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PeopleSoft

PeopleSoft Deployment Packages for Update Images Installation (PeopleSoft PeopleTools 8.57)

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About this Documentation

This preface discusses:

- Understanding This Documentation
- Audience
- Typographical Conventions
- Products
- Related Information
- Comments and Suggestions

Understanding This Documentation

This documentation is designed to guide you through the deployment of the Oracle's PeopleSoft Deployment Packages. It is not a substitute for the documentation provided for PeopleSoft PeopleTools or PeopleSoft applications.

Audience

This documentation is written for the individuals responsible for installing and administering the PeopleSoft environment. This documentation assumes that you have a basic understanding of the PeopleSoft system. One of the most important components in the installation and maintenance of your PeopleSoft system is your on-site expertise.

You should be familiar with your operating environment and RDBMS and have the necessary skills to support that environment. You should also have a working knowledge of:

- SQL and SQL command syntax.
- PeopleSoft system navigation.
- PeopleSoft windows, menus, and pages, and how to modify them.
- Microsoft Windows.

Oracle recommends that you complete training, particularly a PeopleSoft Server Administration and Installation course, before performing an installation.

See Oracle University, http://education.oracle.com.

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Typographical Conventions

To help you locate and understand information easily, the following conventions are used in this documentation:

Convention	Description
`Monospace`	Indicates a PeopleCode program or other code, such as scripts that you run during the install. Monospace is also used for messages that you may receive during the install process.
Italics	Indicates field values, emphasis, and book-length publication titles. Italics is also used to refer to words as words or letters as letters, as in the following example: Enter the letter *O*. Italics are also used to indicate user-supplied information. For example, the term *domain* is used as a placeholder for the actual domain name in the user's environment. When two such placeholders are used together, they may be set apart with angle brackets. For example, the path <*PS_CFG_HOME*>/appserv/<*domain*> includes two placeholders that require user-supplied information.
Initial Caps	Field names, commands, and processes are represented as they appear on the window, menu, or page.
lower case	File or directory names are represented in lower case, unless they appear otherwise on the interface.
Menu, Page	A comma (,) between menu and page references indicates that the page exists on the menu. For example, "Select Use, Process Definitions" indicates that you can select the Process Definitions page from the Use menu.
Cross-references	Cross-references that begin with *See* refer you to additional documentation that will help you implement the task at hand. We highly recommend that you reference this documentation. Cross-references under the heading *See Also* refer you to additional documentation that has more information regarding the subject.
⇒ (line-continuation arrow)	A line-continuation arrow inserted at the end of a line of code indicates that the line of code has been wrapped at the page margin. The code should be viewed or entered as a continuous line of code, without the line-continuation arrow.
" " (quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meaning.

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Convention	Description
Note. Note text.	Text that begins with *Note.* indicates information that you should pay particular attention to as you work with your PeopleSoft system.
Important! Important note text.	A note that begins with *Important!* is crucial and includes information about what you need to do for the system to function properly.
Warning! Warning text.	A note that begins with *Warning!* contains critical configuration information or implementation considerations; for example, if there is a chance of losing or corrupting data. Pay close attention to warning messages.

Products

This documentation may refer to these products and product families:

- Oracle® BPEL Process Manager
- Oracle® Enterprise Manager
- Oracle® Tuxedo
- Oracle® WebLogic Server
- Oracle's PeopleSoft Application Designer
- Oracle's PeopleSoft Change Assistant
- Oracle's PeopleSoft Change Impact Analyzer
- Oracle's PeopleSoft Data Mover
- Oracle's PeopleSoft Process Scheduler
- Oracle's PeopleSoft Pure Internet Architecture
- Oracle's PeopleSoft Customer Relationship Management
- Oracle's PeopleSoft Enterprise Learning Management
- Oracle's PeopleSoft Enterprise Performance Management
- Oracle's PeopleSoft Financial Management
- Oracle's PeopleSoft Human Capital Management
- Oracle's PeopleSoft Interaction Hub
- Oracle's PeopleSoft Pay/Bill Management
- Oracle's PeopleSoft PeopleTools
- Oracle's PeopleSoft Staffing Front Office
- Oracle's PeopleSoft Supply Chain Management

See the Products area on the Oracle web site, http://www.oracle.com/us/products/product-list/products-a-z/index.html.

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Related Information

Oracle provides reference information about PeopleSoft PeopleTools and your particular PeopleSoft Application. You can access documentation for recent releases of PeopleSoft PeopleTools and PeopleSoft Applications at the PeopleSoft Hosted Documentation site. You can also find documentation by searching for the product name on My Oracle Support.

- My Oracle Support. This support platform requires a user account to log in. Contact your PeopleSoft representative for information.

  To locate documentation on My Oracle Support, search for the title and select PeopleSoft Enterprise to refine the search results.

  See My Oracle Support, https://support.oracle.com.
- *PeopleTools: Getting Started with PeopleTools* for your release. This documentation provides a high-level introduction to PeopleTools technology and usage.

  See Oracle PeopleSoft Online Help, http://www.peoplesoftonlinehelp.com.
- PeopleSoft Application Fundamentals for your PeopleSoft Application and release. This documentation provides essential information about the setup, design, and implementation of your PeopleSoft Application.

To install additional component software products for use with PeopleSoft products, including those products that are packaged with your PeopleSoft products as well as products from other vendors, you should refer to the documentation provided with those products, as well as this documentation. For those additional components that are offered by Oracle, such as Oracle Middleware products, see the documentation on the Oracle Help Center.

See Also

Oracle Help Center, https://docs.oracle.com/en/

Comments and Suggestions

Your comments are important to us. We encourage you to tell us what you like, or what you would like changed about PeopleSoft documentation and other Oracle reference and training materials. Please send your suggestions to:

PSOFT-Infodev_US@oracle.com

While we cannot guarantee to answer every email message, we will pay careful attention to your comments and suggestions. We are always improving our product communications for you.

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Chapter 1

Prerequisites

This chapter discusses:

- Reviewing Hardware Requirements
- Reviewing Software Requirements
- Reviewing System Parameter Changes on Linux

Task 1-1: Reviewing Hardware Requirements

This section discusses:

- Reviewing Hardware Requirements for Oracle VirtualBox
- Reviewing Hardware Requirements for Microsoft Windows
- Reviewing Hardware Requirements on Linux

Task 1-1-1: Reviewing Hardware Requirements for Oracle VirtualBox

This section describes the hardware requirements for deploying the PeopleSoft Deployment Packages (DPKs) in Oracle VM VirtualBox. Keep in mind that individual performance is expected to vary depending upon the specific hardware, CPU speed, disk type and speed, and disk fragmentation in your setup.

Note. This documentation uses virtual appliance, image or DPK to refer to the archive that is downloaded from My Oracle Support. The term "virtual machine (VM)" is used in this documentation to refer to the environment created from the virtual appliance.

The requirements listed below apply to the machine used to run Oracle VM VirtualBox. VirtualBox is used to set up a VM to host the server components of the PeopleSoft environment. Even though VirtualBox can run on any supported hardware platform, keep in mind that a PeopleSoft installation also requires a Microsoft Windows machine on which you install the PeopleTools client utilities. If the VirtualBox is hosted on a Windows machine, it is possible to use the same machine as the VirtualBox appliance host and the PeopleSoft Microsoft Windows client, but this is not required.

See My Oracle Support, Certifications, to review the certification information for the PeopleSoft Microsoft Windows client.

See VirtualBox documentation for information on supported platforms. Oracle VM VirtualBox, https://www.virtualbox.org.

Oracle strongly recommends that you dedicate a Microsoft Windows machine for the PeopleTools client used with the PeopleSoft Update Manager. This should be a machine that is not used for other PeopleSoft purposes.

- *Host computer*: You need a physical host (not a virtual machine) computer to install VirtualBox and deploy the PeopleSoft Update Image (PI). This host computer can be located remotely and accessed by network-

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based desktop visualization methods such as RemotePC™ or Microsoft Remote Desktop Connection. However, the VirtualBox instance that runs them cannot be run in another virtual machine.

Note. The requirement for a physical machine was present in previous releases of the PIs, and is specific to the use of VirtualBox.

- *Host operating system*: The host operating system must be a 64-bit platform certified by Oracle for PeopleSoft systems.

  While VirtualBox is available for many host operating systems, Oracle's PeopleSoft certifies only VirtualBox on the Microsoft Windows platform.

  However, you may use other operating systems as you like. While Oracle does not test or certify the DPKs with VirtualBox on non-Microsoft Windows platforms, if you are able to successfully import the DPK files, boot the PI, complete the setup process and access the PeopleSoft application login (PIA), then we expect that the PeopleSoft Update Manager application should function normally.

  If you do run into issues in importing the DPK files, booting the PI, completing the setup process, or getting to the PeopleSoft application login using a VirtualBox installation on another operating system, we suggest that you attempt the same process either using VirtualBox on Microsoft Windows or one of the documented procedures on a supported ("bare-metal") Microsoft Windows or Linux operating system.

  See My Oracle Support, Certifications.

  See PeopleSoft PeopleTools Certifications, My Oracle Support, Doc ID 747587.1, for help searching PeopleSoft Certifications.

- *CPU capabilities*: The processor must be a 64-bit processor with hardware virtualization capabilities. These features must be enabled in the BIOS before the machine is booted.

  The host computer on which the PeopleSoft VirtualBox appliances run must have a 64-bit processor that can support hardware virtualization.

  PeopleSoft VirtualBox appliance relies on 64-bit Oracle Linux guest operating systems (OSs). VirtualBox does not support software virtualization for 64-bit OSs. So the host system should support hardware virtualization. Your host system must have 64-bit CPUs that support Intel™ Virtualization Technology (Intel VT, first released in 2005) or AMD Virtualization (AMD-V™) Technology (first released in 2006) hardware-virtualization features.

  Most newer CPUs from Intel and AMD contain the required virtualization extensions. These virtualization extensions are not normally enabled by default in a new machine. It is necessary to enter BIOS in your system and enable virtualization extensions before attempting to run any virtual machines. Consult the documentation provided with your computer for information on accessing the BIOS on your machine.

- *RAM (Memory)*: Each PeopleSoft VirtualBox appliance requires a minimum of 8 GB available RAM to run *in addition* to the requirements of the host OS and the applications previously running on it.

  Note that the memory used by the VirtualBox appliance will not be available to the host OS while the appliance is running. The available RAM refers to memory not used by other processes on the host OS.

- *Disk space*: 150 GB free disk space is required to download the necessary files and initialize each virtual appliance.

Note. The running VM deployed from the VirtualBox DPK can reside on a different physical disk. For example, the DPKs can be downloaded to drive D: on the Microsoft Windows host, and the running VirtualBox VM can reside on drive C:.

Note. The size may vary depending upon the specific virtual appliance.

The disk space requirement includes:

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- 25–35 GB for the downloaded zip files

  You may remove these files after you have successfully initialized your virtual machine.

- About 75 GB for the virtual appliance archive (.OVA) after extraction.

- *Network*: During the installation using the DPK setup script, you are given the option to select a "host-only" or "bridged" network configuration.

  If you wish the VM to join the network you will need to make sure that you are able to configure the network stack within the VM in such a way that it will be able to join the local area network (LAN) on which it will reside.

  See *Understanding PeopleSoft Deployment Packages for Update Images (PeopleSoft PeopleTools 8.57)*, "Preparing to Deploy."

Task 1-1-2: Reviewing Hardware Requirements for Microsoft Windows

You can install the PeopleSoft Application Image deployment packages (DPKs) or PeopleSoft PeopleTools DPKs directly on a system running a Microsoft Windows operating system. The PeopleSoft Application Images and PeopleSoft PeopleTools DPKs are certified to run on those Microsoft Windows operating systems that are certified for the current PeopleSoft PeopleTools release. The Microsoft Windows system can be a physical computer (sometimes called "bare-metal") or a virtual machine.

Oracle strongly recommends that you dedicate a Microsoft Windows machine for the PeopleTools client used with the PeopleSoft Update Manager. This should be a machine that is not used for other PeopleSoft purposes.

See "Deploying the PeopleSoft Application Deployment Packages," Deploying the PeopleTools Client DPK in Update Manager Mode, for information on installing the PeopleTools client utilities.

- *Host computer*: The PeopleSoft DPKs can be deployed directly on any supported Microsoft Windows host, bare-metal or virtual.

  If you deploy on a virtual host computer, you are responsible for provisioning the virtual machine before beginning the deployment.

  Note. This applies to the deployment of the Native OS PeopleSoft DPKs directly on a Microsoft Windows VM, not the VirtualBox deployment.

- *Host operating system*: The host operating system (OS) must be a 64-bit platform that is certified by Oracle for PeopleSoft systems.

  Note. My Oracle Support Certification notes include information about the PeopleSoft PeopleTools components that are certified for each operating system. Some OSs are certified only for browsers and clients. If you want to deploy a full PeopleSoft environment, verify that the OS you want to use is certified for server installation.

  See My Oracle Support, Certifications.

  See PeopleSoft PeopleTools Certifications, My Oracle Support, Doc ID 747587.1, for help searching PeopleSoft Certifications.

- *RAM (Memory)*: A minimum of 8 GB RAM is required to run a PeopleSoft environment.

- *Disk space*: The disk space requirements include the following:

  - 25–35 GB free disk space for the downloaded zip files

    You may remove these files after you have successfully initialized your virtual machine.

  - 150 GB free disk space is required to deploy and set up a full tier PeopleSoft environment.

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See Also

Tech Update - Main Page, My Oracle Support, Doc ID 764222.1

Task 1-1-3: Reviewing Hardware Requirements on Linux

You can install the PeopleSoft Application Image deployment packages (DPKs) directly on a system running an Oracle Linux operating system. The PeopleSoft Application Images are certified to run on those operating systems that are certified for the current PeopleSoft PeopleTools release. The Linux system can be a physical computer (sometimes called "bare-metal") or a virtual machine.

- *Host computer*: The PeopleSoft DPKs can be deployed on any supported Linux host, either a physical computer or virtual machine.

  If you deploy the Native OS DPKs on a virtual host computer, you are responsible for provisioning the virtual machine before beginning the deployment.
- *Host operating system*: The host operating system must be a 64-bit platform that is certified by Oracle for PeopleSoft systems.

  See My Oracle Support, Certifications.

  See PeopleSoft PeopleTools Certifications, My Oracle Support, Doc ID 747587.1, for help searching PeopleSoft Certifications.
- *RAM (Memory)*: A minimum of 8 GB RAM is required to run a PeopleSoft environment.
- *Disk space*: The disk space requirements vary depending upon the type of environment you set up.
  - 25–35 GB free disk space for the downloaded zip files

    You may remove these files after you have successfully initialized your virtual machine.
  - 150 GB free disk space is required to deploy and set up a full tier PeopleSoft environment.

See Also

My Oracle Support, Certifications.

Tech Update - Main Page, My Oracle Support, Doc ID 764222.1

Task 1-2: Reviewing Software Requirements

This section discusses:

- Reviewing Software Requirements on Microsoft Windows
- Reviewing Software Requirements on Linux
- Reviewing Requirements for the Puppet Software on Microsoft Windows
- Reviewing Requirements for the Puppet Software on Linux

Task 1-2-1: Reviewing Software Requirements on Microsoft Windows

Here are the software requirements for using the PeopleSoft Deployment Packages on a Microsoft Windows machine:

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- Administrative permission
- Secure shell client

  You will need a secure shell (SSH) client, for example PuTTY, to log in to the virtual machine after initialization.
- Read, write, and execute permission on the default temporary folder.

  The deployment of a PeopleSoft environment by the DPKs installs required supporting software, such as Oracle WebLogic and Oracle Tuxedo. The DPK process to install this software uses the default temporary folders, as specified by the environment variable for the operating system. The user running the DPK setup script must have read/write/execute permission to these default temporary folders for successful DPK installation, or the deployment steps that install these components will fail.
- The DPK setup script can be run from any drive, regardless of the drive where the Windows operating system is installed.
- You have the option to use VirtualBox to deploy a PeopleSoft environment from the DPKs.

  Before deploying, you must install Oracle VM VirtualBox.

  - Oracle VirtualBox is only required if the PeopleSoft environment is set up as a VM running inside VirtualBox. With PeopleSoft DPKs, Oracle VirtualBox is an optional way to set up a PeopleSoft environment.
  - Download the current version of VirtualBox from the Oracle VM VirtualBox web site.

    See Oracle VM VirtualBox, https://www.virtualbox.org.
  - VirtualBox 5.2.16 is the minimum supported version.
- Web Browser

  You need a version certified for the current PeopleSoft PeopleTools release for end-users.

  When using PeopleSoft Update Manager you must use a web browser certified for the PeopleTools release that the PeopleSoft 9.2 Update Images are built on. See the manifest for your PeopleSoft 9.2 Update Image is determine the PeopleTools release. To locate the manifest, go to the update image page for your PeopleSoft application on the PeopleSoft Update Manager (PUM) Home Page.

  See PeopleSoft Update Manager (PUM) Home Page, My Oracle Support, Doc ID 1641843.2.

  See My Oracle Support, Certifications.
- Zip utility

  You need a utility that is able to extract (unzip) the DPK zip files for your operating system.
- Verify that the PATHEXT environment variable includes the extension .bat.

  This is a requirement for running Puppet. For example:

  ```
  PATHEXT=.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
  ```
- Python 3.6.2 is included with the DPKs.

Task 1-2-2: Reviewing Software Requirements on Linux

Here are the software requirements for using the PeopleSoft Deployment Packages on a Linux machine:

- You must have root access to deploy the PeopleSoft DPKs.

  See "Deploying on a Linux Host with a Non-Root User."
- Read, write, and execute permission on the default temporary folder.

  The deployment of a PeopleSoft environment by the DPKs installs required supporting software, such as

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Oracle WebLogic and Oracle Tuxedo. The DPK process to install this software uses the default temporary folders, as specified by the environment variable for the operating system. The user running the DPK setup script must have read, write, and execute permission to these default temporary folders for successful DPK installation, or the deployment steps that install these components will fail.

- If you are installing the PeopleSoft DPKs on Oracle Linux 6 or 7 with Unbreakable Enterprise Kernel (UEK), apply the latest UEK kernel from the Oracle YUM repository at http://public-yum.oracle.com/index.html.
- Zip utility

  You need a utility that is able to extract (unzip) the DPK zip files for your operating system; for example, tar or unzip.
- Samba

  The DPK deployment makes Samba shared drive folders available. If you use the Native OS for Linux DPKs, verify that your Linux operating system includes Samba 4.2.10 or later.

  Note that the DPK process overwrites the configuration file for Samba (smb.conf).

  See "Deploying the PeopleSoft Application Deployment Packages," Using the Samba Shared Drive Folders.
- Python 3.6.2 is included with the DPKs.

Task 1-2-3: Reviewing Requirements for the Puppet Software on Microsoft Windows

The PeopleSoft DPKs are delivered with the PeopleSoft Puppet modules, which are initialization and management scripts based upon open-source Puppet software.

- Installation requirements

  In most cases, the Puppet software will be installed by the DPKs. In some scenarios it may be necessary for you to install either Puppet or its dependencies directly. If so, use these guidelines:

  - The DPK deployment requires open-source Puppet software.

    See the Puppet Labs Web site at www.puppetlabs.com to download the software.
  - Customer installation of Puppet is supported for Microsoft Windows operating systems.
- These are the minimum requirements for the software versions associated with using Puppet with the PeopleSoft DPKs on Microsoft Windows operating systems:
  - Puppet Agent 5.3.5
  - Puppet 5.3.5
  - Hiera 3.4.2
  - Facter 2.4.4
  - Ruby 2.4.3
  - MCollective 2.11.4
- Operating system packages required for Puppet

  The Puppet software used for the DPK deployment is dependent on certain OS-level packages, which may not be present in the delivered DPKs. In this case, you can use the information in the DPK setup log file to determine which packages are needed. It is the responsibility of the user to obtain and install the required packages.

  Note. This applies to the deployment of the Native OS DPKs.

  See "Deploying the PeopleSoft Application Deployment Packages," Deploying the Native OS Update Image.

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- Installation location

  Puppet software is installed in a standard location by the DPKs. The DPK deployment checks for existing Puppet installations only in that standard location. If Puppet software was installed in a different location, for example for other business or development requirements, the DPK will not recognize or try to remove that existing Puppet installation. It will install to the standard location dictated by the DPK requirement, and the other Puppet installation may subsequently cause problems.

  See *Understanding the PeopleSoft Deployment Packages for Update Images.*

Task 1-2-4: Reviewing Requirements for the Puppet Software on Linux

The PeopleSoft DPKs are delivered with the PeopleSoft Puppet modules, which are initialization and management scripts based upon open-source Puppet software.

- You must have root access to deploy the PeopleSoft DPKs.

  See "Deploying on a Linux Host with a Non-Root User."

- Installation requirements

  In most cases, the Puppet software will be installed by the DPKs. In some scenarios it may be necessary for you to install either Puppet or its dependencies directly. If so, use these guidelines:

  - The DPK deployment requires open-source Puppet software.

    See the Puppet Labs Web site at www.puppetlabs.com to download the software.

  - Customer installation of Puppet is supported for Linux operating systems.

- These are the minimum requirements for the software versions associated with using Puppet with the PeopleSoft DPKs on Linux operating systems:

  - Puppet Agent 5.3.5
  - Puppet 5.3.5
  - Hiera 3.4.2
  - Facter 2.4.4
  - Ruby 2.4.3
  - MCollective 2.11.4

- Operating system packages required for Puppet

  The Puppet software used for the DPK deployment is dependent on certain OS-level packages, which may not be present in the delivered DPKs. In this case, you can use the information in the DPK setup log file to determine which packages are needed. It is the responsibility of the user to obtain and install the required packages.

  Note. This applies to the deployment of the Native OS DPKs.

  See "Deploying the PeopleSoft Application Deployment Packages," Deploying the Native OS Update Image.

- Installation location

  Puppet software is installed in a standard location by the DPKs. The DPK deployment checks for existing Puppet installations only in that standard location. If Puppet software was installed in a different location, for example for other business or development requirements, the DPK will not recognize or try to remove that existing Puppet installation. It will install to the standard location dictated by the DPK requirement, and the other Puppet installation may subsequently cause problems.

  See *Understanding the PeopleSoft Deployment Packages for Update Images.*

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Task 1-3: Reviewing System Parameter Changes on Linux

When you run the DPK setup script on Linux, the script overwrites certain system-level parameters.

Note. You cannot use the DPK customizations to prevent the DPK setup script from touching these system-level files.

- The script updates the /etc/sysctl.conf file on Linux.

  The following sysctl parameters are included in *BASE_DIR*/dpk/puppet/production/data/psft_unix_system.yaml.

```
sysctl:
    kernel.msgmnb:                65538
    kernel.msgmni:                1024
    kernel.msgmax:                65536
    kernel.shmmax:                68719476736
    kernel.shmall:                4294967296
    kernel.core_uses_pid:         1
    net.ipv4.tcp_keepalive_time:  90
    net.ipv4.tcp_timestamps:      1
    net.ipv4.tcp_window_scaling:  1
    net.ipv4.ip_local_port_range: '10000 65500'
```

- The script updates the /etc/security/limits.conf file on Linux.

  The following ulimits parameters are included in *BASE_DIR*/dpk/puppet/production/data/psft_unix_system.yaml.

```
ulimit:
  group:
    hard.nofile:  65536
    soft.nofile:  65536
    hard.nproc:   65536
    soft.nproc:   65536
    hard.core:    unlimited
    soft.core:    unlimited
    hard.memlock: 500000
    soft.memlock: 500000
    hard.stack:   102400
    soft.stack:   102400

  user:
    hard.nofile:  131072
    soft.nofile:  131072
    hard.nproc:   131072
    soft.nproc:   131072
    hard.core:    unlimited
    soft.core:    unlimited
    hard.memlock: 500000
    soft.memlock: 500000
```

- The script updates the /etc/samba/smb.conf file for Samba on Linux.

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Chapter 2

Deploying the PeopleSoft Application Deployment Packages

This chapter discusses:

- Obtaining the PeopleSoft Update Images
- Reviewing the DPK Setup Script Options
- Deploying the VirtualBox Update Image
- Deploying the Native OS Update Image
- Using the Samba Shared Drive Folders (Linux)
- Deploying the PeopleTools Client DPKs in Update Manager Mode

Task 2-1: Obtaining the PeopleSoft Update Images

The PeopleSoft DPKs for PeopleSoft Update Images (PIs) are available on My Oracle Support. Contact Oracle if you need a user ID and password for My Oracle Support.

To locate and download the DPKs:

1. Go to the PeopleSoft Update Manager Home Page, My Oracle Support, Doc ID 1641843.2, to find the information on locating and downloading the current PI for your PeopleSoft application.

   The page includes links to PeopleSoft Update Manager documentation, as well as links to the individual PIs.
2. Go to the PeopleSoft Update Image Home Page for your PeopleSoft application.
3. In the Update Image Link section, select the link for the format you prefer, either VirtualBox, Native OS for Linux, or Native OS for Windows.

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4. Download the zip files for the PI into a single directory, referred to in this documentation as *DPK_INSTALL*.

   Be sure that the *DPK_INSTALL* directory has adequate available space for all the zip files. When you download, there will probably be multiple zip files. The multiple files are needed due to size limitations.

   This table lists and describes the downloaded zip files for VirtualBox DPKs, and the zip files after extraction:

   Note. Do not extract the zip files before reviewing the deployment instructions in this chapter.

VirtualBox: Downloaded Zip Files	Files After First Extraction [1]	Description
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_1of13.zip	The setup folder and other files	Setup ("bootstrap") DPK
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_2of13.zip	PT-DPK-<*OS*>-8.57.*xx*-1of2.zip	PeopleTools server, Part 1
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_3of13.zip	PT-DPK-<*OS*>-8.57.*xx*-2of2.zip	PeopleTools server, Part 2
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_4of13.zip	PTC-DPK-WIN8.55.*xx*-1of1.zip	PeopleTools Client for 8.55
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_5of13.zip	PTC-DPK-WIN8.56.*xx*-1of1.zip	PeopleTools Client for 8.56
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_6of13.zip	PTC-DPK-WIN8.57.*xx*-1of1.zip	PeopleTools Client for 8.57
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_7of13.zip	ODC-DPK-WIN-12.1.0.2-*xxxxxx*-1of1.zip	Oracle Database client
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_8of13.zip	ODS-DPK-<*OS*>-12.1.0.2-*xxxxxx*-1of1.zip	Oracle Database server
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_9of13.zip	APP-DPK-<*OS*>-HCM92-8.57.*xx*-1of3.zip	PeopleSoft Application DPK, Part 1
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_10of13.zip	APP-DPK-<*OS*>-HCM92-8.57.*xx*-2of3.zip	PeopleSoft Application DPK, Part 2
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_11of13.zip	APP-DPK-<*OS*>-HCM92-8.57.*xx*-3of3.zip	PeopleSoft Application DPK, Part 3
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_12of13.zip	VBOX_8_57_*xxxxxx*_SHELL.ova	VirtualBox Shell [2]
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_13of13.zip	ESK-DPK-LNX-6.1.2_xx.zip	Elasticsearch DPK for Linux [3] **Note.** The appropriate Elasticsearch DPK revision is provided for the PeopleSoft PeopleTools patch in the PI.

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[1] The filenames will vary depending upon the date posted or the associated release and patch.

[2] The VirtualBox Shell OVA is available for VirtualBox DPKs. It is not included for the Native OS DPKs for Microsoft Windows and Linux.

[3] The Elasticsearch DPK is included with the VirtualBox DPKs. It is not included for the Native OS DPKs for Microsoft Windows and Linux.

See "Using and Maintaining the PeopleSoft Environment," Verifying the Elasticsearch Deployment.

This table lists and describes the downloaded zip files for Native OS DPKs, and the zip files after extraction:

Note. Do not extract the zip files before reviewing the deployment instructions in this chapter.

Native OS: Downloaded Zip Files	Files After First Extraction [1]	Description
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_1of11.zip	The setup folder and other files	Setup ("bootstrap") DPK
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_2of11.zip	PT-DPK-<*OS*>-8.57.*xx*-1of2.zip	PeopleTools server, Part 1
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_3of11.zip	PT-DPK-<*OS*>-8.57.*xx*-2of2.zip	PeopleTools server, Part 2
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_4of11.zip	PTC-DPK-WIN8.55.*xx*-1of1.zip	PeopleTools Client for 8.55
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_5of11.zip	PTC-DPK-WIN8.56.*xx*-1of1.zip	PeopleTools Client for 8.56
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_6of11.zip	PTC-DPK-WIN8.57.*xx*-1of1.zip	PeopleTools Client for 8.57
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_7of11.zip	ODC-DPK-WIN-12.1.0.2-*xxxxxx*-1of1.zip	Oracle Database client
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_8of11.zip	ODS-DPK-<*OS*>-12.1.0.2-*xxxxxx*-1of1.zip	Oracle Database server
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_9of11.zip	APP-DPK-<*OS*>-HCM92-8.57.*xx*-1of3.zip	PeopleSoft Application DPK, Part 1
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_10of11.zip	APP-DPK-<*OS*>-HCM92-8.57.*xx*-2of3.zip	PeopleSoft Application DPK, Part 2
<*Product*>-920-UPD-<*PI_Number*>-<*OS*>_11of11.zip	APP-DPK-<*OS*>-HCM92-8.57.*xx*-3of3.zip	PeopleSoft Application DPK, Part 3

[1] The filenames will vary depending upon the date posted or the associated release and patch.

The names for the downloaded zip files have the following format:

<*Product*>-920-UPD-<*PI_Number*>-<*OS*>-#of*n*.zip

For example:

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HCM-920-UPD-027-LNX_1of11.zip

HCM-920-UPD-027-LNX_2of11zip

...

HCM-920-UPD-027-LNX_11of11.zip

The files names are comprised of the following parts:

- *<Product>* is an abbreviation that represents the PeopleSoft application name, as described in the following table.

PeopleSoft Application	Product Name Abbreviation
PeopleSoft Customer Relationship Management	CRM
PeopleSoft Campus Solutions	CS
PeopleSoft Enterprise Learning Management	ELM
PeopleSoft Financials and Supply Chain Management	FSCM
PeopleSoft Human Capital Management	HCM
PeopleSoft Interaction Hub	IH

- *<PI_Number>* is the Update Image (PI) number, such as 024.
- *<OS>* is the operating system, LNX for the Native OS DPKs for Oracle Linux, WIN for the Native OS DPKs for Microsoft Windows, or OVA for the VirtualBox DPKs.
- *n* represents the total number of zip files.

5. Use the DPK setup script or Oracle VirtualBox to deploy the files.

   The way that you proceed with the zip files depends upon how you choose to use the DPKs.

   - If you use the DPK setup script (with both the Native OS DPKs and the VirtualBox DPKs), the script takes care of extracting the zip archives.

     See Deploying the Native OS Update Image.

     See Setting Up the VirtualBox VM Using the DPK Setup Script.

   - If you import the VirtualBox shell OVA directly into Oracle VirtualBox, you must first complete a manual procedure to extract the zip archives.

     See Using the VirtualBox Shell to Set Up the PeopleSoft Virtual Machine.

Note. The downloaded zip files include PeopleSoft PeopleTools client DPKs for all currently supported releases. Download and extract all of the PeopleTools client DPKs, and the Oracle Database client DPK, even if you do not plan to use them. They are required for successful creation of the Samba shared drive folders.

See Deploying the PeopleTools Client in Update Manager Mode.

Note. The databases deployed from the PeopleSoft PIs are Unicode only. Do not attempt to use the DPK customizations to change this setting.

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Task 2-2: Reviewing the DPK Setup Script Options

This section discusses:

- Using the DPK Setup Script Options
- Preparing to Run the DPK Setup Script

Task 2-2-1: Using the DPK Setup Script Options

The PeopleSoft PeopleTools DPK setup script alleviates the installation process by automating most of the manual tasks on a virtual or bare-metal host running a supported operating system. By convention, the setup DPK is the first zip file (*FILENAME*_1ofn.zip) in the group of PeopleSoft DPK zip files you download from My Oracle Support.

The DPK setup zip file includes two scripts, a Microsoft Windows script (psft-dpk-setup.bat) and a Linux shell script (psft-dpk-setup.sh). To set up a PeopleSoft environment, run the script pertinent to the host operating system (OS) platform on which the DPK setup script is invoked. The script is an interactive script that detects the downloaded DPKs and verifies that they are correct. It also prompts the user for input, and once that information is gathered, will set up a complete functional PeopleSoft environment.

Note. The DPK setup script does not provide any default passwords. It is a good idea to be prepared to supply passwords such as user ID, PeopleSoft Connect ID, Application Server Domain Connection, and so on.

The following table lists the options available for the DPK setup script, psft-dpk-setup.bat for Microsoft Windows and psft-dpk-setup.sh for Linux. The suffix <*ext*> in the table refers to the operating system specific extension.

See the appendix "Deploying on a Linux Host with a Non-Root User" for additional script options.

Note that the command options require two dashes when running on Microsoft Windows or Linux.

Note. The commands in the table include line feeds to improve readability.

Deployment	DPK Setup Script Command

Specify the full path of the downloaded DPKs.
The script assumes that the downloaded DPKs are in the parent directory of the DPK setup script. If the DPKs are located in a different directory, use this option.
	`psft-dpk-setup.<ext>`
	`--env_type midtier`
	`--dpk_src_dir <full_DPK_path>`

Use this option to deploy in Oracle VirtualBox when there are previously deployed images running. If there are existing images in Oracle VirtualBox, and you run the DPK setup script to start a second image *without* this option, the script stops the VirtualBox process and aborts all running images in the same Microsoft Windows host. To avoid this behavior, run the DPK setup script with this option.	`psft-dpk-setup.<ext>` `--keep_vbox_alive`
Remove a deployed environment. See "Using and Maintaining the PeopleSoft Environment," Removing a Deployed PeopleSoft Environment.	`psft-dpk-setup.<ext>` `--cleanup`

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Deployment	DPK Setup Script Command
List the DPK setup script usage.	`psft-dpk-setup.<ext> --help`

Task 2-2-2: Preparing to Run the DPK Setup Script

Include the following decisions in preparing to install with the DPK setup script:

- When using the Native OS on Linux images, you have the option to deploy the PeopleSoft environment as a non-root user.

