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PeopleSoft

PeopleSoft PeopleTools 8.56 Deployment Packages Installation

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PeopleSoft PeopleTools 8.56 Deployment Packages Installation
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Chapter 3

About this Documentation

This preface discusses:

- Understanding This Documentation
- Audience
- Typographical Conventions
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- Related Information
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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.

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.

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.

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.

Chapter 1

Prerequisites

This chapter discusses:

- Understanding the PeopleSoft PeopleTools Deployment Packages
- Reviewing Hardware Requirements
- Reviewing Software Requirements
- Cataloging the Database for DB2 LUW or DB2 z/OS
- Reviewing the System Parameters on Linux, AIX, or Solaris

Understanding the PeopleSoft PeopleTools Deployment Packages

The PeopleSoft PeopleTools deployment packages (DPKs) enable you to install the PeopleSoft PeopleTools server and client software, application server, Process Scheduler, and PeopleSoft Pure Internet Architecture (PIA) domains, as well as required supporting software, for use with an existing PeopleSoft database. For details about the PeopleTools DPKs, see the following sections in this documentation:

For information about this topic:	See this section:
How to obtain the DPKs from My Oracle Support or Oracle Software Delivery Cloud	"Deploying the PeopleSoft PeopleTools Deployment Packages," Obtaining the PeopleSoft PeopleTools DPKs
Using the DPKs to install PeopleSoft application server, Process Scheduler, and PIA domains (referred to as a mid-tier environment)	"Deploying the PeopleSoft PeopleTools Deployment Packages," Running the DPK Setup Script for Mid-Tier Deployment
Using the DPKs to install only the installation directory for the PeopleSoft PeopleTools server software *(PS_HOME)*	"Deploying the PeopleSoft PeopleTools Deployment Packages," Running the DPK Setup Script to Install PS_HOME Only
Using the DPK to install PeopleTools Client software	"Deploying the PeopleSoft PeopleTools Deployment Packages," Deploying the PeopleTools Client DPK
Methods for using the DPKs for patching a PeopleSoft PeopleTools 8.56 release	"Applying PeopleTools Patches Using DPKs"
How to customize the DPK installation for your environment **Note.** If you are connecting to a database platform other than Oracle, you must use customizations.	"Completing the DPK Initialization with Customizations"

For information about this topic:	See this section:
Using the DPKs for other selective installations, such as an application server domain alone.	"Deploying the PeopleSoft PeopleTools Deployment Packages," Reviewing the DPK Setup Script Options
The terminology used with DPK deployment, and the contents of the DPKs	"Learning About the PeopleSoft Deployment Process," Reviewing the Deployment Packages
The PeopleSoft components installed by the DPK deployment	"Learning About the PeopleSoft Deployment Process," Understanding PeopleSoft Components
The Puppet open-source software used in DPK development	"Learning About the PeopleSoft Deployment Process," Understanding Puppet and the PeopleSoft Puppet Modules

Task 1-1: Reviewing Hardware Requirements

This section discusses:

- Reviewing Hardware Requirements for Microsoft Windows
- Reviewing Hardware Requirements on IBM AIX, Linux, or Oracle Solaris

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

You can install the PeopleSoft Application Image deployment packages (DPKs) directly on a system running a Microsoft Windows operating system. The PeopleSoft DPKs are certified to run on those Microsoft Windows operating systems that are certified for PeopleSoft PeopleTools 8.56. The Microsoft Windows system can be a physical computer or a virtual machine.

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

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

- *Host computer*: The PeopleSoft DPKs can be deployed 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.

- *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 vary depending upon the type of environment you set up.

  See "Preparing to Deploy," Understanding PeopleSoft Components.

  - 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.

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

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

See Also

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

Task 1-1-2: Reviewing Hardware Requirements on IBM AIX, Linux, or Oracle Solaris

You can install the PeopleSoft Application Image deployment packages (DPKs) directly on a system running a Linux operating system. You can install the PeopleSoft PeopleTools deployment packages (DPKs) directly on a system running an IBM AIX, Linux, or Oracle Solaris for SPARC operating system. The PeopleSoft Application Images and PeopleSoft PeopleTools DPKs are certified to run on those operating systems that are certified for PeopleSoft PeopleTools 8.56. The AIX, Linux, or Solaris system can be a physical computer or a virtual machine.

- *Host computer*: The PeopleSoft DPKs can be deployed on any supported AIX, Linux, or Solaris host, either a physical computer or virtual machine. The PeopleSoft DPKs can also be deployed on Oracle Exalogic Elastic Cloud.

  If you deploy 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.

  See "Preparing to Deploy," Understanding PeopleSoft Components.

  - 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.

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

  - 25 GB free disk space is required to deploy and set up a mid-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 Software Requirements on Solaris
- Reviewing Software Requirements on AIX
- Reviewing Requirements for the Puppet Software on Microsoft Windows
- Reviewing Requirements for the Puppet Software on Linux
- Reviewing Requirements for the Puppet Software on Solaris
- Reviewing Requirements for the Puppet Software on AIX

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:

- Administrative permission
- As of the PeopleSoft PeopleTools 8.56.06 patch release, the DPK setup script can be run from any drive, regardless of the drive where the Windows operating system is installed.
- Web Browser

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

  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
  ```
- Specifying *PS_CUST_HOME*

  If you wish to use a *PS_CUST_HOME* location to store your site's custom files, you must create the directory manually and set the PS_CUST_HOME environment variable. The DPK setup will use the environment variable location for setting up the PeopleSoft domains.

  See "Deploying the PeopleSoft PeopleTools Deployment Packages," Reviewing the DPK Setup Script Options.

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 run the DPK setup script.
- 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.

- Specifying *PS_CUST_HOME*

  If you wish to use a *PS_CUST_HOME* location to store your site's custom files, you must create the directory manually and set the PS_CUST_HOME environment variable. The DPK setup will use the environment variable location for setting up the PeopleSoft domains.

  See "Deploying the PeopleSoft PeopleTools Deployment Packages," Reviewing the DPK Setup Script Options.

Task 1-2-3: Reviewing Software Requirements on Solaris

Here are the software requirements for using the PeopleSoft Deployment Packages on Oracle Solaris for SPARC:

- You must have root access to run the DPK setup script.
- 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.

- OpenSSL

  Obtain the latest version of OpenSSL for your operating system and install it on the host.

- Specifying *PS_CUST_HOME*

  If you wish to use a *PS_CUST_HOME* location to store your site's custom files, you must create the directory manually and set the PS_CUST_HOME environment variable. The DPK setup will use the environment variable location for setting up the PeopleSoft domains.

  See "Deploying the PeopleSoft PeopleTools Deployment Packages," Reviewing the DPK Setup Script Options.

Task 1-2-4: Reviewing Software Requirements on AIX

Here are the software requirements for using the PeopleSoft Deployment Packages on an IBM AIX machine:

- You must have root access to run the DPK setup script.
- Utilities for extracting the DPK zip files

  You need both the gunzip and unzip utilities for your operating system in order to extract the DPK zip files, and the PATH for the root user must include the gunzip and unzip locations.

- OpenSSL

  Obtain the latest version of OpenSSL for your operating system and install it on the host.

- JDK 8.0

  You must manually install JDK 8.0 from the IBM web site. To obtain 64-bit IBM JDK for IBM AIX:

  1. Go to the IBM JDK download and service site.

     http://www.ibm.com/developerworks/java/jdk/aix/service.html

     Note. You need a user name and password for downloading IBM JDK. If you don't have the required credentials, contact IBM AIX support.

2. Select the link for Java 8 64-bit under Java SE Version 8.

3. Provide the required information to sign in.

4. Install the JDK on the AIX computer where you will install the PeopleSoft AIX DPK.

5. Make a note of the installation location.

    For the AIX DPK installation, you must perform the deployment using the DPK customizations, and specify the AIX JDK installation location.

    See "Completing the DPK Initialization With Customizations," Preparing the Customization File for JDK on AIX.

- Specifying *PS_CUST_HOME*

    If you wish to use a *PS_CUST_HOME* location to store your site's custom files, you must create the directory manually and set the PS_CUST_HOME environment variable. The DPK setup will use the environment variable location for setting up the PeopleSoft domains.

    See "Deploying the PeopleSoft PeopleTools Deployment Packages," Reviewing the DPK Setup Script Options.

Task 1-2-5: 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 1.5.2

    - Puppet 4.5.2

    - Hiera 3.2.0

    - Facter 3.2.0

    - Ruby 2.1.9

- 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.

    See "Deploying the PeopleSoft PeopleTools Deployment Packages," Obtaining Operating System Packages Required for Puppet.

- 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 Also

"Learning About the PeopleSoft Deployment Process," Understanding Puppet and the PeopleSoft Puppet Modules

Task 1-2-6: 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.

- 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 1.5.2

  - Puppet 4.5.2

  - Hiera 3.2.0

  - Facter 3.2.0

  - Ruby 2.1.9

- 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.

  See "Deploying the PeopleSoft PeopleTools Deployment Packages," Obtaining Operating System Packages Required for Puppet.

- 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 Also

"Learning About the PeopleSoft Deployment Process," Understanding Puppet and the PeopleSoft Puppet Modules

Task 1-2-7: Reviewing Requirements for the Puppet Software on Solaris

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 not supported for Oracle Solaris for SPARC operating systems.

    If you are installing the PeopleSoft DPKs for Oracle Solaris for SPARC, you must use the Puppet software that is delivered with the DPKs.

- Before installing the PeopleSoft DPKs for Oracle Solaris for SPARC, check the Puppet web site for Puppet dependencies or limitations for those operating systems.

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

  - Puppet 4.5.2

  - Hiera 3.2.0

  - Facter 3.2.0

  - Ruby 2.1.9

- 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.

  See "Deploying the PeopleSoft PeopleTools Deployment Packages," Obtaining Operating System Packages Required for Puppet.

- 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 Also

"Learning About the PeopleSoft Deployment Process," Understanding Puppet and the PeopleSoft Puppet Modules

Task 1-2-8: Reviewing Requirements for the Puppet Software on AIX

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 not supported for IBM AIX operating systems.

  If you are installing the PeopleSoft DPKs for IBM AIX, you must use the Puppet software that is delivered with the DPKs.

- If you are installing the PeopleSoft DPKs for IBM AIX, check the Puppet web site for Puppet dependencies or limitations for those operating systems.

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

  - Puppet 4.5.2

  - Hiera 3.2.0

  - Facter 3.2.0

  - Ruby 2.1.9

- 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.

  See "Deploying the PeopleSoft PeopleTools Deployment Packages," Obtaining Operating System Packages Required for Puppet.

- 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 Also

"Learning About the PeopleSoft Deployment Process," Understanding Puppet and the PeopleSoft Puppet Modules

Task 1-3: Cataloging the Database for DB2 LUW or DB2 z/OS

For all installations on DB2 z/OS or DB2 for Linux, UNIX, or Windows (DB2 LUW), you must catalog the database before mid-tier deployment using DPKs. To catalog the database, see the documentation for DB2 z/OS or DB2 LUW for information.

Task 1-4: Reviewing the System Parameters on Linux, AIX, or Solaris

The generated YAML file for UNIX operating systems includes settings for certain system parameters. When you run the DPK setup script on Linux, AIX, or Solaris, the script overwrites those system-level parameters that are different from the values in *BASE_DIR*/dpk/puppet/production/data/psft_unix_system.yaml.

- The psft_unix_system.yaml file includes the following sysctl parameters:

```
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 psft_unix_system.yaml file includes the following ulimits parameters:

```
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
```

Chapter 2

Deploying the PeopleSoft PeopleTools Deployment Packages

This chapter discusses:

- Obtaining the PeopleSoft PeopleTools DPKs
- Reviewing the DPK Setup Script Options
- Running the DPK Setup Script for Mid-Tier Deployment
- Running the DPK Setup Script to Install Mid-Tier Software Only
- Running the DPK Setup Script to Deploy an Application Server Domain
- Running the DPK Setup Script to Deploy a Process Scheduler Domain
- Running the DPK Setup Script to Deploy an Application Server and a Process Scheduler Domain
- Running the DPK Setup Script to Deploy a PIA Domain
- Running the DPK Setup Script to Deploy All Domains
- Running the DPK Setup Script to Install PS_HOME Only
- Obtaining Operating System Packages Required by Puppet
- Deploying the PeopleTools Client DPK

Task 2-1: Obtaining the PeopleSoft PeopleTools DPKs

This section discusses:

- Obtaining the PeopleSoft PeopleTools DPKs from My Oracle Support
- Obtaining the PeopleSoft PeopleTools DPKs from Oracle Software Delivery Cloud

Task 2-1-1: Obtaining the PeopleSoft PeopleTools DPKs from My Oracle Support

The PeopleSoft PeopleTools patches 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 PeopleTools Patches Home Page, My Oracle Support, Doc ID 2062712.2, to find the information on locating and downloading the latest PeopleSoft PeopleTools patch.

   This page includes documentation and links to the most recent patches. To find earlier PeopleSoft PeopleTools patches:

      a.   Sign in to My Oracle Support.

      b.   Select the Patches & Updates tab.

      c.   Select Product or Family (Advanced), and search for PeopleSoft PeopleTools.

2. Download the DPK zip files 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.

    The zip files have the following format:

    PEOPLETOOLS-*<Operating_System>*-*<Release>*-#of*n*.zip

    For example:

    PEOPLETOOLS-LNX-8.56.02-1of4.zip

    PEOPLETOOLS-LNX-8.56.02-2of4.zip

    PEOPLETOOLS-LNX-8.56.02-3of4.zip

    PEOPLETOOLS-LNX-8.56.02-4of4.zip

    The files names are comprised of the following parts:

- *<Operating_System>* is AIX for IBM AIX, LNX for Oracle Linux, SOL for Oracle Solaris for SPARC, or WIN for Microsoft Windows.
- *<Release>* is the release and patch number for the product, such as 8.56.02.
- *n* represents the total number of zip files.

Task 2-1-2: Obtaining the PeopleSoft PeopleTools DPKs from Oracle Software Delivery Cloud

At the general availability date for PeopleSoft PeopleTools 8.56, you can obtain the PeopleSoft PeopleTools DPKs from Oracle Software Delivery Cloud. This version includes the 8.56.01 patch and the full codeline. Later patches are available only on My Oracle Support. To obtain the PeopleSoft PeopleTools DPKs from Oracle Software Delivery Cloud:

1. Sign in to Oracle Software Delivery Cloud.

    See Oracle Software Delivery Cloud, https://edelivery.oracle.com.

2. Search for PeopleSoft PeopleTools release.

3. Select your operating system from the Platform list, and click Search.

4. Click Continue twice.

5. Review and accept the terms and conditions.

6. Download the DPK zip files, for example V123456-0#.zip, 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.

Task 2-2: Reviewing 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 shell script for Linux, AIX, or Solaris, (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 DPK setup script offers a variety of options for setting up mid-tier components, *PS_HOME* folder, and PeopleSoft domains, depending upon the options you supply. 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 mid-tier environment connecting to an existing PeopleSoft database.

