for additional information.
- **RPAS client** – The Windows-based client interface for end users and system administrators of a 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.



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## 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

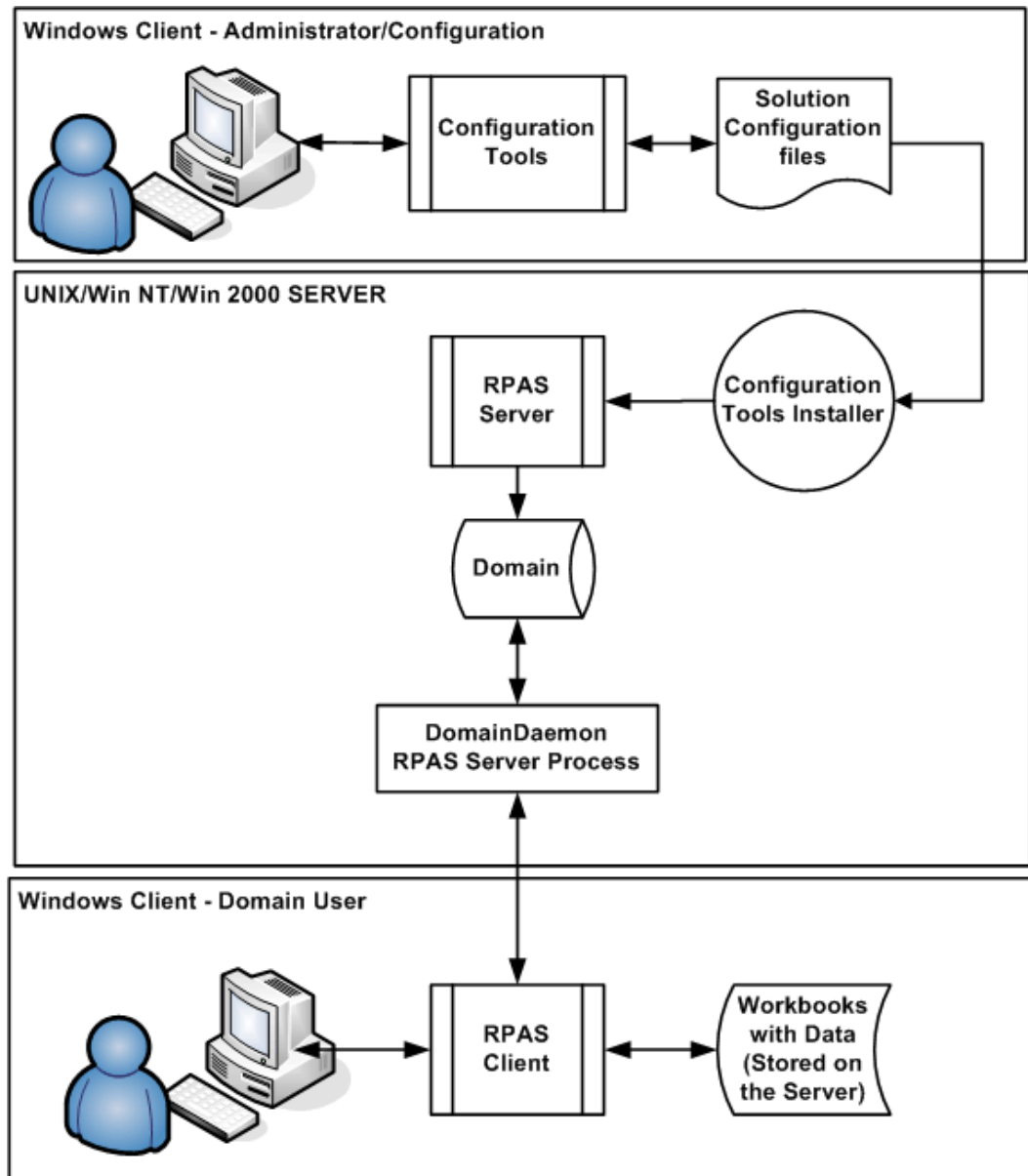
### RPAS Platform Overview

RPAS 12.1 is supported on HPUNIX and AIX operating systems and is comprised of many components. In addition, there are GA solutions that have been developed using the RPAS 12.1 foundation. These solutions must be installed separately. Examples of GA 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 (generic sample configuration, Curve, 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.