  See "Deploying on a Linux Host as a Non-Root User."

- FRESH or PUM installation type

  For this documentation, select the PUM installation type.

  The PUM installation type is used with the PeopleSoft Update Image DPKs to create and set up a PeopleSoft environment to be used as the source for the PeopleSoft Update Manager. If you select the PUM installation type, the DPK setup script installs an Oracle DEMO multi-lingual database without presenting you with other options.

  See the documentation on the PeopleSoft Update Manager (PUM) Home Page, My Oracle Support, Doc ID 1641843.2.

- Default or manual configuration

  After extracting the DPKs, you are given the option to exit the process, create a customization file, and complete the configuration manually using the Puppet apply command with a user-written customization file. Use the manual configuration if you want to change installation locations and so on.

  See *PeopleTools 8.57 Deployment Packages Installation*, "Completing the DPK Initialization with Customizations."

- User IDs and password

  The DPK setup script does not provide any default passwords. It is a good idea to be prepared to supply passwords such as user ID, PeopleSoft Connect ID, Application Server Domain Connection, and so on.

- Host-only or Bridged Adapter

  For information on the network options for the VirtualBox deployment, see *Understanding PeopleSoft Deployment Packages for Update Images.*

Task 2-3: Deploying the VirtualBox Update Image

This section discusses:

- Setting Up the VirtualBox VM Using the DPK Setup Script
- Using the VirtualBox Shell to Set up the PeopleSoft Virtual Machine

Task 2-3-1: Setting Up the VirtualBox VM Using the DPK Setup Script

The DPK setup script can be used to automate most of the procedure for setting up a VirtualBox VM for update maintenance (PUM) or a Demo environment on a Microsoft Windows host. This procedure assumes that:

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- You have installed Oracle VM VirtualBox.

  See *Understanding PeopleSoft Deployment Packages for Update Images,* "Preparing to Deploy."

- The location where Oracle VirtualBox creates the virtual disks, called the Default Machine Folder, has enough space for the extracted files used to set up the environment, including the PeopleSoft files, Oracle database server files, and so on.

  To determine the location of the VirtualBox Machine Folder, open Oracle VM VirtualBox. Select File, Preferences, General, and look at the Default Machine Folder. If necessary, create more space for the Default Machine Folder, or change it to a location with enough space for the environment setup. Close VirtualBox before running the script.

  Note. A full setup of a PeopleSoft environment (database tier and mid-tier) takes about 150 GB of disk space.

  See "Prerequisites," Reviewing Hardware Requirements.

- You have downloaded all of the required DPKs and saved them in a location referred to as *DPK_INSTALL*.

  For this task, download the VirtualBox DPKs. In the examples below, *DPK_INSTALL* is C:\DPK_INSTALL.

  See Obtaining the PeopleSoft Update Images.

  Note. After the DPK setup script extracts the downloaded zip files, it will delete the original zip files in *DPK_INSTALL.* If you want to save the original zip files, make a backup copy in a different folder.

- The user running the script *must have administrative permission.*

  Note. Restarting services for the deployed PeopleSoft environment, such as those for Oracle Tuxedo, must be performed by the same user (with administrative permission) who carried out the installation.

To use the DPK setup script to set up a PeopleSoft VM on VirtualBox:

1. Extract the first zip file *(FILENAME*_1of*n*.zip) in the same directory, *DPK_INSTALL*.

   This section uses *FILENAME*_1of*n*.zip to refer to the downloaded zip files for convenience. Keep in mind that the actual names will vary depending upon the operating system, PeopleSoft application and so on.

   Note. Be sure to extract into the same directory where you downloaded the zip files.

   The extraction creates the *DPK_INSTALL*/setup folder and other files.
2. Open a command prompt with Run as Administrator.
3. Go to the *DPK_INSTALL*\setup directory and run the script using the following command:

   ```
   psft-dpk-setup.bat
   ```

   If there are existing images, which you do not want cleaned up, running in your Oracle VirtualBox installation, use the following command:

   ```
   psft-dpk-setup.bat --keep_vbox_alive
   ```

   Note. If the script fails to launch with an error such as "File cannot be loaded because the execution of scripts is disabled on this system," you must modify the Microsoft Windows execution policy by running the command `Set-ExecutionPolicy Unrestricted`.

   The system displays messages indicating the steps in the setup process. The success or failure of each step is indicated by [OK] or [FAILURE].

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Note. Portions of the messages may be omitted for brevity.

- The script locates the valid PeopleSoft zip files and extracts them.

  After it completes the extraction, it deletes the original downloaded zip files.

```
Starting the PeopleSoft Environment Setup Process:

Validating User Arguments:                          [  OK  ]
Validating PeopleSoft Supported Platform:           [  OK  ]

Extracting the Zip File FILENAME_1of13.zip:         [  OK  ]
Extracting the Zip File FILENAME_2of13.zip:         [  OK  ]
...
Extracting the Zip File FILENAME_13of13.zip:        [  OK  ]
```

- The script then validates to make sure the downloaded DPKs belong to a single OS platform. If it finds packages that belong to multiple platforms, the script outputs an error message and exits the PeopleSoft environment setup process.

```
The DPK Folder C:/DPK_INSTALL contains PeopleSoft DPKs for
different platforms.
Please ensure that the folder contains DPKs that belong
to a single platform.
Exiting the PeopleSoft environment setup process.
```

4. Review the validation messages related to VirtualBox.

   If the downloaded DPKs are labeled for a Linux operating system, the DPK setup script assumes that the DPKs will be used in a Linux guest on Oracle VirtualBox. It runs the following VirtualBox related validations before proceeding with the PeopleSoft environment setup process.

   - It checks if the VirtualBox software is installed on the Microsoft Windows host computer. If the VirtualBox software is not installed, it displays the following warning message and exits the PeopleSoft environment setup process. In this case, you must install VirtualBox and restart the script.

```
Checking if VirtualBox Software is installed on the Host:  [WARNING]

VirtualBox software is not installed on the Host. This software is
required to automate the process of importing a PeopleSoft appliance.
Please install VirtualBox software from www.virtualbox.org and rerun
this script if you want to automate the process of setting up a
PeopleSoft environment.

Exiting the PeopleSoft environment setup process.
```

   - It then validates if the VirtualBox Machine Folder (folder where the imported VirtualBox VM disks are stored) drive has enough free space. If enough free space is not available, the script displays an error message and exits the PeopleSoft environment setup process.

```
Checking if VirtualBox Software is Installed on the Host: [  OK  ]
Checking if VirtualBox Machine Folder has enough space:   [FAILED]

There is not enough free space on the Drive C. The PeopleSoft
environment setup requires about 150GB of free space. Please
make sure the Drive C has the required space and rerun the script.
```


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```
Exiting the PeopleSoft environment setup process.
```

- If there is enough space, the script then checks if VirtualBox Manager is already up and running. If so, it stops it. The DPK setup process imports the PeopleSoft appliances on the command line, and to do so, the VirtualBox Manager cannot be running.

```
Checking if VirtualBox Software is Installed on the Windows Host:   [⇒
  OK  ]
Checking if VirtualBox Default Machine Folder has enough Free Space: ⇒
[  OK  ]
Stopping the VirtualBox Manager Processes on the Windows Host:      ⇒
[  OK  ]
```

- It checks if a VirtualBox appliance shell (OVA) is present in *DPK_INSTALL*. If the process does not find any VirtualBox appliance or finds more than one appliance, the PeopleSoft environment setup process stops with a warning message.

```
Checking if PeopleSoft Appliance (OVA) is Available to Import:  ⇒
[WARNING]

No PeopleSoft VirtualBox appliance (OVA) found in the DPK folder
C:\DPK_INSTALL. Please download the appliance from MoS and re-run the
script to continue with the PeopleSoft enviroment process.
```

  If the process finds more than one appliance, the PeopleSoft environment setup process stops with a warning message.

```
Checking if PeopleSoft Appliance (OVA) is Available to Import:  ⇒
[WARNING]

Found 2 PeopleSoft VirtualBox appliances (OVA) in the DPK folder
C:/DPK_INSTALL. Please ensure there is only a single OVA file present
in the folder and re-run the script to continue with the PeopleSoft
environment process.
```

5. Specify how to proceed if the PeopleSoft appliance was previously imported into VirtualBox Manager.

   Before importing the VirtualBox appliance into the VirtualBox Manager, it checks if this appliance is already imported. If there is an existing virtual appliance with the same name, the DPK setup script displays a warning message.

```
Checking if PeopleSoft Appliance is Already Imported:       [WARNING]

A PeopleSoft Appliance with the same name is already available in the
VirtualBox Manager. You can either reset the VM and re-initialize it
with the downloaded PeopleSoft DPKs. Or, you can keep the existing
VM and instantiate a new VM by importing the PeopleSoft Appliance
into VirtualBox.

Do you want to continue with the import of PeopleSoft Appliance into
the VirtualBox? [Y|n]:
```

   - If you want to continue with the setup process, answer *y* at the prompt. The DPK setup script will use the existing PeopleSoft virtual appliance to create a new VM.
   - If you want to exit the setup process, answer *n* to the prompt.

6. If all the validations succeed, you see a prompt asking if you want to automate the process of importing the

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PeopleSoft VirtualBox appliance into VirtualBox.

If you answer *Y*, the process continues. If you answer *n*, the process exits.

Note. The default action (if you press ENTER without any input) is to import the appliance.

```
Found a PeopleSoft VirtualBox appliance [VBOX_8_57_01_SHELL.ova]
in the DPK source folder C:/DPK_INSTALL. We can automate the process of
importing the appliance into the VirtualBox Manager on the Windows Host.
.
Do you want to Import the OVA into VirtualBox Manager? [Y|n]:
```

If the PeopleSoft VirtualBox appliance is imported successfully, the *DPK_INSTALL* folder is automatically added as a Shared Folder to the VirtualBox VM. If the import process or the ensuing addition of Shared Folder fails, the PeopleSoft environment setup process is aborted and the user is notified with an error message.

```
Checking if the PeopleSoft Appliance (OVA) is already imported:        ⇒
[  OK  ]
Importing the PeopleSoft Appliance (OVA) into the VirtualBox Manager:  ⇒
 [  OK  ]
```

See the section Using the VirtualBox Shell to Set Up the PeopleSoft Virtual Machine for more information on the Shared Folder.

7. At the next prompt, select the network adapter.

   Answer *1* to select Host-Only adapter and *2* to select Bridged adapter. This example specifies the Host-Only Network Adapter.

   See *Understanding PeopleSoft Deployment Packages for Update Images*, "Preparing to Deploy."

```
The Network Adapter lets the VM be available either in a Sand-Box
mode or accessible to other hosts in the network.

1. Host-Only Network Adapter
2. Bridged Network Adapter
Enter 1 or 2: 1

Getting the HostOnly Network Adapter Name from the VirtualBox Manager:[⇒
  OK  ]
Setting Up HostOnly Network Adapter for the VM:                        [⇒
  OK  ]
Setting up the Shared Folder [c:\DPK_INSTALL] on the VM:                [⇒
  OK  ]
```

8. The script concludes by starting the newly added VirtualBox VM.

   You see the console window for the Oracle VM VirtualBox VM.

Note. You may need to minimize other windows to see the console.

```
Starting the VirtualBox Manager on the Windows Host:          [  OK  ]
Starting the Imported PeopleSoft Appliance VM:                [  OK  ]

The PeopleSoft Appliance (OVA) is successfully imported into
the VirtualBox Manager and the new VM is started successfully.
```


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```
Please use the VM's console to continue with the PeopleSoft
initializating process.

The PeopleSoft Environment Setup Process Ended.
```

9. Specify a strong password for the root user at the following prompt.

   The password is not visible as you type. Take note of the value that you provide as it is essential for performing administrative operations on the virtual machine.

```
Changing password for user root.
New UNIX password:
Retype new UNIX password:
passwd: all authentication tokens updated successfully.
```

10. Choose whether to use dynamic IP configuration for this virtual machine at the following prompt.

```
Configuring network interface.
  Network device: eth0
  Hardware address: 00:11:22:33:AA:BB

Do you want to enable dynamic IP configuration (DHCP) (Y|n)? Y
```

    These instructions assume that you are using Host-only networking, as discussed earlier in this document, and therefore you enter *Y* (yes). This will result in a dynamic IP address being assigned by the VirtualBox network adapter (this configuration is referred to as Dynamic Host Configuration Protocol, or DHCP).

11. (Optional) If you wish to assign a static IP address, enter *n* (no) to the prompt in the preceding step.

    You must provide a valid IP address to ensure that the virtual host can join the network. You will also need the DNS server IP address, gateway, and netmask. If you do not satisfy these criteria, you see the following prompt:

```
The DNS server entered is not reachable. This is due to either
the Virtual Machine's network is attached to a Host-only Adapter
(applies to VM's running on VirtualBox) or some other network issue.
It is not recommended to continue the installation with
static IP configuration without basic network functionality.
Some of components will not initialize properly.

Do you want to stop the initialization process to correct
this condition? [Y|n]:
```

    If you enter *Y* (yes), the system shows the following message, and shuts down.

```
Please refer to the Install document for further instructions
regarding Network Adapter Configuration.

The Virtual Machine will be shutdown now.
```

    If you enter *n* (no), the initialization continues.

    Use the following information in understanding this prompt:

    - If the entered static IP address and the DNS server IP address are valid, the DNS is reachable, and you selected Bridged Adapter when importing the virtual appliance, the system displays the DNS host name and prompts for confirmation.
    - If the entered static IP address and the DNS server IP address are valid, but you selected the Host-only networking option when importing the virtual appliance, the system cannot reach the DNS to deduce the

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hostname and prompts the user to enter the hostname manually. This can be problematic. Rather than entering the hostname manually in the next step, shut down the virtual machine and start again at the beginning of this procedure.

- If either the static IP address or the DNS server IP address is invalid, the system cannot deduce the hostname and prompts the user to enter the hostname manually. This can be problematic. Rather than entering the hostname manually in the next step, shut down the virtual machine and start again at the beginning of this procedure.

12. Choose a hostname.

    Use the following considerations in specifying the hostname:

    - If you want the virtual machine to access an external network, you must use a legitimate hostname and fully qualified domain name for that network.

      See *Understanding PeopleSoft Deployment Packages for Update Images*, "Preparing to Deploy."

    - If you do not need to access an external network, you can manually configure the hostname. In this case, specify a hostname that is comprised of any alphanumeric name of your choosing, plus a fully qualified domain name; that is, <*hostname*>.<*domainname*>. For example, hcm.example.com. This should not be a hostname that is currently in use on your network.
    - If you do not enter a hostname, the default hostname localhost.<*domainname*> will be assigned.
    - The hostname must be 30 characters or less.

13. Specify the hostname.

    - If you chose to enable dynamic IP configuration (DHCP) in the earlier step, you see the following prompt:

```
Shutting down interface eth0:                              [  OK  ]
Shutting down loopback interface:                          [  OK  ]

Configuring network settings.
  IP configuration: DHCP

Bringing up loopback interface:                            [  OK  ]
Bringing up interface eth0:                                [  OK  ]
Determining IP information for eth0... done.

Do you want to manually configure the hostname (y|N)? y

Enter hostname (e.g. host.domain.com):  hostname.example.com

Network configuration changed successfully.
   IP configuration:  DHCP
   IP address:        192.168.1.103
   Netmask:           255.255.255.0
   Gateway:
   DNS Server:
   Hostname: hostname.example.com
```

    - (Optional) If you chose not to enable dynamic IP configuration (that is, you are using a static IP address), you see this prompt:

```
Shutting down interface eth0:                             [  OK  ]
Shutting down loopback interface:                          [  OK  ]

Configuring network settings.
```


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```
  IP configuration: Static IP address

Bringing up loopback interface:                            [  OK  ]
Bringing up interface eth0:                                [  OK  ]

Enter hostname (e.g. host.domain.com):  static_hostname.example.com

Network configuration changed successfully.
   IP configuration:  Static IP address
   IP address:        192.168.1.103
   Netmask:           255.255.255.0
   Gateway:           10.147.68.1
   DNS Server:        192.168.190.70
   Hostname: static_hostname.example.com
```

14. If you want to change any of the values you supplied for the IP configuration and hostname in the previous steps, enter *n* (no) to the following prompt:

    ```
    Are you happy with your answers? [Y/n]: n
    ```

    The system repeats the prompts in the previous steps, beginning with `Configuring network interface.`

15. If you are satisfied with the values you supplied for the IP configuration and hostname in the previous steps, enter y when asked if you are happy with your answers.

    After checking the setup, the initialization process validates the files found in the shared folder, and then extracts the DPKs from the zip files.

Note. At the step `Checking if VBox Guest Additions are Installed on the VM`, you may see a message beginning "Input: Unspecified device as ....". You can safely ignore this message and allow the script to continue.

```
Preparing the VirtualBox VM for PeopleSoft Environment:

Checking if VBox Guest Additions are Installed on the VM:
Installing VirtualBox Guest Additions into the VM:           [  OK  ]

Validating the Shared Folder setup in the VM:                [  OK  ]
Checking if DPKs are Present in the Shared Folder:           [  OK  ]
Downloading the DPKs into the VM:                            [  OK  ]

Validating the DPKs in the VM:
Validating the PeopleSoft Application DPK:                   [  OK  ]
Validating the PeopleSoft PeopleTools DPK:                   [  OK  ]
Validating the Oracle Database Server DPK:                   [  OK  ]
Validating the DPK dependencies in the VM:                   [  OK  ]
Validating the Manifest Information in DPKs:                 [  OK  ]

Extracting the DPK Archives in the VM:
Extracting the Oracle Database Server DPK Archive:           [  OK  ]
Extracting the PeopleSoft Application Database DPK Archive:  [  OK  ]
Extracting the PeopleSoft PeopleTools DPK Archive:           [  OK  ]
```

The initialization process sets up the PeopleSoft Puppet file system.

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```
Setting up Puppet on the VM:
Generating Hiera-Eyaml Puppet Backend Encryption Keys        [  OK  ]
Copying PeopleSoft Puppet Modules:                           [  OK  ]
Updating the Puppet Hiera YAML Files:                        [  OK  ]
Updating the Puppet Site File for the VM:                    [  OK  ]
```

16. Enter PUM as the installation type.

```
Enter the PeopleSoft installation [PUM or FRESH] type [PUM]: PUM
```

17. Enter the database name, or accept the default name, following the requirements given in the prompt.

```
Enter a new PeopleSoft database name. Ensure that the database
name start with a letter and contains only uppercase letters and
numbers and is no more than 8 characters in length [HCM92U26]:
```

18. Enter the database listener port number:

```
Enter the PeopleSoft database listener port [1521]:
```

19. Enter the password for the database SYS or SYSTEM user.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

```
Enter a new PeopleSoft database admin users [SYS/SYSTEM] password.
Ensure that the password is between 8 and 30 characters in length
with at least one lowercase letter, one uppercase letter, one number
and one special character (_,-,#):
Re-Enter the database admin users password:
```

20. Enter the PeopleSoft Connect ID at the following prompt:

    The default is people.

```
Enter a new PeopleSoft database Connect ID. Ensure that the ID
contains only alphanumeric characters and is atmost 8 characters
in length [people]:
```

21. Enter a password for the PeopleSoft Connect ID, and enter again on the next line, at the following prompt.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

```
Enter a new PeopleSoft database Connect ID [people] password. Ensure
the password contains only alphanumeric characters and is between 6
and 30 characters in length:
Re-Enter the PeopleSoft Connect ID password:
```

22. Enter the password for the Access ID for the database.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

```
Enter a new PeopleSoft database Access ID [SYSADM] password. Ensure
the password contains only alphanumeric characters and is between 6
and 30 characters in length:
Re-Enter the PeopleSoft Access ID password:
```

23. Enter the password twice for the PeopleSoft operator ID, such as PS or VP1.

    The password is not visible as you type, and the window does not display masking characters. There is no

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default password.

```
Enter a new PeopleSoft database Operator ID [VP1] password. Ensure
the password contains only alphanumeric characters and is between 1
and 32 characters in length:
Re-Enter the PeopleSoft Operator ID password:
```

24. Enter the Application Server Domain Connection password, following the guidelines in the prompt.

    The window does not display masking characters as you type. There is no default password.

    Note. This is an optional password. If no password is entered, the connection between Web Server and Application Server will not be password protected.

```
[Optional] Enter a new Application Server Domain connection password.
Ensure the password contains only alphanumeric characters and is
between 8 and 30 characters in length:
Re-Enter the Application Server Domain connection password:
```

25. Enter the Oracle WebLogic Server Admin password, following the guidelines in the prompt.

    The default Oracle WebLogic server administrator is system. The window does not display masking characters as you type. There is no default password.

```
Enter a new WebLogic Server Admin user [system] password. Ensure
that the password is between 8 and 30 characters in length with at
least one lowercase letter, one uppercase letter, one number or one
one special character (!@#$%^&):
Re-Enter the WebLogic Server Admin user password:
```

26. Enter the password for the PTWEBSERVER web profile user at the following prompt:

    Note. The guideline in the prompt for the PTWEBSERVER user password does not allow special characters. However, the PeopleSoft system does allow special characters for the PTWEBSERVER password. If you want to change the password to include special characters, you have the option to do so in the PeopleSoft Pure Internet Architecture (PIA) after you complete the installation and domain creation.

    See *PeopleTools: Portal Technology,* "Working with Passwords."

```
Enter a new PeopleSoft WebProfile user [PTWEBSERVER] password. Ensure
the password contains only alphanumeric characters and is between 8
and 30 characters in length:
Re-Enter the PeopleSoft WebProfile user password:
```

27. Enter the Integration Gateway user ID and password at the following prompt.

    The default user ID is administrator.

    Note. The guideline in the prompt for the Integration Gateway user password does not allow special characters. However, the PeopleSoft system does allow special characters for the Integration Gateway user password. If you want to change the password to include special characters, you have the option to do so in the PeopleSoft Pure Internet Architecture (PIA) after you complete the installation and domain creation.

    See *PeopleTools: Portal Technology,* "Working with Passwords."

```
Enter the PeopleSoft Integration Gateway user [administrator]:
Enter the PeopleSoft Integration Gateway user [administrator] password.
```

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```
Ensure the password contains only alphanumeric characters and is
between 8 and 30 characters in length:
Re-Enter the PeopleSoft Integration Gateway user password:
```

28. If you want to change any of the answers to the previous questions, enter *n* (no) at the following prompt, or enter *y* (yes) to continue:

    ```
    Are you happy with your answers? [y|n]: y
    ```

29. Review the status messages as the script updates the Puppet YAML files with the user input.

    ```
    Encrypting the Passwords in the User Data:                [  OK  ]
    Updating the Puppet Hiera YAML Files with User Data:      [  OK  ]
    ```

30. If you want to change any of the answers to the previous questions, enter *n* (no) at the following prompt, or enter *y* (yes) to continue:

    ```
    Are you happy with your answers? [y|n]:
    ```

    The initialization process updates the Puppet data file with the information you supplied.

    ```
    Updating the Puppet Hiera YAML Files with User Input:       [  OK  ]
    ```

31. If you want to continue running the initialization script using the default configuration, answer *y* (yes) to the following prompt, and continue with the next step.

    Note. If you select the default initialization process, the PeopleSoft environment is created with one Application Server domain, one Process Scheduler domain, and one PIA domain.

    If you want to customize the PeopleSoft environment, answer *n* (no) to stop the script.

    ```
    The bootstrap script is ready to deploy and configure the PeopleSoft
    environment using the default configuration defined in the Puppet
    Hiera YAML files. You can proceed by answering 'y' at the following
    prompt. And, if you want to customize the environment by overriding
    the default configuration, you can answer 'n'. If you answer 'n', you
    should follow the instructions in the PeopleSoft Installation Guide
    for creating the customization Hiera YAML file and running the Puppet
    'apply' command directly to continue with the setup of the PeopleSoft
    environment.

    Do you want to continue with the default initialization process? [y|n]:
    ```

32. Review the status of the setup steps.

    The system displays messages indicating the steps in the setup process. The success or failure of a step is indicated by [OK] or [FAILED]. See the log file mentioned at the end of this section for information on failed steps. This example shows portions of the configuration messages:

    Note. At the step `Setting Up System Settings`, you may see a message such as "nr_pdflush_threads exported in /proc is scheduled for removal. sysctl: The scan_unevictable_pages sysctl/node-interface has been disabled for lack of a legitimate use case. If you have one, please send an email to linux-mm@kvack.org."

    You can safely ignore this message and allow the script to proceed.

    You may also see other logging messages during the deployment, which normally can be ignored.

    ```
    Setting Up System Settings:                                  [ OK ]
    ```


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```
Deploying Application Component:                              [ OK ]
Deploying PeopleTools Components:                             [ OK ]
Deploying Oracle Database Server:                             [ OK ]
Setting Up PeopleSoft OS Users Profile:                       [ OK ]
.
.
.
Starting PeopleSoft Domains:                                  [ OK ]
Configuring Post-Boot PeopleSoft Environment:                 [ OK ]

The initialization of PeopleSoft HCM fulltier environment is successful

Template configuration disabled.
Starting OSWatcher:                                           [ OK ]
```

33. The login prompt appears in the VM console window.

    The PeopleSoft environment is available for use. You can log in as root or as one of the other users.

    See Using and Maintaining the PeopleSoft Environment for information on accessing the environment in a browser, verifying the Elasticsearch installation, the file structure and default users.

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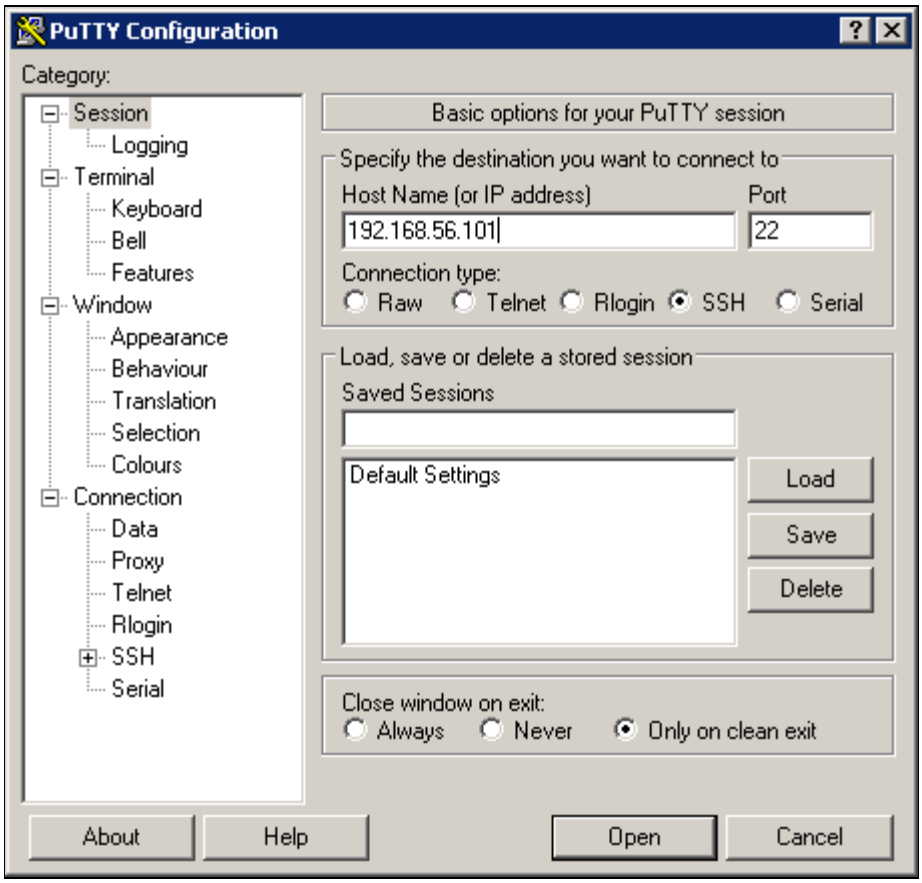
34. To confirm external shell access to the virtual machine, log in to the virtual machine from your host OS using Secure Shell (SSH) with a telnet client.

    PuTTY is the SSH client used in the example below. In order to connect with SSH you will need the IP address of the virtual machine, which was displayed during the setup. The IP address can also be identified, for example in the VirtualBox console window, using the Linux command `ifconfig`.



PuTTY Configuration dialog box

    After the SSH client connects to the host, before you can access the virtual machine, you will need to supply the root user and the password that you provided earlier in this procedure. Establishing a connection to the virtual machine verifies its accessibility from the host OS.

    Note. You can also log in to the VM on the console using one of the default accounts described in the task Using the PeopleSoft Installation.

    ---

35. To copy the log file for the deployment from the virtual machine to the Microsoft Windows host:

    a. Log in to the VM as the root user.

       Use SSH or PuTTY with the IP address for the VM as mentioned in the previous step.

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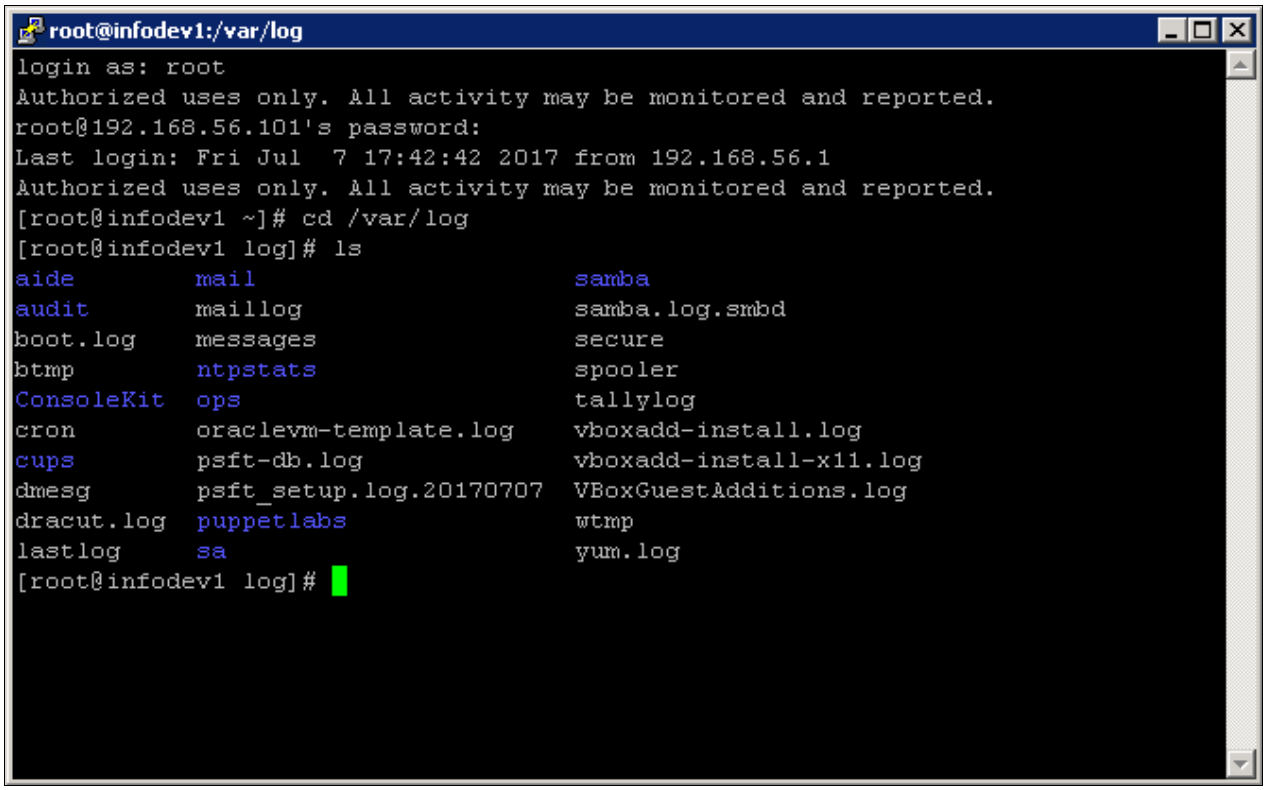
b. Change directory to /var/log.

The log file is found in this directory, with the format psft_setup.log.<date>, where <date> has the format YYYYMMDD. For example, psft_setup.log.20160205.



VM directory showing the log file

c. Copy the file to the Microsoft Windows host using FTP or SCP.

Task 2-3-2: Using the VirtualBox Shell to Set up the PeopleSoft Virtual Machine

Use these instructions to install DPKs by importing the PeopleSoft VirtualBox shell into the Oracle VM VirtualBox Manager. This procedure assumes that:

- You have installed Oracle VM VirtualBox on a Microsoft Windows machine.

  As you use Oracle VM VirtualBox Manager, you may see messages concerning keyboard and mouse control. See the VirtualBox documentation for details about these messages.

  See *Oracle VM VirtualBox User Manual*, "First Steps."

- You downloaded the zip files for the PeopleSoft VirtualBox shell OVA, PeopleSoft application, PeopleSoft PeopleTools, and any other required DPKs to the same machine that is running Oracle VM VirtualBox, and saved it in a temporary location referred to here as *DPK_INSTALL*.

Note. For this task, download the VirtualBox DPKs.