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, AIX, or Solaris. The suffix *<ext>* in the table refers to the operating system specific extension.

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

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

Deployment	DPK Setup Script Command
Perform the following: • Install the software required for the mid-tier components, including Oracle Tuxedo, Oracle WebLogic, and Oracle database client. • Deploy and set up the domains for the mid-tier components (Application Server, web server, Process Scheduler and Oracle database client). The deployment sets up one each of Application Server, web server, and Process Scheduler domains. • Install the *PS_HOME* directory.	`psft-dpk-setup.<ext>` ` --env_type midtier`

Perform the following:
 	
• Install the software required for the mid-tier components, including Oracle Tuxedo, Oracle WebLogic and Oracle database client, without setting up the mid-tier domains.
 	
• Install the *PS_HOME* directory.
 	
*There is additional information following this table.
	`psft-dpk-setup.<ext>`
	` --env_type midtier`
	` --deploy_only`
	or
	`psft-dpk-setup.<ext>`
	` --env_type midtier`
	` --deploy_only`
	`--deploy_type all`

Deployment	DPK Setup Script Command
Deploy the *PS_HOME* directory only. This option does not set up any domains. *There is additional information following this table.	```psft-dpk-setup.<ext> --env_type midtier --deploy_only --deploy_type tools_home```
Deploy and set up the domain for the Application Server only.	```psft-dpk-setup.<ext> --env_type midtier --domain_type appserver```
Deploy and set up the domain for the Process Scheduler only.	```psft-dpk-setup.<ext> --env_type midtier --domain_type prcs```
Deploy and set up the domain for PIA only. **Note.** Before beginning the PIA domain deployment, ensure that Application Server and Process Scheduler domains are available.	```psft-dpk-setup.<ext> --env_type midtier --domain_type pia```
Deploy and set up the domains for the Application Server and the Process Scheduler.	```psft-dpk-setup.<ext> --env_type midtier --domain_type appbatch```
Deploy and set up the domains for the Application Server, the Process Scheduler, and PIA.	```psft-dpk-setup.<ext> --env_type midtier --domain_type all```
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>```
Remove a deployed environment. See "Using and Maintaining the PeopleSoft Environment," Removing a Deployed PeopleSoft Environment.	```psft-dpk-setup.<ext> --cleanup```
List the DPK setup script usage.	```psft-dpk-setup.<ext> --help```

The following options are also available for the PeopleSoft Application Images. These options require the presence of PeopleSoft application DPK zip files in the deployment folder. If *DPK_INSTALL* includes only the PeopleTools DPK zip files, you cannot use these options.

See "Using the DPK Setup Script with PeopleSoft Application DPKs."

Deployment	DPK Setup Script Command
Deploy the *PS_APP_HOME* directory only. This option does not set up any domains. *There is additional information following this table.	```psft-dpk-setup.<ext> --env_type midtier --deploy_only --deploy_type app_home```

Deployment	DPK Setup Script Command

Deploy the *PS_HOME* and *PS_APP_HOME* directories only.
 	
 This option does not set up any domains.
 	
 *There is additional information following this table.
	`psft-dpk-setup.<ext>`
	 ` --env_type midtier`
	 ` --deploy_only`
	 ` --deploy_type app_and_tools_home`

* When you use the `--deploy_only` options on Linux, AIX, or Solaris operating systems, the deployment does not set environment variables needed for subsequent tasks. After the deployment is complete, you can set the environment variables using one of these methods:

- Change directory to *BASE_DIR/*pt/ps_home8.56.xx and run `../psconfig.sh`.

- Run the following command:

```
/opt/oracle/puppetlabs/bin/puppet apply --confdir=<BASE_DIR>/dpk/puppet
-e "include ::pt_profile::pt_psft_environment" --debug --trace
--detailed-exitcodes
--logdest <DPK_INSTALL>/pt_psft_environment.log
```

Note. The command text given here includes line feeds for readability.

Include the following decisions in preparing for the installation process:

- FRESH or PUM installation type

  For this documentation, select a FRESH, or new installation, which enables you to make selections for RDBMS, Unicode, and multi-language support.

  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 other options.

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

  Note. If you are using the PeopleSoft Upgrade Source DPKs to set up an environment for the Upgrade Source database, you do not see the prompt for FRESH or PUM installation type.

- 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 "Completing the DPK Initialization with Customizations."

  The following installation scenarios require manual configuration using the customizations:

  - Installing on an AIX operating system

    See Reviewing the Software Requirements on AIX

    See Preparing the Customization File for JDK on AIX.

  - Connecting to a non-Oracle RDBMS platform

    See Preparing the Customization File for Mid-Tier Connection to a Microsoft SQL Server Database

    See Preparing the Customization File for Mid-Tier Connection to a DB2 z/OS Database

    See Preparing the Customization File for Mid-Tier Connection to a DB2 for Linux, UNIX, and Windows

Database

- 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.

- Multi-language support

  You are given the option to use the DPK setup script to deploy translated files to *PS_APP_HOME* for a multi-language installation.

- Unicode or non-Unicode

  While running the DPK setup script, you can choose to install a Unicode or non-Unicode environment.

  Alternatively, specify Unicode using the customizations and Puppet apply command.

  See "Completing the DPK Initialization with Customizations," Preparing the Customization File for Unicode.

- Specifying *PS_CUST_HOME*

  You may wish to set up a *PS_CUST_HOME* (PeopleSoft Customization Home) directory in your environment to store your site's customized files, separate from *PS_HOME* and *PS_APP_HOME.*

  If you wish to use a *PS_CUST_HOME* for your environment, use the following steps:

  1. Before running the DPK setup script, manually create the directory structure to use as *PS_CUST_HOME.*

     See *PeopleTools: System and Server Administration,* "Working with PS_CUST_HOME."

  2. Set the PS_CUST_HOME environment variable.

  3. When you run the DPK setup script, the setup process uses the PS_CUST_HOME environment variable for setting up the PeopleSoft domains.

Task 2-3: Running the DPK Setup Script for Mid-Tier Deployment

This section discusses:

- Understanding the Mid-Tier Deployment
- Prerequisites
- Running with the Mid-Tier Option on Microsoft Windows
- Running with the Mid-Tier Option on Linux, AIX, or Solaris

Understanding the Mid-Tier Deployment

Use this procedure to install the PeopleSoft mid-tier components The deployment includes the following:

- *PS_HOME* installed to the default location under the DPK base directory
- Oracle Tuxedo installed to the default location under the DPK base directory
- Oracle WebLogic installed to the default location under the DPK base directory
- Oracle database client installed to the default location under the DPK base directory
- Deployed and set up PeopleSoft domains. There is a single Application Server domain, single Process Scheduler domain, and single PIA domain.
- Microsoft Windows DPKs include Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries.

Prerequisites

Before performing the mid-tier deployment, ensure that you have fulfilled the following requirements:

- You have downloaded all of the required PeopleSoft PeopleTools DPKs, and saved them in a location accessible to the Microsoft Windows, Linux, AIX, or Solaris host, referred to here as *DPK_INSTALL.*

  See Obtaining the PeopleSoft PeopleTools DPKs.

  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.

- Remove any previous installations of the same version of Oracle Tuxedo.
- The user running the script *must have administrative permission* on Microsoft Windows, and *root access* on Linux, AIX, or Solaris.

  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.

- There is enough space on the host for the PeopleSoft environment.

  See "Prerequisites," Reviewing Hardware Requirements on Microsoft Windows.

- For deployment on Linux, AIX, or Solaris, there is a writable directory available for the home for the users that own the PeopleSoft environment. The default is /home.
- For deployment with the AIX DPK, you have installed JDK.

  See Reviewing Software Requirements.

- You have installed database connectivity software for the database that you want to access on the machine on which you deploy the mid-tier components.

  See "Completing the DPK Initialization with Customizations."

  When installing mid-tier components for environments on Microsoft SQL Server, DB2 z/OS, or DB2/LUW, you must use customizations to complete the installation. The delivered YAML files may not include the necessary RDBMS client information for your environment. Create a psft_customizations.yaml file, and include the correct client information.

  See the chapter "Completing the DPK Initialization with Customizations" for information on setting up a mid-tier connection to Microsoft SQL Server, DB2 z/OS or DB2/LUW databases.

- For all installations on DB2 z/OS or DB2 for Linux, UNIX, or Windows (DB2 LUW), you must catalog the database before mid-tier deployment using DPKs. To catalog the database, see the documentation for DB2 z/OS or DB2 LUW for information.
- The mid-tier deployment constructs a tnsnames.ora entry for use by the PeopleSoft mid-tier components (that is, application server and Process Scheduler) to connect to a database using SERVICE_NAME. If you plan to connect to an Oracle database, ensure that your database can be accessed using SERVICE_NAME in the tnsnames.ora entry.
- You have the information for the database to connect to, including:
  - RDBMS platform
  - Database name, service name, host, and listening port
  - Unicode or non-Unicode database
  - For DB2 z/OS or DB2 LUW, database catalog information
- You have the information for the user IDs and passwords needed for the deployment, including the following:

- PeopleSoft Connect ID and password
- PeopleSoft operator ID (such as PS or VP1) and password
- Application Server Domain Connection password (optional)
- PTWEBSERVER web profile user password
- Oracle WebLogic server administrator password
- Integration Gateway administrator

Task 2-3-1: Running with the Mid-Tier Option on Microsoft Windows

To deploy mid-tier components on physical or virtual Microsoft Windows hosts:

1. Extract the first zip file, *FILENAME_*1of*n.*zip.

   It is recommended that you extract into the same directory where you downloaded the zip file, *DPK_INSTALL.* The extraction creates the *DPK_INSTALL/*setup folder and other files.

2. Open a command prompt window with Run as Administrator.

3. Change directory to the location where you extracted the first zip file, *DPK_INSTALL/*setup.

4. Run the script with the mid-tier option to set up the Application Server, PIA, and web server mid-tier components.

   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..

   - If you extracted the first zip file into the same directory where you downloaded the zip files, use this command:

     ```
     psft-dpk-setup.bat --env_type midtier
     ```

   - 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.*

     ```
     psft-dpk-setup.bat --dpk_src_dir DPK_INSTALL --env_type midtier
     ```

Note. Running the DPK setup script with the --env_type midtier option deploys all servers. If you want to deploy one of the servers (application server, Process Scheduler server, PIA, or application server and Process Scheduler server) see the command options in "Installing the PeopleSoft Homes," Reviewing the DPK Setup Script Options.

---

5. Wait while the script locates the valid PeopleSoft DPK 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].

   After the script completes the extraction, it deletes the original files. Make a backup copy if you want to keep them.

   See Obtaining the PeopleSoft PeopleTools DPKs, for the filename syntax of the DPK zip files.

   ```
   Starting the PeopleSoft Environment Setup Process:

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

```
Extracting the Zip File FILENAME_1of4.zip:  [  OK  ]
Extracting the Zip File FILENAME_2of4.zip:  [  OK  ]
Extracting the Zip File FILENAME_3of4.zip:  [  OK  ]
Extracting the Zip File FILENAME_4of4.zip:  [  OK  ]
```

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

   The script verifies if Puppet software is installed in the default location specified by the DPKs. 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.

```
Starting the PeopleSoft Environment Setup Process:

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

Verifying if Puppet Software is Installed:              [  OK  ]

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 Install Puppet Software on this Host? [Y|n]: y

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

   The script verifies the eYAML software.

```
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  ]
```

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

   The base folder is used to extract the PeopleSoft DPKs as well as for deploying PeopleSoft components. The script creates the folder if it is not present.

   Note. When entering the path for the base folder, use forward slashes (/). For example, `C:/psft`. 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 permissions 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 mid-tier setup of a PeopleSoft environment requires about 25 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, and contains the Puppet YAML files for the deployment.

- *BASE_DIR*\pt

  The script uses this directory to deploy PeopleSoft components.

- *BASE_DIR*\db

  This directory is not used for a mid-tier deployment.

8. Review the status messages as the script validates the files found in the download folder, *DPK_INSTALL*.

   The script carries out validations for the mid-tier deployment. If any of the validations fail, the PeopleSoft environment setup is aborted.

```
Validating the PeopleSoft DPKs in the Windows VM:
Validating the PeopleSoft PeopleTools Server DPK:          [  OK  ]
Validating the PeopleSoft PeopleTools Client DPK:          [  OK  ]
Validating the Manifest Information in PeopleSoft DPKs:    [  OK  ]
```

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

```
Extracting the PeopleSoft DPK Archives in the Windows VM:
Extracting the PeopleSoft PeopleTools Server DPK Archives: [  OK  ]
Extracting the 8.56 PeopleTools Client DPK Archive:        [  OK  ]
```

10. 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 under the base folder *(BASE_DIR*\dpk) and updates the YAML files to reflect the type of PeopleSoft environment setup.

```
Setting up Puppet on the Windows VM:
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  ]
```

11. Specify the installation type.

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

Note. You see this prompt only when PeopleSoft application DPKs that were built on the same PeopleTools release, are present in *DPK_INSTALL*.

Note. If you are using the PeopleSoft Upgrade Source Image to set up an environment for the Upgrade Source database, you do not see this prompt.

---

12. Specify the information for the database that you want to connect to.

    a. For the database platform, enter ORACLE, MSSQL (for Microsoft SQL Server), DB2UNIX (for DB2 for Linux, UNIX, and Windows), or DB2ODBC (for DB2 for z/OS).

```
Enter the PeopleSoft database platform [ORACLE]:
```

    b. Enter *y* (yes) if the database you are connecting to is a Unicode database, or n (no) for a non-Unicode database.

```
Is the PeopleSoft database unicode? [Y|n]:
```

    c. Enter *y* (yes) if you want to install the files needed for multi-language support.

Note. You see this prompt only when PeopleSoft application DPKs that were built on the same PeopleTools release, are present in *DPK_INSTALL*.

```
Do you want Multi Language support in PeopleSoft database? [y|N]:
```

    d. Enter the database name.

```
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 [HCM92]:
```

    e. Enter the database service name.

Note. The service name is required for Oracle RDBMS.

For the service name, enter the full name, including the domain, if the database was installed with the domain. Use forward slashes if necessary. If the service name includes non-alphanumeric characters such as periods, enclose the name in double quotes. For example, "HCM.92.example.com".

```
Enter the PeopleSoft database service name [HCM92]:
```

    f. Enter the name of the host where the database is installed, and the port number:

Use forward slashes if necessary. If the host name includes non-alphanumeric characters such as periods, enclose the name in double quotes. For example, "host.example.com".

```
Enter the PeopleSoft database host name:
Enter the PeopleSoft database port [1521]: 1521
```

13. 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 at most 8 characters
in length [people]:
```

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

```
Enter the 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 database Connect ID password:
```

15. Enter *y* (yes) if you want the DPK setup script to update user passwords, as described in the prompt.

Note. You see this prompt only if you specified Oracle as the PeopleSoft database platform in a previous prompt.

```
Note: If the PeopleSoft environment is setup using DPKs in a distributed
topology with dbtier on one host and midtier on another, the PeopleSoft
application users [Access ID, Operator ID, WebProfile User] passwords
need to be reset from a midtier after DB provision. If this is the first
midtier instance accessing the database, we can automate the process of
updating these passwords.