<b>Task</b>	<b>Typical User</b>	<b>Platforms</b>	<b>RPAS Server</b>	<b>RPAS Client</b>	<b>Configuration Tools</b>	<b>Java v1.4.2</b>
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 Run-time Environment (JRE) 1.4.2 can be acquired from [java.sun.com](http://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	11.23
IBM AIX	5L (5.3)	5.3

- You will also need to install Java Run-time Environment (JRE) v1.4.2 if you are installing the Configuration Tools. For AIX, you must use the 32-bit version of Java v1.4.
- 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](http://www.mks.com) for more information about this product. Users running Windows XP should be using MKS version 8.7 as users running older versions of MKS encountered problems on 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) v1.4.2
- 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)

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## 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

#### 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 12.1 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 1.4.2.10 or a newer version must be installed.

If desired, set the Java environment variable with the EXPORT command as in the following example:

```
export JAVA_HOME=/usr/bin/java
```

#### Before You Begin

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

- Java 1.4.2.10 or later
- Unzip utility

## Running the RPAS Installer

1. Locate and extract RPAS-12.1.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 by 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) you will be presented with a graphical user interface to the Installer. If you are running in console mode through a terminal emulator, a text interface to the Installer appears.

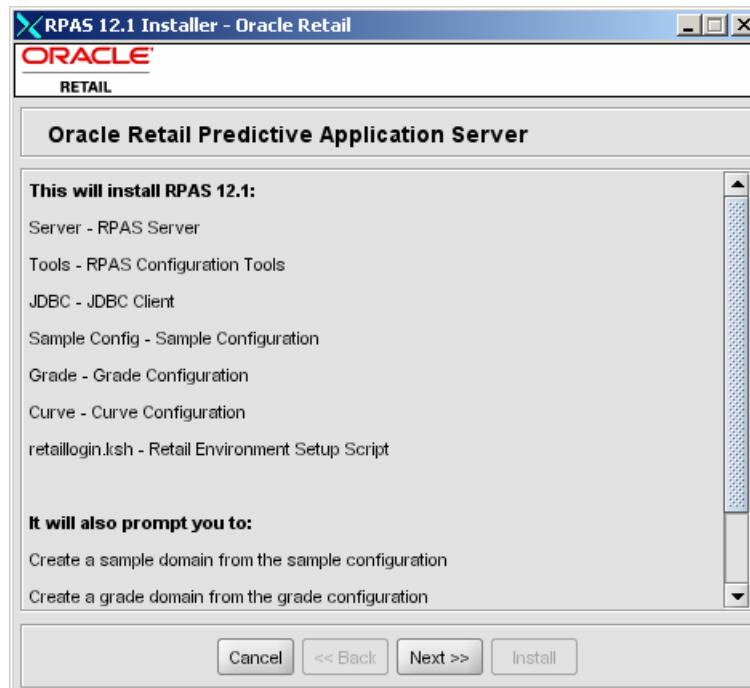
In both cases, the requested information will be identical, but displayed differently. In the GUI, you may be shown a checkbox to indicate whether you want a component installed. In text mode, you will be prompted for a response of "yes" or "no".

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**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.