Before you use VirtualBox to import the PeopleSoft VirtualBox shell OVA, you must complete manual steps to extract the files.

Include the following considerations when preparing for the initialization process:

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- Default or manual configuration

  After the setup script extracts the DPKs, you are given the option to exit the process and complete the configuration manually using Puppet files. Use the manual configuration if you want to change installation locations and so on.

  See *PeopleSoft PeopleTools 8.57 Deployment Packages Installation,* "Completing the DPK Initialization with Customizations."

- Networking information

  When using the VirtualBox setup, you have the option to use a static or dynamic IP address. If you plan to use a static IP address, you will need to provide a valid IP address, as well as addresses for the Domain Name System (DNS) server, gateway, and netmask in this procedure. A static setup works best with the Bridged Adapter network configuration. If you enter the values for a static networking setup in this procedure, but you have chosen to use host-only networking when importing the virtual appliance, the system will not be able to contact the DNS and validate the hostname.

  See *Understanding PeopleSoft Deployment Packages for Update Images,* "Preparing to Deploy."

- User IDs and passwords

  The process does not include any default passwords. You must provide passwords for the UNIX root ID, the PeopleSoft Connect ID, and the Application Server Domain Connection. The requirements for the passwords are given by the prompts in most cases.

To extract the DPKs and initialize the virtual machine:

1. Save all of the zip files in a directory on the same machine as VirtualBox.
2. Extract (unzip) the files using a standard zip utility into the installation directory, *DPK_INSTALL*.

   Extract all of the zip files into the same location. The installation location should have enough disk space for deploying all PeopleSoft components.

   See Obtaining the PeopleSoft Update Images.

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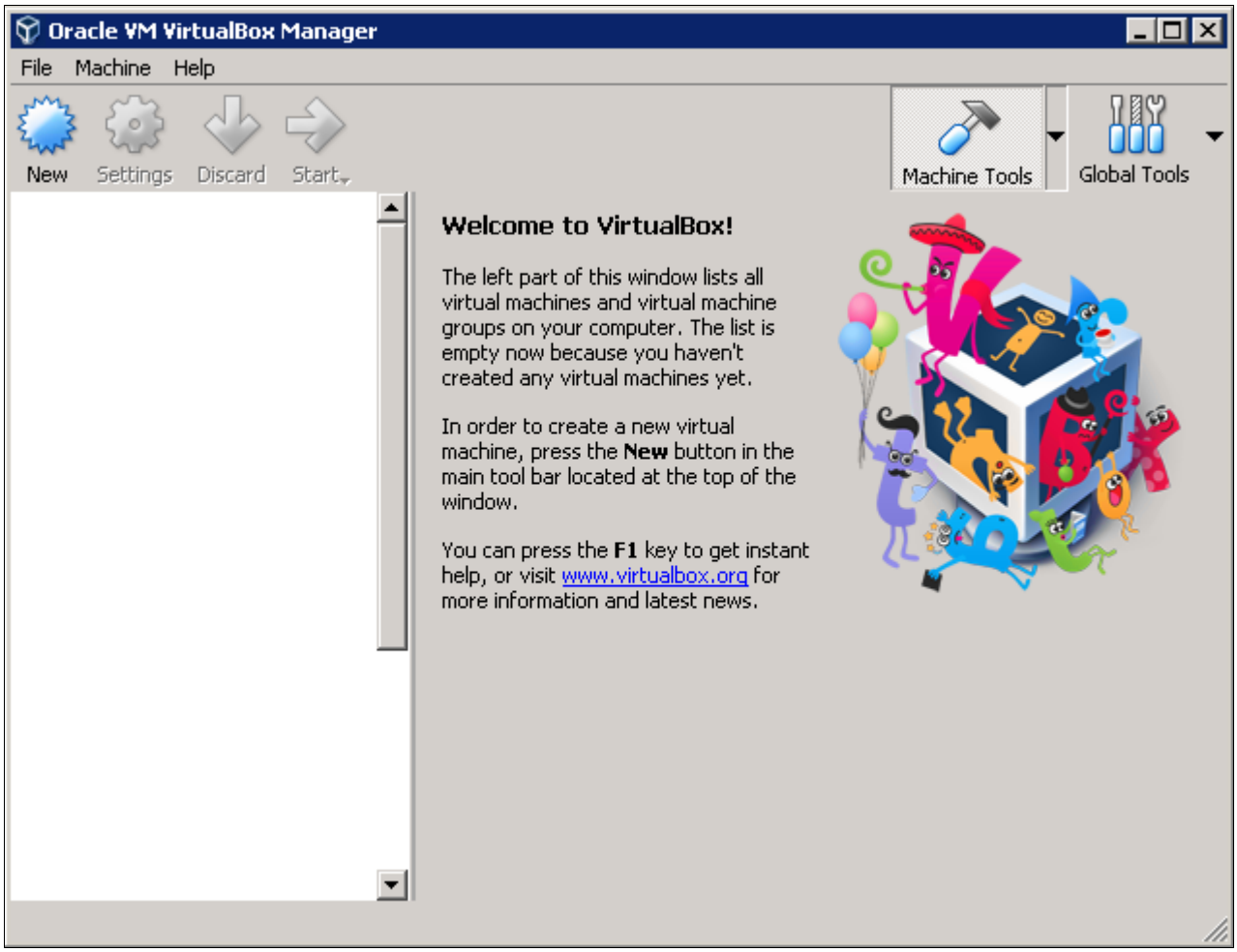
3. Start VirtualBox.

   The Oracle VM VirtualBox Manager appears. This example shows the Welcome page. If you start Oracle VM VirtualBox Manager with a previously-imported appliance, you see a page showing that appliance.



Oracle VM VirtualBox Manager Welcome window

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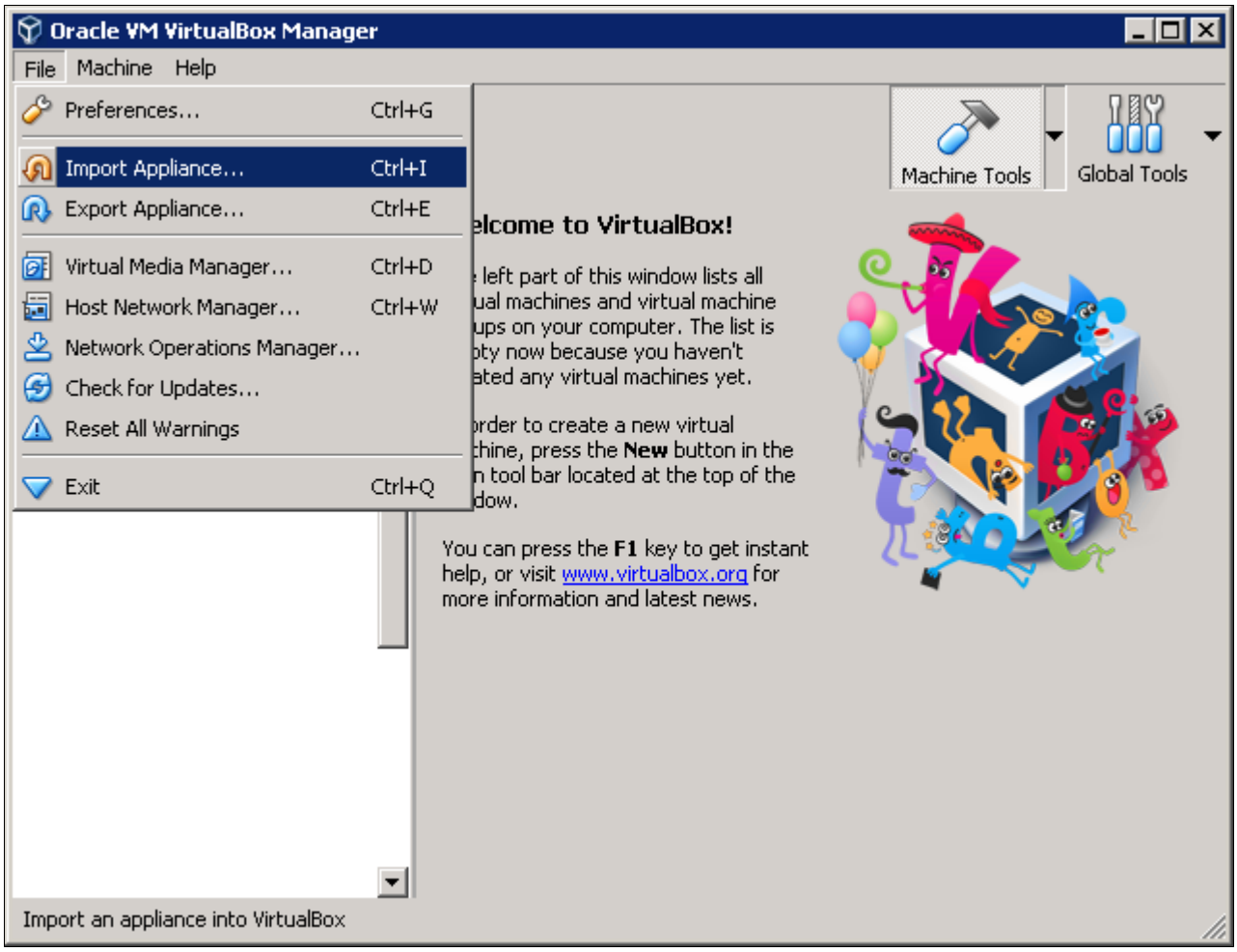
4. Select File, Import Appliance, as shown in this example.



File, Import Appliance menu in the Oracle VirtualBox Manager window

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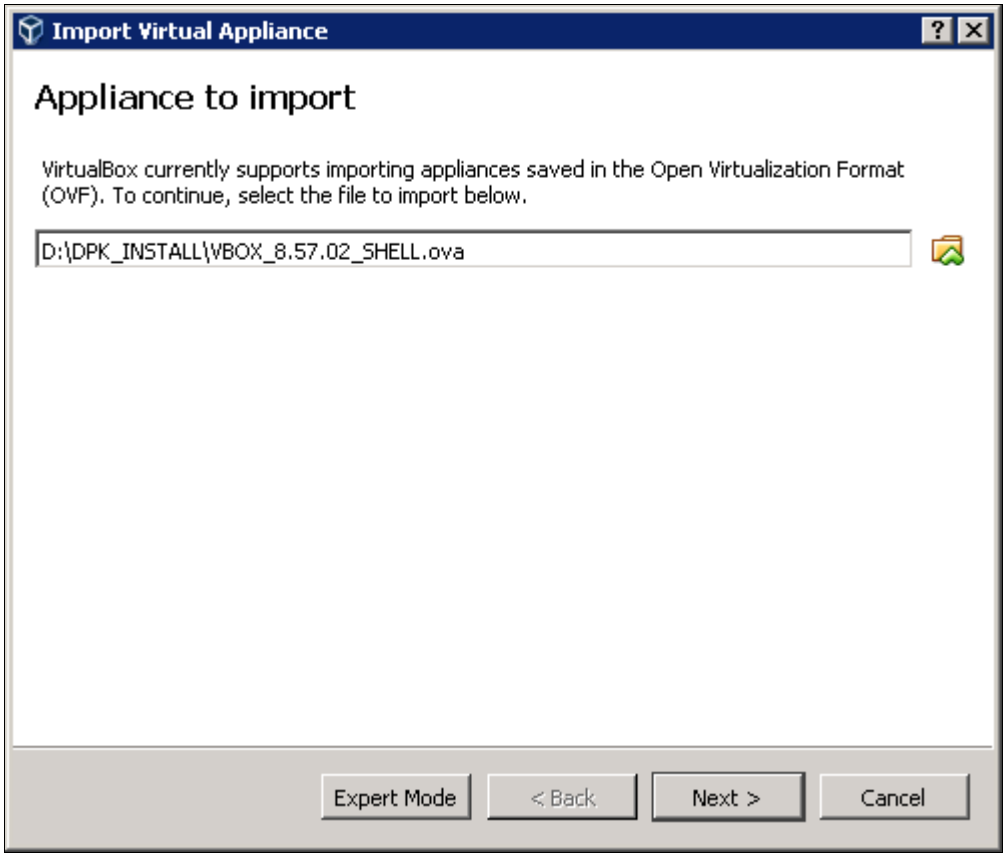
5. Browse to the location where you saved the PeopleSoft VirtualBox shell.
   In this example the shell is named VBOX_8.57.02_SHELL.ova.



Appliance to import window in the Import Virtual Appliance dialog box

6. Click Next.

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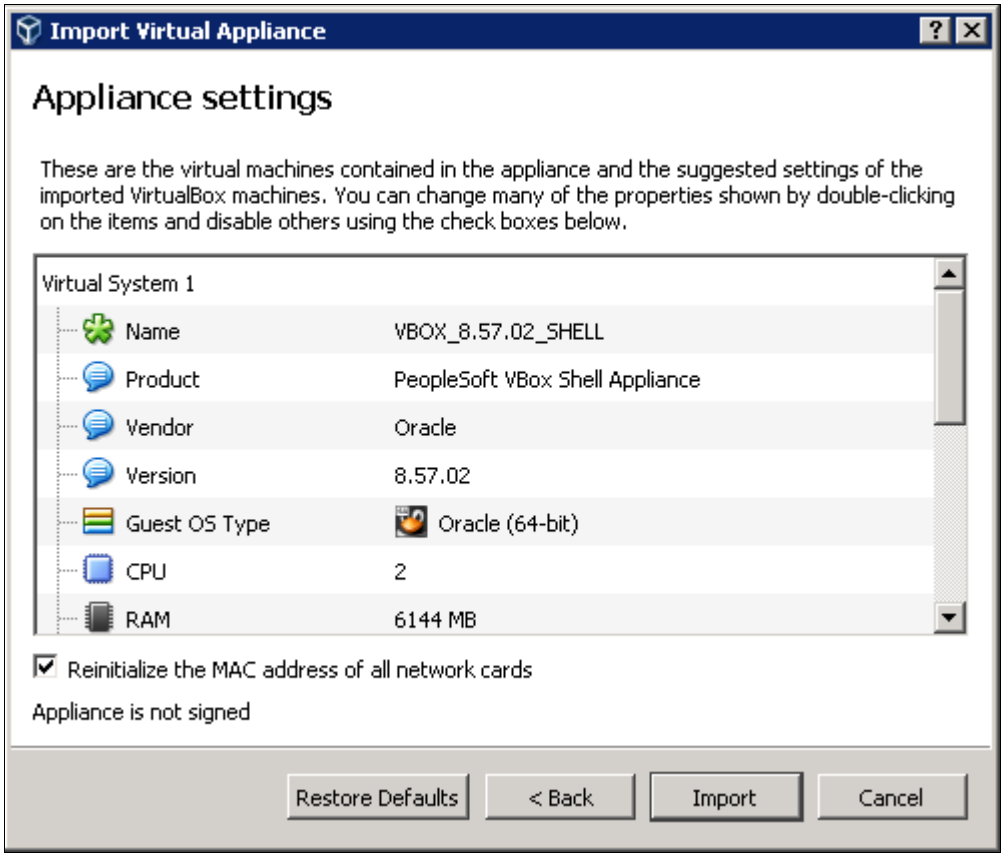
7. Select the option "Reinitialize the MAC address of all network cards," and then click Import on the Appliance settings dialog box.



Appliance settings window in the Import Virtual Appliance dialog box

You see a progress indicator as the VirtualBox shell is imported. When the importing process is complete, the VirtualBox shell appears in the Oracle VirtualBox Manager with the status Powered Off, as shown in this example.

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VirtualBox Shell Powered off

Click the Details button on the right frame if you want to review information about the shell.

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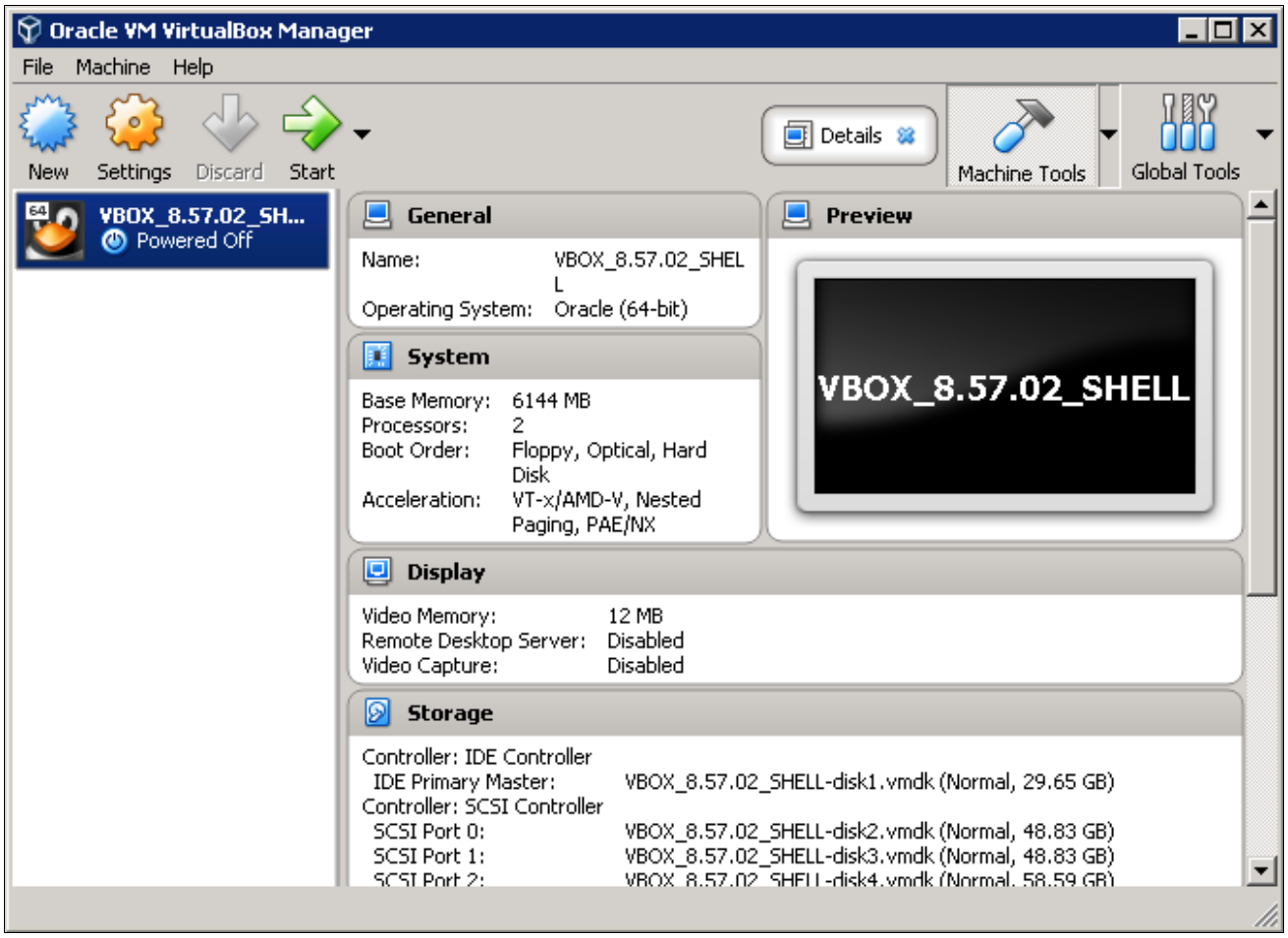

VirtualBox Shell powered off, with details

8. Click Settings.

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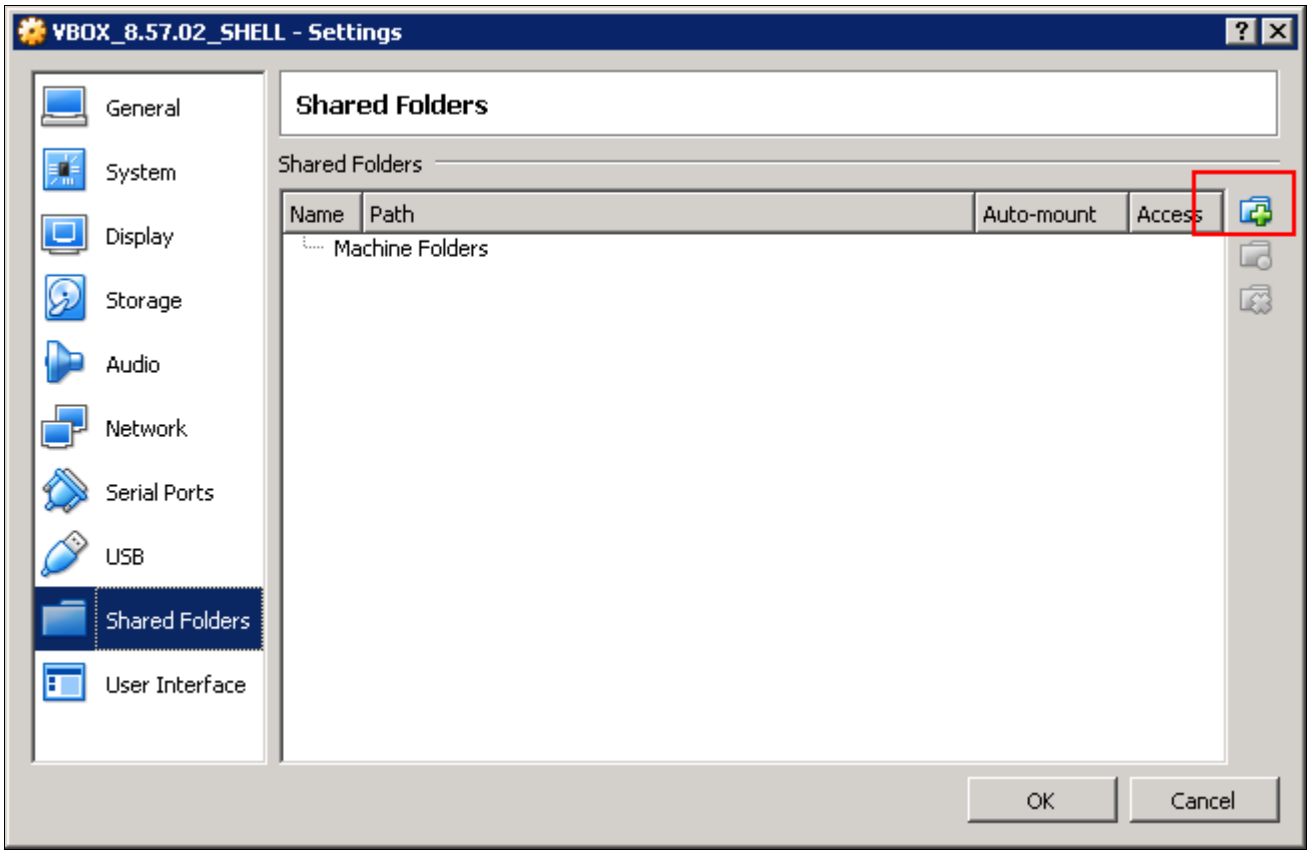
9. On the Settings window, select Shared Folders.

   The Oracle VirtualBox Manager shared folders are used to access file systems existing on the Microsoft Windows host machine. They should not be confused with the Samba shared folders discussed later in this documentation, which allow the Microsoft Windows host machine to view files on the Linux VM.



Shared Folders window

10. Click the add shared folder button (with the green plus sign) in the top right-hand border of the window.

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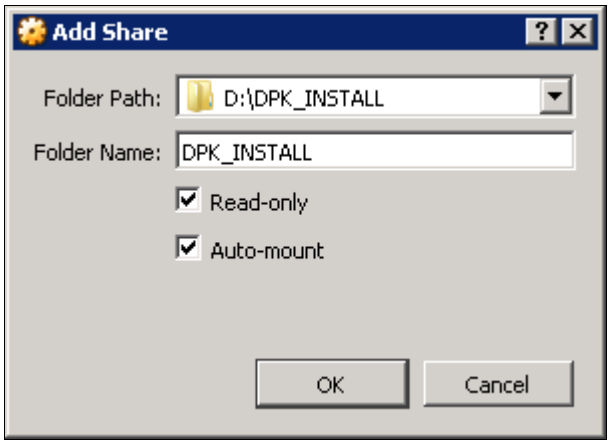
11. Specify the location where you saved the zip files in the Add Share dialog box, as shown in this example.

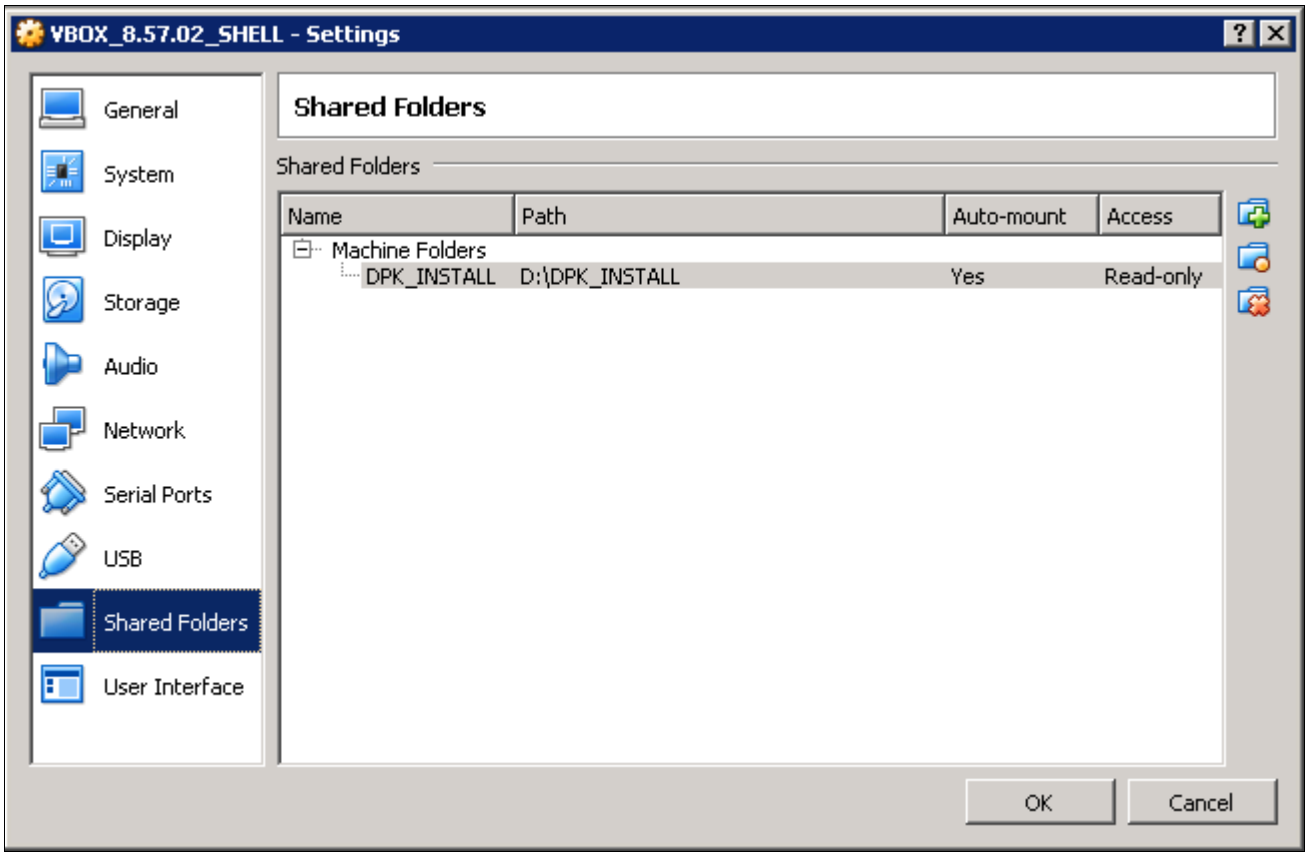


Add Share dialog box

- For Folder Path, enter or browse to the *DPK_INSTALL* folder, C:\DPK_INSTALL in this example.
- Accept the folder name, or enter another descriptive name, DPK_INSTALL in this example, for the share folder in the Folder Name field.
- Select the Read-only and Auto-mount options.

12. Click OK.

The selected folder is included in the folder list.



Shared Folders window with folder added

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13. Click Start in the Oracle VirtualBox Manager.

    The virtual machine console window appears displaying initialization messages for the virtual machine, similar to those shown here. The messages will vary depending upon the zip files you selected for installation. The initialization process carries out a series of validations, and displays OK or FAILED at each step.

    Note. A portion of the messages has been omitted for brevity.

```
Starting crond:                                            [ OK ]
Starting SMB services                                      [ OK ]
.
.

Starting sshd:                                             [ OK ]
```

14. Specify a strong password for the root user at the following prompt.

    The password is not visible as you type. Take note of the value that you provide as it is essential for performing administrative operations on the virtual machine.

```
Changing password for user root.
New UNIX password:
Retype new UNIX password:
passwd: all authentication tokens updated successfully.
```

15. Choose whether to use dynamic IP configuration for this virtual machine at the following prompt.

```
Configuring network interface.
  Network device: eth0
  Hardware address: 00:11:22:33:AA:BB

Do you want to enable dynamic IP configuration (DHCP) (Y|n)? Y
```

    These instructions assume that you are using Host-only networking, as discussed earlier in this document, and therefore you enter *Y* (yes). This will result in a dynamic IP address being assigned by the VirtualBox network adapter (this configuration is referred to as Dynamic Host Configuration Protocol, or DHCP).

16. (Optional) If you wish to assign a static IP address, enter *n* (no) to the prompt in the preceding step.

    You must provide a valid IP address to ensure that the virtual host can join the network. You will also need the DNS server IP address, gateway, and netmask. If you do not satisfy these criteria, you see the following prompt:

```
The DNS server entered is not reachable. This is due to either
the Virtual Machine's network is attached to a Host-only Adapter
(applies to VM's running on VirtualBox) or some other network issue.
It is not recommended to continue the installation with
static IP configuration without basic network functionality.
Some of components will not initialize properly.

Do you want to stop the initialization process to correct this⇒
 condition? [Y|n]:
```

    If you enter *Y* (yes), the system shows the following message, and shuts down.

```
Please refer to the Install document for further instructions regarding⇒
 Network Adapter Configuration.
```

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```
The Virtual Machine will be shutdown now.
```

If you enter *n* (no), the initialization continues.

Use the following information in understanding this prompt:

- If the entered static IP address and the DNS server IP address are valid, the DNS is reachable, and you selected Bridged Adapter when importing the virtual appliance, the system displays the DNS host name and prompts for confirmation.
- If the entered static IP address and the DNS server IP address are valid, but you selected the Host-only networking option when importing the virtual appliance, the system cannot reach the DNS to deduce the hostname and prompts the user to enter the hostname manually. This can be problematic. Rather than entering the hostname manually in the next step, shut down the virtual machine and start again at the beginning of this procedure.
- If either the static IP address or the DNS server IP address is invalid, the system cannot deduce the hostname and prompts the user to enter the hostname manually. This can be problematic. Rather than entering the hostname manually in the next step, shut down the virtual machine and start again at the beginning of this procedure.

17. Choose a hostname.

    Use the following considerations in specifying the hostname:

    - If you want the virtual machine to access an external network, you must use a legitimate hostname and fully qualified domain name for that network.

      See *Understanding PeopleSoft Deployment Packages for Update Images,* "Preparing to Deploy."

    - If you do not need to access an external network, you can manually configure the hostname. In this case, specify a hostname that is comprised of any alphanumeric name of your choosing, plus a fully qualified domain name; that is, <*hostname*>.<*domainname*>. For example, hcm.example.com. This should not be a hostname that is currently in use on your network.
    - If you do not enter a hostname, the default hostname localhost.<*domainname*> will be assigned.
    - The hostname must be 30 characters or less.

18. Specify the hostname.

    - If you chose to enable dynamic IP configuration (DHCP) in the earlier step, you see the following prompt:

```
Shutting down interface eth0:                              [ OK ]
Shutting down loopback interface:                          [ OK ]

Configuring network settings.
  IP configuration: DHCP

Bringing up loopback interface:                            [ OK ]
Bringing up interface eth0:                                [ OK ]
Determining IP information for eth0... done.

Do you want to manually configure the hostname (y|N)? y

Enter hostname (e.g. host.domain.com):  hostname.example.com

Network configuration changed successfully.
   IP configuration:  DHCP
   IP address:        192.168.1.103
   Netmask:           255.255.255.0
   Gateway:
```


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```
   DNS Server:
   Hostname: hostname.example.com
```

- (Optional) If you chose not to enable dynamic IP configuration (that is, you are using a static IP address), you see this prompt:

```
Shutting down interface eth0:                              [ OK ]
Shutting down loopback interface:                          [ OK ]

Configuring network settings.
  IP configuration: Static IP address

Bringing up loopback interface:                            [ OK ]
Bringing up interface eth0:                                [ OK ]

Enter hostname (e.g. host.domain.com):  static_hostname.example.com

Network configuration changed successfully.
   IP configuration:  Static IP address
   IP address:        192.168.1.103
   Netmask:           255.255.255.0
   Gateway:           10.147.68.1
   DNS Server:        192.168.190.70
   Hostname: static_hostname.example.com
```

19. If you want to change any of the values you supplied for the IP configuration and hostname in the previous steps, enter *n* (no) to the following prompt:

    ```
    Are you happy with your answers? [Y/n]: n
    ```

    The system repeats the prompts in the previous steps, beginning with `Configuring network interface.`

20. If you are satisfied with the values you supplied for the IP configuration and hostname in the previous steps, enter *y* when asked if you are happy with your answers.

    After checking the setup, the initialization process validates the files found in the shared folder, and then extracts the DPKs from the zip files.