Do you want to update the user passwords in PeopleSoft database? [y|N]:N
```

16. Enter the password twice for the database administrator:

```
Enter the PeopleSoft database Admin ID password:
Re-Enter the PeopleSoft database Admin ID password:
```

Note. You see this prompt if you answered yes to the previous prompt for updating the user passwords, and if you specified Oracle as the database platform.

17. Enter the PeopleSoft Operator ID (user ID) at the next prompt:

```
Enter the PeopleSoft database Operator ID [PS]:
```

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

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

Re-Enter the PeopleSoft Operator ID password:
```

19. Enter the password for the Access ID for the database:

```
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:
```

Note. You see this prompt if you answered yes to the previous prompt for updating the user passwords, and if you specified Oracle as the database platform.

20. 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:
```

21. 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 and one number
    or one special character (!@#$%^&):
    Re-Enter the WebLogic Server Admin user password:
    ```

22. Enter the password for the PTWEBSERVER web profile user.

    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: Security Administration,* "Working with Passwords."

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

23. 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 ID password does not allow special characters. However, the PeopleSoft system does allow special characters for the Integration Gateway user ID 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: Security Administration,* "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:
    ```

24. 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]:
    ```

25. 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  ]
    ```

26. 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. You must use customizations to complete the mid-tier deployment.

Note. If you are installing on an AIX operating system, you must use the customizations to specify the location of the manually installed JDK.

See "Completing the DPK Initialization with Customizations," Preparing the Customization File for JDK on AIX.

```
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]:
```

27. Review the status messages as the script runs Puppet profiles to set up the PeopleSoft environment.

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:

```
Starting the Default Initialization of PeopleSoft Environment:

Deploying PeopleTools 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.
```

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

```
Starting the Default Initialization of PeopleSoft Environment:

Deploying PeopleTools Components:                         [  OK  ]
Setting up PeopleSoft OS Users Environment:              [  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 PeopleSoft Environment Setup Process Ended.
```

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

Task 2-3-2: Running with the Mid-Tier Option on Linux, AIX, or Solaris

To deploy mid-tier components on Linux, AIX, or Solaris hosts:

1. Open a terminal window and change directory to *DPK_INSTALL/*setup.

2. As a user with root access, 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 --env_type midtier
   ```

   • 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.*

   ```
   ./psft-dpk-setup.sh --dpk_src_dir DPK_INSTALL --env_type midtier
   ```

Note. Running the DPK setup script with the --env_type midtier option deploy all servers. If you want to deploy one of the servers (application server, Process Scheduler server, PIA, or application server and Process Scheduler server) see the command options in "Installing the PeopleSoft Homes," Reviewing the DPK Setup Script Options.

---

3. Wait while the script locates the valid PeopleSoft DPK 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].

   After the script completes the extraction, it deletes the original files. Make a backup copy if you need to keep them.

   See Obtaining the PeopleSoft PeopleTools DPKs, for the filename syntax of the DPK zip files.

   ```
   Starting the PeopleSoft Environment Setup Process:

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

   Extracting the Zip File FILENAME_1of4.zip:  [  OK  ]
   Extracting the Zip File FILENAME_2of4.zip:  [  OK  ]
   Extracting the Zip File FILENAME_3of4.zip:  [  OK  ]
   Extracting the Zip File FILENAME_4of4.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 default location specified by the DPKs. 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.

```
Starting the PeopleSoft Environment Setup Process:

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

Verifying if Puppet Software is Installed:                [  OK  ]

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 Install Puppet Software on this Host? [Y|n]:

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

The script verifies the eYAML software.

```
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 Linux VM for PeopleSoft Environment:

Checking if PeopleSoft DPKs are Present:                  [  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. The directory /cs1/psft is used in this example:

   Note. When entering the path for the base directory, use forward slashes (/). For example, `/cs1/psft`. If the name includes any non-alphanumeric characters such as periods, enclose the name in double quotes. Do not use a name for the base directory that begins with a number.

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

Enter the PeopleSoft Base Directory: /cs1/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 mid-tier setup of a PeopleSoft environment takes about 25 GB of disk space.

```
Checking if the  Base Directory 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 PeopleTools DPKs, and contains the Puppet YAML files for the deployment.

- *BASE_DIR/*pt

  The script uses this directory to deploy PeopleSoft components.

- *BASE_DIR/*db

  This directory is not used for this deployment.

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

   The DPK setup creates local users on the host. These users deploy the PeopleSoft components and own the PeopleSoft runtime domains. The script checks whether 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:  [WARNING]

   The PeopleSoft environment setup creates local users on the Linux VM.
   The default Home directory [/home] do not
   have write permission to create the user's home directory. Please
   ensure this directory is writable or provide a new directory on the
   Linux VM that is writable.

   Enter a directory on the Linux 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 files found in *DPK_INSTALL.*

   The script carries out validations for the mid-tier deployment. If any of the validations fail, the PeopleSoft environment setup is aborted.

   ```
   Validating the PeopleSoft DPKs in the Linux VM:
   Validating the PeopleSoft PeopleTools Server DPK:         [  OK  ]
   Validating the PeopleSoft PeopleTools Client DPK:         [  OK  ]
   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 Linux VM:
   Extracting the PeopleSoft PeopleTools Server DPK Archives: [  OK  ]
   Extracting the 8.56 PeopleTools 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. As part of this setup, if the EYAML files are installed, it will generate the encryption keys. It then copies the PeopleSoft Puppet modules to the standard location *(BASE_DIR/*dpk) and updates the YAML files to reflect the type of PeopleSoft environment setup.

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

10. Specify FRESH for the installation type.

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

> **Note.** You see this prompt only when PeopleSoft application DPKs that were built on the same PeopleTools release, are present in *DPK_INSTALL.*

> **Note.** If you are using the PeopleSoft Upgrade Source Image to set up an environment for the Upgrade Source database, you do not see this prompt.

11. Specify the information for the database that you want to connect to.

    a. For the database platform, enter ORACLE, DB2UNIX (for DB2 for Linux, UNIX, and Windows), or DB2ODBC (for DB2 for z/OS).

    ```
    Enter the PeopleSoft database platform [ORACLE]:
    ```

    b. Enter *y* (yes) if the database you are connecting to is a Unicode database, or *n* (no) for a non-Unicode database.

    ```
    Is the PeopleSoft database unicode? [Y|n]:
    ```

    c. Enter *y* (yes) if you want to install the files needed for multi-language support.

    > **Note.** You see this prompt only when PeopleSoft application DPKs that were built on the same PeopleTools release, are present in *DPK_INSTALL.*

    ```
    Do you want Multi Language support in PeopleSoft database? [y|N]:
    ```

    d. Enter the database name.

    ```
    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 [HCM92]:
    ```

    e. Enter the database service name.

    > **Note.** The service name is required for Oracle RDBMS.

    For the service name, enter the full name, including the domain, if the database was installed with the domain. Use forward slashes if necessary. If the service name includes non-alphanumeric characters such as periods, enclose the name in double quotes. For example, "HCM.92.example.com".

    ```
    Enter the PeopleSoft database service name [HCM92]:
    ```

    f. Enter the name of the host where the database is installed, and the port number:

    Use forward slashes if necessary. If the host name includes non-alphanumeric characters such as periods, enclose the name in double quotes. For example, "host.example.com".

    ```
    Enter the PeopleSoft database host name:
    Enter the PeopleSoft database port [1521]: 1521
    ```

12. 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 at most 8 characters
    in length [people]:
    ```

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

```
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 database Connect ID password:
```

14. Enter *y* (yes) if you want the DPK setup script to update user passwords, as described in the prompt:

Note. You see this prompt only if you specified Oracle as the PeopleSoft database platform in a previous prompt.

```
Note: If the PeopleSoft environment is setup using DPKs in a distributed
topology with dbtier on one host and midtier on another, the PeopleSoft
application users [Access ID, Operator ID, WebProfile User] passwords
need to be reset from a midtier after DB provision. If this is the first
midtier instance accessing the database, we can automate the process of
updating these passwords.

Do you want to update the user passwords in PeopleSoft database? [y|N]:N
```

15. Enter the password twice for the database administrator:

```
Enter the PeopleSoft database Admin ID password:
Re-Enter the PeopleSoft database Admin ID password:
```

Note. You see this prompt if you answered yes to the previous prompt for updating the user passwords, and if you specified Oracle as the database platform.

16. Enter the PeopleSoft Operator ID (user ID):

```
Enter the PeopleSoft database Operator ID [PS]:
```

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

```
Enter a new PeopleSoft database Operator ID [PS] 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 password twice for the Access ID for the database:

```
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 Access ID password:
```

Note. You see this prompt if you answered yes to the previous prompt for updating the user passwords, and if you specified Oracle as the database platform.

19. 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.
```

20. 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 special character (!@#$%^&):
Re-Enter the WebLogic Server Admin user password:
```

21. Enter the password twice for the PTWEBSERVER web profile user.

    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: Security Administration,* "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:
```

22. Enter the Integration Gateway user ID and password.

    The default user ID is administrator.

    Note. The guideline in the prompt for the Integration Gateway user ID password does not allow special characters. However, the PeopleSoft system does allow special characters for the Integration Gateway 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: Security Administration,* "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:
```

23. 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]:
```

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

    If EYAML files are installed, the passwords are encrypted and updated in the YAML file.

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

25. 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. You must use customizations to complete the mid-tier deployment.

See "Completing the DPK Initialization with Customizations."

```
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]:
```

26. Review the status messages as the script runs Puppet profiles to set up the PeopleSoft environment.

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:

```
Starting the Default Initialization of PeopleSoft Environment:

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. PUPPET_DIR/puppet apply --confdir=/cs1/psft/dpk/puppet site.pp --⇒
debug --trace

Exiting the PeopleSoft environment setup process.
The PeopleSoft Environment Setup Process Ended.
```

Note. For Linux, *PUPPET_DIR* is /opt/puppetlabs/bin. For AIX or Solaris, *PUPPET_DIR* is /opt/oracle/puppetlabs/bin.

See "Completing the DPK Initialization with Customizations."

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

```
Starting the Default Initialization of PeopleSoft Environment:
Setting Up System Settings:                               [  OK  ]
Deploying PeopleTools Components:                         [  OK  ]
```

```
DSetting up PeopleSoft OS Users Environment:              [  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 PeopleSoft Environment Setup Process Ended.
```

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: Running the DPK Setup Script to Install Mid-Tier Software Only

This section discusses:

• Understanding the Mid-Tier Software Installation

• Installing the Mid-Tier Software Only

Understanding the Mid-Tier Software Installation

Use this option to install *PS_HOME* and the software required for mid-tier deployment, without deploying the PeopleSoft domains. The deployment includes the following:

• *PS_HOME* installed to the default location under the DPK base directory

• Oracle Tuxedo installed to the default location under the base directory

• Oracle WebLogic installed to the default location under the base directory

• Oracle database client installed to the default location under the base directory

• Microsoft Windows DPKs include Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries

The script requires the following information:

• Database platform type

• Unicode or non-Unicode

In addition, ensure that you fulfill the items in the Prerequisites section in the task Running the DPK Setup Script for Mid-Tier Deployment.

See Also

"Using and Maintaining the PeopleSoft Environment," Using the PeopleSoft Installation

Task 2-4-1: Installing the Mid-Tier Software Only

This procedure assumes you have obtained the four PeopleSoft PeopleTools DPK zip files and saved them in *DPK_INSTALL*.

Note. Some of the informational script messages have been omitted for brevity.

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 command prompt with Run as Administrator.

3. Change directory to *DPK_INSTALL/*setup.

4. Run the script as follows:

   Note. On Microsoft Windows, 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.

   - If you extracted the first zip file into the same directory where you downloaded the zip files, use this command:

     ```
     psft-dpk-setup.<ext> --env_type midtier --deploy_only
     ```

   - 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,* as follows:

     ```
     psft-dpk-setup.<ext> --dpk_src_dir DPK_INSTALL --env_type midtier --⇒
     deploy_only
     ```

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

   The script verifies if Puppet software is installed in the default location specified by the DPKs. 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.

   ```
   Verifying if Puppet Software is Installed:

   Puppet Software is not installed on the Windows Host. If PeopleSoft
   environment needs to be setup on this Host, Puppet software
   should be Installed.

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

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

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

   The base directory is used to extract the DPKs as well as for deploying PeopleSoft components. The script creates the base directory if it does not exist.

   Use forward slashes only (/) when specifying the base directory; for example, C:/psft. Do not use a base directory name 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 permissions and should
   ```

```
have enough free space

Enter the PeopleSoft Base Folder:
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 mid-tier setup of a PeopleSoft environment requires about 25 GB of disk space.

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

7. Specify the type of database platform.

   Enter DB2UNIX (for DB2 for Linux, UNIX, and Windows), MSSQL (for Microsoft SQL Server), DB2ODBC (for DB2 for z/OS), or ORACLE.

   ```
   Enter the PeopleSoft database platform [ORACLE]:
   ```

8. Specify whether you want support for a Unicode database.

   ```
   Is the PeopleSoft database unicode? [Y|n]:
   ```

9. Enter *y* to continue with the script.

   ```
   Are you happy with your answers? [y|n]: y
   Encrypting the Passwords in the User Data:                 [  OK  ]
   Updating the Puppet Hiera YAML Files with User Data:       [  OK  ]
   ```

10. 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.

    If you want to customize the PeopleSoft environment using the Puppet YAML files, 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]:
    ```

11. Review the status messages as the script runs Puppet profiles to set up the PeopleSoft environment.

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

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

    ```
    The PeopleSoft Environment Setup Process Ended.
    ```

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

Task 2-5: Running the DPK Setup Script to Deploy an Application Server Domain

This section discusses:

- Understanding the Application Server Domain Deployment
- Running the DPK Setup Script for the Application Server Domain Deployment

Understanding the Application Server Domain Deployment

Use this option to set up an application server domain only, for example, on a host separate from the database. The deployment includes the following:

- *PS_HOME* installed to the default location under the DPK base directory.
- *PS_CFG_HOME* installed to the default location
- Oracle Tuxedo installed to the default location under the base directory
- Oracle WebLogic installed to the default location under the base directory
- PeopleSoft application server domain is installed and running.
- Microsoft Windows DPKs include Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries.

The script requires the following information:

- Database platform type
- Database name
- Database host name
- Database port
- Unicode or non-Unicode
- PeopleSoft Connect ID and password
- PeopleSoft operator ID and password
- Application Server Domain Connection password (optional)

In addition, ensure that you fulfill the items in the Prerequisites section in the task Running the DPK Setup Script for Mid-Tier Deployment.

See Also

"Using and Maintaining the PeopleSoft Environment," Using the PeopleSoft Installation

Task 2-5-1: Running the DPK Setup Script for the Application Server Domain Deployment

This procedure assumes you have obtained the four PeopleSoft PeopleTools DPK zip files and saved them in *DPK_INSTALL*.

Note. Some of the informational script messages have been omitted for brevity.