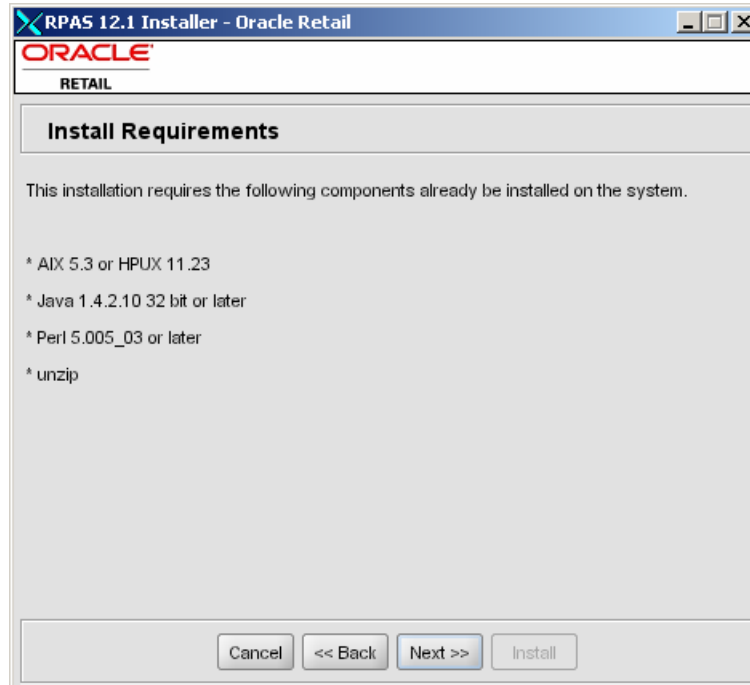
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The RPAS Installer screen appears and displays the components that can be installed to your system.



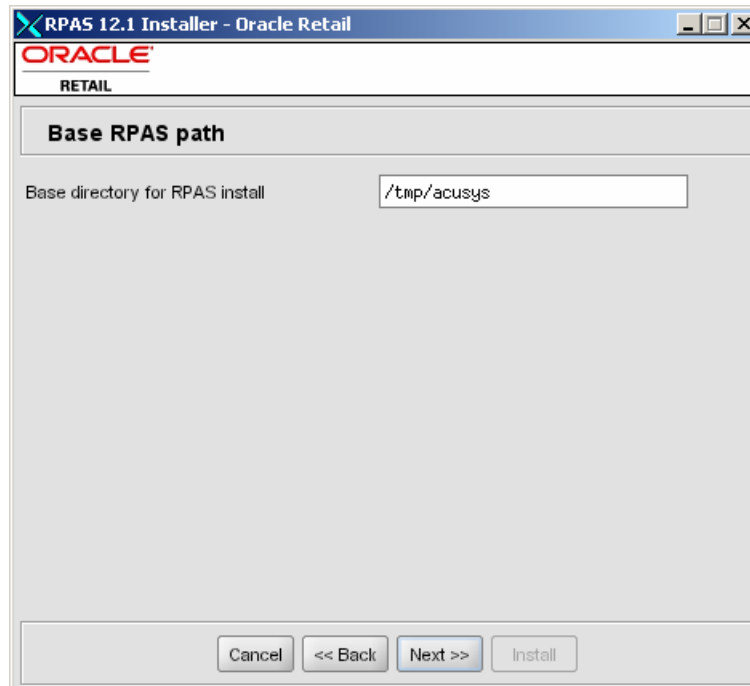
**RPAS Installer Screen**

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.

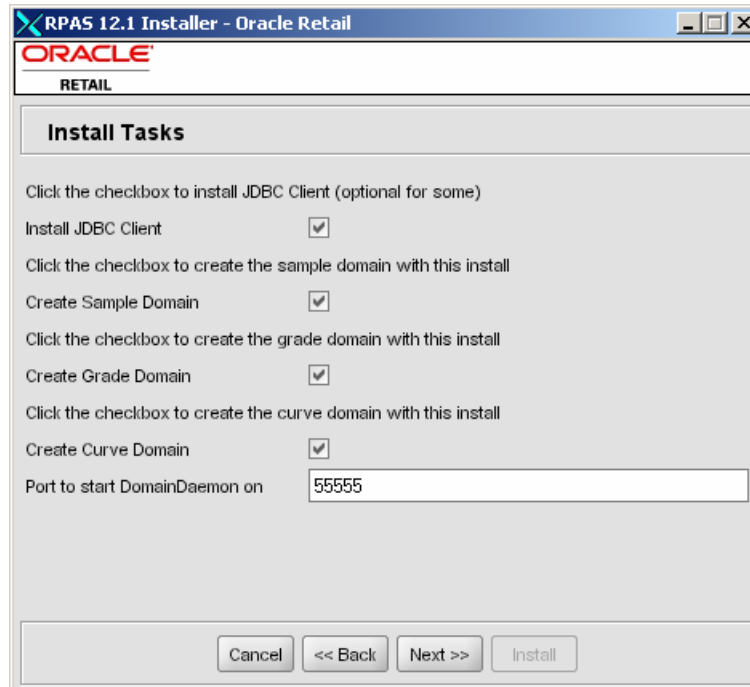
**Note:** If this directory does not exist, the Installer will prompt you to create it.