Note. At the step `Checking if VBox Guest Additions are Installed on the VM`, you may see a message beginning "Input: Unspecified device as ....". You can safely ignore this message and allow the script to continue.

```
Preparing the VirtualBox VM for PeopleSoft Environment:

Checking if VBox Guest Additions are Installed in the VM:
Installing VirtualBox Guest Additions into the VM:           [ OK ]

Validating the Shared Folder setup in the Linux VM:          [ OK ]
Checking if DPKs are Present in the Shared Folder:           [ OK ]

Downloading the DPKs into the VM:                           [ OK ]

Extracting the DPK ZIP file FILENAME_1of13.zip:   [ OK ]
.
.
```

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```
.
Extracting the DPK ZIP file FILENAME_13of13.zip:  [ OK ]

Verifying if Puppet Software is Installed:                    [ OK ]
Verifying if eYAML Hiera Backend is Installed:                [ OK ]
Preparing the Redhat Linux VM for PeopleSoft Environment:     [ OK ]
Checking if PeopleSoft DPKs are present:                      [ OK ]

Validating the PeopleSoft DPKs in the Linux VM:
Validating the PeopleSoft Application DPK:                    [ OK ]
Validating the PeopleSoft PeopleTools Server DPK:             [ OK ]
Validating the Oracle Server Database DPK:                    [ OK ]
Validating the PeopleSoft PeopleTools Client DPK:             [ OK ]
Validating the Elasticsearch DPK:                             [ OK ]
Validating the Manifest Information in PeopleSoft DPKs:       [ OK ]

Extracting the DPK Archives in the Linux VM:
Extracting the Oracle Database Server DPK Archive:            [ OK ]

Extracting the PeopleSoft PeopleTools  Server DPK Archives:   [ OK ]
Extracting the PeopleSoft <Product> Application  DPK Archive:[ OK ]
Extracting the Elasticsearch DPK Archive:                     [ OK ]

Extracting the 8.57 Tools Client DPK Archive:                 [ OK ]
Extracting the 8.56 Tools Client DPK Archive:                 [ OK ]
Extracting the 8.55 Tools Client DPK Archive:                 [ OK ]

Extracting the Oracle Database Client DPK Archive:            [ OK ]
```

The initialization process sets up the PeopleSoft Puppet file system.

```
Setting up Puppet on the Linux VM:
Generating Eyaml Hiera Backend Encryption Keys                [ OK ]
Copying PeopleSoft Puppet Modules:                            [ OK ]
Updating the Puppet Hiera YAML Files in the Linux VM:         [ OK ]
Updating the Role in Puppet Site File for the Linux VM:       [ OK ]
```

21. Enter PUM as the installation type.

```
Enter the PeopleSoft installation [PUM or FRESH] type [PUM]: PUM
```

22. Enter the database name, or accept the default name, following the requirements given in the prompt.

```
Enter a new PeopleSoft database name. Ensure that the database
name start with a letter and contains only uppercase letters and
numbers and is no more than 8 characters in length [HCM92026]:
```

23. Enter the database listener port number:

```
Enter the PeopleSoft database listener port [1521]:
```

24. Enter the password for the database SYS or SYSTEM user.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

```
Enter a new PeopleSoft database admin users [SYS/SYSTEM] password.
```


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```
Ensure that the password is between 8 and 30 characters in length
with at least one lowercase letter, one uppercase letter, one number
and one special character (_,-,#):
Re-Enter the database admin users password:
```

25. Enter the PeopleSoft Connect ID at the following prompt:

    The default is people.

    ```
    Enter a new PeopleSoft database Connect ID. Ensure that the ID
    contains only alphanumeric characters and is atmost 8 characters
    in length [people]:
    ```

26. Enter a password for the PeopleSoft Connect ID, and enter again on the next line, at the following prompt.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

    ```
    Enter a new PeopleSoft database Connect ID [people] password. Ensure
    the password contains only alphanumeric characters and is between 6
    and 30 characters in length:
    Re-Enter the PeopleSoft Connect ID password:
    ```

27. Enter the password for the Access ID for the database.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

    ```
    Enter a new PeopleSoft database Access ID [SYSADM] password. Ensure
    the password contains only alphanumeric characters and is between 6
    and 30 characters in length:
    Re-Enter the PeopleSoft Access ID password:
    ```

28. Enter the password twice for the PeopleSoft operator ID, such as PS or VP1.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

    ```
    Enter a new PeopleSoft database Operator ID [VP1] password. Ensure
    the password contains only alphanumeric characters and is between 1
    and 32 characters in length:
    Re-Enter the PeopleSoft Operator ID password:
    ```

29. Enter the Application Server Domain Connection password, following the guidelines in the prompt.

    The window does not display masking characters as you type. There is no default password.

    Note. This is an optional password. If no password is entered, the connection between Web Server and Application Server will not be password protected.

    ```
    [Optional] Enter a new Application Server Domain connection password.
    Ensure the password contains only alphanumeric characters and is
    between 8 and 30 characters in length:
    Re-Enter the Application Server Domain connection password:
    ```

30. Enter the Oracle WebLogic Server Admin password, following the guidelines in the prompt.

    The default Oracle WebLogic server administrator is system. The window does not display masking characters as you type. There is no default password.

    ```
    Enter a new WebLogic Server Admin user [system] password. Ensure
    ```

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```
that the password is between 8 and 30 characters in length with at
least one lowercase letter, one uppercase letter, one number or one
one special character (!@#$%^&):
Re-Enter the WebLogic Server Admin user password:
```

31. Enter the password for the PTWEBSERVER web profile user at the following prompt:

Note. The guideline in the prompt for the PTWEBSERVER user password does not allow special characters. However, the PeopleSoft system does allow special characters for the PTWEBSERVER password. If you want to change the password to include special characters, you have the option to do so in the PeopleSoft Pure Internet Architecture (PIA) after you complete the installation and domain creation.

See *PeopleTools: Portal Technology,* "Working with Passwords."

```
Enter a new PeopleSoft WebProfile user [PTWEBSERVER] password. Ensure
the password contains only alphanumeric characters and is between 8
and 30 characters in length:
Re-Enter the PeopleSoft WebProfile user password:
```

32. Enter the Integration Gateway user ID and password at the following prompt.

    The default user ID is administrator.

Note. The guideline in the prompt for the Integration Gateway user password does not allow special characters. However, the PeopleSoft system does allow special characters for the Integration Gateway user password. If you want to change the password to include special characters, you have the option to do so in the PeopleSoft Pure Internet Architecture (PIA) after you complete the installation and domain creation.

See *PeopleTools: Portal Technology,* "Working with Passwords."

```
Enter the PeopleSoft Integration Gateway user [administrator]:
Enter the PeopleSoft Integration Gateway user [administrator] password.
Ensure the password contains only alphanumeric characters and is
between 8 and 30 characters in length:
Re-Enter the PeopleSoft Integration Gateway user password:
```

33. If you want to change any of the answers to the previous questions, enter *n* (no) at the following prompt, or enter *y* (yes) to continue:

```
Are you happy with your answers? [y|n]: y
```

34. Review the status messages as the script updates the Puppet YAML files with the user input.

```
Encrypting the Passwords in the User Data:                [  OK  ]
Updating the Puppet Hiera YAML Files with User Data:      [  OK  ]
```

35. If you want to change any of the answers to the previous questions, enter *n* (no) at the following prompt, or enter *y* (yes) to continue:

```
Are you happy with your answers? [y|n]:
```

    The initialization process updates the Puppet data file with the information you supplied.

```
Updating the Puppet Hiera YAML Files with User Input:       [  OK  ]
```

36. If you want to continue running the initialization script using the default configuration, answer *y* (yes) to the following prompt, and continue with the next step.

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Note. If you select the default initialization process, the PeopleSoft environment is created with one Application Server domain, one Process Scheduler domain, and one PIA domain.

If you want to customize the PeopleSoft environment, answer *n* (no) to stop the script.

```
The bootstrap script is ready to deploy and configure the PeopleSoft
environment using the default configuration defined in the Puppet
Hiera YAML files. You can proceed by answering 'y' at the following
prompt. And, if you want to customize the environment by overriding
the default configuration, you can answer 'n'. If you answer 'n', you
should follow the instructions in the PeopleSoft Installation Guide
for creating the customization Hiera YAML file and running the Puppet
'apply' command directly to continue with the setup of the PeopleSoft
environment.

Do you want to continue with the default initialization process? [y|n]:
```

37. Review the status of the setup steps.

    A message of [OK] indicates that the profile has been applied successfully while a message [FAILED] indicates that the profile application failed.

    The system displays messages indicating the steps in the setup process. The success or failure of a step is indicated by [OK] or [FAILED]. See the log file mentioned at the end of this section for information on failed steps. This example shows portions of the configuration messages:

Note. At the step `Setting Up System Settings`, you may see a message such as "nr_pdflush_threads exported in /proc is scheduled for removal. sysctl: The scan_unevictable_pages sysctl/node-interface has been disabled for lack of a legitimate use case. If you have one, please send an email to linux-mm@kvack.org."

You can safely ignore this message and allow the script to proceed.

You may also see other logging messages during the deployment, which normally can be ignored.

```
Setting Up System Settings:                                [ OK ]
Deploying Application Component:                           [ OK ]
Deploying PeopleTools Components:                          [ OK ]
Deploying Oracle Database Server:                          [ OK ]
Setting Up PeopleSoft OS Users Profile:                    [ OK ]
.
.
.
Starting PeopleSoft Domains:                               [ OK ]
Configuring Post-Boot PeopleSoft Environment:              [ OK ]

The initialization of PeopleSoft HCM fulltier environment is successful

Template configuration disabled.
Starting OSWatcher:                                        [ OK ]
```

38. The login prompt appears in the VM console window.

    The PeopleSoft environment is available for use. You can log in as root or as one of the other users.

    See Using and Maintaining the PeopleSoft Environment for information on accessing the environment in a browser, verifying the Elasticsearch installation, the file structure and default users.

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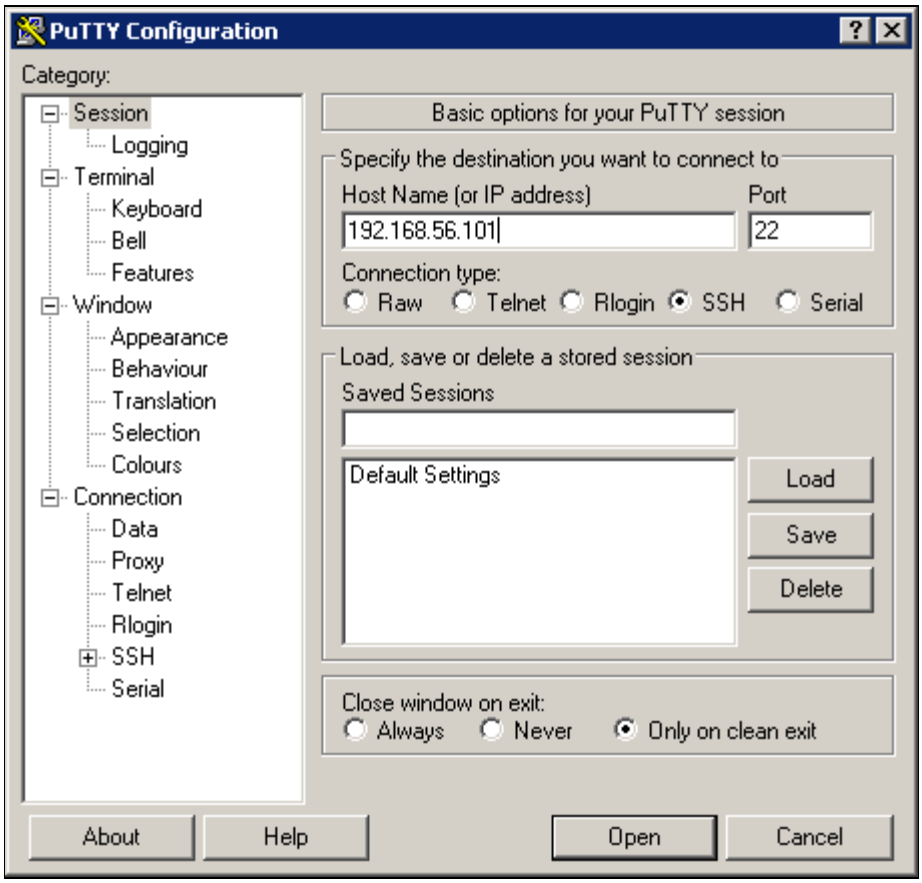
39. To confirm external shell access to the virtual machine, log in to the virtual machine from your host OS using Secure Shell (SSH) with a telnet client.

    PuTTY is the SSH client used in the example below. In order to connect with SSH you will need the IP address of the virtual machine, which was displayed during the setup. The IP address can also be identified, for example in the VirtualBox console window, using the Linux command `ifconfig`.



PuTTY Configuration dialog box

    After the SSH client connects to the host, before you can access the virtual machine, you will need to supply the root user and the password that you provided earlier in this procedure. Establishing a connection to the virtual machine verifies its accessibility from the host OS.

    Note. You can also log in to the VM on the console using one of the default accounts described in the task Using the PeopleSoft Installation.

    ---

40. To copy the log file for the deployment from the virtual machine to the Microsoft Windows host:

    a. Log in to the VM as the root user.

       Use SSH or PuTTY with the IP address for the VM as mentioned in the previous step.

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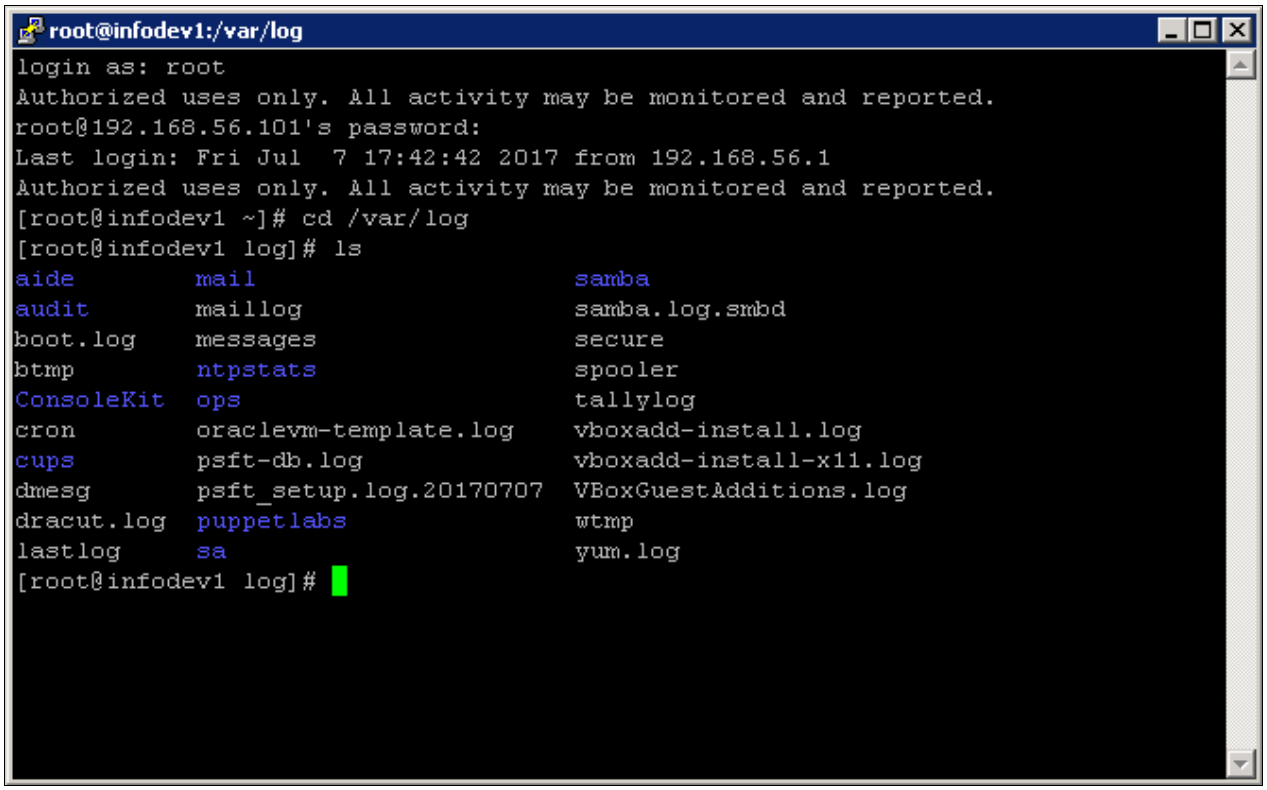
b. Change directory to /var/log.

The log file is found in this directory, with the format psft_setup.log.<date>, where <date> has the format YYYYMMDD.

For example, psft_setup.log.20160205.



VM directory showing the log file

c. Copy the file to the Microsoft Windows host using FTP or SCP.

Task 2-4: Deploying the Native OS Update Image

This section discusses:

- Setting Up the PeopleSoft Virtual Machine on a Microsoft Windows Host Using the PeopleSoft Application DPK Setup Script
- Setting Up the PeopleSoft Virtual Machine on a Linux Host Using the PeopleSoft Application DPK Setup Script as the Root User
- Setting Up the PeopleSoft Virtual Machine on a Linux Host Using the PeopleSoft Application DPK Setup Script as a Non-Root User
- Obtaining Operating System Packages Required for Puppet

Task 2-4-1: Setting Up the PeopleSoft Virtual Machine on a Microsoft Windows Host Using the PeopleSoft Application DPK Setup Script

Use this procedure on a physical or virtual Microsoft Windows host. This procedure assumes that:

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- You are setting up the full environment for the Native OS Update Image on a single Microsoft Windows host.
- You have downloaded all of the required DPKs and saved them in a location accessible to the Microsoft Windows host, referred to as *DPK_INSTALL*.

  For this task, download the Native OS DPKs for Microsoft Windows.

  See Obtaining the PeopleSoft Update Images.

Note. After the DPK setup script extracts the downloaded zip files, it will delete the original zip files in *DPK_INSTALL.* If you want to save the original zip files, make a backup copy in a different folder.

- There is at least 150 GB available space on the host for the full-tier PeopleSoft environment.
- The user running the script has administrative permission.

Note. Restarting services for the deployed PeopleSoft environment, such as those for Oracle Tuxedo, must be performed by the same user (with administrative permission) who carried out the installation.

---

1. Extract the first zip file *(FILENAME*_1of*n.*zip) in the same directory, *DPK_INSTALL*.

   Note. It is a good idea to extract into the same directory where you downloaded the zip files.

   The extraction creates the *DPK_INSTALL/*setup folder and other files.
2. Open a command prompt window; for example:
   a. Select Start, and navigate to command prompt.
   b. Right-click and select Run as Administrator.
3. Run the script *DPK_INSTALL/*setup/psft-dpk-setup.bat.

   ```
   psft-dpk-setup.bat
   ```

   Note. If you see an error message similar to "The application has failed to start because its side-by-side configuration is incorrect," it indicates that your machine does not include the necessary Microsoft C++ runtime libraries. Go to the Microsoft Web site, locate the Microsoft Visual C++ redistributable package for your system, and install as directed.

   ---

4. Wait while the script locates the valid PeopleSoft zip files and extracts them.

   The system displays messages indicating the steps in the setup process. The success or failure of each step is indicated by [OK] or [FAILED].

   The script locates the valid PeopleSoft zip files and extracts them.

   ```
   Starting the PeopleSoft Environment Setup Process:

   Extracting the Zip File FILENAME_1of11.zip:          [  OK  ]
   Extracting the Zip File FILENAME_2of11.zip:          [  OK  ]
   ...
   Extracting the Zip File FILENAME_11of11.zip:         [  OK  ]
   ```

5. Specify whether to install the Puppet software if necessary at the next prompt.

   The script verifies if Puppet software is installed in the standard location *(BASE_DIR*\dpk\puppet\production\data) on the host. If not, answer *y* (yes) to install the Puppet software and *n* to abort the PeopleSoft environment setup process. The default action (if nothing is entered at the prompt) is to install the software.

   If there is any error during the Puppet software installation, the script aborts the setup process. Review the log

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file in *DPK_INSTALL/*setup for the errors. If there are missing operating system packages, you will need to carry out additional steps.

See Obtaining Operating System Packages Required for Puppet.

```
Verifying if Puppet Software is Installed:

Puppet Software is not installed on the Host. If this Host is
used to setup a PeopleSoft environment, Puppet Software should
be Installed.

Do you want to proceed with the Puppet Installation? [Y|n]: y

Installing Puppet Software on the Host:                      [  OK  ]
```

The script verifies if necessary eYAML files are installed.

```
Verifying if eYAML Hiera Backend is Installed:               [  OK  ]
```

The script verifies if the DPKs are available in *DPK_INSTALL*, and aborts with the message [FAILED] if they are not.

```
Preparing the Windows 2012Server VM for PeopleSoft Environment:

Checking if PeopleSoft DPKs are Present:                      [  OK  ]
```

6. At the following prompt, enter a location that is accessible to the host to be used as the PeopleSoft base directory.

   The base directory is used to extract the PeopleSoft DPKs as well as for deploying PeopleSoft components. When entering the path for the base folder, use forward slashes (/). The folder C:/psft is used in this example. Enclose any names with special characters in double quotes. Do not use a name for the base folder that begins with a number.

   ```
   The base folder is used to extract the PeopleSoft DPKs. It is also
   used to deploy the PeopleSoft components. This folder should be
   accessible on the Windows VM, must have write permission and should
   have enough free space.

   Enter the PeopleSoft Base Folder : C:/psft
   Are you happy with your answer? [Y|n|q]:
   ```

   The script validates if there is enough free space available under the specified base directory for the PeopleSoft environment. The PeopleSoft environment setup is aborted if there is not enough free space.

   Note. A full setup of a PeopleSoft environment (database tier and mid-tier) requires about 150 GB of disk space.

   ```
   Checking if the Base Folder has Enough Free Space:          [  OK  ]
   ```

   The script creates the following three sub-directories under the user provided base directory, *BASE_DIR*:

   - *BASE_DIR*\dpk

     The script uses this directory to extract the archives from the PeopleSoft DPKs.

   - *BASE_DIR*\pt

     The script uses this directory to deploy PeopleSoft PeopleTools, PeopleSoft application, and mid-tier software.

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- *BASE_DIR*\db

  The script uses this directory to deploy Oracle database server and deploy the PeopleSoft database data files.

7. Review the status messages as the script validates the manifest information.

```
Validating the Manifest Information in PeopleSoft DPKs:        [  OK  ]
```

8. Review the status messages as the script extracts the archives from the DPKs.

```
Extracting the PeopleSoft DPK Archives in the Windows VM:
Extracting the Oracle Database Server DPK Archive:              [  OK  ]
Extracting the PeopleSoft PeopleTools Server DPK Archives:      [  OK  ]
Extracting the PeopleSoft <Product> Application DPK Archives:   [  OK  ]

Extracting the 8.57 PeopleSoft PeopleTools Client DPK Archive:  [  OK  ]
Extracting the 8.56 PeopleSoft PeopleTools Client DPK Archive:  [  OK  ]
Extracting the 8.55 PeopleSoft PeopleTools Client DPK Archive:  [  OK  ]
Extracting the Oracle Database Client DPK Archive:              [  OK  ]
```

9. Review the status messages as the script sets up the Puppet file system.

   The script sets up Puppet on the host or VM. It then copies the PeopleSoft Puppet modules to the standard location *(BASE_DIR/*production/puppet/data) and updates the YAML files to reflect the type of PeopleSoft environment setup.

```
Setting up Puppet on the Host:
Generating eYAML Hiera Backend Encryption Keys:             [  OK  ]
Updating the Puppet Hiera YAML Files in the Windows VM:     [  OK  ]
Updating the Role in Puppet Site File for the Windows VM:   [  OK  ]
```

10. Enter PUM as the installation type:

```
Enter the PeopleSoft installation [PUM or FRESH] type [PUM]: PUM
```

11. Enter a name for the database, such as HCM92, following the guidelines in the prompt., or press ENTER to accept the default.

```
Enter a new PeopleSoft database name. Ensure that the database
name start with a letter and contains only uppercase letters and
numbers and is no more than 8 characters in length [HCM92U26]:
```

12. Enter a port number for the database listener, or press ENTER to accept the default, 1521.

```
Enter the PeopleSoft database listener port [1521]: 1522
```

13. Enter a password for the database SYS or SYSTEM user, following the guidelines in the prompt, and enter again on the next line.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

```
Enter a new PeopleSoft database admin users [SYS/SYSTEM] password.
Ensure that the password is between 8 and 30 characters in length
with at least one lowercase letter, one uppercase letter, one number
and one special character (_,-,#):
Re-Enter the database admin users password:
```

14. Enter the PeopleSoft connect ID, following the guidelines in the prompt.

    Press ENTER to accept the default, people.

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```
Enter a new PeopleSoft database Connect ID. Ensure that the ID
contains only alphanumeric characters and is at most 8 characters
in length [people]:
```

15. Enter a password for the PeopleSoft Connect ID, following the guidelines in the prompt, and enter again on the next line.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

```
Enter a new PeopleSoft database Connect ID [people] password. Ensure
the password contains only alphanumeric characters and is between 6
and 30 characters in length:
Re-Enter the PeopleSoft Connect ID password:
```

16. Enter a password for the PeopleSoft database access ID, following the guidelines in the prompt, and enter again on the next line.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

```
Enter a new PeopleSoft database Access ID [SYSADM] password. Ensure
the password contains only alphanumeric characters and is between 6
and 30 characters in length:
Re-Enter the PeopleSoft Access ID password:
```

17. Enter a password for the PeopleSoft user, or operator ID, such as VP1 or PS, using the guidelines in the prompt, and enter again on the next line.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

```
Enter a new PeopleSoft database Operator ID [VP1] password. Ensure
the password contains only alphanumeric characters and is between 1
and 32 characters in length:
Re-Enter the PeopleSoft Operator ID password:
```

18. Enter the Application Server Domain Connection password, following the guidelines in the prompt.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

Note. This is an optional password. If no password is entered, the connection between Web Server and Application Server will not be password protected.

```
Optional] Enter a new Application Server Domain connection password.
Ensure the password contains only alphanumeric characters and
is between 8 and 30 characters in length:
Re-Enter the Application Server Domain connection password:
```

19. Enter the Oracle WebLogic Server Admin Password, following the guidelines in the prompt.

    The password is not visible as you type, and the window does not display masking characters as you type. There is no default password.

```
Enter a new WebLogic Server Admin user [system] password. Ensure
that the password is between 8 and 30 characters in length with at
least one lowercase letter, one uppercase letter, one number or one
one special character (!@#$%^&):
```

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```
Re-Enter the WebLogic Server Admin user password:
```

20. Enter a password for the PeopleSoft Web Profile user, following the guidelines in the prompt, and enter again on the next line.

    Note. The guideline in the prompt for the PTWEBSERVER user password does not allow special characters. However, the PeopleSoft system does allow special characters for the PTWEBSERVER password. If you want to change the password to include special characters, you have the option to do so in the PeopleSoft Pure Internet Architecture (PIA) after you complete the installation and domain creation.

    See *PeopleTools: Portal Technology,* "Working with Passwords."

```
Enter a new PeopleSoft WebProfile user [PTWEBSERVER] password. Ensure
the password contains only alphanumeric characters and is between 6
and 32 characters in length:
Re-Enter the PeopleSoft WebProfile user password:
```

21. Enter a password for the PeopleSoft Integration Gateway user, following the guidelines in the prompt, and enter again on the next line.

    Note. The guideline in the prompt for the Integration Gateway user password does not allow special characters. However, the PeopleSoft system does allow special characters for the Integration Gateway user password. If you want to change the password to include special characters, you have the option to do so in the PeopleSoft Pure Internet Architecture (PIA) after you complete the installation and domain creation.

    See *PeopleTools: Portal Technology,* "Working with Passwords."

```
Enter the PeopleSoft Integration Gateway user [administrator]:
Enter the PeopleSoft Integration Gateway user [administrator] password.
Ensure the password contains only alphanumeric characters
and is between 8 and 30 characters in length:
Re-Enter the PeopleSoft Integration Gateway user password:
```

22. If you want to change any of the answers to the previous questions, enter *n* (no) at the following prompt, or enter *y* (yes) to continue:

```
Are you happy with your answers? [y|n]: y
```

23. Review the status messages as the script updates the Puppet YAML files with the user input.

```
Encrypting the Passwords in the User Data:                  [  OK  ]
Updating the Puppet Hiera YAML Files with User Data:        [  OK  ]
```

24. If you want to continue running the initialization script using the default configuration, answer *y* (yes) to the following prompt, and continue with the next step.

    Note. If you select the default initialization process, the PeopleSoft environment is created with one Application Server domain, one Process Scheduler domain, and one PIA domain.

    If you want to customize the PeopleSoft environment, answer *n* (no) to stop the script.

```
The bootstrap script is ready to deploy and configure the PeopleSoft
environment using the default configuration defined in the Puppet
Hiera YAML files. You can proceed by answering 'y' at the following
prompt. And, if you want to customize the environment by overriding
the default configuration, you can answer 'n'. If you answer 'n', you
```


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```
should follow the instructions in the PeopleSoft Installation Guide
for creating the customization Hiera YAML file and running the Puppet
'apply' command directly to continue with the setup of the PeopleSoft
environment.
Do you want to continue with the default initialization process? [y|n]: ⇒
y
```

25. Review the status of the setup steps.

    A message of [OK] indicates that the profile has been applied successfully while a message [FAILED] indicates that the profile application failed.

    The script stops and exits the first time a profile application fails, and displays an error message. This example shows the error message after the first step failed:

```
Deploying Application Components:                              [FAILED]

The initialization of PeopleSoft environment setup failed. Check the
log file [C:\DPK_INSTALL\setup\psft_dpk_setup.log] for the errors.
After correcting the errors, run the following commands to continue
with the setup of PeopleSoft environment.
1. cd  /d C:\psft\dpk\puppet\production\manifests
2. "C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply --confdir=⇒
C:\psft\dpk\puppet site.pp --debug --trace
Exiting the PeopleSoft environment setup process.
```

    See *PeopleSoft PeopleTools 8.57 Deployment Packages Installation.*

    Upon successful completion, the DPK setup script displays the following message:

```
Deploying Application Components:                              [  OK  ]
Deploying PeopleTools Components:                              [  OK  ]
Deploying Oracle Database Server:                              [  OK  ]
Setting up PeopleSoft OS Users Environment:                    [  OK  ]
Setting up PeopleSoft Database:                                [  OK  ]
Setting up PeopleSoft Application Server Domain:               [  OK  ]
Setting up PeopleSoft Process Scheduler Domain:                [  OK  ]
Setting up PeopleSoft PIA Domain:                              [  OK  ]
Changing the Passwords for the Environment:                    [  OK  ]
Configuring Pre-Boot PeopleSoft Environment:                   [  OK  ]
Starting PeopleSoft Domains:                                   [  OK  ]
Configuring Post-Boot PeopleSoft Environment:                  [  OK  ]
Setting up Source Details for PeopleTools Client:              [  OK  ]
```

    The complete setup log is written to the file psft-dpk-setup.log in the same location as the DPK setup script.

Task 2-4-2: Setting Up the PeopleSoft Virtual Machine on a Linux Host Using the PeopleSoft Application DPK Setup Script as the Root User

Use this procedure on a virtual or physical Linux host, or on Oracle Exalogic Elastic Cloud. This procedure assumes that:

- You are setting up the full environment for the Native OS Update Image on a single Linux host.
- You have downloaded all of the required DPKs and saved them in a location accessible to the Linux host, referred to as *DPK_INSTALL*.

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For this task, download the Native OS DPKs for Linux.

See Understanding the PeopleSoft DPK Setup DPK.

Note. After the DPK setup script extracts the downloaded zip files, it will delete the original zip files in *DPK_INSTALL.* If you want to save the original zip files, make a backup copy in a different folder.

- There is at least 150 GB available space on the Linux host for the full-tier PeopleSoft environment.
- There is a writable directory available for the home for the users that own the PeopleSoft runtime. The default is /home.

Important! The DPK setup script installs a read-only *PS_HOME* under the base directory *(BASE_DIR)* that you specify during the setup process in this section. Do not specify the directory for the users' home to be the same as the *PS_HOME.* The PeopleSoft DPKs are not supported for a setup where the users' home directory is the same as the *PS_HOME* directory.

- The user running the script *must have root permission.*

  See the appendix "Deploying on a Linux Host with a Non-Root User" for instructions on installing the PeopleSoft environment with a non-root user.

1. Extract the first zip file *(FILENAME*_1of*n*.zip).

   Note. It is a good idea to extract into the same directory where you downloaded the zip files, *DPK_INSTALL.*

   The extraction creates the *DPK_INSTALL/*setup folder and other files.

2. Open a terminal window as a user with root access, and run the script *DPK_INSTALL/*setup/psft-dpk-setup.sh; for example:

   ```
   sh ./psft-dpk-setup.sh
   ```

3. Wait while the script locates the valid PeopleSoft zip files and extracts them.

   The system displays messages indicating the steps in the setup process. The success or failure of each step is indicated by [OK] or [FAILED].

   The script locates the valid PeopleSoft zip files and extracts them.

   ```
   Starting the PeopleSoft Environment Setup Process:

   Extracting the Zip File FILENAME_1of11.zip:    [  OK  ]
   Extracting the Zip File FILENAME_2of11.zip:    [  OK  ]
   ...
   Extracting the Zip File FILENAME_11of11.zip:   [  OK  ]
   ```

4. Specify whether to install the Puppet software if necessary at the next prompt.

   The script verifies if Puppet software is installed in the standard location *(BASE_DIR/*dpk/puppet/production/data) on the host. If not, answer *y* (yes) to install the Puppet software and *n* to abort the PeopleSoft environment setup process. The default action (if nothing is entered at the prompt) is to install the software.