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 command prompt with Run as Administrator.

3. Change directory to *DPK_INSTALL/*setup.

4. Run the script as follows:

   Note. On Microsoft Windows, 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.

   - If you extracted the first zip file into the same directory where you downloaded the zip files, use this command:

     ```
     psft-dpk-setup.<ext> --env_type midtier --domain_type appserver
     ```

   - 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,* as follows:

     ```
     psft-dpk-setup.<ext> --dpk_src_dir DPK_INSTALL --env_type midtier --⇒
     domain_type appserver
     ```

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

   The script verifies if Puppet software is installed in the default location specified by the DPKs. 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.

   ```
   Verifying if Puppet Software is Installed:

   Puppet Software is not installed on the Windows Host. If PeopleSoft
   environment needs to be setup on this Host, Puppet software
   should be Installed.

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

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

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

   The base directory is used to extract the DPKs as well as for deploying PeopleSoft components. The script creates the base directory if it does not exist.

   Use forward slashes only (/) when specifying the base directory; for example, C:/psft. Do not use a base directory name 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 permissions and should
   have enough free space
   ```

```
Enter the PeopleSoft Base Folder:
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 mid-tier setup of a PeopleSoft environment requires about 25 GB of disk space.

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

7. Specify the type of database platform.

   Enter DB2UNIX (for DB2 for Linux, UNIX, and Windows), MSSQL (for Microsoft SQL Server), DB2ODBC (for DB2 for z/OS), or ORACLE.

   ```
   Enter the PeopleSoft database platform [ORACLE]:
   ```

8. Specify whether you want a Unicode database.

   ```
   Is the PeopleSoft database unicode? [Y|n]:
   ```

9. Enter the database name.

   ```
   Enter the PeopleSoft database name:
   ```

10. Enter the database service name.

    The default is the same as the database name.

    ```
    Enter the PeopleSoft database service name [PSFT92DB]:
    ```

11. Enter the name of the host where the database is installed.

    ```
    Enter the PeopleSoft database host name:
    ```

12. Enter the database listener port number:

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

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

    The default is people.

    ```
    Enter the PeopleSoft database Connect ID [people]:
    ```

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

    ```
    Enter the PeopleSoft database Connect ID [people] password.
    The password should contain only alphanumeric characters and is
    between 6 and 30 characters in length:
    Re-Enter the PeopleSoft Connect ID password:
    ```

15. Enter *y* (yes) if you want to allow the DPK setup script to update the passwords in the database, or *n* (no) to skip the password update.

    Note. You see this prompt only if you specified Oracle as the PeopleSoft database platform in a previous prompt.

    ```
    Note: If the PeopleSoft environment is setup using DPKs in a distributed
    topology with dbtier on one host and midtier on another, the PeopleSoft
    application users [Access ID, Operator ID, WebProfile User] passwords
    need to be reset from a midtier after DB provision. If this is the first
    ```

```
midtier instance accessing the database, we can automate the process of
updating these passwords

Do you want to update the user passwords in PeopleSoft database? [y|N]:
```

16. Enter the PeopleSoft user ID (operator ID), such as PS or VP1.

```
Enter the PeopleSoft database Operator ID [VP1]:
```

17. Enter the password twice for the PeopleSoft operator ID.

```
Enter the PeopleSoft database Operator ID [VP1] password.
The password should contain only alphanumeric characters and is
between 1 and 32 characters in length:
Re-Enter the PeopleSoft database Operator ID password:
```

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

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 *y* to continue with the script.

```
Are you happy with your answers? [y|n]: y
Encrypting the Passwords in the User Data:                    [  OK  ]
Updating the Puppet Hiera YAML Files with User Data:          [  OK  ]
```

20. 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.

If you want to customize the PeopleSoft environment using the Puppet YAML files, 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]:
```

21. Review the status messages as the script runs Puppet profiles to set up the PeopleSoft environment.

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

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

```
The PeopleSoft Environment Setup Process Ended.
```

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

Task 2-6: Running the DPK Setup Script to Deploy a Process Scheduler Domain

This section discusses:

- Understanding the Process Scheduler Domain Deployment
- Running the DPK Setup Script for the Process Scheduler Domain Deployment

Understanding the Process Scheduler Domain Deployment

Use this option to set up a single Process Scheduler domain, for example, to install on a host separate from the database. The deployment includes the following:

- *PS_HOME* installed to the default location under the DPK base directory.
- *PS_CFG_HOME* installed to the default location
- Oracle Tuxedo installed to the default location under the base directory
- Oracle WebLogic installed to the default location under the base directory
- PeopleSoft Process Scheduler domain is installed and running.
- Microsoft Windows DPKs include Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries

The script requires the following information:

- Database platform type
- Database name
- Database host name
- Database port
- Unicode or non-Unicode
- PeopleSoft Connect ID and password
- PeopleSoft operator ID and password
- Application Server Domain Connection password (optional)

In addition, ensure that you fulfill the items in the Prerequisites section in the task Running the DPK Setup Script for Mid-Tier Deployment.

See Also

"Using and Maintaining the PeopleSoft Environment," Using the PeopleSoft Installation

Task 2-6-1: Running the DPK Setup Script for the Process Scheduler Domain Deployment

This procedure assumes you have obtained the four PeopleSoft PeopleTools DPK zip files and saved them in *DPK_INSTALL.* To use the DPK setup script to deploy a Process Scheduler domain:

Note. Some of the informational script messages have been omitted for brevity.

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 command prompt with Run as Administrator.

3. Change directory to *DPK_INSTALL/*setup.

4. Run the script as follows:

   Note. On Microsoft Windows, 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.

   - If you extracted the first zip file into the same directory where you downloaded the zip files, use this command:

     ```
     psft-dpk-setup.<ext> --env_type midtier --domain_type prcs
     ```

   - 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,* as follows:

     ```
     psft-dpk-setup.<ext> --dpk_src_dir DPK_INSTALL --env_type midtier --⇒
     domain_type prcs
     ```

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

   The script verifies if Puppet software is installed in the default location specified by the DPKs. 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.

   ```
   Verifying if Puppet Software is Installed:

   Puppet Software is not installed on the Windows Host. If PeopleSoft
   environment needs to be setup on this Host, Puppet software
   should be Installed.

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

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

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

   The base directory is used to extract the DPKs as well as for deploying PeopleSoft components. The script creates the base directory if it does not exist.

   Use forward slashes only (/) when specifying the base directory; for example, C:/psft. Do not use a base directory name 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 permissions and should
   ```

```
have enough free space

Enter the PeopleSoft Base Folder:
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 mid-tier setup of a PeopleSoft environment requires about 25 GB of disk space.

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

7. Specify the type of database platform.

   Enter DB2UNIX (for DB2 for Linux, UNIX, and Windows), MSSQL (for Microsoft SQL Server), DB2ODBC (for DB2 for z/OS), or ORACLE.

   ```
   Enter the PeopleSoft database platform [ORACLE]:
   ```

8. Specify whether you want a Unicode database.

   ```
   Is the PeopleSoft database unicode? [Y|n]:
   ```

9. Enter the database name.

   ```
   Enter the PeopleSoft database name:
   ```

10. Enter the database service name.

    The default is the same as the database name.

    ```
    Enter the PeopleSoft database service name [PSFT92DB]:
    ```

11. Enter the name of the host where the database is installed.

    ```
    Enter the PeopleSoft database host name:
    ```

12. Enter the database listener port number:

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

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

    The default is people.

    ```
    Enter the PeopleSoft database Connect ID [people]:
    ```

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

    ```
    Enter the PeopleSoft database Connect ID [people] password.
    The password should contain only alphanumeric characters and is
    between 6 and 30 characters in length:
    Re-Enter the PeopleSoft Connect ID password:
    ```

15. Enter *y* (yes) if you want to allow the DPK setup script to update the passwords in the database, or *n* (no) to skip the password update.

    Note. You see this prompt only if you specified Oracle as the PeopleSoft database platform in a previous prompt.

    ```
    Note: If the PeopleSoft environment is setup using DPKs in a distributed
    topology with dbtier on one host and midtier on another, the PeopleSoft
    ```

```
application users [Access ID, Operator ID, WebProfile User] passwords
need to be reset from a midtier after DB provision. If this is the first
midtier instance accessing the database, we can automate the process of
updating these passwords

Do you want to update the user passwords in PeopleSoft database? [y|N]:
```

16. Enter the PeopleSoft user ID (operator ID), such as PS or VP1.

```
Enter the PeopleSoft database Operator ID [VP1]:
```

17. Enter the password twice for the PeopleSoft operator ID.

```
Enter the PeopleSoft database Operator ID [VP1] password.
The password should contain only alphanumeric characters and is
between 1 and 32 characters in length:
Re-Enter the PeopleSoft database Operator ID password:
```

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

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 *y* to continue with the script.

```
Are you happy with your answers? [y|n]: y
Encrypting the Passwords in the User Data:                    [  OK  ]
Updating the Puppet Hiera YAML Files with User Data:          [  OK  ]
```

20. 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.

If you want to customize the PeopleSoft environment using the Puppet YAML files, 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]:
```

21. Review the status messages as the script runs Puppet profiles to set up the PeopleSoft environment.

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

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

```
The PeopleSoft Environment Setup Process Ended.
```

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

Task 2-7: Running the DPK Setup Script to Deploy an Application Server and a Process Scheduler Domain

This section discusses:

- Understanding the Application Server and Process Scheduler Domain Deployment
- Running the DPK Setup Script for the Application Server and Process Scheduler Domain Deployment

Understanding the Application Server and Process Scheduler Domain Deployment

Use this option to set up a single application server and a single Process Scheduler domain, for example to install on a host separate from the database. The deployment includes the following:

- *PS_HOME* installed to the default location under the DPK base directory.
- *PS_CFG_HOME* installed to the default location
- Oracle Tuxedo installed to the default location under the base directory
- Oracle WebLogic installed to the default location under the base directory
- An Application Server domain and a Process Scheduler domains are installed and running.
- Microsoft Windows DPKs include Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries.

The script requires the following information:

- Database platform type
- Database name
- Database host name
- Database port
- Unicode or non-Unicode
- PeopleSoft Connect ID and password
- PeopleSoft operator ID and password
- Application Server Domain Connection password (optional)

In addition, ensure that you fulfill the items in the Prerequisites section in the task Running the DPK Setup Script for Mid-Tier Deployment.

See Also

"Using and Maintaining the PeopleSoft Environment," Using the PeopleSoft Installation

Task 2-7-1: Running the DPK Setup Script for the Application Server and Process Scheduler Domain Deployment

This procedure assumes you have obtained the four PeopleSoft PeopleTools DPK zip files and saved them in *DPK_INSTALL.* To use the DPK setup script to deploy an application server and a Process Scheduler domain:

Note. Some of the informational script messages have been omitted for brevity.

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 command prompt with Run as Administrator.

3. Change directory to *DPK_INSTALL/*setup.

4. Run the script as follows:

   Note. On Microsoft Windows, 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.

   - If you extracted the first zip file into the same directory where you downloaded the zip files, use this command:

     ```
     psft-dpk-setup.<ext> --env_type midtier --domain_type appbatch
     ```

   - 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,* as follows:

     ```
     psft-dpk-setup.<ext> --dpk_src_dir DPK_INSTALL --env_type midtier --⇒
     domain_type appbatch
     ```

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

   The script verifies if Puppet software is installed in the default location specified by the DPKs. 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.

   ```
   Verifying if Puppet Software is Installed:

   Puppet Software is not installed on the Windows Host. If PeopleSoft
   environment needs to be setup on this Host, Puppet software
   should be Installed.

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

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

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

   The base directory is used to extract the DPKs as well as for deploying PeopleSoft components. The script

creates the base directory if it does not exist.

Use forward slashes only (/) when specifying the base directory; for example, C:/psft. Do not use a base directory name 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 permissions and should
have enough free space

Enter the PeopleSoft Base Folder:
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 mid-tier setup of a PeopleSoft environment requires about 25 GB of disk space.

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

7. Specify the type of database platform.

   Enter DB2UNIX (for DB2 for Linux, UNIX, and Windows), MSSQL (for Microsoft SQL Server), DB2ODBC (for DB2 for z/OS), or ORACLE.

   ```
   Enter the PeopleSoft database platform [ORACLE]:
   ```

8. Specify whether you want a Unicode database.

   ```
   Is the PeopleSoft database unicode? [Y|n]:
   ```

9. Enter the database name.

   ```
   Enter the PeopleSoft database name:
   ```

10. Enter the database service name.

    The default is the same as the database name.

    ```
    Enter the PeopleSoft database service name [PSFT92DB]:
    ```

11. Enter the name of the host where the database is installed.

    ```
    Enter the PeopleSoft database host name:
    ```

12. Enter the database listener port number:

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

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

    The default is people.

    ```
    Enter the PeopleSoft database Connect ID [people]:
    ```

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

    ```
    Enter the PeopleSoft database Connect ID [people] password.
    The password should contain only alphanumeric characters and is
    between 6 and 30 characters in length:
    Re-Enter the PeopleSoft Connect ID password:
    ```

15. Enter *y* (yes) if you want to allow the DPK setup script to update the passwords in the database, or *n* (no) to

skip the password update.

Note. You see this prompt only if you specified Oracle as the PeopleSoft database platform in a previous prompt.

```
Note: If the PeopleSoft environment is setup using DPKs in a distributed
topology with dbtier on one host and midtier on another, the PeopleSoft
application users [Access ID, Operator ID, WebProfile User] passwords
need to be reset from a midtier after DB provision. If this is the first
midtier instance accessing the database, we can automate the process of
updating these passwords

Do you want to update the user passwords in PeopleSoft database? [y|N]:
```

16. Enter the PeopleSoft user ID (operator ID), such as PS or VP1.

```
Enter the PeopleSoft database Operator ID [VP1]:
```

17. Enter the password twice for the PeopleSoft operator ID.

```
Enter the PeopleSoft database Operator ID [VP1] password.
The password should contain only alphanumeric characters and is
between 1 and 32 characters in length:
Re-Enter the PeopleSoft database Operator ID password:
```

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

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 *y* to continue with the script.

```
Are you happy with your answers? [y|n]: y
Encrypting the Passwords in the User Data:                    [  OK  ]
Updating the Puppet Hiera YAML Files with User Data:          [  OK  ]
```

20. 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.

If you want to customize the PeopleSoft environment using the Puppet YAML files, 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]:
```

21. Review the status messages as the script runs Puppet profiles to set up the PeopleSoft environment.

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

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

```
The PeopleSoft Environment Setup Process Ended.
```

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

In addition, ensure that you fulfill the items in the Prerequisites section in the task Running the DPK Setup Script for Mid-Tier Deployment.

Task 2-8: Running the DPK Setup Script to Deploy a PIA Domain

This section discusses:

- Understanding the PIA Domain Deployment
- Prerequisites for the PIA Domain Deployment
- Running the DPK Setup Script for the PIA Domain Deployment

Understanding the PIA Domain Deployment

Use these instructions to set up a PeopleSoft Pure Internet Architecture (PIA) domain only, for example to install on a host separate from the database.