Field Name	Path
RPAS Server path	/tmp/acusys/rpas
RPAS Tools path	/tmp/acusys/tools
RPAS Sample Config path	js/configurations/sample_config
Grade Config path	tmp/acusys/configurations/grade
Curve Config path	tmp/acusys/configurations/curve
Dir for Retail login script	/tmp/acusys

#### 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 Tools.
  - RPAS Sample Config path– Enter the target directory for your RPAS Sample Configuration.
  - 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 Installation Tasks screen appears.



#### Install tasks Screen

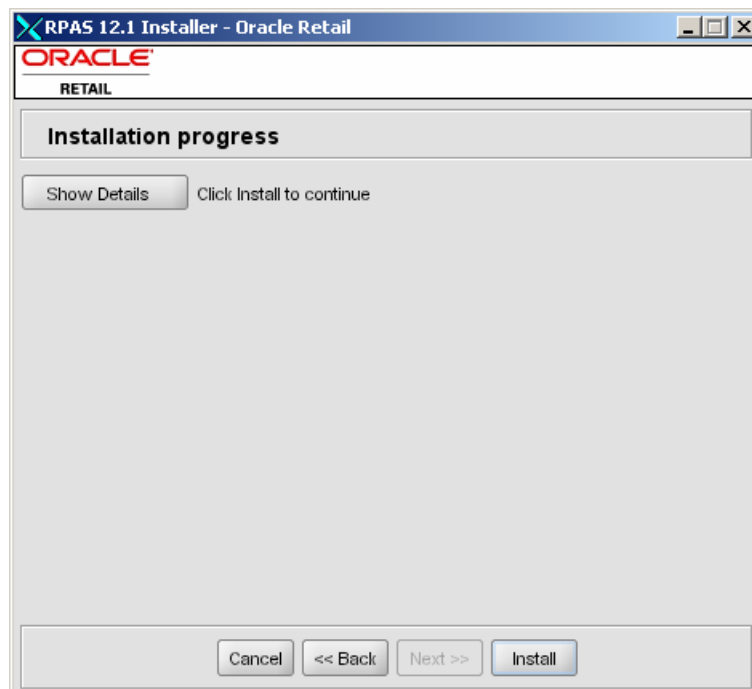
7. Select the options to be performed by the RPAS Installer, enter the DomainDaemon port number, and click **Next**.
  - Select whether or not to install JDBC Client (default is yes). The JDBC client is not required for the solutions to function properly.
  - To create the domains for Sample, Grade, 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 'startpas' 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.