   If there is any error during the Puppet software installation, the script aborts the setup process. Review the log file in *DPK_INSTALL/*setup. If there are missing operating system packages, you will need to carry out additional steps.

   See Obtaining Operating System Packages Required for Puppet.

   ```
   Verifying if Puppet Software is Installed on the Host:
   ```


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```
Puppet Software is not installed on the Host. If this Host is
used to setup a PeopleSoft environment, Puppet Software should
be Installed.

Do you want to proceed with the Puppet Installation? [Y|n]:

Installing Puppet Software on the Host:                    [  OK  ]
```

The script verifies if the DPKs are available in *DPK_INSTALL*, and aborts with the message [FAILED] if they are not.

```
Preparing the Linux VM for PeopleSoft Environment:

Checking if PeopleSoft DPKs are Present in the Filesystem:   [  OK  ]
```

5. At the following prompt, enter a location that is accessible to the host to be used as the PeopleSoft base directory.

   The base directory is used to extract the PeopleSoft DPKs as well as for deploying PeopleSoft components. When entering the path for the base folder, use forward slashes (/). The directory /cs1/psft is used in this example. Enclose any names with special characters in double quotes. Do not use a name for the base folder that begins with a number.

```
PeopleSoft base Filesystem is used to extract the PeopleSoft DPKs as
well as for deploying PeopleSoft Components. This Filesystem should
be accessible on the VM and must have write permission, and should
have enough free space.

Please Enter the PeopleSoft Base Filesystem : /cs1/psft
Are you happy with your answer? [y|n|q]: y
```

   The script validates if there is enough free space available under the specified base directory for the PeopleSoft environment. The PeopleSoft environment setup is aborted if there is not enough free space.

   Note. A full setup of a PeopleSoft environment (database and mid-tier) takes about 150 GB of disk space.

```
Checking if PeopleSoft Base Filesystem has Enough Free Space: [  OK  ]
```

   The script creates the following three sub-directories under the user provided base directory, *BASE_DIR*:

   - *BASE_DIR*/dpk

     The script uses this directory to extract the archives from the PeopleSoft DPKs.

   - *BASE_DIR*/pt

     The script uses this directory to deploy PeopleSoft PeopleTools and PeopleSoft application components.

   - *BASE_DIR*/db

     The script uses this directory to deploy Oracle database server and deploy the PeopleSoft database data files. It also uses this directory to set up Oracle inventory if there is no inventory present on the host.

6. If the default home directory is not writable, enter a new location at the following prompt.

   The PeopleSoft environment setup using DPKs creates local users on the host. These users deploy the PeopleSoft components and own the PeopleSoft runtime domains. The script checks if the default home directory for the PeopleSoft users (/home) is writable. If not, it will prompt the user to enter a new location to be used for creating the home directories for these local users.

```
Checking if Default User Home Directory /home is Writable:  [FAILED]
```

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```
The PeopleSoft environment setup creates local users on the VM.
The default Home directory for these users is /home. Please
ensure this directory is writable or provide a new directory on the
VM that is writable.

Please Enter a directory on the VM that is writable [/home]: /ds1
Are you happy with your answer? [y|n|q]:
```

If the /home directory is writable, no response is required.

```
Checking if Default User Home Directory /home is Writable:    [  OK  ]
```

7. Review the status messages as the script validates the manifest information.

```
Validating the Manifest Information in PeopleSoft DPKs:        [  OK  ]
```

8. Review the status messages as the script extracts the archives from the DPKs.

```
Extracting the PeopleSoft DPK Archives in the Windows VM:
Extracting the Oracle Database Server DPK Archive:              [  OK  ]
Extracting the PeopleSoft PeopleTools Server DPK Archives:      [  OK  ]
Extracting the PeopleSoft <Product> Application DPK Archives:   [  OK  ]

Extracting the 8.57 PeopleSoft PeopleTools Client DPK Archive:  [  OK  ]
Extracting the 8.56 PeopleSoft PeopleTools Client DPK Archive:  [  OK  ]
Extracting the 8.55 PeopleSoft PeopleTools Client DPK Archive:  [  OK  ]
Extracting the Oracle Database Client DPK Archive:              [  OK  ]
```

9. Review the status messages as the script sets up the Puppet file system.

The script sets up Puppet on the host or VM. It then copies the PeopleSoft Puppet modules to the standard location *(BASE_DIR*/dpk/puppet/production) and updates the YAML files to reflect the type of PeopleSoft environment setup.

```
Setting up Puppet on the Host:
Generating eYAML Hiera Backend Encryption Keys:              [  OK  ]
Updating the Puppet Hiera YAML Files in the Windows VM:      [  OK  ]
Updating the Role in Puppet Site File for the Windows VM:    [  OK  ]
```

10. Enter PUM as the installation type:

```
Enter the PeopleSoft installation [PUM or FRESH] type [PUM]: PUM
```

11. Enter a name for the database, such as HCM92, following the guidelines in the prompt, or press ENTER to accept the default.

```
Enter a new PeopleSoft database name. Ensure that the database
name start with a letter and contains only uppercase letters and
numbers and is no more than 8 characters in length [HCM92U26]:
```

12. Enter a port number for the database listener, or press ENTER to accept the default, 1521.

```
Enter the PeopleSoft database listener port [1521]: 1522
```

13. Enter a password for the database SYS or SYSTEM user, following the guidelines in the prompt, and enter again on the next line.

The password is not visible as you type, and the window does not display masking characters. There is no default password.

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```
Enter a new PeopleSoft database admin users [SYS/SYSTEM] password.
Ensure that the password is between 8 and 30 characters in length
with at least one lowercase letter, one uppercase letter, one number
and one special character (_,-,#):
Re-Enter the database admin users password:
```

14. Enter the PeopleSoft connect ID, following the guidelines in the prompt.

    Press ENTER to accept the default, people.

    ```
    Enter a new PeopleSoft database Connect ID. Ensure that the ID
    contains only alphanumeric characters and is at most 8 characters
    in length [people]:
    ```

15. Enter a password for the PeopleSoft Connect ID, following the guidelines in the prompt, and enter again on the next line.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

    ```
    Enter a new PeopleSoft database Connect ID [people] password. Ensure
    the password contains only alphanumeric characters and is between 6
    and 30 characters in length:
    Re-Enter the PeopleSoft Connect ID password:
    ```

16. Enter a password for the PeopleSoft database access ID, following the guidelines in the prompt, and enter again on the next line.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

    ```
    Enter a new PeopleSoft database Access ID [SYSADM] password. Ensure
    the password contains only alphanumeric characters and is between 6
    and 30 characters in length:
    Re-Enter the PeopleSoft Access ID password:
    ```

17. Enter a password for the PeopleSoft user, or operator ID, such as VP1 or PS, using the guidelines in the prompt, and enter again on the next line.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

    ```
    Enter a new PeopleSoft database Operator ID [VP1] password. Ensure
    the password contains only alphanumeric characters and is between 1
    and 32 characters in length:
    Re-Enter the PeopleSoft Operator ID password:
    ```

18. Enter the Application Server Domain Connection password, following the guidelines in the prompt.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

    Note. This is an optional password. If no password is entered, the connection between Web Server and Application Server will not be password protected.

    ```
    [Optional] Enter a new Application Server Domain connection password.
    Ensure the password contains only alphanumeric characters and is
    between 8 and 30 characters in length:
    Re-Enter the Application Server Domain connection password:
    ```

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19. Enter the Oracle WebLogic Server Admin Password, following the guidelines in the prompt.

    The password is not visible as you type, and the window does not display masking characters as you type. There is no default password.

```
Enter a new WebLogic Server Admin user [system] password. Ensure
that the password is between 8 and 30 characters in length with at
least one lowercase letter, one uppercase letter, one number or one
one special character (!@#$%^&):
Re-Enter the WebLogic Server Admin user password:
```

20. Enter a password for the PeopleSoft Web Profile user, following the guidelines in the prompt, and enter again on the next line.

    Note. The guideline in the prompt for the PTWEBSERVER user password does not allow special characters. However, the PeopleSoft system does allow special characters for the PTWEBSERVER password. If you want to change the password to include special characters, you have the option to do so in the PeopleSoft Pure Internet Architecture (PIA) after you complete the installation and domain creation.

    See *PeopleTools: Portal Technology,* "Working with Passwords."

```
Enter a new PeopleSoft WebProfile user [PTWEBSERVER] password. Ensure
the password contains only alphanumeric characters and is between 6
and 32 characters in length:
Re-Enter the PeopleSoft WebProfile user password:
```

21. Enter a password for the PeopleSoft Integration Gateway user, following the guidelines in the prompt, and enter again on the next line.

    Note. The guideline in the prompt for the Integration Gateway user password does not allow special characters. However, the PeopleSoft system does allow special characters for the Integration Gateway user password. If you want to change the password to include special characters, you have the option to do so in the PeopleSoft Pure Internet Architecture (PIA) after you complete the installation and domain creation.

    See *PeopleTools: Portal Technology,* "Working with Passwords."

```
Enter the PeopleSoft Integration Gateway user [administrator]:
Enter the PeopleSoft Integration Gateway user [administrator] password.
Ensure the password contains only alphanumeric characters
and is between 8 and 30 characters in length:
Re-Enter the PeopleSoft Integration Gateway user password:
```

22. If you want to change any of the answers to the previous questions, enter *n* (no) at the following prompt, or enter *y* (yes) to continue:

```
Are you happy with your answers? [y|n]: y
```

23. Review the status messages as the script updates the Puppet YAML files with the user input.

```
Encrypting the Passwords in the User Data:                  [  OK  ]
Updating the Puppet Hiera YAML Files with User Data:        [  OK  ]
```

24. If you want to continue running the initialization script using the default configuration, answer *y* (yes) to the following prompt, and continue with the next step.

    Note. If you select the default initialization process, the PeopleSoft environment is created with one Application Server domain, one Process Scheduler domain, and one PIA domain.

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If you want to customize the PeopleSoft environment, answer *n* (no) to stop the script.

```
The bootstrap script is ready to deploy and configure the PeopleSoft
environment using the default configuration defined in the Puppet
Hiera YAML files. You can proceed by answering 'y' at the following
prompt. And, if you want to customize the environment by overriding
the default configuration, you can answer 'n'. If you answer 'n', you
should follow the instructions in the PeopleSoft Installation Guide
for creating the customization Hiera YAML file and running the Puppet
'apply' command directly to continue with the setup of the PeopleSoft
environment.
Do you want to continue with the default initialization process? [y|n]: ⇒
y
```

25. Review the status of the setup steps.

    A message of [OK] indicates that the profile has been applied successfully while a message [FAILED] indicates that the profile application failed.

    The script stops and exits the first time a profile application fails, and displays an error message. This example shows the error message after the first step:

```
Setting Up System Settings:                                [FAILED]

The initialization of PeopleSoft environment setup failed. Check the
log file [/DPK_INSTALL/setup/psft_dpk_setup.log] for the errors.
After correcting the errors, run the following commands to continue
with the setup of PeopleSoft environment.
1. cd /cs1/psft/dpk/puppet/production/manifests
2. /opt/oracle/puppetlabs/bin/puppet apply --confdir=/cs1/psft/dpk⇒
/puppet site.pp --debug --trace
Exiting the PeopleSoft environment setup process.
```

    See *PeopleSoft PeopleTools 8.57 Deployment Packages Installation.*

    Upon successful completion, the DPK setup script displays the following message:

```
Setting Up System Settings:                                [  OK  ]
Deploying Application Components:                          [  OK  ]
Deploying PeopleTools Components:                          [  OK  ]
Deploying Oracle Database Server:                          [  OK  ]
Setting up PeopleSoft OS Users Environment:                [  OK  ]
Setting up PeopleSoft Database:                            [  OK  ]
Setting up PeopleSoft Application Server Domain:           [  OK  ]
Setting up PeopleSoft Process Scheduler Domain:            [  OK  ]
Setting up PeopleSoft PIA Domain:                          [  OK  ]
Changing the Passwords for the Environment:                [  OK  ]
Configuring Pre-Boot PeopleSoft Environment:               [  OK  ]
Starting PeopleSoft Domains:                               [  OK  ]
Configuring Post-Boot PeopleSoft Environment:              [  OK  ]
Setting up Source Details for PeopleTools Client:          [  OK  ]
```

    The complete setup log is written to the file psft-dpk-setup.log in the same location as the DPK setup script.

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Task 2-4-3: Setting Up the PeopleSoft Virtual Machine on a Linux Host Using the PeopleSoft Application DPK Setup Script as a Non-Root User

You have the option of downloading the DPK zip files and deploying the PeopleSoft environment as a non-root user. For information, see the appendix "Deploying on a Linux Host as a Non-Root User."

Task 2-4-4: Obtaining Operating System Packages Required for Puppet

The Puppet software used for the DPK deployment is dependent on certain OS-level packages, which may not be present in the delivered DPKs. In this case, you can use the information in the log file generated when you run the DPK setup script to determine which packages are needed. It is the responsibility of the user to obtain and install the required packages.

This is a one-time requirement, for a specific Puppet version, the first time the host is set up. If you are using a virtual Microsoft Windows or Linux OS, depending upon your organization's standards, you can add the missing packages to the standard OS from which you instantiate VMs, or create a custom OS image and re-use it later.

1. If you are using a virtual OS platform, create a new VM instance.
2. Use the DPK setup script, `psft-dpk-setup.bat` (Microsoft Windows), or `psft-dpk-setup.sh` (Linux) to deploy on the host.
3. Review the deployment log file in *DPK_INSTALL*\setup.

   The log file will list any missing OS packages.
4. Remove the PeopleSoft environment created by the DPK deployment.

   On Microsoft Windows, use this command:

   ```
   psft-dpk-setup.bat --cleanup
   ```

   On Linux, use this command:

   ```
   ./psft-dpk-setup.sh --cleanup
   ```

   See "Using and Maintaining the PeopleSoft Environment," Removing a Deployed PeopleSoft Environment.
5. If you are using a virtual OS platform, recreate the VM instance.
6. Obtain and load the missing OS packages on the new OS instance.

   See Puppet Labs online documentation, https://docs.puppet.com/puppet.
7. Rerun the DPK setup script.

   The log file should not list any missing packages.

Task 2-5: Using the Samba Shared Drive Folders (Linux)

This section discusses:

- Understanding Samba and File System Access
- Accessing the Samba Shared Drive Folders on the PeopleSoft Virtual Machine

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Understanding Samba and File System Access

The Linux file system location in the virtual machine is made available using Samba. This makes files residing in the Oracle Linux OS on the virtual machine accessible to Microsoft Windows systems. The files are accessible to the host Microsoft Windows machine when the network configuration is host-only, and both the host and your network when the network configuration is bridged.

The Samba shared drives are available for virtual machines on Oracle Linux OS, whether they were deployed on VirtualBox on a Microsoft Windows Host, or directly on an Oracle Linux machine.

Note. Samba is Open Source software under the GNU General Public licence that allows for interoperability between Linux and UNIX servers and Microsoft Windows-based clients.

By default Samba is set up to make some of the installation directories under the /opt/oracle/psft/pt/ directory of the virtual machine available to the host as shared drives. The repository directory for Change Assistant is also made available. You can map to these shared drives from the host machine or other Microsoft Windows machines. A later section describes how to access the shared drives and map to them.

See Accessing the Shared Drive Folders on the PeopleSoft Virtual Machine

The following table describes the Oracle Linux directories on the virtual machine, and the shared drive folders that are made available to a Microsoft Windows:

Directory on Oracle Linux VM	Shared Drive Folder on Microsoft Windows	Description
/opt/oracle/psft/pt/tools_client	tools_client	This directory includes installation software for all current PeopleTools client versions, and the Oracle database client.
/opt/oracle/psft/pt/<*Product*>_pi_home <*Product*> is an abbreviation for the PeopleSoft application, such as hcm for PeopleSoft Human Capital Management.	pi_home	Change Assistant file repository

See *PeopleTools: Change Assistant and Update Manager,* "Configuring the Microsoft Windows Client Running Change Assistant" for more information on selecting the appropriate client installations for your environment.

As delivered, the Samba shared drive folders are configured as read only. You may modify the Samba configuration file in /etc/samba/smb.conf to change which content is accessed from outside the guest OS. See the samba man page in the virtual machine and the web site www.samba.org for more information about configuration options for Samba.

See Also

"Deploying on a Linux Host as a Non-Root User," Running the DPK Setup Post-Configuration Step

Task 2-5-1: Accessing the Samba Shared Drive Folders on the PeopleSoft Virtual Machine

Use these instructions to access the shared drive folders in the file system made available on the virtual machine.

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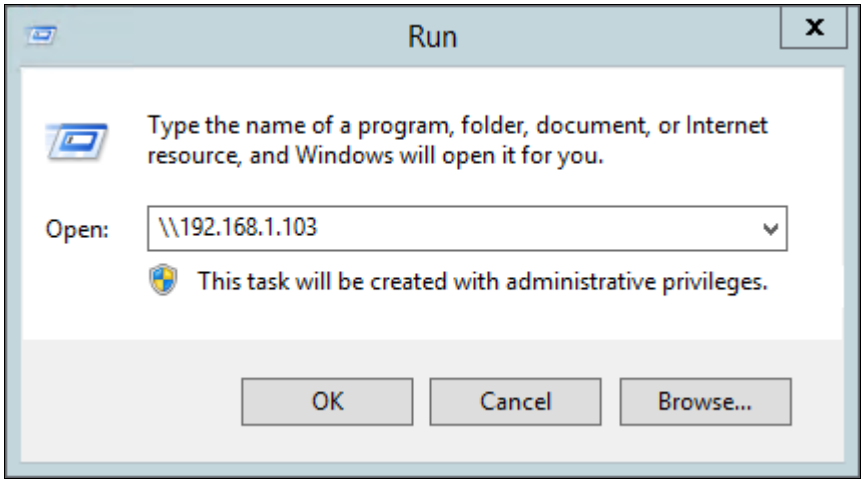
From Windows Explorer access the virtual appliance file system from your Microsoft Windows host by selecting Start, Run, and entering the Microsoft Windows UNC path containing your virtual machine IP address, as shown in this example:



Microsoft Windows Run dialog box with IP address

This is the IP address used for your virtual machine in the section Using the VirtualBox Shell to Set Up the PeopleSoft Virtual Machine.

Windows Explorer opens a window displaying a file system location within the virtual machine with several share drives. Use the IP address used for your virtual machine to map to one of the shared drive folders. Use the format

\\<*VM_IP_address*>\<*folder_name*>; for example, \\192.168.1.103\tools_client.

The following example shows the tools_client share drive in a Windows Explorer window. The share drive includes the SetupPTClient.bat script, tnsnames.ora and source.properties files, and folders for client-855, client-856, and client-857.

On Microsoft Windows 7 (64–bit) operating systems there are certain network security policy settings that may prevent you from accessing the Samba shared drives. If you find that you can see the shared drives in Windows Explorer but cannot access any of the files contained within them the following procedure describes a workaround which may be used to gain access. You should check with your network administrator before attempting to implement this workaround. An alternative to this workaround would be to use SFTP to copy the shared folder contents to local folders on your machine.

1. Select Start, Run, and enter regedit.exe to open the Microsoft Windows registry.
2. Locate this folder:

   HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\LanmanWorkstation\Parameters
3. For the subkey RequireSecuritySignature, change the value from 1 to 0.
4. Reboot the machine.

Task 2-6: Deploying the PeopleTools Client DPKs in Update Manager Mode

The PeopleSoft virtual machine environment includes a client installer for setting up PeopleTools client tools such as Change Assistant, Configuration Manager, and Application Designer, as well as an Oracle database client.

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Oracle strongly recommends that you dedicate a Microsoft Windows machine for the PeopleTools client for each PeopleSoft Update Image (PI). This should be a machine that is not used for other PeopleSoft purposes. You should install or upgrade the PeopleTools client tools each time the PeopleTools patch release increments as noted in the PI manifest.

In addition to the Update Manager Mode deployment described in this section, it is possible to deploy the PeopleTools Client DPK in standalone mode. Standalone deployment can be used, for example, to install Change Assistant without carrying out a full deployment.

See *PeopleSoft PeopleTools 8.57 Deployment Packages Installation,* PeopleSoft PeopleTools Patches Home Page, My Oracle Support, Doc ID 2062712.2.

This section assumes that:

- You downloaded the PeopleSoft DPKs to a location knows as *DPK_INSTALL* on a Microsoft Windows computer.

  The downloaded zip files include PeopleTools client installations for all supported PeopleSoft PeopleTools versions.
- You completed the setup of the PeopleSoft virtual machine as described in this chapter.

  If you deployed on a Linux operating system, either using VirtualBox or using the DPK setup script, the PeopleSoft virtual machine setup creates a Samba Shared Drive folder system which you access to carry out this procedure.

  See Using the Samba Shared Drive Folders.

  If you deployed on a Microsoft Windows operating system, the DPK setup script created a tools_client folder under *BASE_DIR*\pt. For example, if you used the default name for the base directory, the tools_client location is C:\psft\pt\tools_client.
- To run the script you must have *administrative permission.*

To set up the PeopleTools Client DPK:

1. Verify that the Microsoft Windows folders options are set to show known file extensions.

   Hidden file extensions may interfere with the script. To show file extensions, for example:

   Note. Depending upon the Microsoft Windows operating system, you may use a different method to set the folder options.

   ---

   a. Open Windows Explorer and select View, Options.

   b. On the Folder Options dialog box, select the View tab.

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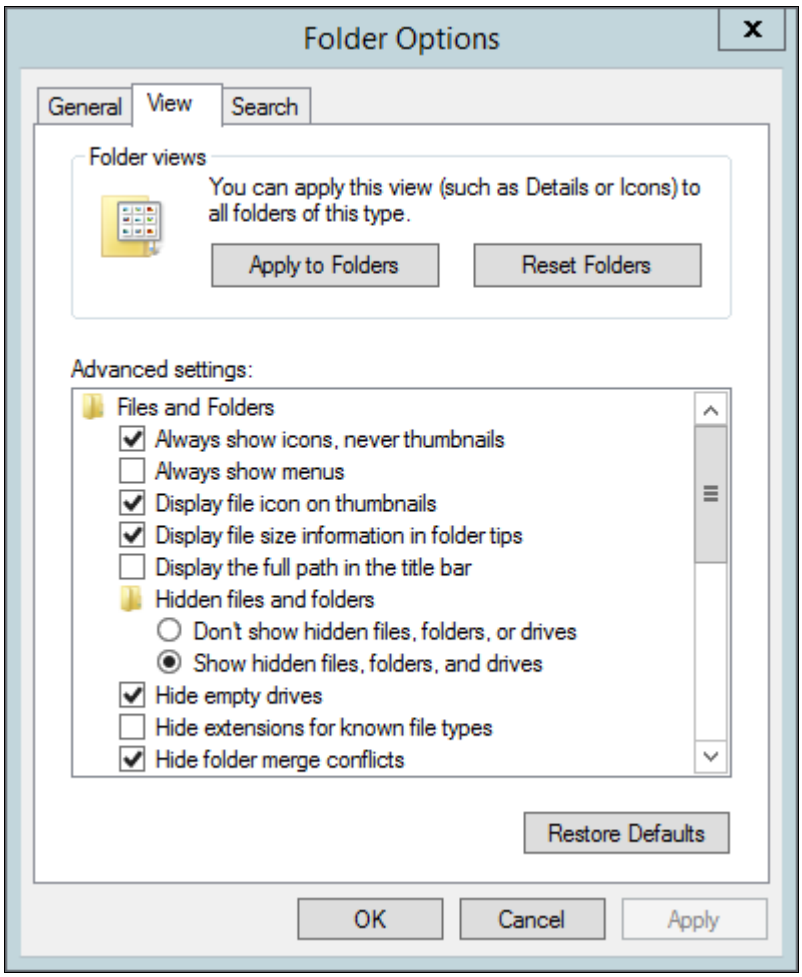
c. Verify that the check box for Hide extensions for known file types is not selected, as shown in this example:



Folder Options dialog box

d. Click OK to close the box.

e. Alternatively, on the View toolbar, verify that the check box for File Name Extensions is selected.

2. Open a command prompt, running as administrator.

3. If you deployed the PeopleSoft environment on a Microsoft Windows operating system, on the Microsoft Windows machine you have designated for the PeopleTools client, go to the *BASE_DIR*\pt\tools_client folder.

   If you deployed the PeopleSoft environment on a Linux operating system, map a drive to the Samba Share Drive folder for the PeopleSoft virtual machine.

   For example, map drive T: to \\192.168.1.103.

   The tools_client folder includes the following:

   - client-855

     The client-855 folder includes a Readme file, a manifest with version information, archives, and scripts for deployment of the PeopleSoft PeopleTools 8.55 client home folder.

   - client-856

     The client-856 folder includes a Readme file, a manifest with version information, archives, and scripts for deployment of the PeopleSoft PeopleTools 8.56 client home folder.

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- client-857

  The client-857 folder includes a Readme file, a manifest with version information, archives, and scripts for deployment of the PeopleSoft PeopleTools 8.57 client home folder.

- oracle-client

  The oracle-client folder includes a Readme file, a manifest with version information, archives, and scripts for deployment of the Oracle 12c database client home folder.

- SetupPTClient.bat **—** Interactive script that installs the PeopleSoft PeopleTools components such as Application Designer and Change Assistant.

  You supply information such as the PeopleSoft PeopleTools release and the RDBMS platform.

- source.properties **—** A text file that includes information required for the setup, including the PeopleTools patch version and the URL required to sign in to PIA.

  Important! Do not edit this file. The information is supplied by the setup scripts.

  Here is a sample source.properties file:

```
TOOLSCLIENT_VERSION=8.57.05
 PIA_URL=http://<host_hame>:8000/ps/signon.html
 DB_USER=VP1
 DB_USER_PWD=
 CONNECT_USER=people
 CONNECT_USER_PWD=
 PI_HOME=C:/psft/pt/hcm_pi_home
 ACCESS_ID=accessid
 ACCESS_PWD=
```

- tnsnames.ora **—** Oracle database connectivity file.

  The file includes the information for the source (PI) database.

  Note that the CONNECT_DATA entry uses SERVICE_NAME rather than SID as in previous releases. When setting up the PI, if you do not replace your existing tnsnames.ora entry with the one described here, you must change this setting in order for your PeopleTools or Change Assistant clients to connect to the PUM source database within the 12c database server. For example:

```
HCMDB =
   (DESCRIPTION =
      (ADDRESS = (PROTOCOL = TCP)(HOST = server1.example.com)(PORT =⇒
 1522))
      (CONNECT_DATA =
       (SERVER = DEDICATED)
       (SERVICE_NAME = HCMDB)
     )
   )
```

  See the PeopleTools: Change Assistant and Update Manager product documentation for more information on setting up the client.

4. Go to the tools_client directory, and run the setup script:

```
SetupPTClient.bat
```

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Note. If you see an error message similar to "The application has failed to start because its side-by-side configuration is incorrect," it indicates that your machine does not include the necessary Microsoft C++ runtime libraries. Go to the Microsoft Web site, locate the Microsoft Visual C++ redistributable package for your system, and install as directed.

- The setup script deploys to drive C:\ by default. To deploy to a different drive, you can use the option `-d <drive>`:

  ```
  SetupPTClient.bat -d E
  ```

  This option installs all specified software (such as Change Assistant), installation and temporary directories, and log files to the specified drive, E:\ in this example. The drive can be any valid local or mapped shared drive.
- To enable logging, include the option `-l`:

  ```
  SetupPTClient.bat -l
  ```

5. Answer y (yes) at the following prompt to set up a PeopleTools Client to use with PUM:

   ```
   This script will guide you through the deployment of PeopleTools Client
   components for your environment.
   Is this deployment for a Update Manager Environment?
   A 'Y' will prompt you to setup a Target PeopleTools client
   deployment in  addition to the Source PeopleTools client.)
   [Y/N]: y
   ```

6. Answer *y* (yes) at the following prompt to set up a PeopleSoft PeopleTools client to connect to your target environment:

   ```
   Do you want to deploy Tools Client for Target (Y/N): y
   ```

7. At the following prompt, specify the version of the PeopleSoft PeopleTools for your target environment.

   The PI source always uses a PeopleSoft PeopleTools 8.57 client. The target database may use an earlier version. Select the option for the PeopleSoft PeopleTools release that the target database was built on. The options include the latest patches for the supported PeopleSoft PeopleTools releases. For example, if your target database was built on PeopleSoft PeopleTools 8.55.10, select option *1*, 8.55.24.

   Note. Oracle recommends that you install the PeopleTools client tools from the installation folders found on the latest PI in order to obtain the latest fixes. See your PI home page for release/patch information for the PeopleTools Client. The link for your PI home page can be found on PeopleSoft Update Manager Home Page, My Oracle Support, Doc ID 1641843.2.

   In this example, the target client selected is option *2*, 8.56.14. Choose the release/patch for your target environment.

   ```
   Setting up the Target PeopleTools client deployment.
    Please select a Target client to deploy:
   1. 8.55.24
   2. 8.56.14
   3. 8.57.01

   Enter your choice [1-3] : 2

   Target Tools Version:  8.56.14
   ```

8. Specify the RDBMS type for the target database.

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In this example, the target database RDBMS is option 1, Oracle.

```
Please Select the Database Platform:
1. Oracle
2. DB2 for LUW
3. Microsoft SQL Server
4. DB2 for zOS
Enter your choice [1-4] : 1
```

9. Review the setup steps.