The PIA domain deployment includes the following:

- *PS_HOME* installed to the default location under the DPK base directory
- *PS_CFG_HOME* installed to the default location
- Oracle Tuxedo installed to the default location under the DPK base directory
- Oracle WebLogic installed to the default location under the DPK base directory
- PIA domain is installed and running.
- Microsoft Windows DPKs include Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries.

See Also

"Using and Maintaining the PeopleSoft Environment," Using the PeopleSoft Installation

Prerequisites for the PIA Domain Deployment

Review the following items to prepare for the PIA domain deployment:

- Before beginning the PIA domain deployment, ensure that Application Server and Process Scheduler domains are available.
- Ensure that you fulfill the items in the Prerequisites section in the task Running the DPK Setup Script for Mid-Tier Deployment.

- If your environment includes separate hosts for the PIA domain and the Application Server domain, you must use customizations to designate the Application Server that the PIA domain will access.

   See "Completing the DPK Initialization with Customizations," Reviewing the Customization File for a PIA Domain on a Separate Host.

Have the following information ready to supply when running the script:

- Database platform type

- Database name

- Database host name

- Database port

- Unicode or non-Unicode

- PeopleSoft Connect ID and password

- PeopleSoft operator ID and password

- Application Server Domain Connection password (optional)

- PeopleSoft Web profile user (PTWEBSERVER) password

- WebLogic server administrator password

- Integration Gateway user password

- Application Server Domain Connections string

Task 2-8-1: Running the DPK Setup Script for the PIA Domain Deployment

This procedure assumes you have obtained the four PeopleSoft PeopleTools DPK zip files and saved them in *DPK_INSTALL.* To use the DPK setup script to deploy a single PIA domain:

Note. Some of the informational script messages have been omitted for brevity.

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 command prompt with Run as Administrator.

3. Change directory to *DPK_INSTALL/*setup.

4. Run the script as follows:

   Note. On Microsoft Windows, 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.

   - If you extracted the first zip file into the same directory where you downloaded the zip files, use this command:

     ```
     psft-dpk-setup.<ext> --env_type midtier --domain_type pia
     ```

   - 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,* as follows:

```
psft-dpk-setup.<ext> --dpk_src_dir DPK_INSTALL --env_type midtier --⇒
domain_type pia
```

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

    The script verifies if Puppet software is installed in the default location specified by the DPKs. 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.

    ```
    Verifying if Puppet Software is Installed:

    Puppet Software is not installed on the Windows Host. If PeopleSoft
    environment needs to be setup on this Host, Puppet software
    should be Installed.

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

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

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

    The base directory is used to extract the DPKs as well as for deploying PeopleSoft components. The script creates the base directory if it does not exist.

    Use forward slashes only (/) when specifying the base directory; for example, C:/psft. Do not use a base directory name 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 permissions and should
    have enough free space

    Enter the PeopleSoft Base Folder:
    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 mid-tier setup of a PeopleSoft environment requires about 25 GB of disk space.

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

7. Specify the type of database platform.

    Enter DB2UNIX (for DB2 for Linux, UNIX, and Windows), MSSQL (for Microsoft SQL Server), DB2ODBC (for DB2 for z/OS), or ORACLE.

    ```
    Enter the PeopleSoft database platform [ORACLE]:
    ```

8. Specify whether you want a Unicode database.

    ```
    Is the PeopleSoft database unicode? [Y|n]:
    ```

9. Enter the database name.

    ```
    Enter the PeopleSoft database name:
    ```

10. Enter the database service name.

The default is the same as the database name.

```
Enter the PeopleSoft database service name [PSFT92DB]:
```

11. Enter the name of the host where the database is installed.

```
Enter the PeopleSoft database host name:
```

12. Enter the database listener port number:

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

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

The default is people.

```
Enter the PeopleSoft database Connect ID [people]:
```

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

```
Enter the PeopleSoft database Connect ID [people] password.
The password should contain only alphanumeric characters and is
between 6 and 30 characters in length:
Re-Enter the PeopleSoft Connect ID password:
```

15. Enter *y* (yes) if you want to allow the DPK setup script to update the passwords in the database, or *n* (no) to skip the password update.

Note. You see this prompt only if you specified Oracle as the PeopleSoft database platform in a previous prompt.

```
Note: If the PeopleSoft environment is setup using DPKs in a distributed
topology with dbtier on one host and midtier on another, the PeopleSoft
application users [Access ID, Operator ID, WebProfile User] passwords
need to be reset from a midtier after DB provision. If this is the first
midtier instance accessing the database, we can automate the process of
updating these passwords

Do you want to update the user passwords in PeopleSoft database? [y|N]:
```

16. Enter the PeopleSoft user ID (operator ID), such as PS or VP1.

```
Enter the PeopleSoft database Operator ID [VP1]:
```

17. Enter the password twice for the PeopleSoft operator ID.

```
Enter the PeopleSoft database Operator ID [VP1] password.
The password should contain only alphanumeric characters and is
between 1 and 32 characters in length:
Re-Enter the PeopleSoft database Operator ID password:
```

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

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 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:
```

20. 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:
```

21. 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 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. Enter the Application Server Domain Connection string, in the format *<Server_name>:<Port>*.

The Application Server Domain Connect string specifies the application server(s) and Jolt port that the PIA domain connects to.

```
Enter the Application Server Domain Connections String:
```

23. Enter the name of the server with the Process Scheduler domain.

```
Enter the Process Scheduler Domain Server Name:
```

24. Enter *y* to continue with the script.

```
Are you happy with your answers? [y|n]: y
Encrypting the Passwords in the User Data:                    [  OK  ]
```

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

25. 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.

    If you want to customize the PeopleSoft environment using the Puppet YAML files, 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]:
    ```

26. Review the status messages as the script runs Puppet profiles to set up the PeopleSoft environment.

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

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

    ```
    The PeopleSoft Environment Setup Process Ended.
    ```

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

Task 2-9: Running the DPK Setup Script to Deploy All Domains

This section discusses:

• Understanding the Deployment of All PeopleSoft Domains

• Running the DPK Setup Script to Deploy All

Understanding the Deployment of All PeopleSoft Domains

Use these instructions to set up an application server, Process Scheduler, and PeopleSoft Pure Internet Architecture (PIA) domain, for example to install on a host separate from the database. This domain deployment includes the following:

• *PS_HOME* installed to the default location under the DPK base directory

• *PS_CFG_HOME* installed to the default location

• Oracle Tuxedo installed to the default location under the DPK base directory

• Oracle WebLogic installed to the default location under the DPK base directory

• A single PeopleSoft Application Server domain, a single Process Scheduler domain, and a single PIA domain are installed and running.

• Microsoft Windows DPKs include Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries.

The script requires the following information:

- Database platform type

- Database name

- Database host name

- Database port

- Unicode or non-Unicode

- PeopleSoft Connect ID and password

- PeopleSoft operator ID and password

- Application Server Domain Connection password (optional)

- PeopleSoft Web profile user (PTWEBSERVER) password

- WebLogic server administrator password

- Integration Gateway user password

- Application Server Domain Connections string

In addition, ensure that you fulfill the items in the Prerequisites section in the task Running the DPK Setup Script for Mid-Tier Deployment.

See Also

"Using and Maintaining the PeopleSoft Environment," Using the PeopleSoft Installation

Task 2-9-1: Running the DPK Setup Script to Deploy All

This procedure assumes you have obtained the four PeopleSoft PeopleTools DPK zip files and saved them in *DPK_INSTALL.* To use the DPK setup script to deploy PeopleSoft application server, single Process Scheduler domain, and single PIA domain:

Note. Some of the informational script messages have been omitted for brevity.

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 command prompt with Run as Administrator.

3. Change directory to *DPK_INSTALL/*setup.

4. Run the script as follows:

   Note. On Microsoft Windows, 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.

   - If you extracted the first zip file into the same directory where you downloaded the zip files, use this command:

     ```
     psft-dpk-setup.<ext> --env_type midtier --domain_type all
     ```

   - 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,* as follows:

```
psft-dpk-setup.<ext> --dpk_src_dir DPK_INSTALL --env_type midtier --⇒
domain_type all
```

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

   The script verifies if Puppet software is installed in the default location specified by the DPKs. 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.

```
Verifying if Puppet Software is Installed:

Puppet Software is not installed on the Windows Host. If PeopleSoft
environment needs to be setup on this Host, Puppet software
should be Installed.

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

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

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

   The base directory is used to extract the DPKs as well as for deploying PeopleSoft components. The script creates the base directory if it does not exist.

   Use forward slashes only (/) when specifying the base directory; for example, C:/psft. Do not use a base directory name 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 permissions and should
have enough free space

Enter the PeopleSoft Base Folder:
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 mid-tier setup of a PeopleSoft environment requires about 25 GB of disk space.

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

7. Specify the type of database platform.

   Enter DB2UNIX (for DB2 for Linux, UNIX, and Windows), MSSQL (for Microsoft SQL Server), DB2ODBC (for DB2 for z/OS), or ORACLE.

```
Enter the PeopleSoft database platform [ORACLE]:
```

8. Specify whether you want a Unicode database.

```
Is the PeopleSoft database unicode? [Y|n]:
```

9. Enter the database name.

```
Enter the PeopleSoft database name:
```

10. Enter the database service name.

    The default is the same as the database name.

    ```
    Enter the PeopleSoft database service name [PSFT92DB]:
    ```

11. Enter the name of the host where the database is installed.

    ```
    Enter the PeopleSoft database host name:
    ```

12. Enter the database listener port number:

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

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

    The default is people.

    ```
    Enter the PeopleSoft database Connect ID [people]:
    ```

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

    ```
    Enter the PeopleSoft database Connect ID [people] password.
    The password should contain only alphanumeric characters and is
    between 6 and 30 characters in length:
    Re-Enter the PeopleSoft Connect ID password:
    ```

15. Enter *y* (yes) if you want to allow the DPK setup script to update the passwords in the database, or *n* (no) to skip the password update.

    Note. You see this prompt only if you specified Oracle as the PeopleSoft database platform in a previous prompt.

    ```
    Note: If the PeopleSoft environment is setup using DPKs in a distributed
    topology with dbtier on one host and midtier on another, the PeopleSoft
    application users [Access ID, Operator ID, WebProfile User] passwords
    need to be reset from a midtier after DB provision. If this is the first
    midtier instance accessing the database, we can automate the process of
    updating these passwords

    Do you want to update the user passwords in PeopleSoft database? [y|N]:
    ```

16. Enter the PeopleSoft user ID (operator ID), such as PS or VP1.

    ```
    Enter the PeopleSoft database Operator ID [VP1]:
    ```

17. Enter the password twice for the PeopleSoft operator ID.

    ```
    Enter the PeopleSoft database Operator ID [VP1] password.
    The password should contain only alphanumeric characters and is
    between 1 and 32 characters in length:
    Re-Enter the PeopleSoft database Operator ID password:
    ```

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

    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 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:
```

20. 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:
```

21. 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 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. Enter *y* to continue with the script.

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

    If you want to customize the PeopleSoft environment using the Puppet YAML files, 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]:
```

24. Review the status messages as the script runs Puppet profiles to set up the PeopleSoft environment.

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

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

```
The PeopleSoft Environment Setup Process Ended.
```

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

Task 2-10: Running the DPK Setup Script to Install PS_HOME Only

This section discusses:

- Understanding the PS_HOME Deployment
- Installing PS_HOME Only on Microsoft Windows
- Installing PS_HOME Only on Linux

Understanding the PS_HOME Deployment

Use these instructions to install the *PS_HOME* installation folder, which includes the PeopleSoft PeopleTools server utilities. Use this deployment, for example, to get the tools needed to carry out database creation. The *PS_HOME* deployment includes the following:

- *PS_HOME* installed to *BASE_DIR/*pt/ps_home8.56.xx by default.
- Microsoft Windows DPKs include Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries.
- PeopleTools utilities and scripts including:
  - *PS_HOME/*appserv/PSADMIN.exe
  - *PS_HOME/*bin/client/winx86/pscfg.exe (Configuration Manager)
  - *PS_HOME/*bin/client/winx86/psdmt.exe (Data Mover)
  - *PS_HOME/*bin/client/winx86/pside.exe (Application Designer)
  - *PS_HOME/*scripts
  - Other PeopleTools utilities
- Setup utilities including:
  - *PS_HOME/*setup/PsMpPIAInstall (PeopleSoft Pure Internet Architecture installer)

- *PS_HOME/*setup/PsMpDbInstall (Database installer)
- *PS_HOME/*setup/PsCA (Change Assistant installer)
- *PS_HOME/*setup/PsCIA (Change Impact Analyzer installer)
- *PS_HOME/*setup/PsMpWebAppDeployInstall (Web Application Deployment installer)

Task 2-10-1: Installing PS_HOME Only on Microsoft Windows

This procedure assumes you have obtained the four PeopleSoft PeopleTools DPK zip files and saved them in *DPK_INSTALL.* To use the DPK setup script to install *PS_HOME* only:

1. Extract the first zip file *(FILENAME_*1of4.zip) in the same directory, *DPK_INSTALL.*

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

   See Obtaining the PeopleSoft PeopleTools DPK for the DPK file name syntax.

2. Open a command prompt with Run as Administrator.

3. Change directory to *DPK_INSTALL/*setup.

4. Run the script with the options for mid-tier and deployment only.

   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.

   Note. This command has been formatted with line feeds for readability.

   ```
   psft-dpk-setup.bat --env_type midtier --deploy_only
   --deploy_type tools_home
   ```

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

   ```
   Starting the PeopleSoft Environment Setup Process:

   Extracting the Zip File FILENAME_1of4.zip:    [  OK  ]
   Extracting the Zip File FILENAME_2of4.zip:    [  OK  ]
   Extracting the Zip File FILENAME_3of4.zip:    [  OK  ]
   Extracting the Zip File FILENAME_4of4.zip:    [  OK  ]
   ```

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

   The script verifies if Puppet software is installed in the default location specified by the DPKs. 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.

   ```
   Validating User Arguments:                                 [  OK  ]
   Validating PeopleSoft Supported Platform:               [  OK  ]
   Verifying if Puppet Software is Installed on the Host:
   ```

```
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 Install Puppet Software on this Host? [Y|n]: y

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 Windows 2012 Server VM for PeopleSoft Environment:

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

7. 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.

    Note. When entering the path for the base directory, use forward slashes (/). For example, C:/psft. 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 permissions 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 mid-tier setup of a PeopleSoft environment requires about 25 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.

    *   *BASE_DIR*\db

        This directory is not used for this deployment.

8. Review the status messages as the script validates the files found in the base folder.

    The script carries out validations for the mid-tier deployment. If any of the validations fail, the PeopleSoft environment setup is aborted.

    ```
    Validating the PeopleSoft DPKs in the Folder:
    Validating the PeopleSoft PeopleTools Server DPK:               [ ⇒
     OK  ]
    ```

```
Validating the Oracle Server Database DPK:                    [ ⇒
 OK  ]
Validating the PeopleSoft PeopleTools Application Database DPK:    [ ⇒
 OK  ]
Validating the PeopleSoft PeopleTools Client DPK:             [ ⇒
 OK  ]
Validating the Manifest Information in Peoplesoft DPKs:       [ ⇒
 OK  ]
```

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

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

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

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

```
Setting up Puppet on the Windows VM:
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  ]
```

11. Specify the information for your database platform.

    a. For the database platform, enter ORACLE, MSSQL (for Microsoft SQL Server), DB2UNIX (for DB2 for Linux, UNIX, and Windows), or DB2ODBC (for DB2 for z/OS).