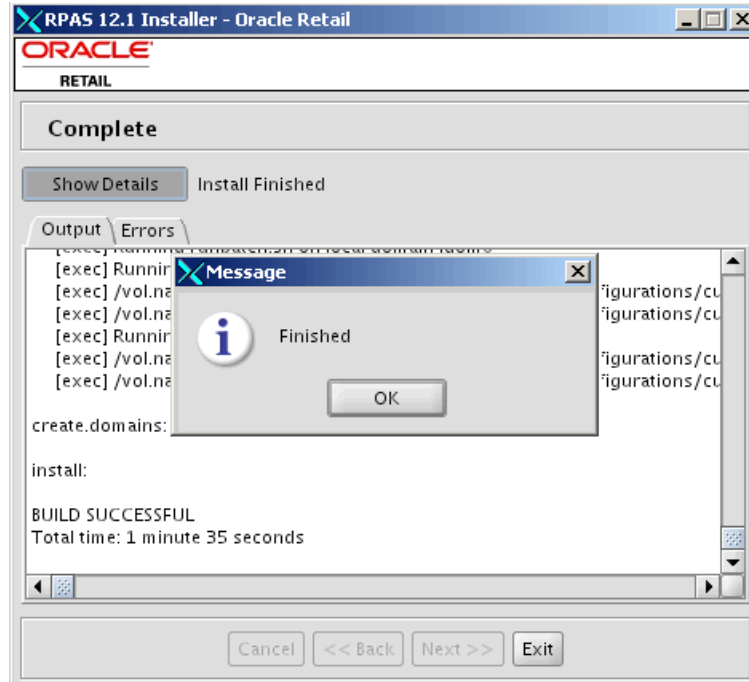


#### Installation Progress Screen

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 toggle between 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.

## 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 properly run.

## DomainDaemon

The RPAS DomainDaemon is the process that must be running on the server for a user to log into the system (into a 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.

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# 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.

---

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### Extracting the RPAS Package

Unzip the RPAS-12.1.windows.zip to a newly create directory on the Windows machine. The RPAS-12.1.windows.zip contains all the RPAS components.

Once extracted, the following directories appear:

- Client
- Curve
- Grade
- ODBC
- RPAS - This directory will be referred to later in this document as **\$RPAS\_HOME**.
- Sample\_Config
- Tools - This directory will be referred to later in this document as **\$RIDE\_HOME**.
- Translations

### Install JAVA 1.4.2\_10 (or higher patch)

JAVA 1.4.2.10 (or higher patch) 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.
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.

## Install ODBC/JDBC Client Components (Optional)

1. Run setup.exe from the ODBCClient directory to install the ODBC client software, or run the setup.exe from the JDBCClient directory to install the JDBC client software. These directories are located in the ODBC directory created when you extracted the RPAS Windows package.
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.

## Install MKS Developer Toolkit v. 8 (or higher)

MKS 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 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.

## Create 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 Windows XP Start menu, go to **Control Panel – Performance and Maintenance – System**. Click on the **Advanced** tab, and select the Environment Variables button.
2. Under the System variables section, click on the **Path** environment variable and select Edit. Insert the complete paths for **\$RPAS\_HOME**, **\$RIDE\_HOME**, and **\$JAVA\_HOME** including its respective **lib** and **bin** (excluding **JAVA\_HOME**) sub-directories as below:  

```
;%RPAS_HOME%\bin;%RPAS_HOME%\lib; %RIDE_HOME%\bin;
%RIDE_HOME%\lib; %JAVA_HOME%\bin; %JAVA_HOME%\lib;
```
3. Select **OK** to save your changes.
4. Create the **\$RPAS\_HOME** environment variable:
  - Variable Name: **\$RPAS\_HOME**
  - Variable Value: path to the location of the RPAS server  
**Example:** \Oracle\RPAS12.1\RpasServer
5. Create the **\$RIDE\_HOME** environment variable:
  - Variable Name: **\$RIDE\_HOME**
  - Variable Value: path to the location of the config tools  
**Example:** \Oracle\RPAS12.1\ConfigTools
6. Create the **\$JAVA\_HOME** environment variable:
  - Variable Name: **\$JAVA\_HOME**
  - Variable Value: path to the location of the JAVA installation  
**Example:** /Program Files/Java/j2re1.4.2\_06

## 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 12.1 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 12.1, or delete the path and either reinstall the 12.1 components or manually reinsert the paths when you want to revert back to 12.1.