```
Starting Tools Client Deployment!
Validating compatible Oracle DB Client for Target PeopleTools 8.56.14
Deploying Target PeopleTools 8.56.14 Client in C:\PT8.56.14_Client
Validating compatible Oracle DB Client for Source PeopleTools 8.57.01
Deploying Source PeopleTools 8.57.01 Client in C:\PT8.57.01_Client
Installing Change Assistant for PeopleTools 8.57.01 Client in
C:\Program Files\PeopleSoft\Change Assistant
Deployment of PeopleTools Clients and installation of
Change Assistant Complete.
Please launch Change Assistant to complete and
validate your Source and Target environment setup.
Tools Client Deployment Ended.
***** SetupPTClient ended at 18:17:21.15 ******
Please review C:\PeopleSoft\PTClientDeploy.log for
additional information.
```

The script uses the information you supplied and carries out the following validations and deployments:

- Oracle 12c database client for the source (PI)

  The setup process determines whether a 64-bit Oracle 12c database client is present on the Microsoft Windows client machine for connectivity to the source database. If not, the setup process installs it.

- Oracle 12c database client for the target database.

  If the target is an Oracle database, the setup process determines whether the correct Oracle database client is present. PeopleSoft PeopleTools 8.57, 8.56, and 8.55 require a 64-bit Oracle 12c database client installation. If the correct Oracle database client is not present, the setup process installs it.

- PeopleSoft PeopleTools Client for the source (PI).

  The source client tools are installed in C:\PT<*release_number*>_Client, where <release_number> refers to the PeopleSoft PeopleTools release and patch; for example, C:\PT8.57.01_Client.

- PeopleSoft PeopleTools Client for the target.

  The source client tools are installed in C:\PT<*release_number*>_Client, .where <release_number> refers to the PeopleSoft PeopleTools release and patch; for example, C:\PT8.56.14_Client.

- Change Assistant installation

  Change Assistant is installed in C:\Program Files\Peoplesoft\Change Assistant.

  If there is an earlier Change Assistant installation on the machine, the setup script removes it.

10. To review the log file for the setup process, go to %USERPROFILE%\AppData\Local\Temp\PeopleSoft\PTClientDeploy.log.

    For example, if the USERPROFILE environment variable is C:\Users\username, the log file location is C:\Users\username\AppData\Local\Temp\PeopleSoft\PTClientDeploy.log.

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Note. If you used the `-d <drive>` option to deploy to a drive other than drive C:\, the log file is found in <drive>:\Users\<username>\AppData\Local\Temp\PeopleSoft\PTClientDeploy.log and creates the directory if it does not exist.

The PTClientDeploy.log file includes a record of each of the steps in the PeopleTools Client deployment process. If any of the steps fail, a detailed error or warning message will be written to the same log file.

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Chapter 3

Using and Maintaining the PeopleSoft Environment

This chapter discusses:

- Using the PeopleSoft Installation
- Verifying the Elasticsearch Deployment on the VirtualBox Update Image
- Using COBOL
- Removing a Deployed PeopleSoft Environment
- Applying CPUs, POCs, and IDDAs
- Completing Post-Deployment Activities

Task 3-1: Using the PeopleSoft Installation

This section discusses:

- Accessing the PeopleSoft Environment
- Reviewing the Deployment File System
- Reviewing the DPK-Created Users for Root Deployments on Linux
- Working with PeopleSoft Utilities and Programs for Root Deployments on Linux

Task 3-1-1: Accessing the PeopleSoft Environment

To sign in to the deployed PeopleSoft environment in a browser (that is, use the PeopleSoft Pure Internet Architecture, or PIA), use a URL with this format:

http://<host_name>:<http_port>/<PIA_site_name>/signon.html

For example, for a deployment with the default port, 8000, and default PIA site name, ps, the URL would be http://server1.example.com:8000/ps/signon.html.

See the PeopleSoft Hosted Online Help, http://www.peoplesoftonlinehelp.com, for information on working with the components in a PeopleSoft installation.

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Task 3-1-2: Reviewing the Deployment File System

The PeopleSoft installation deployed by the PeopleSoft DPKs sets up an environment comprised of several directories. This table lists the directories with the location, contents of the directory, and the owner.

Directory	Description	Default Location	Access
PS_HOME	*PS_HOME* is a secure location for the PeopleTools binary installation files.	• On Native OS for Linux or Windows, <*BASE_DIR*>/ pt/ps_home <*ptools_patch_ver*> • On VirtualBox, /opt/oracle/psft/pt/ps_home<*ptools_patch_ver*> The descriptor <*ptools_patch_ver*> is the PeopleSoft PeopleTools full release, for example 8.57.01.	This directory can only be written to by the PeopleSoft administrator, psadm1.
PS_CFG_HOME	The *PS_CFG_HOME* location holds the configuration and log files for the PeopleSoft Application Server and Process Scheduler server domains.	• On Native OS for Linux, /home/psadm2/psft/pt/ <*ptools_major_ver*> • On Native OS for Windows, C:\%USERPROFILE%\ psft\pt\ <*ptools_major_ver*> For example, if the USERPROFILE environment variable is C:\Users\username, the location is C:\Users\username\psft\pt\8.57. • On VirtualBox, /home/psadm2/psft/pt/ <*ptools_major_ver*> The descriptor <*ptools_major_ver*> is the PeopleSoft PeopleTools major release without patch numbers; for example, 8.57.	This directory is owned by psadm2.

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Directory	Description	Default Location	Access
PIA_HOME	The web server (PIA) configuration files are located in *PS_CFG_HOME/* webserv.	• On Native OS for Linux, /home/psadm2/psft/pt/<*ptools_major_ver*>/ webserv • On Microsoft Windows, C:\%USERPROFILE%\ psft\pt\ <*ptools_major_ver*>\ webserv For example, if the USERPROFILE environment variable is C:\Users\username, the location is C:\Users\username\psft\pt\8.57\webserv. • On VirtualBox, /home/psadm2/psft/pt/ <*ptools_major_ver*>/ webserv The descriptor <*ptools_major_ver*> is the PeopleSoft PeopleTools major release without patch numbers; for example, 8.57.	This directory is owned by psadm2.
PS_APP_HOME	The *PS_APP_HOME* location holds the PeopleSoft application installation files.	• On Native OS for Linux or Windows, *BASE_DIR/* pt/<*Product*> _app_home • On VirtualBox, /opt/oracle/psft/pt/ <*Product*>_app_home The descriptor <*Product*> is an abbreviation for the PeopleSoft application, such as hcm for PeopleSoft Human Capital Management	This directory can only be written to by psadm3. **Note.** The user running the Environment Management Agent (PSEMAgent) needs write permission to PS_APP_HOME. After using PSEMAgent, you can revoke the permission.
PI_HOME **Note.** The directory contents will be accessed by Change Assistant. Manual changes are not recommended.	This is the file repository that Change Assistant uses when you define a Change Package in PeopleSoft Update Manager.	• On Native OS for Linux or Windows, <*BASE_DIR*>/pt/ <*Product*>_pi_home • On VirtualBox, /opt/oracle/psft/pt/ <*Product*>_pi_home The descriptor <*Product*> is an abbreviation for the PeopleSoft application, such as hcm for PeopleSoft Human Capital Management.	This directory requires read access for Change Packages, and read and write access to apply PeopleSoft Release Patchsets (PRPs). To apply PeopleSoft Release Patchsets (PRPs), use the instructions in the section Changing the Access for PI_HOME to change the access to read/write and disable guest login.

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Directory	Description	Default Location	Access
ORACLE_HOME (Oracle RDBMS software)	This directory includes the Oracle RDBMS database server and client connectivity software, including the SQL*Plus program. The Oracle RDBMS client installation is the 64-bit client used by PeopleSoft PeopleTools to connect from the PeopleSoft Application Server and Process Scheduler domains to the PeopleTools Database. **Note.** The database listener for the RDBMS hosting the PeopleSoft PeopleTools tables is 1522.	• On Native OS for Linux or Windows, *BASE_DIR*/db/oracle-server • On VirtualBox, /opt/oracle/psft/db/oracle-server	This directory is owned by user oracle2.
Oracle WebLogic	This directory includes the installation files for the Oracle WebLogic web server. **Note.** The configuration files for the PIA domain are located in *PS_CFG_HOME*/webserv.	• On Native OS for Linux or Windows, *BASE_DIR*/pt/bea/wlserver • On VirtualBox, /opt/oracle/psft/pt/bea/wlserver	This directory is owned by psadm1.
Oracle Tuxedo	This directory includes the installation files for Oracle Tuxedo.	• On Native OS for Linux or Windows, *BASE_DIR*/pt/bea/tuxedo • On VirtualBox, /opt/oracle/psft/pt/bea/tuxedo	This directory is owned by psadm1.
PeopleSoft database files (on Oracle RDBMS)	This directory includes the Oracle database files and tables for the PeopleSoft application.	• On Native OS for Linux or Windows, *BASE_DIR*/db/oradata • On VirtualBox, /opt/oracle/psft/db/oradata	The owner of the database tables is oracle2 and its group is oinstall. **Note.** This is different from the users for the PeopleSoft installation and configuration.

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Directory	Description	Default Location	Access
ES_HOME	*ES_HOME* includes the Elasticsearch installation files. The Elasticsearch directory is installed only when deploying with the VirtualBox version of the PeopleSoft Update Image.	/opt/oracle/psft/pt/ES	The ES_HOME/data and ES_HOME/logs directories can only be written to by the psadm2 user. Other directories under *ES_HOME* can be accessed by any user.

See Also

PeopleTools: System and Server Administration, "Securing PS_HOME and PS_CFG_HOME"

Task 3-1-3: Reviewing the DPK-Created Users for Root Deployments on Linux

When deploying on Linux as the root user, the deployed configuration includes the default users and default passwords described in the following table.

Important! All passwords for the users created by the DPK setup script are set to expire immediately. On the first login of one of the DPK-created users listed in the following table, the system will prompt you to provide new passwords.

In the case of the passwords that expire immediately, such as those for psadm1 and so on, if you do not log in as the user specified in this table and change the password, the default passwords documented here remains in effect.

New passwords must include the following characteristics:

- At least 14 characters long
- At least one digit (0–9)
- At least one special character (for example, * or #)
- At least one lowercase letter (a–z)
- At least one uppercase letter (A–Z)

User Name	Default Password	Home Directory	Role Definition
psadm1	0radmin (the first character is the number zero)	*USER_HOME/*psadm1 You supply the location for the *USER_HOME* when you run the DPK setup script. The default value is /home.	The PeopleSoft installation administrator who owns *PS_HOME.* This user cannot write into *PS_CFG_HOME.*

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User Name	Default Password	Home Directory	Role Definition
psadm2	0radmin (the first character is the number zero)	*USER_HOME/*psadm2 You supply the location for the *USER_HOME* when you run the DPK setup script. The default value is /home.	The PeopleTools domain user who creates and configures the Application Server domain, Process Scheduler (batch server) domain, and the PIA. This user cannot write to *PS_HOME,* but has read-execute access.
psadm3	0radmin (the first character is the number zero)	*USER_HOME/*psadm3 You supply the location for the *USER_HOME* when you run the DPK setup script. The default value is /home.	The PeopleSoft installation administrator who owns *PS_APP_HOME.*
oracle2	oracle	*USER_HOME/*oracle2 You supply the location for the *USER_HOME* when you run the DPK setup script. The default value is /home.	The Oracle Database Server user name.
esadm1[1]	0radmin (the first character is the number zero)	*USER_HOME/*esadm1 You supply the location for the *USER_HOME* when you run the DPK setup script. The default value is /home.	The Elasticsearch DPK user **Note.** This is not the same as the esadmin administrator, which is used in configuring a search instance.

Note. [1] The Elasticsearch DPK user, esadm1, is deployed for the Native OS for Linux DPK, as well as the VirtualBox DPK. However, Elasticsearch is installed and configured only as part of the VirtualBox DPK deployment. If you have to run scripts associated with the Elasticsearch installation you may need to sign in as the esadm1 user.

Task 3-1-4: Working with PeopleSoft Utilities and Programs for Root Deployments on Linux

When you run the DPK setup script with the default initialization, the script installs, configures and starts a single Application Server, a single Process Scheduler, and a single PIA domain. After the root user completes the deployment of the PeopleSoft environment using the DPK setup script *DPK_INSTALL/*setup/psft-dpk-setup.sh, in order to carry out operations on the PeopleSoft environment such as stopping and starting the DPK-created domains, or creating additional domains with PSADMIN, the root user must start a new shell session, and sign in with the DPK-created user psadm2.

See *PeopleTools: System and Server Administration* for information on working with PeopleSoft domains.

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The first time that you sign in as user psadm2, you are prompted to change the default password. You must start the session again and sign in with the new password. When you first sign in, the system sources the *PS_HOME/* psconfig.sh script. Sourcing the psconfig.sh script sets environment variables such as TUXDIR, PATH, and LD_LIBRARY_PATH, which are needed to run PeopleSoft utilities and programs. Sourcing the psconfig.sh script sets the environment variables for the current session in the current shell, so that the programs and utilities you run in that shell inherit the environment variables.

Similarly, to carry out operations using programs owned by the DPK-created users psadm1 or psadm3, sign in to a shell as those users.

See Reviewing the DPK-Created Users for Root Deployment on Linux.

Task 3-2: Verifying the Elasticsearch Deployment on the VirtualBox Update Image

The deployment of the VirtualBox version of the PeopleSoft Update Image includes the installation and initialization of Elasticsearch, which is used for the PeopleSoft Search Framework.

To verify that Elasticsearch is running after you complete the setup of the PeopleSoft environment with the VirtualBox version of the PeopleSoft Update Image:

1. Sign in to the deployed PeopleSoft environment in a browser, using one of the PeopleSoft user IDs.

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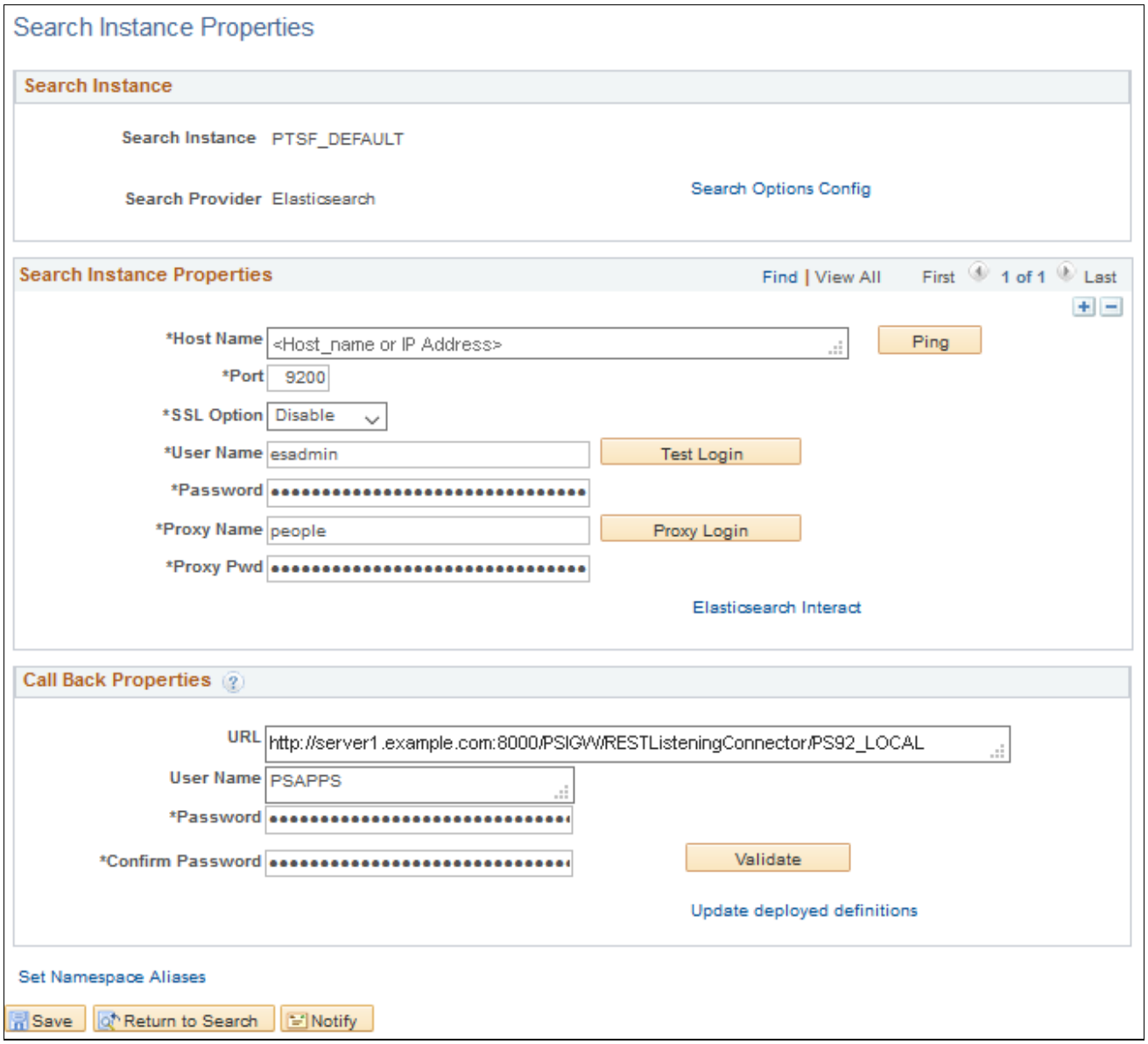
2. Select PeopleTools, Search Framework, Administration, Search Instance, and find the existing Search Instance.

   The Search Instance Properties page appears, as shown in this example.



Search Instance Properties page

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3. On the Search Instance Properties page, in the Search Instance Properties area, click each option listed in this table to verify that Elasticsearch is running and accessible:

Verification Option	Success Message
Ping	Ping Test Results: Success.
Test Login	Login Success.
Proxy Login	Proxy login success.

   For information about the fields on this page, see *PeopleTools: Search Technology*, Working with Search Instances.

4. Click Validate in the Call Back Properties area, beside Confirm Password.

   You see a message box saying "All validations are successful." Select the Show All option for more details.

Validation Report message box

The Elasticsearch parameters configured by the VirtualBox DPK deployment include the following default values:

- Elasticsearch administrative user and password — esadmin/esadmin
- Elasticsearch proxy user and password — people/peop1e
- Callback user — PSAPPS
- Port — 9200

See Also

PeopleTools: Search Technology, "Running Diagnostics"

PeopleTools Elasticsearch Home Page, My Oracle Support, Doc ID 2205540.2

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PeopleSoft Deployment Packages for Elasticsearch Installation (PeopleSoft PeopleTools 8.57), "Integrating Elasticsearch with the PeopleSoft Environment"

Task 3-3: Using COBOL

If you plan to use any PeopleSoft applications that require COBOL, see the information on obtaining, installing, compiling and running Micro Focus Server Express COBOL in the PeopleSoft installation documentation.

Note that you must use a properly licensed Micro Focus COBOL compiler, as discussed in the following references. Contact your Oracle sales representative to obtain a license for the Micro Focus compiler.

See Also

PeopleSoft 9.2 Application Installation documentation on Oracle's PeopleSoft PeopleTools Home Page, My Oracle Support, Doc ID 2433119.2.

PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and COBOL Compilers, My Oracle Support, Document 747059.1.

Task 3-4: Removing a Deployed PeopleSoft Environment

This section discusses:

- Understanding the Removal Process
- Using the DPK Setup Script to Remove the PeopleSoft Environment on Microsoft Windows
- Using the DPK Setup Script to Remove the PeopleSoft Environment on Linux
- Using Puppet to Remove the PeopleSoft Environment on Microsoft Windows
- Using Puppet to Remove the PeopleSoft Environment on Linux
- Troubleshooting the Removal Process on Microsoft Windows
- Troubleshooting the Removal Process on Linux

Understanding the Removal Process

There will be times when an existing PeopleSoft environment needs to be completely removed. For example, applying a new PeopleSoft PeopleTools patch requires that an existing environment be cleaned up and a new one created. The cleanup process described here conducts an orderly shutdown and removal of all the configured runtime domains — Application Server, Process Scheduler, and PIA domains. Additionally, it will remove all the deployed components. The PeopleSoft environment can be cleaned up either using the PeopleSoft DPK setup script or using a `Puppet apply` command. You can use the PeopleSoft DPK setup script cleanup for environments created with the default initialization or with the psft_customizations.yaml file.

Note. The Puppet software that is installed by the DPK setup script is not removed by the cleanup process.

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Task 3-4-1: Using the DPK Setup Script to Remove the PeopleSoft Environment on Microsoft Windows

Use these steps to remove a deployed PeopleSoft environment using the PeopleSoft DPK setup script on Microsoft Windows:

1. Open a command prompt window; for example:
   - Select Start, and navigate to Accessories, Command Prompt.
   - Right-click and select Run as Administrator.
2. Go to *DPK_INSTALL*\setup and run the following command:
   ```
   psft-dpk-setup.bat --cleanup
   ```
3. Specify the base directory *(BASE_DIR)* that you want to remove.
   ```
   Enter the PeopleSoft Base Folder specified during setup:
   ```
   You see this prompt only when there is more than one deployment. For example:
   - You carried out deployment A followed by deployment B.
   - You removed the second deployment B. For the cleanup of deployment B, you do not see this prompt for the *BASE_DIR*.
   - You run the script a second time. At the prompt, specify the *BASE_DIR* for deployment A.
4. Review the cleanup log file in *DPK_INSTALL*\setup.

The DPK setup script displays [OK] for each step of the process, and [FAILED] if any of the steps are not successful. After completing these steps, verify that the DPK installation directories (*BASE_DIR/*pt and *BASE_DIR/*db) have been cleared. On Microsoft Windows, verify that any services have been removed. If anything remains, the cleanup process was not successful. Try running the process again, and if it is still not successful, you may need to carry out advanced cleanup.

See Troubleshooting the Removal Process on Microsoft Windows.

Task 3-4-2: Using the DPK Setup Script to Remove the PeopleSoft Environment on Linux

Use these steps to remove a deployed PeopleSoft environment using the PeopleSoft DPK setup script on Linux:

1. Open a terminal window as a user with root permission.
2. Go to *DPK_INSTALL*\setup and run the following command:
   ```
   sh psft-dpk-setup.sh --cleanup
   ```
3. Specify the base directory *(BASE_DIR)* that you want to remove.
   ```
   Enter the PeopleSoft Base Folder specified during setup:
   ```
   You see this prompt only when there is more than one deployment, and you are removing the most recent deployment. If there is a single deployment, or if you are removing a second deployment, the script does not display this prompt. For example:
   - You carried out deployment A followed by deployment B.
   - You removed the second deployment B. For the cleanup of deployment B, you do not see this prompt for the *BASE_DIR*.

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- You run the script a second time. At the prompt, specify the *BASE_DIR* for deployment A.

4. Review the cleanup log file in *DPK_INSTALL*\setup.

The DPK setup script displays [OK] for each step of the process, and [FAILED] if any of the steps are not successful. After completing these steps, verify that the DPK installation directories (*BASE_DIR/*pt and *BASE_DIR/*db) have been cleared. On Linux, AIX, HP-UX, or Solaris, check for leftover processes. If anything remains, the cleanup process was not successful. Try running the cleanup process again, and if it is still not successful, you may need to carry out advanced cleanup.

See Troubleshooting the Removal Process on Linux.

Task 3-4-3: Using Puppet to Remove the PeopleSoft Environment on Microsoft Windows

Use the `puppet apply` command to remove the PeopleSoft environment manually. When you run the `puppet apply --confdir=`*`BASE_DIR/`*`dpk/puppet site.pp --debug --trace` command, the debug and trace messages appear in the command prompt. If you want to save them as a file, see the Puppet Labs documentation for the correct options.

See Puppet Labs Documentation, http://docs.puppetlabs.com.

To remove the environment manually on Microsoft Windows:

1. Open the file *BASE_DIR/*dpk/puppet/production/data/defaults.yaml in a text editor, such as Notepad.

   See *PeopleSoft PeopleTools 8.57 Deployment Packages Installation,* "Using the Puppet Hiera YAML Files for Customization."

2. Change the value of the `ensure` attribute from `present` to `absent`.
3. Open a command prompt.
4. If the Puppet environment is not set, run the following command (optional):

   ```
   C:\"Program Files\Puppet Labs\Puppet\bin\puppet_shell.bat"
   ```

5. Change directory to the *BASE_DIR/*dpk/puppet/production/manifests folder.
6. Run the following command.

   Supply a location and file name to save the log for the - -logdest option. Note that when you use this option you do not see progress messages in the command prompt window. The process is complete when the prompt returns.

   Note. The options require double dashes. The command text given here includes line feeds inserted for readability.

   ```
   "C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply
   --confdir=BASE_DIR/dpk/puppet site.pp
   --debug --trace --detailed-exitcodes
   --logdest <log_directory>/dpk/<log_file_name.log>
   ```

Task 3-4-4: Using Puppet to Remove the PeopleSoft Environment on Linux

To remove the environment manually on Linux:

1. Open the file *BASE_DIR/*dpk/puppet/production/data/defaults.yaml in a text editor, such as vi.

   See *PeopleSoft PeopleTools 8.57 Deployment Packages Installation,* "Using the Puppet Hiera YAML Files

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for Customization."

2. Change the value of the `ensure` attribute from `present` to `absent`.
3. Open a new session and log in as root.
4. Change directory to the *BASE_DIR*/dpk/puppet/production/manifests directory.
5. Run the following command.

Note. The options require double dashes. The command text given here includes line feeds inserted for readability.

```
/opt/puppetlabs/bin/puppet apply --confdir=BASE_DIR/dpk/puppet
site.pp --debug --trace
```

To redirect the output to a file, use the logdest option:

```
/opt/puppetlabs/bin/puppet apply --confdir=BASE_DIR/dpk/puppet
site.pp --debug --trace --logdest "BASE_DIR/dpk/dpk.log"
```

Task 3-4-5: Troubleshooting the Removal Process on Microsoft Windows

This section includes advanced steps to be used only if the previous procedures in this section failed. If the cleanup process on Microsoft Windows was not totally successful, the *BASE_DIR* folders may not be entirely cleared, or you may have trouble when carrying out another deployment. Before carrying out the advanced steps in this section:

1. Run the command `psft-dpk-setup.bat --cleanup`.
2. If the script displays a FAILED message, run it again.
3. If it succeeds, check the *BASE_DIR* folders to be sure everything has been deleted.
4. If the *BASE_DIR* folders are not clear, or if a subsequent deployment is not successful, carry out the steps below.

For the advanced manual cleanup on Microsoft Windows, there are several steps. The steps in this section should be performed by someone familiar with modifying the Microsoft Windows registry. Depending upon where the cleanup process failed, some of the items mentioned in these steps may have already been removed. The user should remove whatever remains in this order:

1. Start Services.
2. Stop the services OracleServiceCDB<*Product*> (for example, OracleServiceCDBFSCM) and OracleOraDB12cHomeTNSListener<*Listener_Name*> (for example, OracleOraDB12cHomeTNSListenerpsft_listener) by highlighting the names, right-clicking and selecting Stop.

Note. When you stop the service for the CDB (Oracle container database), you may see a message informing you that it will also stop the services for the PeopleSoft application server and Process Scheduler domains that were deployed for that database.

3. Stop the services for the PeopleSoft application server, Process Scheduler, and PeopleSoft PIA domains, if necessary.
4. Open a command prompt, running as administrator, and remove the two database services and the PeopleSoft domains services with the commands:

```
sc delete OracleServiceCDB<Product>
```

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```
sc delete OracleOraDB12cHomeTNSListener<Listener_Name>

sc delete PsftAppServerDomain<Appserver_domain_name>Service
sc delete PsftPrcsDomain<ProcSched_domain_name>Service
sc delete PsftPIADomain<PIA_domain_name>Service
```

5. In the Services window, stop ORACLE ProcMGR V12.2.2.0.0_VS2015 and TListen 12.2.2.0.0_VS2015(Port3050) by highlighting the names, right-clicking and selecting Stop.
6. In the Services window, right-click each of the services in step 5, select Properties, and copy the correct service name (rather than the alias).
7. Open a command prompt and remove the two preceding services with the command:

   ```
   sc delete <service_name>
   ```

8. Open the Microsoft Windows registry; for example, select Start, Run, and enter regedit.
9. In the Registry Editor, locate the HKLM\SOFTWARE\ORACLE folder.

   Select the following keys and verify that they contain references to the DPK installation locations in *BASE_DIR*:

   - KEY_OraDB12cHome *(BASE_DIR*\db by default)
   - KEY_OraTux1222Home (*BASE_DIR*\pt\bea\tuxedo by default)
   - KEY_OraWL12213Home *(BASE_DIR*\pt\bea by default)
10. In the Registry Editor, locate the HKLM\SOFTWARE\ORACLE\TUXEDO folder.

    Select the 12.2.2.0.0_VS2015 key and verify that it contains references to the DPK installation locations in *BASE_DIR (BASE_DIR*\pt\bea\tuxedo by default).
11. In the Registry Editor, only for the keys from step 9 and 10 that reference the DPK installation locations, right-click and select Delete.
12. Close the Registry Editor window.
13. Open the file C:\Program Files\Oracle\Inventory\ContentsXML\inventory.xml in a text editor.
14. Locate the lines that reference the DPK deployment:

    Note. This sample has been formatted for readability.

    ```
    <HOME NAME="OraWL12213Home" LOC="C:/psft/pt/bea" TYPE="O" IDX="16"/>
    <HOME NAME="OraTux1222Home" LOC="C:\psft\pt\bea\tuxedo" TYPE="O"
    IDX="17"/>
    <HOME NAME="OraDB12cHome" LOC="C:\psft\db\oracle-server\12.1.0.2"
    TYPE="O" IDX="18"/>
    ```

15. Delete only the lines referencing the DPK deployment, and save the file.
16. Remove everything under the *BASE_DIR* folder *(BASE_DIR*\db, *BASE_DIR*\dpk, and *BASE_DIR*\pt).

    Note. You may get a message that some of the file names are too big for the recycle bin. Click OK to accept.

17. Remove C:/User/<*username*>/psft/pt/8.57 (PS_CFG_HOME).

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Task 3-4-6: Troubleshooting the Removal Process on Linux

This section includes advanced steps to be used only if the previous procedures in this section failed. If the cleanup process on Linux was not totally successful, the *BASE_DIR* folders may not be entirely cleared, or you may have trouble when carrying out another deployment. Before carrying out the advanced steps in this section:

1. Run the command `./psft-dpk-setup.sh --cleanup`.
2. If the script displays a FAILED message, run it again.
3. If it succeeds, check the *BASE_DIR* folders to be sure everything has been deleted.
4. If the *BASE_DIR* folders are not clear, or if a subsequent deployment is not successful, try the following troubleshooting steps.

Here are a few things to check for the advanced manual cleanup on Linux. Depending upon where the cleanup process failed, some of the items mentioned may have already been removed.

- Kill any left-over processes.
  1. For example, use this command, and look for PeopleSoft processes:
     ```
     ps -aux|more
     ```
  2. To stop the processes, for example, use this command with the process ID:
     ```
     kill -9 <PID>
     ```
- Check for left-over PeopleSoft users.

  When you carry out the cleanup using the DPK setup script, it should remove the PeopleSoft users cleanly. However, if the users' home directory was deleted by mistake before running the cleanup, the user definition may remain.
  1. Check for the five PeopleSoft user IDs using these commands:
     ```
     id psadm1
     id psadm2
     id psadm3
     id oracle2
     id esadm1
     ```
     If the commands give an output, it means the user exists.
  2. Check for running processes associated with the users with this command:
     ```
     ps -ef|grep <user_id>
     ```
  3. Stop any running processes associated with the users, if necessary.
  4. Delete the users, with this command:
     ```
     userdel -r <user_id>
     ```

Task 3-5: Applying CPUs, POCs, and IDDAs

This section discusses:

- Understanding CPUs, POCs, and IDDAs
- Prerequisites

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- Using the DPK Setup Script to Apply Fixes

Understanding CPUs, POCs, and IDDAs

This section describes how to use the DPK setup script to apply fixes to a new PeopleSoft environment that was deployed using PeopleSoft DPKs. The types of fixes that can be applied include the following:

- Critical Patch Update (CPU)

  These critical patches must be applied to each Oracle product used with the PeopleSoft installations, including Oracle WebLogic, Oracle Tuxedo, Oracle Database server, and Oracle Database client. Oracle releases CPUs quarterly.

  See Critical Patch Updates, Security Alerts and Third Party Bulletin, http://www.oracle.com/technetwork/topics/security/alerts-086861.html.

- Instrumented Development Diagnostic Aid (IDDA)

  Instruments designed to collect information about the customer environment to help with debugging a problem. IDDAs are typically provided in zip file format.

- Proof of Concept (POC)

  A delivery method for severe customer issues that is typically designed to be a workaround for a specific issue, to be used until the customer can install the next official patch. POCs are typically provided in a zip file format.

Note. This feature is supported only for new environments. It is not supported for existing environments.

Prerequisites

To use this procedure, your environment must fulfill the following requirements:

- The procedure applies only to an environment that was newly deployed using the PeopleSoft DPKs.
- The procedure applies only to mid-tier environments on Linux operating systems.

Task 3-5-1: Using the DPK Setup Script to Apply Fixes

To apply fixes (CPUs, POCs, and IDDAs):

1. Place the zip files for the fixes that you want to apply into a single directory, referred to here as <FIXES_DIR>.
2. Create a file named psft_patches.yaml and place it in the same directory, <FIXES_DIR>.

   The psft_patches.yaml file contains the information about the patches of each component to be applied.