```
Enter the PeopleSoft database platform [ORACLE]:
```

    b. Enter *y* (yes) to indicate that the database you will connect to is a Unicode database.

    Note. All PeopleSoft Update Image databases are required to be Unicode.

```
Is the PeopleSoft database unicode? [Y|n]: y
```

12. Enter y to continue with the script.

```
Are you happy with your answers? [y|n]: y
Updating the Puppet Hiera YAML Files with User Data:      [  OK  ]
```

13. 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.

    If you want to customize the PeopleSoft environment using the Puppet YAML files, 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]:
```

14. Review the status messages as the script runs Puppet profiles to set up the PeopleSoft environment.

    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 step to set up the PeopleSoft OS Users environment failed:

```
Starting the Default Initialization of PeopleSoft Environment:

Deploying PeopleTools 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 environemnt.

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 "Completing the DPK Initialization with Customizations."

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

```
Starting the Default Initialization of PeopleSoft Environment:

Deploying PeopleTools Components:                          [  OK  ]
Setting up PeopleSoft OS Users Environment:               [  OK  ]

The PeopleSoft Environment Setup Process Ended.
```

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

Task 2-10-2: Installing PS_HOME Only on Linux

This procedure assumes you have obtained the four PeopleSoft PeopleTools DPK zip files and saved them in *DPK_INSTALL.* To use the DPK setup script to install *PS_HOME* only:

1. Extract the first zip file *(FILENAME_*1of4.zip) in the same directory, *DPK_INSTALL.*

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

    See Obtaining the PeopleSoft PeopleTools DPKs for the DPK file name syntax.

2. Open a terminal window and change directory to *DPK_INSTALL/*setup.

3. As a user with root access, run the script with the options for mid-tier and deployment only.

```
psft-dpk-setup.sh --env_type midtier --deploy_only --deploy_type tools_⇒
home
```

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:

Extracting the Zip File FILENAME_1of4.zip:    [  OK  ]
Extracting the Zip File FILENAME_2of4.zip:    [  OK  ]
Extracting the Zip File FILENAME_3of4.zip:    [  OK  ]
Extracting the Zip File FILENAME_4of4.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 default location specified by the DPKs. 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.

```
Validating User Arguments:                                    [  OK  ]
Validating PeopleSoft Supported Platform:                     [  OK  ]
Verifying if Puppet Software is Installed on the Host:

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 Install Puppet Software on this Host? [Y|n]: y

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:            [  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.

   Note. When entering the path for the base directory, use forward slashes (/). For example, /csl/psft. Do not use a name for the base folder that begins with a number.

```
The base folder is used to extract the PeopleSoft DPKs as
well as for deploying PeopleSoft Components. This folder should be
accessible on the host, has write permission, and has enough free
spaceThe 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 Linux VM, must have write permissions and should
have enough free space.
.
Enter the PeopleSoft Base Folder [/opt/oracle/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.

```
Checking if the 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.

- *BASE_DIR/*db

  This directory is not used for this deployment.

7. Review the status messages as the script validates the files found in the base folder.

   The script carries out validations for the mid-tier deployment. If any of the validations fail, the PeopleSoft environment setup is aborted.

```
Validating the PeopleSoft DPKs in the Folder:
Validating the PeopleSoft Application DPK:                 [  OK  ]
Validating the PeopleSoft PeopleTools DPK:                 [  OK  ]
Validating the PeopleSoft PeopleTools Client DPK:         [  OK  ]
Validating the Manifest Information in DPKs:               [  OK  ]
```

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

```
Extracting the DPK Archives in the VM:
Extracting the PeopleSoft PeopleTools Server DPK Archive:              ⇒
      [  OK  ]
Extracting the Oracle Database Server DPK Archive:
Extracting the PeopleSoft PeopleTools Application Database 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. It then copies the PeopleSoft Puppet modules to the standard location *(BASE_DIR/*dpk) and updates the YAML files to reflect the type of PeopleSoft environment setup.

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

10. Specify the information for your database platform.

    a. For the database platform, enter ORACLE, MSSQL (for Microsoft SQL Server), DB2UNIX (for DB2 for Linux, UNIX, and Windows), or DB2ODBC (for DB2 for z/OS).

    ```
    Enter the PeopleSoft database platform [ORACLE]:
    ```

    b. Enter *y* (yes) to indicate that the database you are connecting to is a Unicode database.

    Note. All PeopleSoft Update Image databases are required to be Unicode.

    ```
    Is the PeopleSoft database unicode? [Y|n]: y
    ```

11. 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.

    If you want to customize the PeopleSoft environment using the Puppet YAML files, 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]:
```

12. Review the status messages as the script runs Puppet profiles to set up the PeopleSoft environment.

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:

```
Starting the Default Initialization of PeopleSoft Environment:

Deploying PeopleTools Components:                          [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 /opt/oracle/psft/dpk/puppet/production/manifests
2. PUPPET_DIR/puppet apply
--confdir=/opt/oracle/psft/dpk/puppet site.pp --debug --trace

Exiting the PeopleSoft environment setup process.
```

Note. *PUPPET_DIR* is /opt/puppetlabs/bin for Linux, or /opt/oracle/puppetlabs/bin for AIX or Solaris.

See "Completing the DPK Initialization with Customizations."

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

```
Starting the Default Initialization of PeopleSoft Environment:

Deploying PeopleTools Components:                          [  OK  ]
Setting up PeopleSoft OS Users Environment:               [  OK  ]

The PeopleSoft Environment Setup Process Ended.
```

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

Task 2-11: Obtaining Operating System Packages Required by 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 that is 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 machine (VM), 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, AIX, or Solaris) 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, using `psft-dpk-setup.bat --cleanup` (Microsoft Windows) or `psft-dpk-setup.sh --cleanup` (Linux, AIX, or Solaris).

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.

7. Rerun the DPK setup script.

   The log file should not list any missing packages.

Task 2-12: Deploying the PeopleTools Client DPK

This section discusses:

- Understanding the Standalone Mode Deployment
- Preparing for the PeopleTools Client DPK Deployment
- Deploying in Standalone Mode

Task 2-12-1: Understanding the Standalone Mode Deployment

Use the standalone mode (SA mode) deployment for the PeopleTools Client DPKs when deploying the DPKs alone, without first deploying the PeopleSoft application or PeopleSoft PeopleTools DPKs. Use this method, for example, when carrying out a PeopleTools-only upgrade.

Use SA mode deployment for the following tasks:

- PeopleTools Upgrade

  The deployment process installs a PeopleTools client *PS_HOME* that includes the directories needed for a PeopleSoft PeopleTools-only upgrade, such as data, projects, and scripts directories.

- PeopleTools Patch

  The deployment process installs a PeopleTools client *PS_HOME* that includes the directories needed for a PeopleSoft PeopleTools patch application, such as the PTP directory.

See "Learning About the PeopleSoft Deployment Process," Reviewing the PeopleTools Patch DPKs.

- PeopleTools Client

  The deployment process installs a PeopleTools client *PS_HOME*. Choose the deployment type "None of the above" for this deployment.

- Change Assistant installation

  You can install Change Assistant as part of the PeopleTools Client deployment, or as a separate installation. The deployment process installs, but does not configure Change Assistant. To use Change Assistant for a PeopleSoft PeopleTools-only upgrade or to apply a PeopleSoft PeopleTools patch, you must configure Change Assistant manually. See the PeopleTools upgrade or patch documentation for information.

  If there is an existing Change Assistant installation, the deployment process removes or upgrades it to the current release, and saves a configuration file with the existing setup.

  See the PeopleTools installation guide for your database platform, "Installing PeopleSoft Change Assistant."

- Change Impact Analyzer

  You can install Change Impact Analyzer as part of the PeopleTools Client deployment, or as a separate installation.

- PeopleSoft Test Framework (PTF) installation

  You can install PeopleSoft Test Framework as part of the PeopleTools Client deployment, or as a separate installation.

- PeopleSoft Test Framework (PTF) configuration

  If you choose to configure PTF, the deployment process prompts you for setup parameters. You can configure PTF either at the same time that you install it or later. For example, you may choose to configure PTF separately if you install and configure it first, and then later the middle-tier components in your environment change. In this case, you do not need to install, but you can use the deployment process to reconfigure PTF.

- Configuration Manager

  If you accept the option to configure the PeopleTools client, the information that you supply is used to configure Configuration Manager.

- The PeopleTools Client deployment installs Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries.

Task 2-12-2: Preparing for the PeopleTools Client DPK Deployment

To deploy the PeopleTools Client DPK:

1. Go to the download location for the PeopleSoft PeopleTools DPKs, and download only the last zip file to a location known as *DPK_INSTALL* on a Microsoft Windows computer.

   The last zip file, for example *Filename*_4of4.zip, is the PeopleSoft PeopleTools client DPK.

   See Obtaining the PeopleSoft PeopleTools Patch DPKs.

2. Extract the downloaded zip file, which yields another zip file.

3. Extract the resulting zip file to a local or shared directory; for example C:\tools-client.

Task 2-12-3: Deploying in Standalone Mode

This section assumes that the user running the script has administrative permission.

To deploy the PeopleTools Client DPK in SA mode:

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:

   a. Open Windows Explorer and select Tools, Folder Options.

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

   ---

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

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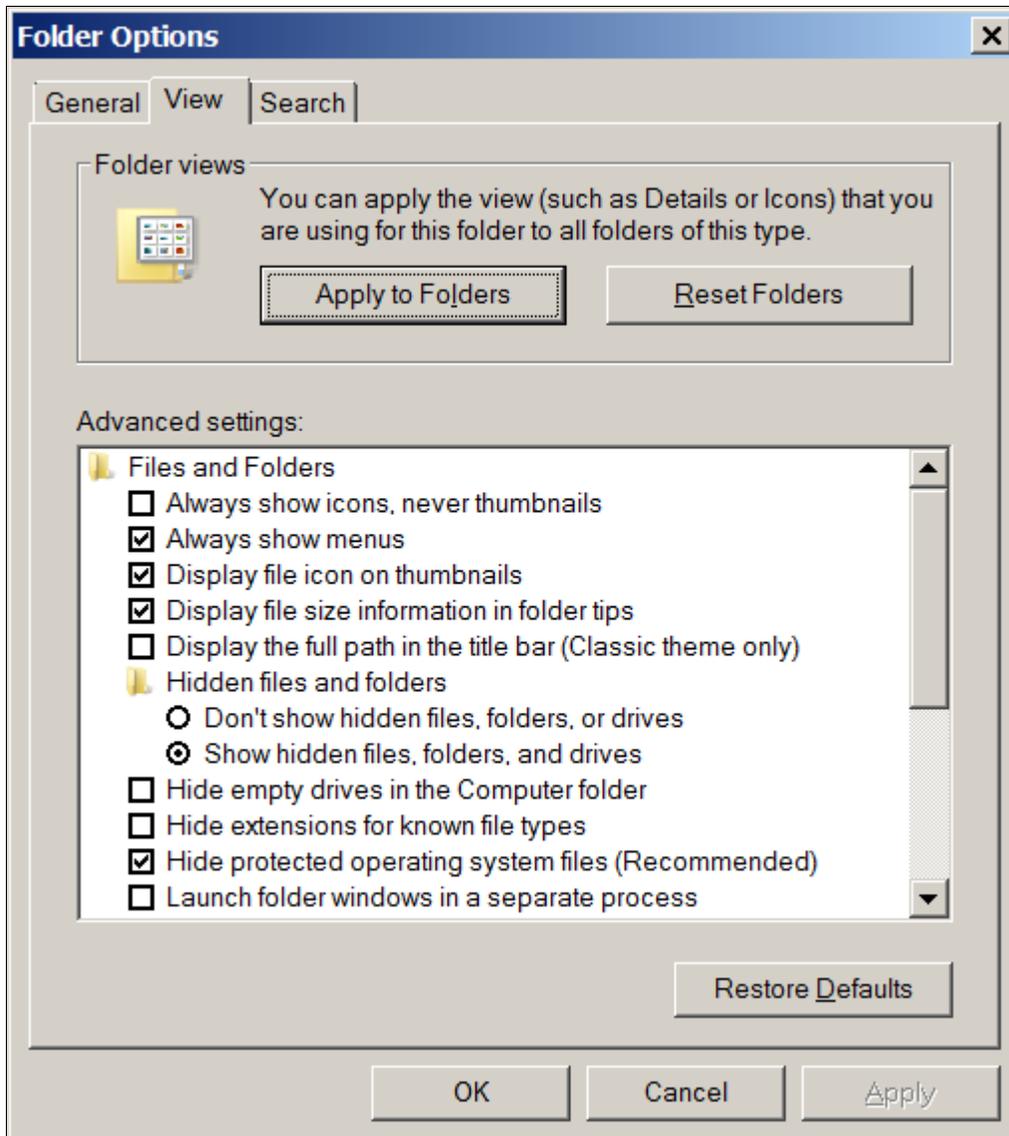
Folder Options dialog box: View tab

   d. Click OK to close the box.

2. Open a command prompt, running as administrator, and change directory to the C:\tools_client folder.

   The tools_client folder includes various sub-folders, and the following files:

- SetupPTClient.bat

  The interactive script that installs the PeopleSoft PeopleTools components such as Application Designer, Change Assistant, Change Impact Analyzer, and PeopleSoft Test Framework.

- readme.txt

3. Run the setup script with the following command:

```
SetupPTClient.bat -t
```

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 followed by the drive letter; for example:

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

  This option installs all specified software (Change Assistant, Change Impact Analyzer, PeopleSoft Test Framework), 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 in the command:

```
SetupPTClient.bat -t -l
```

4. Answer *y* (yes) at the following prompt to deploy the PeopleTools Client.

   If you are running the script after having deployed the PeopleTools Client previously, and you want to install Change Assistant, Change Impact Analyzer, or PeopleSoft Test Framework without deploying the PeopleTools Client again, answer *n* (no), and continue with step 9.

```
****** SetupPTClient started at 11:42:38.91 ******
set logger to true
 Do you want to deploy PeopleTools client? [Y/N]: y
```

5. Specify the RDBMS type for the PeopleTools Client that you want to deploy.

   In this example, the 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
```

6. Specify the installation directory, referred to as PSHOME, for the PeopleTools Client, or press ENTER to accept the default directory, C:\PT<*release_number*>_Client_<*database_type*>, for example C:\PT8.56.02_Client_ORA.

```
 Please specify the PSHOME for the PeopleTools Client [C:\PT8.56.02_⇒
 Client_ORA]:
```

7. Specify whether you want to supply configuration details at the following prompt.