# Base Configuration Installation

## Overview and Setup

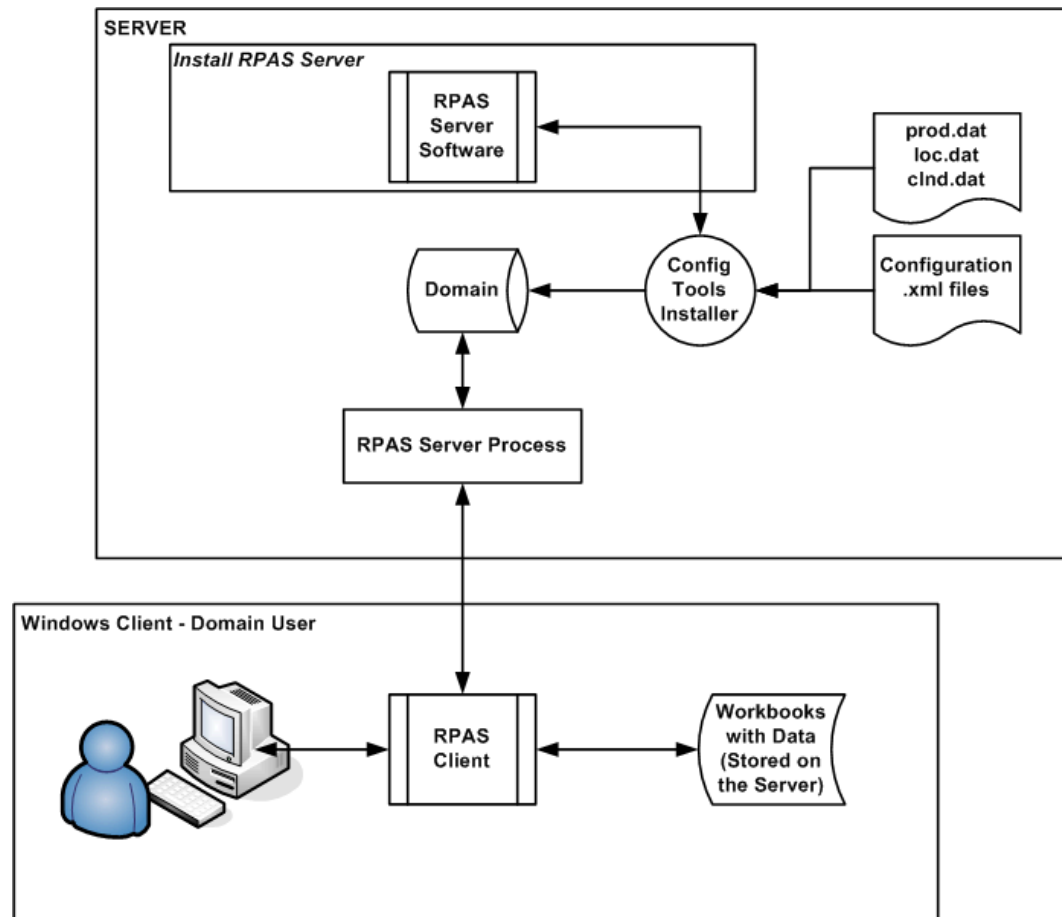
There are three base configurations available with the RPAS archive that can be used to build a domain. These configurations are initially stored as zip files in the main RPAS Installation directory.

- Sample Configuration (Sample\_Config.zip) – This is a simple configuration used to verify the successful installation and setup of the various RPAS components.
- Grade (Grade.zip) – Grade is a clustering tool that provides insight into how various parts of a retailer’s operations can be grouped together.
- Curve (Curve.zip) – 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.

---

## Extract Configuration from .zip File

Locate and unzip 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 rpassInstall 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.

## Build the Domain

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 v1.4.2. Make sure that the server you will be using has this version of Java.

---

---

### 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>
```

## Tools Installer – 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 12.1 Configuration Guide for more information on the Tools Installer and the specific options to 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.

---

---

## Sample Configuration

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