   This is a sample psft_patches.yaml file for Oracle WebLogic, Oracle Tuxedo, and Oracle Database patches:

```
---
weblogic_patches:
  patch_file: /psft/product/dpk/patches/p21983457_121300_Generic.zip

tuxedo_patches:
  patch_file: /psft/product/dpk/patches/p22389246_121300_Linux-x86-⇒
64.zip

oracle_server_patches:
```


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```
  patch_file: /psft/product/dpk/patches/p22191659_121020_Linux-x86-⇒
64.zip
```

Use the following criteria in creating psft_patches.yaml:

- Begin the file with three dashes (- - -).
- Include an entry for each CPU, POC, or IDDA.
- Use the indentation given in the sample above.
- For each component, the patch_file entry should include the complete path and full name of the zip file in <FIXES_DIR>:

  ```
  <COMPONENT_NAME>
    patch_file: <FIXES_DIR>/<ZIP_FILE_NAME>
  ```

  In the `patch_file` entry for Oracle WebLogic in the example above, <FIXES_DIR> is /psft/product/dpk/patches, and <ZIP_FILE_NAME> for the Oracle WebLogic patch is p21983457_121300_Generic.zip.

3. Run the DPK setup script with the option `--patches_dir` and the directory containing the patch zip files; for example:

   ```
   sh psft-dpk-setup.sh --patches_dir <FIXES_DIR>
   ```

4. View the DPK setup script log to verify that the fixes were applied.

   The complete setup log is written to the file psft-dpk-setup.log in the same location as the DPK setup script. Search the file for the fix file number.

Task 3-6: Completing Post-Deployment Activities

This section assumes that you have started the PeopleSoft VM. Depending upon the selections that you made when configuring the VM you may wish to do any of the following:

- Test the VM to ensure that it was configured correctly.

  Testing the VM will typically involve logging in to PIA to make sure that the server is accessible. For Process Scheduler servers this will involve running test reports or audits. Note that you must set up report distribution to see the posted reports.

  See the section Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository in the product documentation *PeopleSoft 9.2 Application Installation for Oracle,* "Setting Up Process Scheduler on UNIX." See Oracle's PeopleSoft PeopleTools Home Page, My Oracle Support, Doc ID 2433119.2.

- Make additional configuration changes to the configured mid-tier components, such as changing port numbers, log file locations, and so on.
- Check for any Critical Patch Updates (CPUs) for any of the installed components at My Oracle Support.

  Deploy these CPUs to each of the required VM.

  Note. To determine the versions of the installed components, review the README file provided with the DPK.

- Harden and secure the VM.

  See *PeopleTools: Security Administration.*

  See Securing Your PeopleSoft Application Environment, Oracle Technology Network, http://download.oracle.com/peopletools/documents/Securing_PSFT_App_Environment_May2010%20v4.pdf.

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- Prepare the PeopleSoft Application.

  If your *PS_APP_HOME* has not been previously provisioned to a shared location it may be necessary to take additional steps to ensure that the software contains the most recent updates for your application; for example:

  - Use PeopleSoft Lifecycle Management tools to update the environment. See the *PeopleTools: Change Assistant and Update Manager* and the *PeopleTools: PeopleSoft Application Designer Lifecycle Management Guide* product documentation for information.
  - Apply customizations to the PeopleSoft application. This is frequently in the areas of COBOL and SQR.
- Set up the COBOL environment.

  Install COBOL Compiler and Runtime and compile the COBOL source code that was delivered with PeopleSoft PeopleTools or the PeopleSoft application.

  See Using COBOL.

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Appendix A

Deploying on a Linux Host as a Non-Root User

This appendix discusses:

- Preparing to Deploy as a Non-Root User
- Running the DPK Setup Prerequisite
- Deploying the PeopleSoft Environment as a Non-Root User
- Running the DPK Setup Post-Configuration Step
- Using the DPK Setup Script Cleanup Option as a Non-Root User
- Setting Environment Variables for the Non-Root User

Preparing to Deploy as a Non-Root User

Review the information in this section before deploying on Linux. You have the option of downloading the DPK zip files and deploying the PeopleSoft environment as a non-root user.

You can use an existing non-root user account. It is not necessary to create a new user. The non-root user owns all of the deployed environment, including *PS_HOME, PS_CFG_HOME,* and *PS_APP_HOME.*

Note that before a non-root user deploys the PeopleSoft environment, the root user must perform a prerequisite task. After the non-root deployment, the root user must perform a post-deployment task, as mentioned in the following table.

The following table lists the high-level steps required to deploy a PeopleSoft environment by a non-root user, with a root user performing prerequisite and post-deployment steps.

Note. The commands in the table include line feeds to improve readability.

Step	Reference	Comment
1. Obtain the DPK zip files and extract the first zip file.	Chapter 2 "Deploying the PeopleSoft Application Deployment Packages," Task 2-1 Obtaining the PeopleSoft Update Images	NA

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Step	Reference	Comment

2. Select one of these commands to run:
• To install Puppet only:
`./psft-dpk-setup.sh --prereq`
• To install Puppet and set system configuration:
`./psft-dpk-setup.sh --prereq --syscfg`
	Task A-1 Running the DPK Setup Prerequisite	**Important!** This step must be run by the root user.

3. Run the DPK setup script; for example: `./psft-dpk-setup.sh`	Task A-2 Deploying the PeopleSoft Environment as a Non-Root User	The script deploys the full-tier PeopleSoft environment.
4. Run the command: `./psft-dpk-setup.sh --postcfg --psft_base_dir BASE_DIR`	Task A-3 Running the DPK Setup Post-Configuration Step	**Important!** This step must be run by the root user.
5. Run the command: `./psft-dpk-setup.sh --cleanup`	Task A-4 Using the DPK Setup Script Cleanup Option as a Non-Root User	Run cleanup of the environment (optional).

This procedure assumes that:

- You are setting up the full environment for the Native OS Update Image on a single Linux host.
- You have downloaded all of the required DPKs and saved them in a location accessible to the Linux host, referred to as *DPK_INSTALL*.

  Note. The contents of the *DPK_INSTALL* directory may be used for deployments by more than one non-root user.

  For this task, download the Native OS DPKs for Linux.

  See "Deploying the PeopleSoft Application Deployment Packages," Obtaining the PeopleSoft Update Images.

  Note. After the DPK setup script extracts the downloaded zip files, it will delete the original zip files in *DPK_INSTALL.* If you want to save the original zip files, make a backup copy in a different folder.

- There is at least 150 GB available space on the Linux host for the full-tier PeopleSoft environment.
- The non-root user that deploys the PeopleSoft environment must be configured to use the Bash, Bourne, or Korn shell.

  In addition, the process requires a root user.
- The non-root user's home directory must be writable.
- The non-root user must have permission to read and execute the *DPK_INSTALL* folder and its contents, including the downloaded zip files, and *DPK_INSTALL/*setup.

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If the root user downloads the DPK zip files and saves them in *DPK_INSTALL*, the root user must ensure that the necessary permissions are granted to allow the non-root user to read and execute the files.

Task A-1: Running the DPK Setup Prerequisite

This section discusses:

- Understanding the DPK Setup Prerequisite
- Running the DPK Setup Prerequisite to Install Puppet and Set the System Configuration
- Running the DPK Setup Prerequisite to Install Puppet

Understanding the DPK Setup Prerequisite

Before a non-root user can install the PeopleSoft environment, the root user must first run the DPK setup script to install the Puppet software to the standard location required by the DPK setup, and optionally perform system configuration. This prerequisite step is required only one time for each host.

- To install the Puppet software and update the system configuration on the host, use the DPK setup script command:

  ```
  ./psft-dpk-setup.sh --prereq --syscfg
  ```

  This command installs the required Puppet software to the standard location. It also sets system configuration variables such as kernel parameters, user and group ulimits.
- To install only the Puppet software, use the DPK setup script command:

  ```
  ./psft-dpk-setup.sh --prereq
  ```

  Use this command if you do not want to update the system configuration variables on your host.

Task A-1-1: Running the DPK Setup Prerequisite to Install Puppet and Set the System Configuration

To run the DPK setup script prerequisite step:

1. Open a terminal window as a user with root access, and extract the first zip file *(FILENAME*_1ofn.zip).

   The extraction creates the *DPK_INSTALL/*setup folder and other files.

   Note. It is a good idea to extract into the same directory where you downloaded the zip files, *DPK_INSTALL.*
2. Change directory to *DPK_INSTALL/*setup.
3. Run the script as follows:

   ```
   ./psft-dpk-setup.sh --prereq --syscfg
   ```
4. After the script completes the Puppet software installation, log out and log in as a non-root user to deploy the PeopleSoft environment.

The setup log for the prerequisite step is written to <*ROOT_HOME*>/psft_dpk_work/psft_dpk_setup_<*PID*>.log, where *ROOT_HOME* is the user's home directory, and *PID* refers to a process ID number.

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Task A-1-2: Running the DPK Setup Prerequisite to Install Puppet

To install Puppet without performing system configuration:

1. Open a terminal window as a user with root access, and extract the first zip file *(FILENAME*_1ofn.zip).

   The extraction creates the *DPK_INSTALL/*setup folder and other files.

   Note. It is a good idea to extract into the same directory where you downloaded the zip files, *DPK_INSTALL.*

2. Change directory to *DPK_INSTALL/*setup.
3. Run the script as follows:

   ```
   ./psft-dpk-setup.sh --prereq
   ```

4. After the script completes the Puppet software installation, log out and log in as a non-root user to deploy the PeopleSoft environment.

The complete setup log for the prerequisite step is written to <*ROOT_HOME*>/psft_dpk_work/psft_dpk_setup_<*PID*>.log, where *ROOT_HOME* is the user's home directory, and *PID* refers to a process ID number.

Task A-2: Deploying the PeopleSoft Environment as a Non-Root User

To deploy the PeopleSoft environment as a non-root user:

1. Open a terminal window and change directory to *DPK_INSTALL/*setup.
2. Run the script as follows:
   - If you extracted the first zip file into the same directory where you downloaded the zip files, use this command:

     ```
     ./psft-dpk-setup.sh
     ```

   - If you extracted the first zip file into a different directory, include the option `dpk_src_dir` to specify the location of the downloaded zip files, such as *DPK_INSTALL_B.*

     ```
     ./psft-dpk-setup.sh --dpk_src_dir DPK_INSTALL_B
     ```

3. Answer y (yes) to the following prompt:

   ```
   You are running DPK setup without root/administrator access.
   This is fine as long as the system administrator has performed
   all necessary tasks and all prerequisites have been met.
   Please see the documentation to determine the prerequite tasks
   that need to be performed to successfully run DPK set up
   without root/administrator privilege.

   Would you like to proceed with the setup as a non-root user? [y/n]: y
   ```

4. Wait while the script locates the valid PeopleSoft zip files and extracts them.

   The system displays messages indicating the steps in the setup process. The success or failure of each step is indicated by [OK] or [FAILED].

   ```
   Starting the PeopleSoft Environment Setup Process:
   ```


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5. At the following prompt, enter a location that is accessible to the host to be used as the PeopleSoft base directory.

   The base directory is used to extract the PeopleSoft DPKs as well as for deploying PeopleSoft components. When entering the path for the base folder, use forward slashes (/). The directory /cs1/psft is used in this example. Enclose any names with special characters in double quotes. Do not use a name for the base folder that begins with a number.

   ```
   PeopleSoft base Filesystem is used to extract the PeopleSoft DPKs as
   well as for deploying PeopleSoft Components. This Filesystem should
   be accessible on the VM and must have write permission, and should
   have enough free space.

   Please Enter the PeopleSoft Base Filesystem : /cs1/psft
   Are you happy with your answer? [y|n|q]: y
   ```

   The script validates if there is enough free space available under the specified base directory for the PeopleSoft environment. The PeopleSoft environment setup is aborted if there is not enough free space.

   Note. A full setup of a PeopleSoft environment (database and mid-tier) takes about 150 GB of disk space.

   ```
   Checking if PeopleSoft Base Filesystem has Enough Free Space: [  OK  ]
   ```

   The script creates the following three sub-directories under the user provided base directory, *BASE_DIR*:

   - *BASE_DIR*/dpk

     The script uses this directory to extract the archives from the PeopleSoft DPKs.

   - *BASE_DIR*/pt

     The script uses this directory to deploy PeopleSoft PeopleTools and PeopleSoft application components.

   - *BASE_DIR*/db

     The script uses this directory to deploy Oracle database server and deploy the PeopleSoft database data files. It also uses this directory to set up Oracle inventory if there is no inventory present on the host.

6. Enter a writable directory with at least 10 GB available space for *PS_CFG_HOME*.

   The default is *USER_HOME*/psft/pt/8.57. The *PS_CFG_HOME* directory holds the configuration and log files for the PeopleSoft Application Server, Process Scheduler, and PIA domains.

   ```
   Enter a writable ps_config_home directory for PeopleSoft domains
   with at least 10.0GB space [/home/psftuser/psft/pt/8.57]:
   Are you happy with your answer? [Y|n|q]: y
   ```

7. Review the status messages as the script validates the DPKs and extract the archives.

   Note. Only a sample of the messages is shown here.

   ```
   Validating the PeopleSoft DPKs in the Linux Host:              [  OK  ]
   [...]
   Extracting the PeopleSoft DPK Archives in the Windows VM:
   [...]
   ```

8. Review the status messages as the script sets up the Puppet file system.

   The script sets up Puppet on the host or VM. It then copies the PeopleSoft Puppet modules to the standard location *(BASE_DIR*/dpk/puppet/production) and updates the YAML files to reflect the type of PeopleSoft environment setup.

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```
Setting up Puppet on the Linux Host:
Generating eYAML Hiera Backend Encryption Keys:              [  OK  ]
Updating the Puppet Hiera YAML Files in the Windows VM:      [  OK  ]
Updating the Role in Puppet Site File for the Windows VM:    [  OK  ]
```

9. Enter PUM as the installation type:

   ```
   Enter the PeopleSoft installation [PUM or FRESH] type [PUM]: PUM
   ```

10. Enter a name for the database, such as HCM92, following the guidelines in the prompt, or press ENTER to accept the default.

    ```
    Enter a new PeopleSoft database name. Ensure that the database
    name start with a letter and contains only uppercase letters and
    numbers and is no more than 8 characters in length [HCM92U26]:
    ```

11. Enter a port number for the database listener, or press ENTER to accept the default, 1521.

    ```
    Enter the PeopleSoft database listener port [1521]: 1522
    ```

12. Enter a password for the database SYS or SYSTEM user, following the guidelines in the prompt, and enter again on the next line.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

    ```
    Enter a new PeopleSoft database admin users [SYS/SYSTEM] password.
    Ensure that the password is between 8 and 30 characters in length
    with at least one lowercase letter, one uppercase letter, one number
    and one special character (_,-,#):
    Re-Enter the database admin users password:
    ```

13. Enter the PeopleSoft connect ID, following the guidelines in the prompt.

    Press ENTER to accept the default, people.

    ```
    Enter a new PeopleSoft database Connect ID. Ensure that the ID
    contains only alphanumeric characters and is at most 8 characters
    in length [people]:
    ```

14. Enter a password for the PeopleSoft Connect ID, following the guidelines in the prompt, and enter again on the next line.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

    ```
    Enter a new PeopleSoft database Connect ID [people] password. Ensure
    the password contains only alphanumeric characters and is between 6
    and 30 characters in length:
    Re-Enter the PeopleSoft Connect ID password:
    ```

15. Enter a password for the PeopleSoft database access ID, following the guidelines in the prompt, and enter again on the next line.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

    ```
    Enter a new PeopleSoft database Access ID [SYSADM] password. Ensure
    the password contains only alphanumeric characters and is between 6
    and 30 characters in length:
    Re-Enter the PeopleSoft Access ID password:
    ```


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16. Enter a password for the PeopleSoft user, or operator ID, such as VP1 or PS, using the guidelines in the prompt, and enter again on the next line.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

    ```
    Enter a new PeopleSoft database Operator ID [VP1] password. Ensure
    the password contains only alphanumeric characters and is between 1
    and 32 characters in length:
    Re-Enter the PeopleSoft Operator ID password:
    ```

17. Enter the Application Server Domain Connection password, following the guidelines in the prompt.

    The password is not visible as you type, and the window does not display masking characters. There is no default password.

    Note. This is an optional password. If no password is entered, the connection between Web Server and Application Server will not be password protected.

    ```
    [Optional] Enter a new Application Server Domain connection password.
    Ensure the password contains only alphanumeric characters and is
    between 8 and 30 characters in length:
    Re-Enter the Application Server Domain connection password:
    ```

18. Enter the Oracle WebLogic Server Admin Password, following the guidelines in the prompt.

    The password is not visible as you type, and the window does not display masking characters as you type. There is no default password.

    ```
    Enter a new WebLogic Server Admin user [system] password. Ensure
    that the password is between 8 and 30 characters in length with at
    least one lowercase letter, one uppercase letter, one number or one
    one special character (!@#$%^&):
    Re-Enter the WebLogic Server Admin user password:
    ```

19. Enter a password for the PeopleSoft Web Profile user, following the guidelines in the prompt, and enter again on the next line.

    Note. The guideline in the prompt for the PTWEBSERVER user password does not allow special characters. However, the PeopleSoft system does allow special characters for the PTWEBSERVER password. If you want to change the password to include special characters, you have the option to do so in the PeopleSoft Pure Internet Architecture (PIA) after you complete the installation and domain creation.

    See *PeopleTools: Portal Technology,* "Working with Passwords."

    ```
    Enter a new PeopleSoft WebProfile user [PTWEBSERVER] password. Ensure
    the password contains only alphanumeric characters and is between 6
    and 32 characters in length:
    Re-Enter the PeopleSoft WebProfile user password:
    ```

20. Enter a password for the PeopleSoft Integration Gateway user, following the guidelines in the prompt, and enter again on the next line.

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Note. The guideline in the prompt for the Integration Gateway user password does not allow special characters. However, the PeopleSoft system does allow special characters for the Integration Gateway user password. If you want to change the password to include special characters, you have the option to do so in the PeopleSoft Pure Internet Architecture (PIA) after you complete the installation and domain creation.

See *PeopleTools: Portal Technology,* "Working with Passwords."

```
Enter the PeopleSoft Integration Gateway user [administrator]:
Enter the PeopleSoft Integration Gateway user [administrator] password.
Ensure the password contains only alphanumeric characters
and is between 8 and 30 characters in length:
Re-Enter the PeopleSoft Integration Gateway user password:
```

21. If you want to change any of the answers to the previous questions, enter *n* (no) at the following prompt, or enter *y* (yes) to continue:

    ```
    Are you happy with your answers? [y|n]: y
    ```

22. Review the status messages as the script updates the Puppet YAML files with the user input.

    ```
    Encrypting the Passwords in the User Data:                  [  OK  ]
    Updating the Puppet Hiera YAML Files with User Data:        [  OK  ]
    ```

23. If you want to continue running the initialization script using the default configuration, answer *y* (yes) to the following prompt, and continue with the next step.

    Note. If you select the default initialization process, the PeopleSoft environment is created with one Application Server domain, one Process Scheduler domain, and one PIA domain.

    If you want to customize the PeopleSoft environment, answer *n* (no) to stop the script.

    ```
    The bootstrap script is ready to deploy and configure the PeopleSoft
    environment using the default configuration defined in the Puppet
    Hiera YAML files. You can proceed by answering 'y' at the following
    prompt. And, if you want to customize the environment by overriding
    the default configuration, you can answer 'n'. If you answer 'n', you
    should follow the instructions in the PeopleSoft Installation Guide
    for creating the customization Hiera YAML file and running the Puppet
    'apply' command directly to continue with the setup of the PeopleSoft
    environment.
    Do you want to continue with the default initialization process? [y|n]: ⇒
    y
    ```

24. Review the status of the setup steps.

    A message of [OK] indicates that the profile has been applied successfully while a message [FAILED] indicates that the profile application failed.

    The script stops and exits the first time a profile application fails, and displays an error message. This example shows the error message after the first step:

    ```
    Setting Up System Settings:                                 [FAILED]

    The initialization of PeopleSoft environment setup failed. Check the
    log file [/DPK_INSTALL/setup/psft_dpk_setup.log] for the errors.
    After correcting the errors, run the following commands to continue
    with the setup of PeopleSoft environment.
    ```


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```
1. cd /cs1/psft/dpk/puppet/production/manifests
2. /opt/oracle/puppetlabs/bin/puppet apply --confdir=/cs1/psft/dpk⇒
/puppet site.pp --debug --trace
Exiting the PeopleSoft environment setup process.
```

See *PeopleSoft PeopleTools 8.57 Deployment Packages Installation.*

Upon completion, the DPK setup script displays the following message:

```
The PeopleSoft Environment Setup Process Ended.
```

The complete setup log is written to <*USER_HOME*>/psft_dpk_work/psft_dpk_setup_<*PID*>.log, where *USER_HOME* is the user's home directory, and *PID* refers to a process ID number.

See "Deploying the PeopleSoft Application Deployment Packages," Using the DPK Setup Script Options for other deployment options.

Task A-3: Running the DPK Setup Post-Configuration Step

After the non-root user deploys the PeopleSoft environment, the root user must run the following command to set up the Samba shared drive folders.

```
./psft-dpk-setup.sh --postcfg --psft_base_dir BASE_DIR
```

In order for the Samba shared drive folders to be accessible, all of the directories in the full path of the *BASE_DIR* must have read and execute permissions for "others", all the way to the top-level parent directory.

For example, if the absolute path of the *BASE_DIR* is /dir1/dir2/dir3/dir4/base_dir, then you must verify that all the parents of base_dir, from /dir1 to dir4, have read+execute permission for others.

Note. The DPK process sets the permissions of the *BASE_DIR,* so those do not need to be changed.

The shared drive folders are named based on the user and base directory. The following table describes the directories on the Oracle Linux guest VM, and the shared drive folders that you can access from a Microsoft Windows machine:

Directory on Oracle Linux VM	Shared Drive Folder on Microsoft Windows	Description
• On VirtualBox DPK: /opt/oracle/psft/pt/tools_client • On Native OS DPK for Linux: *BASE_DIR*/pt/tools_client	<*User_Name*>_tools_client_ <*BASE_DIR*>	This directory includes installation software for all current PeopleTools client versions, and the Oracle database client.

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Directory on Oracle Linux VM	Shared Drive Folder on Microsoft Windows	Description
• On VirtualBox DPK: /opt/oracle/psft/pt/<*Product*>_pi_home • On Native OS DPK for Linux: <*BASE_DIR*>/pt/<*Product*>_pi_home <*Product*> is an abbreviation for the PeopleSoft application, such as hcm for PeopleSoft Human Capital Management	<*User_Name*>_pi_home_<*BASE_DIR*>	Change Assistant file repository

The log for the post-configuration step is written to <*ROOT_HOME*>/psft_dpk_work/psft_dpk_setup_<*PID*>.log, where *ROOT_HOME* is the user's home directory, and *PID* refers to a process ID number.

See "Deploying the PeopleSoft Application Deployment Packages," Using the Samba Shared Drive Folders.

Task A-4: Using the DPK Setup Script Cleanup Option as a Non-Root User

Use the `./psft-dpk-setup.sh --cleanup` option to remove a deployed PeopleSoft environment. The cleanup log is written to <*USER_HOME*>/psft_dpk_work/psft_dpk_setup_cleanup_<*PID*>.log, where *USER_HOME* is the user's home directory, and *PID* refers to a process ID number. This PID suffix ensures that subsequent cleanups do not overwrite the file contents.

See "Using and Maintaining the PeopleSoft Environment," Removing a Deployed PeopleSoft Environment

Task A-5: Setting Environment Variables for the Non-Root User

When you use the DPK setup script with the default initialization, the script installs, configures and starts a single Application Server, a single Process Scheduler, and a single PIA domain.

When a non-root user deploys the PeopleSoft environment, as part of the deployment, the DPK setup script sources a shell script that sets environment variables, such as TUXDIR, PATH, and LD_LIBRARY_PATH, which are needed to run PeopleSoft utilities and programs.

See *PeopleTools: System and Server Administration* for information on working with PeopleSoft domains.

After the non-root user completes the deployment of the PeopleSoft environment using the DPK setup script *DPK_INSTALL*/setup/psft-dpk-setup.sh, to carry out operations on the PeopleSoft environment such as stopping and starting the DPK-created domains, creating additional domains with PSADMIN, or running Application Engine programs, the non-root user must source the script *BASE_DIR*/pt/psft_env.sh. For example, use the following command:

```
source BASE_DIR/pt/psft_env.sh
```

Note that it is important to source the shell script (`source BASE_DIR/pt/psft_env.sh`), rather than simply running it (`BASE_DIR/pt/psft_env.sh`) in order for the environment variables to persist in the current shell. See your operating system documentation for the correct command to source the script.

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Sourcing the psft_env.sh script sets the environment variables for the current session in the current shell, so that the programs and utilities you run in that shell inherit the environment variables. You must source the script and run the PeopleSoft utilities and programs from the same *BASE_DIR.* That is, the environment variables apply only to the programs in the *PS_HOME* installed under the *BASE_DIR* from which you run the script.

If your environment includes more than one deployment, be sure to source *BASE_DIR/*pt/psft_env.sh as needed in separate shells for each *BASE_DIR.*

The psft_env.sh script sets environment variables for default or user-specified installation locations as set up by the DPK setup script. See Reviewing the Deployment File System for default locations. Here is a summary of the environment variables set by the *BASE_DIR/*pt/psft_env.sh script:

- The script sets a pseudo random number generator to avoid entropy collection problems with the default random number generation.
- The script sets the TUXDIR, PATH, and LD_LIBRARY_PATH environment variables to reference the Tuxedo installation.
- The script sets the TNS_ADMIN, ORACLE_HOME, and LD_LIBRARY_PATH environment variables to reference the installations of the Oracle database and Oracle database client.
- The script sets the language or locale.
- The script sets the *PS_CFG_HOME* environment variable.
- The script adds the *PS_HOME/*appserv and *PS_HOME/*setup directories to the PATH.
- The script sources the *PS_HOME/*psconfig.sh script.

  The psconfig.sh script was used in previous releases to set environment variables for non-DPK installations. Because it is included in the *BASE_DIR/*pt/psft_env.sh script, you do not need to source psconfig.sh separately.

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Appendix B

Using the PeopleSoft Deployment Packages in Oracle VM 3.1 and Later

This appendix discusses:

- Understanding the Support for PeopleSoft Deployment Packages in Oracle VM 3.1 and Later
- Prerequisites
- Using the PeopleSoft Shell OVA to Create a Linux VM
- Starting the VM and Setting Up the PeopleSoft Environment

Understanding the Support for PeopleSoft Deployment Packages in Oracle VM 3.1 and Later

The previous chapters of this document discuss deploying the PeopleSoft Deployment Packages (DPKs) in a VirtualBox as well as on Linux and Microsoft Windows hosts ("bare-metal" and virtual). This appendix describes the steps required to use the PeopleSoft VirtualBox DPKs in Oracle VM 3.1 and later. Oracle VM is an enterprise-class server virtualization solution comprised of Oracle VM Server for x86, Oracle VM Server for SPARC, and Oracle VM Manager.

Note. This supplementary information may be used if you choose to use Oracle VM 3.1 or later to host the PeopleSoft environments using the DPKs. Note that this information is provided as a courtesy and has not undergone Oracle's normal testing processes. For information on the hosts that are certified for the PeopleSoft DPKs, see the Prerequisites section of this documentation.

Oracle VM has the advantage of being designed for enterprise-class deployment. However, in considering this type of deployment, keep in mind that when setting up the PeopleSoft environment in Oracle VM, there are differences in the network security. For example, it is possible to deploy a PeopleSoft environment on VirtualBox with a host-only configuration, and install PeopleSoft Change Assistant and other PeopleSoft PeopleTools client tools on the Microsoft Windows OS system on the same physical machine. This type of host-only security is not available with Oracle VM. By its very nature a virtual machine that is running on Oracle VM is only accessible over a virtual network. This has implications around security of the OS, users, network access, and so on.

Note. This process will not work in versions of Oracle VM before Oracle VM 3.1. While it may be possible to use the PeopleSoft VirtualBox shell OVA in earlier versions of Oracle VM, the functional experience would be very different.

Using a PeopleSoft VirtualBox shell OVA in Oracle VM includes the following high-level procedures:

1. Import the PeopleSoft shell OVA file to Oracle VM.
2. Create a Linux VM template from the OVA.
3. Configure the template.

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4. Create a VM from the template.
5. Start the VM in Oracle VM.
6. Set up the PeopleSoft environment.

See Also

Oracle® VM User's Guide for Release 3.1.1, Oracle VM Release 3.1.1 Documentation, http://docs.oracle.com/cd/E27300_01/

Oracle Virtualization Web site, http://www.oracle.com/virtualization

Prerequisites

This section assumes that you have installed Oracle VM 3.1 or later.

You may have already obtained the PeopleSoft VirtualBox DPKs, including the shell OVA, from My Oracle Support. If not, use these steps to locate the PeopleSoft VirtualBox DPKs for the PeopleSoft Update Images (PIs):

1. Go to the PeopleSoft Update Manager Home Page in My Oracle Support and locate the home page for your PeopleSoft application.

   The home pages include links to the current PeopleSoft Update Images (PIs.)
2. Select the link for the VirtualBox DPK to access the DPKs in the Patches & Updates area.

   Note. Alternatively, you can search in My Oracle Support Patches and Updates for your PeopleSoft application. Select the VirtualBox (Generic Platform) patch.
3. Download the DPK zip files.

   The PeopleSoft Update Images are comprised of 13 DPK zip files; for example, HCM–920–UPD-016–OVA_#of13.zip. Download the first eleven files, *FILENAME*_1of13.zip to *FILENAME*_11of13.zip. The PeopleSoft VirtualBox shell OVA is zip file *FILENAME*_12of13.zip.
4. Extract (unzip) *FILENAME*_12of13.zip to obtain the PeopleSoft VirtualBox shell OVA file; for example, VBOX_8_57_*xxxxxx*_SHELL.ova (xxxxxx represents a date stamp).
5. Place the OVA file on an HTTP or FTP server from which Oracle VM Manager can import it.

See PeopleSoft Update Manager Home Page, My Oracle Support, Doc ID 1641843.2.

Task B-1: Using the PeopleSoft Shell OVA to Create a Linux VM

This section discusses:

- Importing the OVA File to Oracle VM
- Creating a Template from the OVA File
- Editing the Template in Oracle VM
- Creating a VM from the New Template

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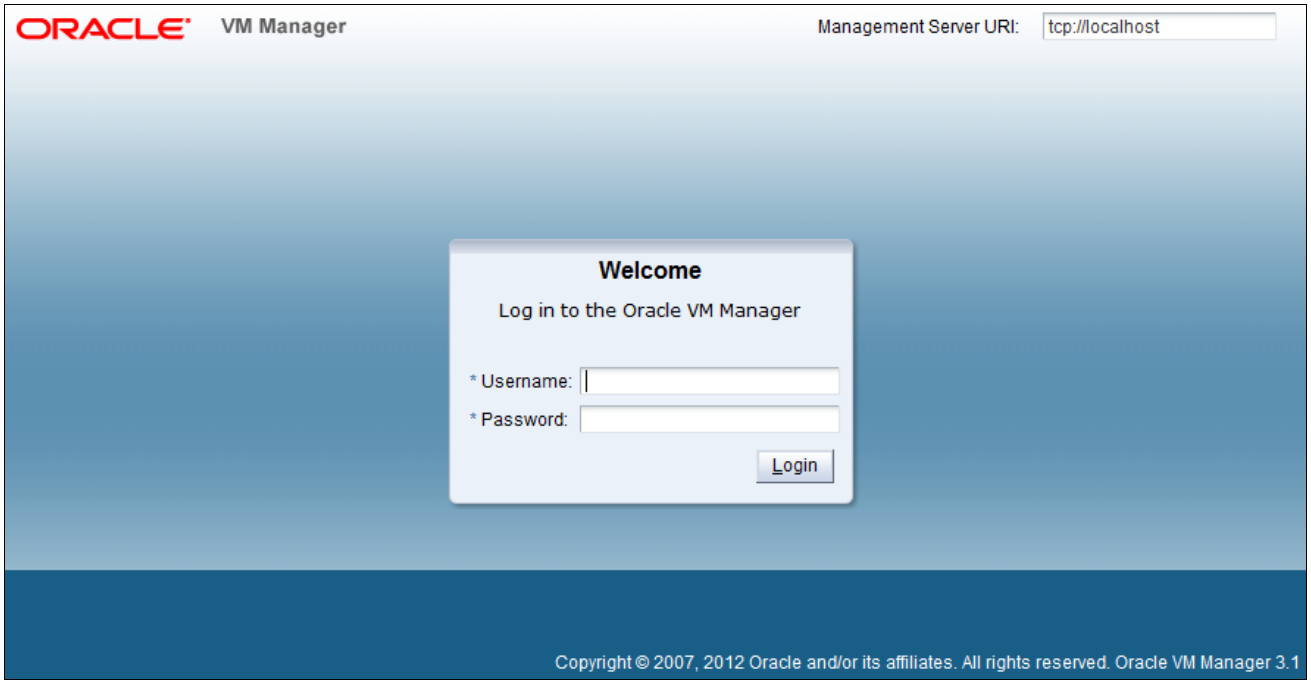
Task B-1-1: Importing the OVA File to Oracle VM

To import the OVA file into Oracle VM Manager:

1. Log in to Oracle VM Manager, as shown in this example.



Oracle VM Manager Log in window

2. Select the Repositories page.
3. Select the repository into which you want to import the OVA.

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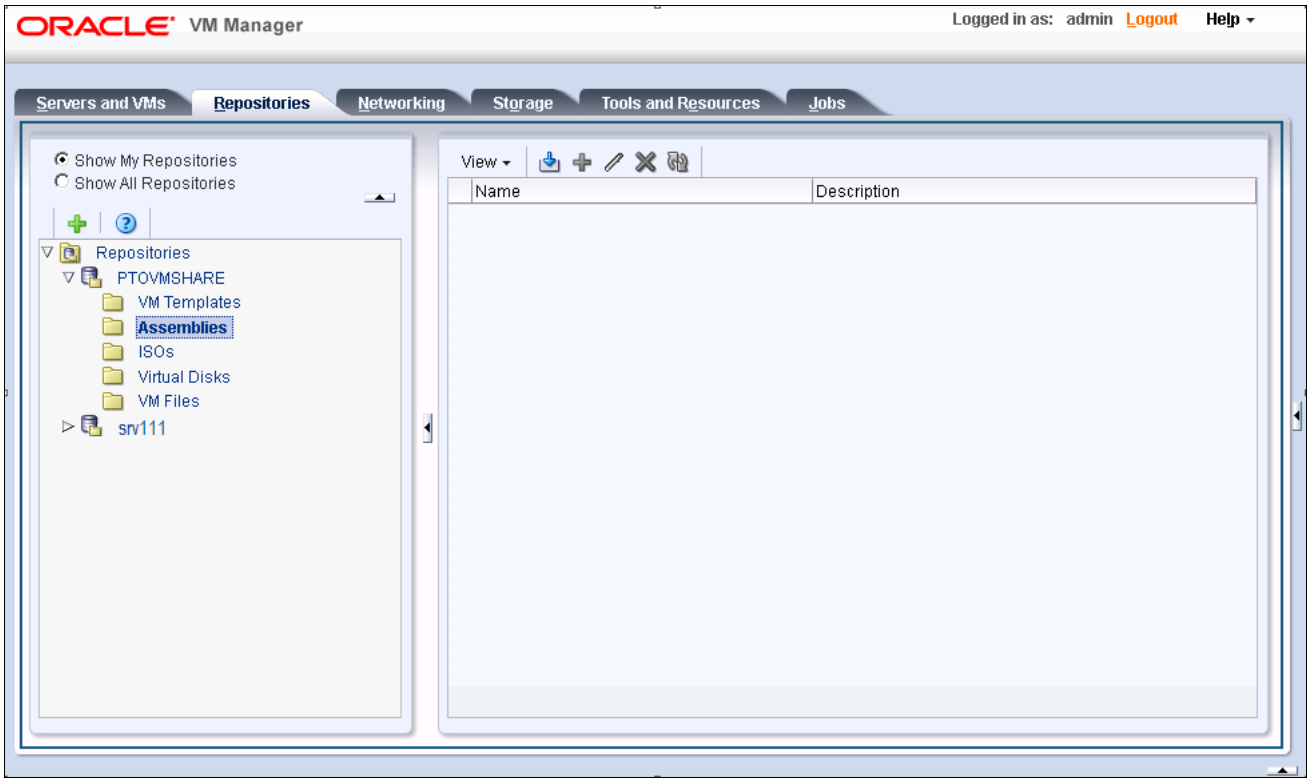
4. Highlight Assemblies in the repository tree, and click Import VM assembly (the green plus sign above the repository tree).

   In this example, the PTOVMSHARE repository tree is expanded, and the Assemblies folder is highlighted.



Oracle VM Manager Repositories page

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5. In the Import VM Assembly dialog box, enter the following information:

Import VM Assembly dialog box

- *Server*: Select the Oracle VM server from the drop-down list to use to import the file.

  In the example the server is srv222.
- *VM Assembly download location*: Enter the URL, including the file name, for the OVA file that you placed in the FTP or HTTP server.

  This example shows an FTP server location. In the example, the location is ftp://testora:testora@xmpl.com//data1/ora/export/FSDMO-853-11.ova. Replace the name used in the example with the correct name for your environment.
- Click OK to import the OVA file.

See *Oracle® VM User's Guide for Release 3.1.1,* "Virtual Machine Resources."

Task B-1-2: Creating a Template from the OVA File

To create a virtual machine template from the OVA:

1. In Oracle VM Manager, select the Repositories page.
2. Select the repository that contains the imported OVA.
3. Highlight Assemblies in the repository tree, and Create VM Template (the green plus sign icon).
4. In the Create VM Template dialog box, enter the following information:
   - *Assembly Virtual Machines*: Specify the virtual machine in the assembly from which to create a template, which in this case is the imported OVA.
   - *VM Template Name*: Provide a name for the template.
   - *Description*: Provide an optional description.
5. Click OK to create the template.

   The template is created in the same repository where the OVA file was located.

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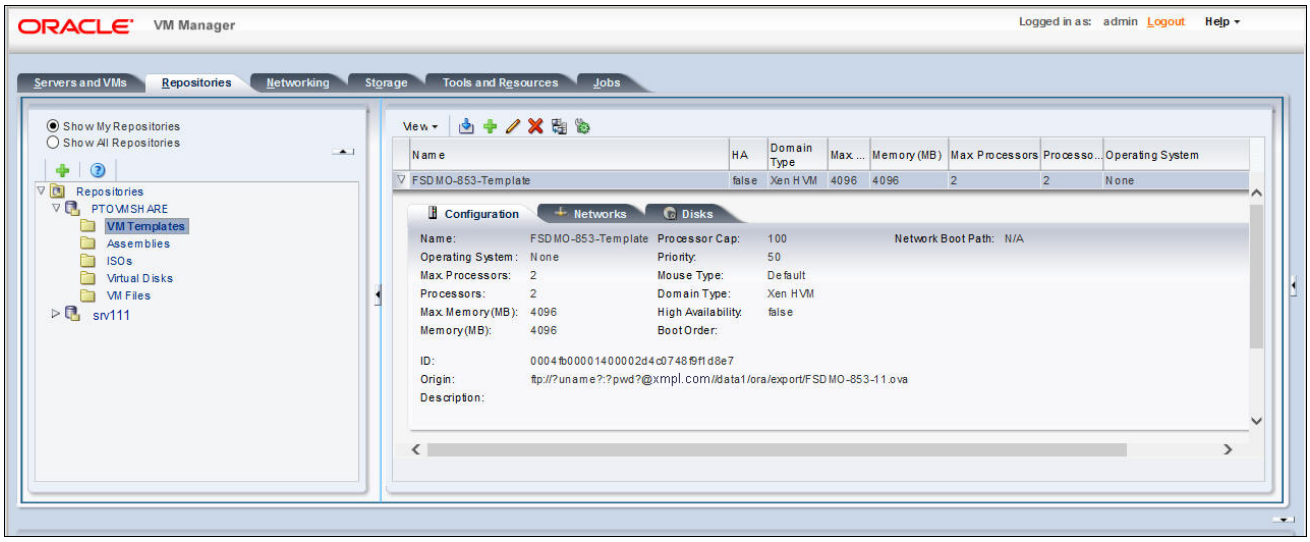
6. Highlight the template name in the management pane on the right, and select the Configuration page.

   After importing and creating a template, you can verify that it is available in the repository by reviewing the information on the Configuration page, as seen in this example. The Configuration page includes information such as template name, number of processors, amount of memory, and domain type.



Oracle VM Manager Repositories page with the Configuration page for the imported template

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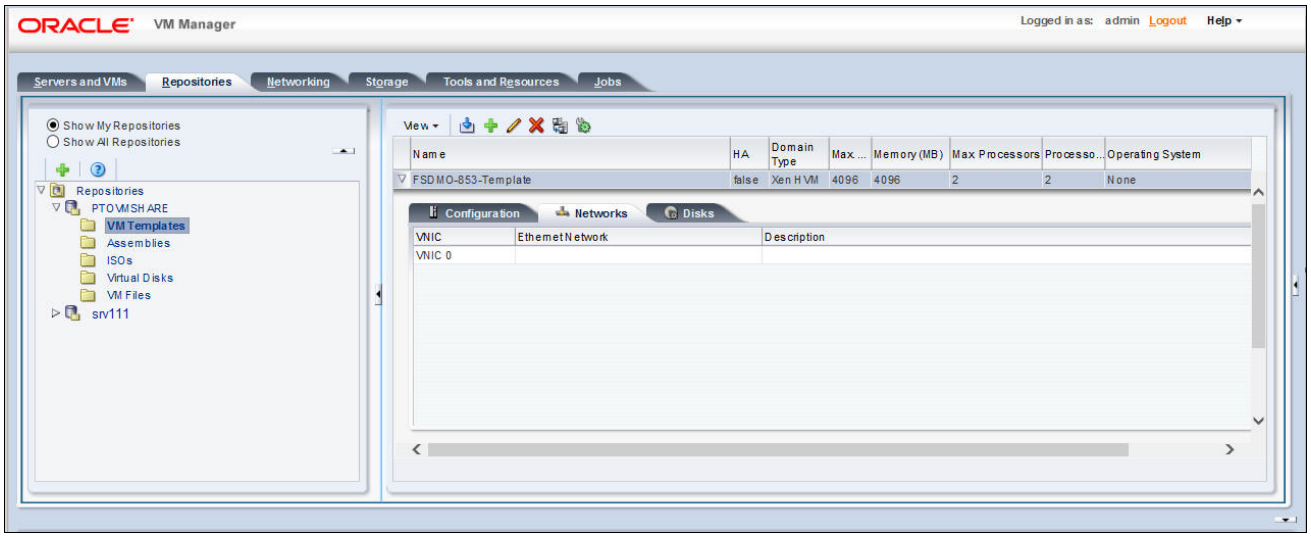
7. Review the information on the Networks page, as seen in this example.

   At this point, the Networks information indicates that there is no virtual network associated with the template. The virtual network is assigned in the following section, Editing the Template in Oracle VM.



Oracle VM Manager Repositories page with the Networks page for the imported template

Task B-1-3: Editing the Template in Oracle VM

You must make minor modifications to the default settings before you can create VMs. This section assumes that the template is open in Oracle VM Manager.

Note. This is similar to making changes in the Settings window of the Oracle VM VirtualBox Manager.

To edit the template:

1. In Oracle VM Manager, on the Repositories page, highlight the template and click the pencil icon to edit.
2. On the Edit VM *Template_Name* dialog box, select the Configuration page.

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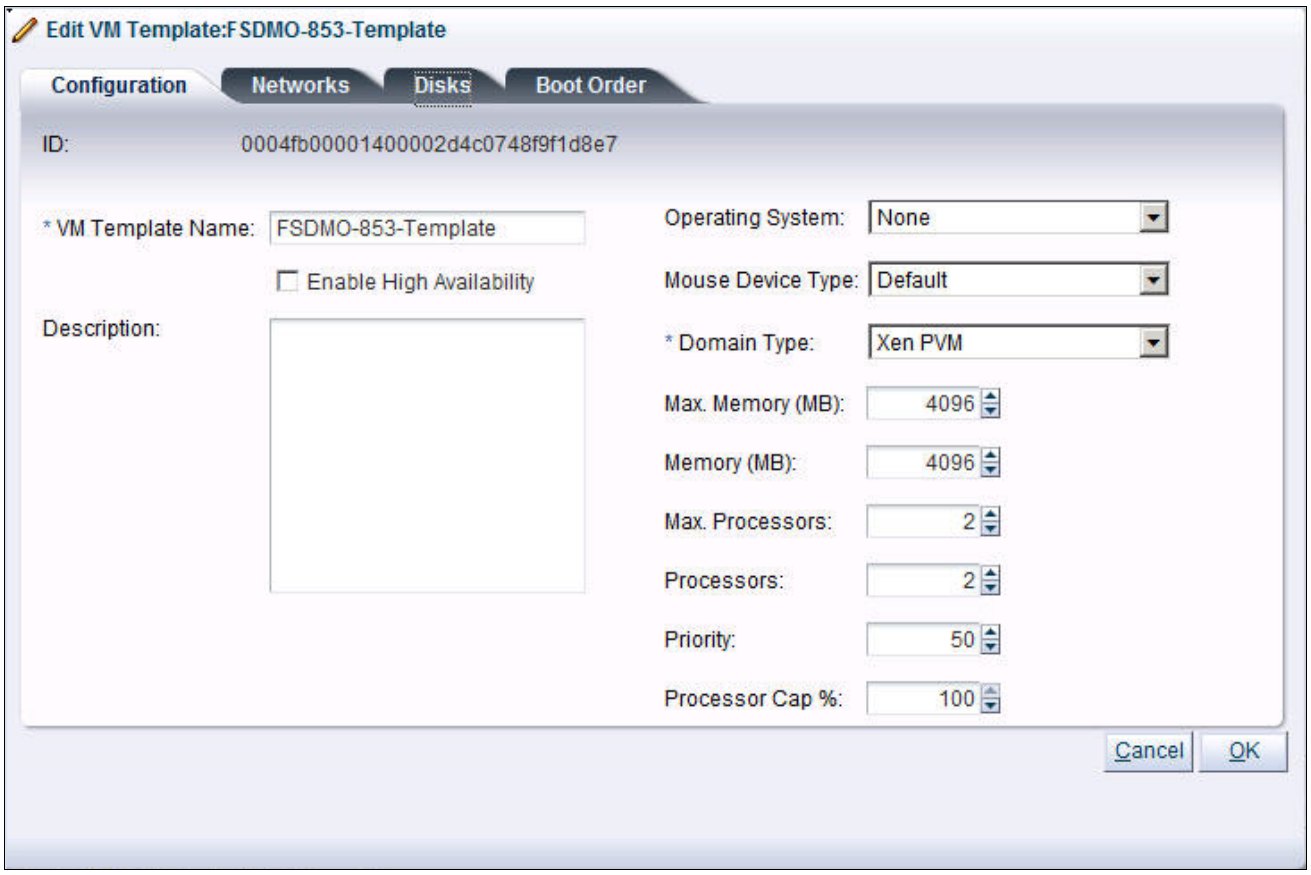
3. Change the Domain Type from Xen HVM, for hardware virtualized, to Xen PVM, for paravirtualized, as shown in this example.



Edit VM Template dialog box: Configuration page

4. Select the Networks page.

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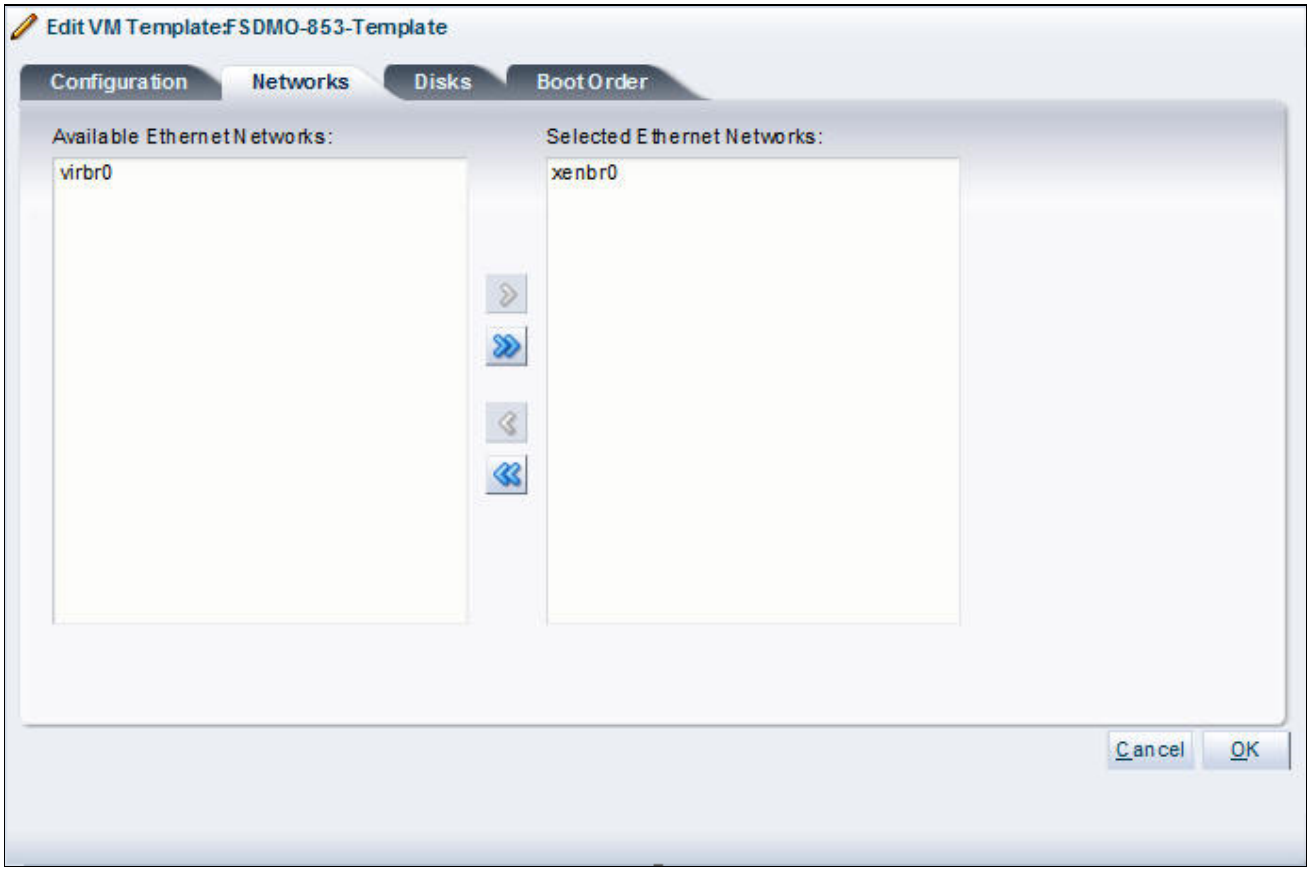
5. Select a network from the Available Ethernet Networks list, and move it to the Selected Ethernet Networks list.

   This assigns a virtual network to the VM. In this example, the xenbr0 network is shown in the Selected Ethernet Networks list.

Note. You will need to do this before VMs created from the template will work. This step can in fact be deferred until the VM is being created but by doing it at this point, every VM you subsequently create from this template will work without modifying any settings.



Edit VM Template dialog box: Networks page

6. Click OK to save the changes.

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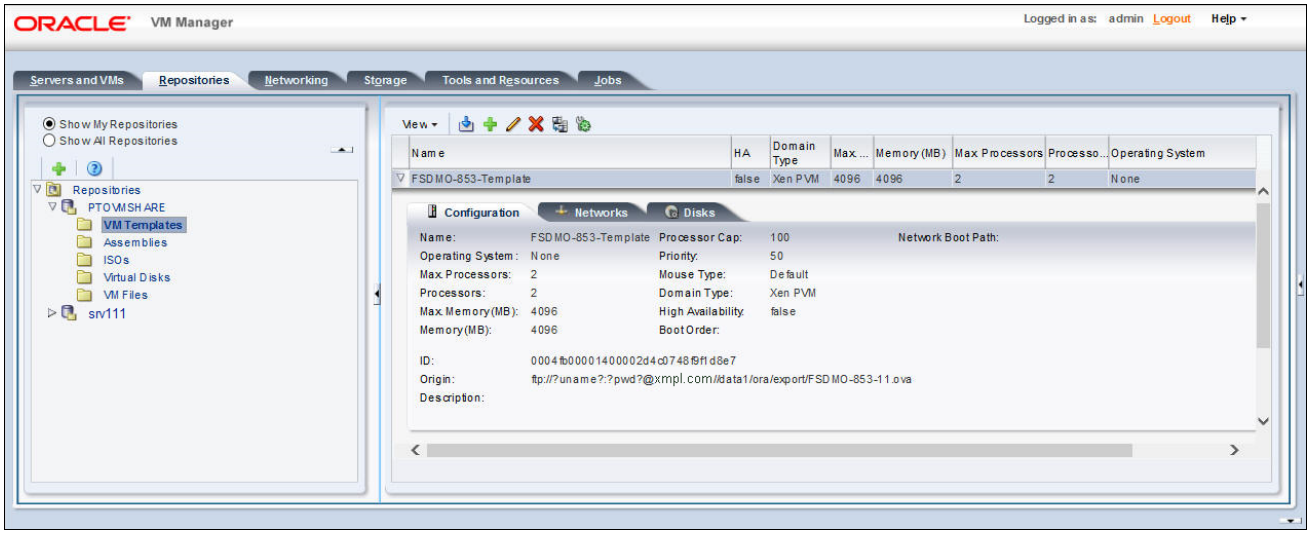
7. In the management pane of the Repositories page, select the Configuration page and verify that the Domain Type is Xen PVM.



Oracle VM Manager Repositories page with Configuration page for the edited template

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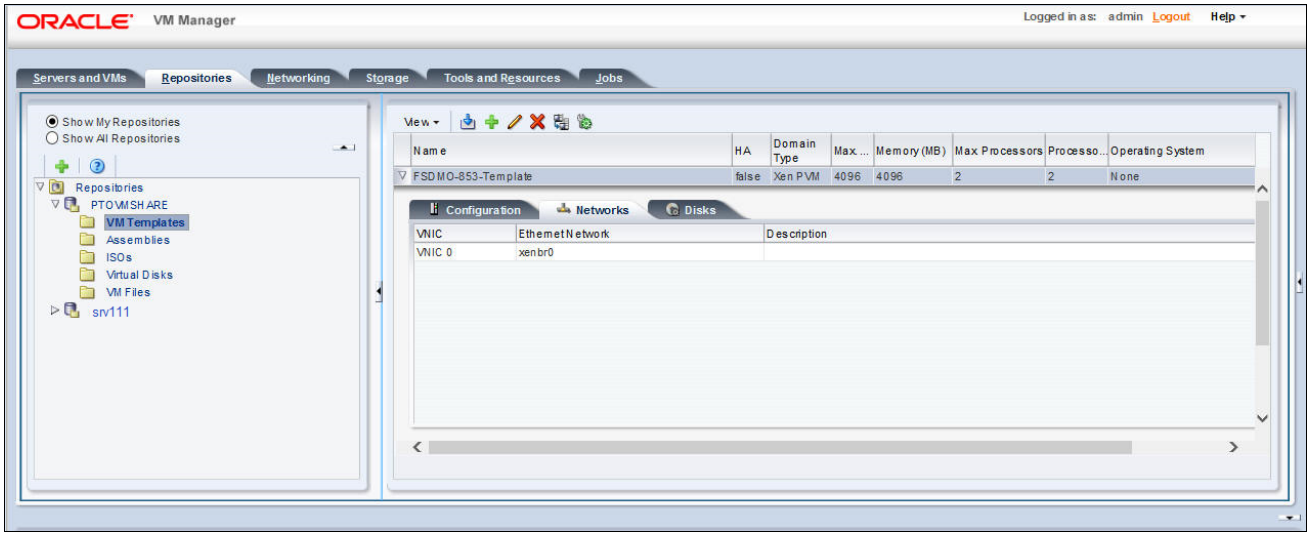
8. In the management pane of the Repositories page, select the Networks page and verify that the Ethernet Network is the one that you specified, xenbr0 in this example.



Oracle VM Manager Repositories page with Networks page for the edited template

Task B-1-4: Creating a VM from the New Template

To create a VM from the template you created from the OVA:

1. In Oracle VM Manager, select the Servers and VMs page.
2. Click the Create VM icon.

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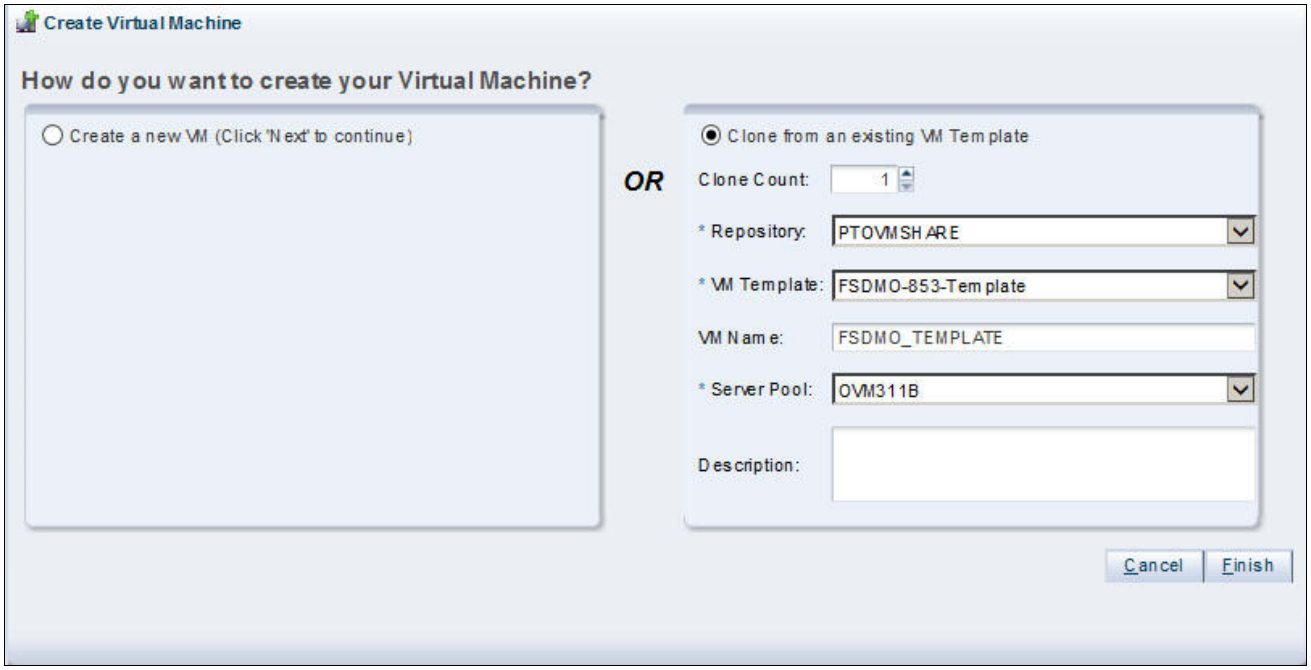
3. On the Create Virtual Machine dialog box, select the Clone from an existing VM Template option, and specify the following parameters:



Create Virtual Machine dialog box

- *Repository*: Select the repository in which to create the virtual machine configuration files.

  In the example the repository is PTOVMSHARE.
- *VM Template*: Specify the template to use to create the virtual machines.

  In the example, the VM template is FSDMO-853-Template. Replace the name used in the example with the correct name for your situation.
- *VM Name*: Enter a name for the template.

  In the example, the VM name is FSDMO_TEMPLATE.
- *Server Pool*: Specify the server pool in which to deploy the virtual machines.

  In the example, the server pool is OVM311B.

4. Click Finish to return to the Servers and VMs page.

See *Oracle® VM User's Guide for Release 3.1.1,* "Creating a Virtual Machine."

Task B-2: Starting the VM and Setting Up the PeopleSoft Environment

In this section you start the VM that you created in the previous section, and then use the PeopleSoft DPK setup scrip to set up the PeopleSoft environment using the DPK zip files that you obtained in the Prerequisites section.

To start the VM and set up the PeopleSoft environment:

1. In Oracle VM Manager, on the Servers and VMs page, select the server in which the virtual machine resides in the Server Pools folder.

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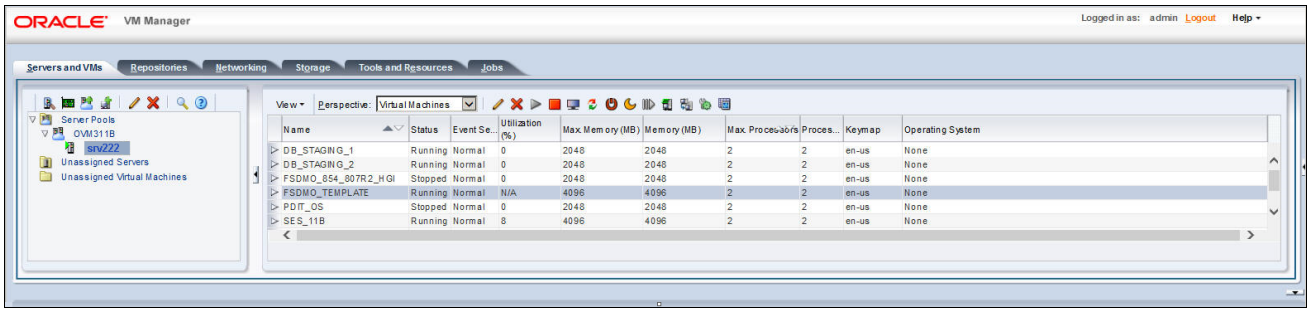
2. Select the virtual machine in the management pane on the right, and click the start icon (green triangle).

   Wait until you see the status "Running" as in this example for the VM FSDMO_TEMPLATE, before continuing.



Oracle VM Manager Servers and VMs page showing template status

3. Click the Launch Console icon (browser) to begin the initialization process.

   You see initialization messages for the virtual machine similar to the following. Some of the messages have been omitted for brevity:

```
Changing password for user root.
New UNIX password:
Retype new UNIX password:
passwd: all authentication tokens updated successfully.

.
.
.


Verifying if Puppet Software is Installed on the Host:          [  OK  ]
Verifying if Hiera-Eyaml Backend is Installed on the Host:      [  OK  ]

Preparing the OracleLinux VM for PeopleSoft Environment:
```

4. If you would like to set up the PeopleSoft environment at a later time, enter *q* (quit) at the following prompt:

```
The host needs access to the PeopleSoft DPKs to setup a
PeopleSoft environment.

You may provide a filesystem that is already accessible
to this host. Alternatively, you can provide details to mount
a filesystem from an external location.

1.  File system location already accessible to the host.
2.  Mount external file system location.
q.  Abort the initialization process.
Enter 1, 2, or q(uit): q
The PeopleSoft environment initialization will abort.
```

   To set up the PeopleSoft environment later, after exiting:

   a. Access the VM using SSH.

   b. Use SFTP to download all of the remaining PeopleSoft DPK zip files (Filename_1of15.zip through Filename_10of15.zip) from the host into the /opt/oracle/psft/dpk directory on the VM.

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c. Change directory (cd) into /opt/oracle/psft/dpk/setup directory.

d. Extract the setup DPK (Filename_1of15.zip) in the /opt/oracle/psft/dpk directory.

   The extraction creates a setup directory and various files.

e. Run the script /opt/oracle/psft/dpk/setup/psft-dpk-setup.sh; for example:

```
sh ./psft-dpk-setup.sh
```

5. If you want to set up the PeopleSoft environment at this time, when you see the following prompt, *first* open a separate SSH session to the VM.

```
The host needs access to the PeopleSoft DPKs to setup a
PeopleSoft environment.

You may provide a filesystem that is already accessible
to this host. Alternatively, you can provide details to mount
a filesystem from an external location.

1.  File system location already accessible to the host.
2.  Mount external file system location.
q.  Abort the initialization process.
Enter 1, 2, or q(uit):
```

a. In the separate SSH session, use SFTP to download all of the remaining PeopleSoft DPK zip files (Filename_1of15.zip through Filename_10of15.zip) from the host into the /opt/oracle/psft/dpk directory on the VM.

b. In the first SSH session, specify *1. File system location already accessible to the host*, at the prompt above.

c. Enter /opt/oracle/psft/dpk at the following prompt:

```
Enter the full path of the PeopleSoft DPKs directory:
```

6. After checking the setup, the initialization process validates the files found in the shared folder, and then extracts the DPKs from the zip files.

```
Preparing the VirtualBox VM for PeopleSoft Environment:

Checking if Directory /home is writable:

Checking if VBox Guest Additions are Installed on the VM:
Installing VirtualBox Guest Additions into the VM:           [ OK ]

Validating the Shared Folder setup in the VM:                [ OK ]
Checking if DPKs are Present in the Shared Folder:           [ OK ]

Downloading the DPKs into the VM:                           [ OK ]

Validating the DPKs in the VM:
Validating the PeopleSoft Application DPK:                   [ OK ]
Validating the PeopleSoft PeopleTools DPK:                   [ OK ]
Validating the Oracle Database Server DPK:                   [ OK ]
Validating the DPK dependencies in the VM:                   [ OK ]
Validating the Manifest Information in DPKs:                 [ OK ]

Extracting the DPK Archives in the VM:
```


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```
Extracting the Oracle Database Server DPK Archive:           [ OK ]
Extracting the PeopleSoft Application Database DPK Archive:  [ OK ]
Extracting the PeopleSoft PeopleTools DPK Archive:           [ OK ]

Extracting the Oracle Database Client DPK Archive:           [ OK ]
Extracting the 8.53 Tools Client DPK Archive:                [ OK ]
Extracting the 8.54 Tools Client DPK Archive:                [ OK ]
Extracting the 8.55 Tools Client DPK Archive:                [ OK ]
```

The initialization process sets up the PeopleSoft Puppet file system.

```
Setting up Puppet on the VM:
Generating Hiera-Eyaml Puppet Backend Encryption Keys        [ OK ]
Copying PeopleSoft Puppet Modules:                           [ OK ]
Updating the Puppet Hiera YAML Files:                        [ OK ]
Updating the Puppet Site File for the VM:                    [ OK ]
```

7. Enter a name for the database, such as HCM92.

   The database name must start with a letter, have only UPPERCASE letters, include only alphanumeric characters, and be no more than 8 characters in length. Press ENTER to accept the default, PSFTDB.

   ```
   Enter the name of the database. Please ensure that the database
   name starts with a letter and includes only alphanumeric characters
   and is no more than 8 characters in length [PSFTDB]:
   ```

8. Enter the PeopleSoft Connect ID.

   The Connect ID must include only alphanumeric characters and be less than 8 characters in length. Press ENTER to accept the default, people.

   ```
   Enter the name of PeopleSoft Connect ID. Please ensure that the
   id includes only alphanumeric characters and is no more than 8
   in length [people]:
   ```

9. Enter a password for the PeopleSoft Connect ID, and enter again on the next line.

   The password must be between 6 and 8 characters in length. It must not contain any spaces, dashes, or quote characters. The password is not visible as you type, and the window does not display masking characters. There is no default password.

   ```
   Enter the PeopleSoft Connect ID Password. Please ensure that the
   password does not contain any spaces and quote characters and is
   at least 6 and no more than 8 characters in length:
   Re-Enter the PeopleSoft Connect ID Password:
   ```

10. Enter the Application Server Domain Connection Password.

    The Application Server Domain Connection Password is required for a successful connection between the Application Server and the PeopleSoft Pure Internet Architecture. The password must be between 8 and 30 characters in length. It must not contain any spaces or quote (") characters. The password is not visible as you type, and the window does not display masking characters. There is no default password.

    ```
    Enter the Application Server Domain Connection Password. Please
    ensure that the password does not contain any spaces and quote
    characters and is at least 8 and no more than 30 characters in
    length:
    Re-Enter the Application Server Domain Connection Password:
    ```

11. Enter the Oracle WebLogic Server Admin Password.

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The password must be at least 8 characters in length, with at least one number or a special character, such as a pound sign (#). The password is not visible as you type, and the window does not display masking characters. There is no default password.

```
Enter a new WebLogic Server Admin Password. Please ensure that
the password has at least 8 characters with at least one number
or a special characters:
Re-Enter the new WebLogic Server Admin Password:
```

12. Answer *n* (no) to the following prompt:

    Using the SES VMDK is not supported with this Linux host/VM setup.

    ```
    The SES VMDK Disk is Mounted on this VM. Do you wish to setup
    SES on this VM? [y|n]:
    ```

13. If you want to change any of the answers to the previous questions, enter *n* (no) at the following prompt, or enter *y* (yes) to continue:

    ```
    Are you happy with your answers? [y|n]:
    ```

    The initialization process updates the Puppet data file with the information you supplied.

    ```
    Updating the Puppet Hiera YAML Files with User Input:          [ OK ]
    ```

14. If you want to continue running the initialization script interactively, answer *y* (yes) to the following prompt, and continue with the next step.

    If you want to set up your environment manually using the Puppet modules, answer *n* (no). The initialization stops, and the VM windows closes.

    See *PeopleSoft PeopleTools 8.55 Deployment Packages Installation*, "Customizing a PeopleSoft Environment."

    ```
    The bootstrap script is ready to deploy and configure the PeopleSoft
    environment using the default configuration defined in the Puppet
    YAML files. You can proceed by answering 'y' at the following prompt.
    And if you want to customize the environment by overriding the default
    settings, you can answer 'n'. If you answer 'n', you should follow the
    instructions in the Installation Guide for creating a customizations
    YAML file and running Puppet apply command directly to continue with
    the setup of the PeopleSoft environment.

    Do you want to continue with the default initialization process? [y|n]:
    ```

15. Review the status of the setup steps.

    The system displays messages indicating the steps in the setup process. The success or failure of a step is indicated by [OK] or [FAILED]. See the log file mentioned at the end of this section for information on failed steps. This example shows portions of the configuration messages:

    ```
    Setting Up System Settings:                                   [ OK ]
    Deploying HCM Application Component:                           [ OK ]
    Deploying PeopleTools Components:                              [ OK ]
    Deploying Oracle Database Server:                              [ OK ]
    Setting Up PeopleSoft Users Profile:                           [ OK ]
    .
    .
    .
    Starting PeopleSoft Domains:                                   [ OK ]
    ```


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```
Configuring Post-Boot PeopleSoft Environment:                  [ OK ]

The initialization of PeopleSoft HCM fulltier environment is successful

Template configuration disabled.
Starting OSWatcher:                                            [ OK ]
```

16. The login prompt appears.

    The PeopleSoft runtime environment is available for use.

17. To confirm external shell access to the virtual machine, log in to the virtual machine from your host OS using Secure Shell (SSH) with a telnet client, such as PuTTY.

    In order to connect with SSH you will need the IP address of the virtual machine. The IP address can be identified using the Linux command `ifconfig`.

    After the SSH client connects to the host, before you can access the virtual machine, you will need to supply the root user and the password that you provided earlier in this procedure.

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