```
 Do you want to configure PeopleTools client? [Y/N]:
```

   If you answer *n* (no), you do not want to configure the PeopleTools client, continue with step 9.

If you answer *y* (yes), specify the information for your environment at the following prompts:

```
Database Name: HCM92
Server Name: example.com
UserId: VP1
Connect ID: people
Connect Password:
Retype Connect Password:
```

Note. When you enter the password, the script does not echo the password or any masking characters as you type.

- Specify the database name and database server to connect to.
- The connect ID a valid database-level ID that the PeopleSoft system uses to make the initial connection to the database.
- For User ID, specify a PeopleSoft user ID, such as VP1 or PS, that has permission to access the database from the PeopleTools client, Application Designer, and so on.

8. Select the type of deployment at the following prompt:

    See the definitions in Understanding the Standalone Mode Deployment.

    ```
    Please make your selection for the Tools Client deployment:
     1. People Tools Full Upgrade
     2. People Tools Patch
     3. None of the above
     Enter your choice [1-3]:
    ```

9. Specify whether you want to install Change Assistant at the following prompt:

    ```
    Do you want to install Change Assistant? [Y/N]:
    ```

    If you answer *y* (yes), specify the installation directory, or accept the default, C:\Program Files\PeopleSoft\Change Assistant:

    ```
    Please specify the directory to install Change Assistant [C:\Program⇒
     Files\PeopleSoft\Change Assistant]:
    ```

10. Specify whether you want to install Change Impact Analyzer at the following prompt:

    ```
    Do you want to install Change Impact Analyzer? [Y/N]:
    ```

    If you answer *y* (yes), specify the installation directory for Change Impact Analyzer, or accept the default, C:\Program Files\PeopleSoft\Change Impact Analyzer:

    ```
    Please specify the directory to install Change Impact Analyzer [C:⇒
    \Program Files\PeopleSoft\Change Impact Analyzer]:
    ```

11. Specify whether you want to install PeopleSoft Test Framework at the following prompt:

    ```
    Do you want to install PeopleSoft Test Framework? [Y/N]:
    ```

    If you answer *y* (yes), specify the installation directory for PeopleSoft Test Framework, or accept the default, C:\Program Files\PeopleSoft\PeopleSoft Test Framework:

    ```
    Please specify the directory to install PeopleSoft Test Framework [C:⇒
    \Program Files\PeopleSoft\PeopleSoft Test Framework]:
    ```

12. Specify whether you want to configure the PeopleSoft Test Framework at the following prompt:

```
Do you want to configure PeopleSoft Test Framework? [Y/N]:
```

If you answer *y* (yes), specify the information for your environment. For information on these parameters, see the PeopleTools Test Framework product documentation.

See *PeopleTools: Test Framework,* "Installing a PTF Client."

```
Database Name: HCM92
Server:Port: example.com:443
Node ID: node_name
User ID: VP1
Proxy [Y/N]: y
Proxy Server: proxyserver.com
Proxy Port: 5000
Proxy User: username
Proxy Password:*******
Retype Proxy Password:*******
```

13. Review the setup steps.

    The messages you see depend upon your choices.

    ```
    Starting Tools Client Deployment!
    Deploying PeopleTools 8.56.02 Client in C:\PT8.56.02_Client_ORA
    Configuring PeopleTools 8.56.02 Client
    Deployment of PeopleTools Client Complete.
    Tools Client Deployment Ended.
    ***** SetupPTClient ended at 11:35:08.91 ******

    Please review C:\PeopleSoft\PTClientDeploy.log for additional⇒
     information.
    ```

14. 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.

    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.

Chapter 3

Completing the DPK Initialization with Customizations

This chapter discusses:

- Understanding PeopleSoft Environment Customizations
- Preparing Customization Files for Linux, AIX, or Solaris Users and Groups
- Preparing the Customization File for JDK on AIX
- Preparing the Customization File for PeopleSoft Domain Definitions
- Preparing the Customization File to Create PeopleSoft Domains Without Configuration
- Preparing the Customization File for Component Software Locations
- Preparing the Customization File for Unicode
- Preparing the Customization File for the PeopleSoft Homes
- Preparing the Customization File for Jolt SSL and WSL SSL Ports
- Preparing the Customization File for Oracle HTTP Server
- Preparing the Customization File for Mid-Tier Connection to a Microsoft SQL Server Database
- Preparing the Customization File for Mid-Tier Connection to a DB2 z/OS Database
- Preparing the Customization File for Mid-Tier Connection to a DB2 for Linux, UNIX, and Windows Database
- Preparing the Customization File to Exclude Oracle Database Client Installation
- Completing the Customized Deployment

Understanding PeopleSoft Environment Customizations

The PeopleSoft DPK setup script allows setup of a PeopleSoft environment quickly using the default data from the packaged Hiera YAML files. This section gives a few examples of ways to use the YAML files for customization, but is not meant to be an exhaustive list of the possible customizations.

Always use the documented procedures to make changes to your environment. Doing so will allow you to retain your customizations when removing a deployment before deploying a new patch or version.

Use these guidelines when customizing your environment:

- Do not change any of the original delivered YAML files.

  This practice enables you to retain your customizations after deploying a new patch or update.

  When you deploy the PeopleSoft DPKs, the YAML files associated with the deployment are installed in the following location:

  - *BASE_DIR/*dpk/puppet/production/data/defaults.yaml

- • *BASE_DIR/*dpk/puppet/production/data/psft_configuration.yaml
  - • *BASE_DIR/*dpk/puppet/production/data/psft_deployment.yaml
  - • *BASE_DIR/*dpk/puppet/production/data/psft_unix_system.yaml
- • Start with the DPK setup script and choose not to continue with the default initialization.

  Answer *no* at the prompt "Do you want to continue with the default initialization process? [y|n]:" to exit the script and bypass the default initialization process.

  To set up a customized PeopleSoft environment, the DPK setup script can still be used to automate the tasks of extracting the DPK zip files, installing Puppet (if not installed), and copying the Puppet modules and Hiera data YAML files from the DPK into the location where Puppet looks for these files during the orchestration process.

- • Always use the customizations for these setups:

  - • Installing on an AIX operating system

  - • Connecting to a non-Oracle RDBMS platform.

- • Always create a psft_customizations.yaml file to use for modified parameters.

  Never modify the delivered YAML files. Instead, copying the parameters that you want to modify into the psft_customizations.yaml file gives you the option to save the customization.

- • Verify the content of the delivered YAML files with each release.

  The YAML files may have changed since this document was published. It is important that you copy the appropriate section of code from the YAML files you install with each new deployment, and use it as the basis for your psft_customizations.yaml file.

- • Do not create new parameters for psft_customizations.yaml.

  The deployment recognizes only those parameters in the delivered YAML files or given in the product documentation.

- • Use a single psft_customizations.yaml file.

  You can copy sections from more than one of the delivered YAML files and include them in a single psft_customizations.yaml file.

- • Include the `remove: false` attribute to retain your customizations through the clean up process.

  To ensure that your customizations are not removed when removing a deployed environment:

  - • For each segment of customization parameters in the psft_customizations.yaml file, include the `remove: false` attribute at the end of the segment.

  - • If you remove the environment using the `puppet apply` command, set the `ensure` attribute to *absent* in default.yaml.

    If you remove the environment using the `--cleanup` option for the PeopleSoft DPK setup script, you do not need to set the attribute first because it is part of the script process.

  - • Remove the environment using the `--cleanup` option for the PeopleSoft DPK setup script, as described in this documentation.

    See "Installing the PeopleSoft Homes," Removing a Deployed PeopleSoft Environment.

- • Copy an entire section containing the parameter to be modified, and be sure to retain the indentation from the delivered YAML file.

  The hierarchy and alignment of the YAML files are very important to the correct operation. In addition to the brief overview given here, review the information in the appendix "Using the Puppet Hiera YAML Files for Customization."

  - • The YAML files include scalar type and collection type parameters.

Scalar parameters are of the form `key: value`; for example:

```
db_platform: ORACLE
```

Collection type parameters include a parameter name followed by one or more indented lists of `key:value` pairs. In this case, the value of the collection parameter is defined by the indented list of values; for example:

```
ps_home:
  db_type:     "%{hiera('db_platform')}"
  unicode_db: "%{hiera('unicode_db')}"
  location:    "%{hiera('ps_home_location')}"
```

- When you locate a parameter that you want to modify, be sure to locate the section heading that begins at the first column of the YAML file. This ensures that the deployment operation modifies the correct parameter.

- Be sure to retain the indentation from the delivered YAML file.

  Typically there is an indentation of 2 or 3 spaces for each successive subsection. This is necessary in order for the parameters to be correctly interpreted.

  Note. Be sure when copying and pasting that you retain the indentation. Depending upon the authoring or editing tools you use, the desired indentation may be lost when you copy and paste. It is a good idea to double-check the final psft_customizations.yaml file, especially for the special cases where you copy a sample from this documentation.

- When copying and modifying collection type parameters, use only spaces, not tabs, to indent the subsections.

- Use the encrypted passwords from the generated YAML files.

  The DPK setup script encrypts user-supplied passwords and includes them in the generated YAML files. If you copy a section of a YAML file with encrypted passwords, do not replace or remove the encrypted text.

  The encrypted passwords are quite long. Be sure to copy the entire string, without adding spaces, tabs, or line feeds.

  Note. For the majority of the customizations described in this documentation, you copy the encrypted passwords from the generated YAML files. If that is not possible, see the appendix "Encrypting Passwords for Customizations on Linux, AIX, or Solaris."

- Replace the entire attribute string.

  The parameters in the delivered YAML files are written with Hiera interpolation functions that act as variables. To modify each parameter, you must replace the entire string after the colon, and enclose your new value in double quotes. For example, in the psft_deployment.yaml file, the location for an Oracle WebLogic installation is given by the following parameters

```
weblogic_location: "%{hiera('pt_location')}/bea"
weblogic:
  location:    "%{hiera('weblogic_location')}"
```

  The second Hiera function refers to the first. When `pt_location` is set as C:/psft, Oracle WebLogic will be installed in C:/psft/bea. To change this, remove both strings of text `"%{hiera('pt_location')}/bea"` and `"%{hiera('weblogic_location')}"`, and replace them with the full path to the new location. Retain the two-space indentation, and use a forward slash (/) for paths on Microsoft Windows, Linux; AIX, or Solaris; for example:

  On Microsoft Windows:

```
weblogic_location:  "C:/psft/weblogic"
weblogic:
  location: "C:/psft/weblogic"
```

On Linux, AIX, or Solaris:

```
weblogic_location:  "/opt/bea/weblogic"
weblogic:
  location: "/opt/bea/weblogic"
```

• Do not use the customizations to set up a non-Unicode environment if you are deploying the PeopleSoft Update Image DPKs for use with PeopleSoft Update Manager.

The environments for the PeopleSoft Update Images are required to be Unicode.

• Verify existing installations before beginning deployment.

You have the option to use existing installations, for example for Oracle WebLogic, but you have the responsibility to ensure that the installation is supported, complete, and correct. The deployment script does not verify whether an installation directory includes a valid, working installation.

• Set the Puppet environment if necessary.

The last step in the examples given in this chapter is to run the `puppet apply` command. If you receive a message saying that the term "puppet" is not recognized when running this command, it probably means that the Puppet software is not included in your system's path. You should also set the Puppet environment if you need to run `puppet apply` after the script execution has ended with an error.

• On Microsoft Windows, to set the Puppet environment, run this command:

```
"C:\Program Files\Puppet Labs\Puppet\bin\puppet_shell.bat"
```

• On Linux, specify the following environment variables before running the `puppet apply` command:

```
export PUPPET_DIR=/opt/puppetlabs
export PUPPET_BIN=${PUPPET_DIR}/bin
export PUPPET_LIB=${PUPPET_DIR}/lib
export PATH=${PUPPET_BIN}:$PATH
export LD_LIBRARY_PATH=${PUPPET_LIB}:$LD_LIBRARY_PATH
```

• On AIX, specify the following environment variables before running the `puppet apply` command:

```
export PUPPET_DIR=/opt/oracle/puppetlabs
export PUPPET_BIN=${PUPPET_DIR}/bin
export PUPPET_LIB=${PUPPET_DIR}/lib
export PATH=${PUPPET_BIN}:$PATH
export LIBPATH=${PUPPET_LIB}:$LIBPATH
```

• On AIX or Solaris operating systems, instead of using the export commands above, you can use the pspuppet.sh script to set the Puppet environment.

Use this method if the DPK setup script is interrupted, either intentionally to apply customizations, or by an error, and you need to proceed by running `puppet apply`. The script will set the Puppet PATH and LIBRARY environment variables. The pspuppet.sh script is installed by the DPK setup script in /opt/oracle/puppetlabs. Source the script by entering the following command:

```
. /opt/oracle/puppetlabs/pspuppet.sh
```

The dot, or period (".") at the beginning of the command is a source operator that ensures that the script commands persist in the shell environment that you are deploying from. After sourcing the script, continue with the deployment by running the `puppet apply` command.

- See the Puppet Labs documentation if you want to save the log files.

  When you run the `--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.

Task 3-1: Preparing Customization Files for Linux, AIX, or Solaris Users and Groups

This section discusses:

- Preparing the Customization File for a Single User and Single Group
- Preparing the Customization File for a New Single User, New Primary Group, and Existing Secondary Group
- Preparing the Customization File for Existing Users and Groups

Note. If you want to set up your environment to use existing LDAP or existing users and groups on Linux, AIX, or Solaris, you must meet these requirements: 1) The user home directory should have read/write/execute permission for the root user. 2) The user default shell should be bash.

Note. To use an encrypted password with one of the customization files in this section, note that the successful use of the encrypted password depends on the presence of the public and private keys in the *BASE_DIR/* dpk/puppet directory referred to in the eyaml encrypt command. You cannot save an encrypted password and use it with an installation with a different *BASE_DIR*.

Task 3-1-1: Preparing the Customization File for a Single User and Single Group

This user customization applies to Linux, AIX, and Solaris OS platforms only. If you choose the default initialization when running the DPK setup script, the Puppet framework creates local users and default groups, which are contained in the generated psft_unix_system.yaml file. Use the sample customization file in this section if you do not want to use the default users and groups, and instead want to set up your environment with a different single user and single group for the whole PeopleSoft environment. This user customization applies to the following scenarios:

- New single user + new single group
- New single user + existing single group
- Existing single user + new single group
- Existing single user + existing single group

Note. After completing the initialization, the system will prompt you to provide a new password the first time you log in. This requirement applies to both a new single user and an existing single user.

This customization will create a single user and single group. You must specify values for two parameters that are not included in the generated psft_unix_system.yaml file, `psft_user` and `psft_group`.

- `groups/psft_group`

  - Use the groups/psft_group collection parameter only if you want to create a group for a single user. The DPK process will create the group. If there is an existing group with the same name, the script will skip it.

- Specify the same value for groups/psft_group/name and for users/psft_user/gid.

  Use a group name (string), not a GID (number), for both the name in the group collection parameter, and the gid in the users collection parameter.

- Note that you must use the parameters exactly as given in this documentation. If you try to create a different parameter name or alter the parameter, the DPK process will not recognize it.

- `users/psft_user`

  - Use the users/psft_user collection parameter to create a new user and add that user to the group specified by groups/psft_group.

  - This group is the primary group for the new user.

  - Specify the same value for users/psft_user/name and for the scalar parameter psft_runtime_user_name.

- `users/psft_user/home_dir`

  When you run the DPK setup script, it includes a prompt for the users' home directory. That value is included in the generated psft_unix_system.yaml file. You can accept that same value in this customization file for users/psft_user/home_dir, or you can change it here. If you change it, the DPK process will create the new home directory.

To prepare the customization file:

1. Create a psft_customizations.yaml using a standard editing tool such as vi, and save it in the same location as the psft_unix_system.yaml file.

   By default, the DPK setup script installs the YAML files in *BASE_DIR/*dpk/puppet/production/data.

2. Use the sample below in creating the psft_customizations.yaml file, and modify the values as needed.

   Note. Be sure that your final psft_customizations.yaml file includes the indentation shown here. The indentation may be lost if you copy from this documentation and paste into the file.

   In this example, the new single user *newusr* will be created and assigned to the primary group *newgrp*.

   ```
   ---
   groups:
     psft_group:
       name: newgrp
       remove: false