```
rpasInstall -fullinstall -cn Sample_Config -ch  
C:/root/testenv/Sample_Config/configuration -dh C:/root/testenv/domain -in  
C:/root/testenv/Sample_Config/data -log C:/root/testenv/domain/rpasinstall.log
```

## 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/lldom0) and type the following command:

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

Repeat this step for each of the remaining local domains (/Grade\_12/lldom1, /Grade\_12/lldom2).

## 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/lldom0) and type the following command:

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

Repeat this step for each of the remaining local domains (/Grade\_12/lldom1, /Grade\_12/lldom2).

## 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 executable "DomainDaemon," 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.

### RPAS Client Installation Procedure

The RPAS client installation procedure is the same for all of the RPAS applications. Below are the step-by-step instructions for installing 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 is not completed in this utility.

#### Proxy Settings

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



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# 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 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).

## Installation and Configuration

### RPAS Client

Locate the “Translations” folder in the root directory where the RPAS package was extracted. Go to the sub-folder 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 following languages are currently supported:

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

---

---

## Using the Sample Domain

The following describes how to use the sample domain to confirm the successful installation of the RPAS software components and to confirm a successful domain build.

---

---

**Note:** To log into the domain using the RPAS client the RPAS server process (DomainDaemon) must be running on the machine where the domain is built. This is discussed in various places in this guide.

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---

### Build the Sample Workbook

The validation process is complete when the Sample RPAS workbook can be built without error.

To build the Sample workbook:

1. Launch the RPAS client by double-clicking on foundation.exe in the location where the client was installed in Chapter 5.
2. Once the client window opens, select **File - New** from the menu.
3. Select the **Templates** tab in the workbook selection window.
4. Select the workbook **Sample** and click **OK**.
5. Select the calendar, product, and locations for the workbook.

If the workbook opens without error, then the validation process is complete.

### Sample Domain Overview

The Sample domain that has been provided with RPAS is a simple design with limited functionality. The capabilities of the RPAS and Configuration Tools products allow you to create a more complex domain that would reflect a company's specific business processes.

This section will provide a summary of the components of the Sample Domain and their functionality. Refer to the RPAS Configuration Tools User Guide for information on modifying or creating configurations and for an introduction and description of the components that comprise an RPAS domain.

## Hierarchies

There are three hierarchies defined for the Sample domain:

1. Product

The dimensions that make up the product hierarchy are:

Subclass > Class > Department > Group > Division > Company

2. Location

The dimensions that make up the location hierarchy are:

Channel > Company

3. Calendar

The dimensions that make up the Calendar hierarchy are:

Day > Week > Month > Quarter > Season > Year

## Workbooks and Worksheets

There is one workbook in the Sample domain called "Sample." This workbook contains the following tabs and worksheets:

### Simple Balance Set

Daily by Subclass - worksheet displays data by day, subclass, channel

Weekly by Class - worksheet displays data by week, class, channel

## Measures and Rules

Measure	Description	Rule	Aggregation Method	Access
Wp BOP R	Beginning of Period Inventory at Retail	If not the first period, equals EOP of prior period; otherwise, equals BOS	Period-Start	Read Only
Wp BOS R	Beginning of Season Inventory at Retail	Equals BOP at the [All Calendar] level Cells not displayed at other calendar levels	N/A	Writable; editable at any product or location, but only at [All Calendar] calendar dimension
Wp Sales R	Retail Sales	None	Total	Writable
Wp Markdowns R	Retail Markdowns	None	Total	Writable
Wp Receipts R	Retail Receipts	None	Total	Writable
Wp EOP R	End of Period Inventory at Retail	BOP - Sales - Markdowns + Receipts	Period-End	Read Only
Ly Sales R	Last Year Sales	For each Day, equals the value of Wp Sales R corresponding to the same day 365 days past (that is, same day last year)	Total	Read Only

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# 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 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. Zip 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.

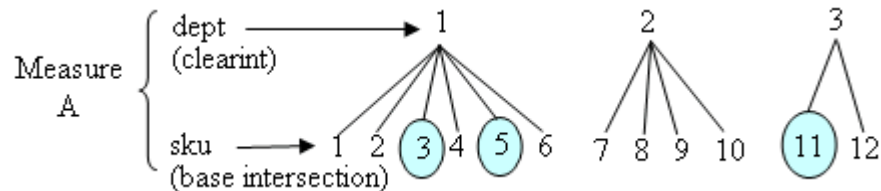
The meanings of the extensions are as follows:

- 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

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**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 v1.4.2 or higher. 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 a newly changed 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 `clnd.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.

---

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**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:

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:

- 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`.

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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.

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**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 Administrative Guide for further details regarding the usage of the `loadHier` utility.

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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 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 unregistration 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.



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## 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 software to a PC (currently 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 into 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 bites 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  $40,000,000 \text{ bits} / 60 \text{ seconds} = 666667 \text{ bps}$ .