   psft_runtime_user_name: newusr

   users:
     psft_user:
       name: newusr
       gid: newgrp
       home_dir: /dpk_base/home/userhome
       password: ENC[PKCS7,MIIBeQYJKoZIhvcNA...........]
       remove: false
   ```

   - Ensure that the file begins with three dashes (`---`).

   - Replace the password sample above with an encrypted password.

     Enter the encrypted password on a single line. Do not include spaces or line feeds. See the instructions later in this documentation to generate the encrypted password.

     See "Encrypting Passwords for Customizations on Linux, AIX, or Solaris."

3. Save the file.

Task 3-1-2: Preparing the Customization File for a New Single User, New Primary Group, and Existing Secondary Group

This user customization applies to Linux, AIX, and Solaris OS platforms only. If you choose the default initialization when running the DPK setup script, the Puppet framework creates local users and default groups, which are contained in the generated psft_unix_system.yaml file. Use the sample customization file in this section if you do not want to use the default users and groups, and instead want to set up your environment with a new single user assigned to two groups.

Note. After completing the initialization, the system will prompt you to provide a new password for the new user, the first time you log in.

This customization will create a new single user and a new group, the primary group. The new user is also assigned to an existing, secondary group. You must specify values for two parameters that are not included in the generated psft_unix_system.yaml file, `psft_user` and `psft_group`.

- `groups/psft_group`

  - Use the groups/psft_group collection parameter only if you want to create a new group for a single user. The DPK process will create the group. If there is an existing group with the same name, the script will try to overwrite it.

  - Specify the same value for groups/psft_group/name and for users/psft_user/gid.

    Use a group name (string), not a GID (number), for both the name in the group collection parameter, and the gid in the users collection parameter.

  - Note that you must use the parameters exactly as given in this documentation. If you try to create a different parameter name or alter the parameter, the DPK process will not recognize it.

- `users/psft_user`

  - Use the users/psft_user collection parameter to create a new user and add that user to the new group specified by groups/psft_group/name.

  - Specify the same value for users/psft_user/name and for the scalar parameter psft_runtime_user_name.

  - The new group specified by users/psft_user/gid and groups/psft_group/name is the primary group for the new user.

  - The existing group specified by users/psft_user/groups is the secondary group for the new user.

- `users/psft_user/home_dir`

  When you run the DPK setup script, it includes a prompt for the users' home directory. That value is included in the generated psft_unix_system.yaml file. You can accept that same value in this customization file for users/psft_user/home_dir, or you can change it here. If you change it, the DPK process will create the new home directory.

To prepare the customization file:

1. Create a psft_customizations.yaml using a standard editing tool such as vi, and save it in the same location as the psft_unix_system.yaml file.

   By default, the DPK setup script installs the YAML files in *BASE_DIR/*dpk/puppet/production/data.

2. Use the sample below in creating the psft_customizations.yaml file, and modify the values as needed.

   Note. Be sure that your final psft_customizations.yaml file includes the indentation shown here. The indentation may be lost if you copy from this documentation and paste into the file.

   In this example, the new single user *newusr2* will be created and assigned to the newly created primary group

primgrp and the existing secondary group *secgrp.*

```
---
groups:
  psft_group:
    name: primgrp
    remove: false

psft_runtime_user_name: newusr2

users:
  psft_user:
    name: newusr2
    gid: primgrp
    groups: secgrp
    home_dir: /dpk_base/home/userhome
    password: ENC[PKCS7,MIIBeQYJKoZIhvcNA...........]
    remove: false
```

- Ensure that the file begins with three dashes (---).

- Replace the password sample above with an encrypted password.

   Enter the encrypted password on a single line. Do not include spaces or line feeds. See the instructions later in this documentation to generate the encrypted password.

   See "Encrypting Passwords for Customizations on Linux, AIX, or Solaris."

3. Save the file.

Task 3-1-3: Preparing the Customization File for Existing Users and Groups

This user customization applies to Linux, AIX, and Solaris OS platforms only. If you choose the default initialization, the Puppet framework creates default local users and groups. However, your security policies may prohibit creating these OS users. In such a scenario, you can override these default users using the customizations file. The customizations file can refer to one or more existing users or existing groups and Puppet will use them instead of the delivered users.

Note. After completing the initialization, the system will prompt you to provide a new password for the existing user, the first time you log in.

Ensure you fulfill these requirements:

- The users, groups, and GIDs that you specify in the psft_customizations.yaml file are present before you begin the installation.

- Do not use the same name for the four group parameters. Ensure that the names that you specify for these parameters in psft_cutomizations.yaml are different.

  - psft_runtime_group_name

  - psft_app_install_group_name

  - oracle_install_group_name

  - oracle_runtime_group_name

- The customizations file does not specify new passwords, because it is assumed that the passwords associated with the existing users will be used.

- When you run the DPK setup script, you must specify a user home directory in which the existing user

resides.

See the section Using the PeopleSoft Installation for descriptions of the delivered users.

1. Locate the psft_unix_system.yaml file, which includes default users and groups.

    By default, the DPK setup script installs the YAML files in *BASE_DIR/*dpk/puppet/production/data.

    Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your psft_customizations.yaml file.

2. If necessary, create a psft_customizations.yaml using a standard editing tool such as vi, and save it in the same location as the psft_unix_system.yaml file.

    If this is the first entry in the psft_customizations.yaml file, ensure that the file begins with three dashes (---).

3. Copy the entire section for the users and groups from the psft_unix_system.yaml file into the psft_customizations.yaml file and modify the values as needed.

    Note. Be sure that your final psft_customizations.yaml file includes the indentation from the generated YAML file. The indentation may be lost when you copy and paste.

    For example:

```
---
psft_install_user_name:     psadmx5
psft_runtime_user_name:     psadmx6
psft_app_install_user_name: psadmx7
oracle_user_name:           oraclex3

psft_runtime_group_name:     psftrungrp
psft_app_install_group_name: psftappgrp
oracle_install_group_name:   orainstgrp
oracle_runtime_group_name:   orarungrp

user_home_dir:   /data1/home
users:
  tools_install_user:
    name:    "%{hiera('psft_install_user_name')}"
    gid:     orainstgrp
    groups:  "%{hiera('psft_runtime_group_name')}"
    home_dir: "%{hiera('user_home_dir')}/%{hiera('psft_install_user_ ⇒
name')}"

  psft_runtime_user:
    name:    "%{hiera('psft_runtime_user_name')}"
    gid:     orainstgrp
    home_dir: "%{hiera('user_home_dir')}/%{hiera('psft_runtime_user_ ⇒
name')}"

  app_install_user:
    name:    "%{hiera('psft_app_install_user_name')}"
    gid:     psftappgrp
    home_dir: "%{hiera('user_home_dir')}/%{hiera('psft_app_install_user_ ⇒
name')}"
```

```
    oracle_user:
      name:      "%{hiera('oracle_user_name')}"
      gid:       orainstgrp
      home_dir: "%{hiera('user_home_dir')}/%{hiera('oracle_user_name')}"

    es_user:
      name:      esuserx3
      gid:       users
      home_dir: /data1/home/esuserx3
```

- The four default users psadm1, psadm2, psadm3, and oracle2 have been replaced by psadmx5, psadmx6, psadmx7, and oraclex3, respectively.

- The default psft_runtime_group_name has been replaced by psftrungrp. This group is the primary group for the psft_runtime_user.

- The default psft_app_install_group_name has been replaced by psftappgrp. This group is the primary group for the app_install_user.

- The tools_install_user must belong to the psft runtime group as a secondary group. To satisfy this requirement, the value for users/tools_install_user/groups is set to the interpolation function "%{hiera('psft_runtime_group_name')}".

- The oracle_install_group_name has been replaced by orarungrp. This group is the primary group for the oracle_user.

4. Save the file.

Task 3-2: Preparing the Customization File for JDK on AIX

As mentioned in the section Reviewing Software Requirements for AIX, you must use customizations to specify the installation location of the manually installed JDK 8.0 for the AIX DPK.

1. Locate the psft_deployment.yaml file in *BASE_DIR/*dpk/puppet/production/data.

   Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your psft_customizations.yaml file.

   The installation location for JDK is defined in the psft_deployment.yaml file that is installed with the deployment.

2. If necessary, create a psft_customizations.yaml using a standard editing tool, such as vi, and save it in the same location as the psft_deployment.yaml file.

   If this is the first entry in the psft_customizations.yaml file, ensure that the file begins with three dashes (`---`).

3. Copy the `jdk_location` scalar parameter, and the entire `jdk` collection-type section from the psft_deployment.yaml file into the psft_customizations.yaml file. Be sure to set the locations to the same value. Do not indent `jdk_location` or `jdk`, as shown in this example:

   As previously mentioned, setting the optional attribute `remove: false` means that the parameters in this section will not be deleted when the deployed environment is removed.

```
---
jdk_location:    /home/java/ibm-java-ppc64-80
jdk:
  location:      /home/java/ibm-java-ppc64-80
```

```
     remove:        false
```

4. Save the file.

Task 3-3: Preparing the Customization File for PeopleSoft Domain Definitions

This section discusses:

- Preparing the psft_customizations.yaml file
- Reviewing the Domain Definitions in psft_configuration.yaml
- Reviewing the Customization File for a Single Application Server Domain
- Reviewing the Customization File for an Application Server Domain with Custom PS_CFG_HOME
- Reviewing the Customization File for a PIA Domain on a Separate Host
- Reviewing the Customization File for Multiple Domains

Task 3-3-1: Preparing the psft_customizations.yaml file

Use this information if you want to customize the PeopleSoft domains — the application server, Process Scheduler, and PIA domains. For example, you may want to create multiple Application Server domains rather than a single domain.

1. Locate the psft_configuration.yaml file, which was installed by the deployment, in *BASE_DIR/* dpk/puppet/production/data.

   Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your psft_customizations.yaml file.

2. If necessary, create a psft_customizations.yaml using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux, AIX, or Solaris, and save it in the same location as the psft_configuration.yaml file.

   If this is the first entry in the psft_customizations.yaml file, ensure that the file begins with three dashes (---).

3. Copy the sections that you want to customize from the psft_configuration.yaml file into the psft_customizations.yaml file and modify the values as needed.

   The following sections include sample psft_customizations.yaml files.

4. Save the file.

Task 3-3-2: Reviewing the Domain Definitions in psft_configuration.yaml

To customize the PeopleSoft domains, you begin with the psft_configuration.yaml file, which lists the attributes pertinent to the PeopleSoft domains.

Note. The psft_configuration.yaml file includes definitions for Automated Configuration Manager (ACM) plug-ins, which configure components such as Integration Broker and Report Distribution. Depending upon the PeopleSoft domain being set up, certain ACM configurations will run as part of the deployment.

This sample shows a portion of a psft_configuration.yaml file, with annotations added (marked by ###) for the purposes of this explanation. The default application server name, APPDOM, is defined in the first portion of the file for the parameter `appserver_domain_name`, which is then referenced with an interpolation token `"%{hiera('appserver_domain_name')}"` in the `appserver_domain_list section`.

The DPK setup script encrypts user-supplied passwords and includes them in the generated YAML files. The encrypted text will be a long single line of letters and numbers. Be sure to copy the text in one unbroken line, with no spaces or line feeds. This sample includes short strings of text beginning with "ENC" to represent encrypted passwords.

```
---
db_name:          FS85606C
db_user:          VP1

##############################################################
# Replace this password sample with encrypted text from the  #
# generated psft_configuration.yaml file                     #
##############################################################
db_user_pwd:      ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]


db_connect_id:    people

##############################################################
# Replace this password sample with encrypted text from the  #
# generated psft_configuration.yaml file                     #
##############################################################
db_connect_pwd:   ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

domain_user:           "%{hiera('psft_runtime_user_name')}"
ps_config_home:        "C:/Users/%{::env_username}/psft/pt/8.56"
appserver_template:    small
appserver_domain_name: APPDOM
prcs_domain_name:      PRCSDOM
prcs_domain_id:        "PRCS%{::rand}"
report_node_name:      "%{hiera('prcs_domain_id')}"
pia_domain_name:       peoplesoft
pia_site_name:         ps
pia_http_port:         8000
pia_https_port:        8443
jolt_port:             9033
wsl_port:              7000
db_port:               1521
gateway_node_name:     QE_LOCAL
pia_gateway_user:      administrator

##############################################################
# Replace this password sample with encrypted text from the  #
# generated psft_configuration.yaml file                     #
##############################################################
pia_gateway_user_pwd: ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]


webserver_type:        weblogic
```

```
pia_webprofile_name:    PROD
pia_psserver_list:      "%{::fqdn}:%{hiera('jolt_port')}"
report_repository_dir: "%{hiera('ps_config_home')}/psreports"


################################################################
# Replace this password sample with encrypted text from the  #
# generated psft_configuration.yaml file                     #
################################################################
domain_conn_pwd:        ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]



help_uri:               pt854pbh1
tns_dir:                "%{hiera('db_location')}"
tns_admin_list:
  "%{hiera('db_name')}":
    db_host:            "%{::fqdn}"
    db_port:            "%{hiera('db_port')}"
    db_protocol:      TCP
    db_service_name: "%{hiera('db_name')}"

db2_server_list:
  "%{hiera('db_name')}":
    db2_type:           "%{hiera('db_platform')}"
    db2_host:           "%{::fqdn}"
    db2_port:           "%{hiera('db_port')}"
    db2_node:           TCPLNX01
    db2_target_db:    "%{hiera('db_name')}"

mssql_server_list:
  "%{hiera('db_name')}":
    mss_server_name: "%{::fqdn}"
    mss_odbc_name:    "ODBC Driver 11 for SQL Server"

####################################################################
# Copy the entire section beginning here for                      #
# application server customization.                               #
####################################################################

appserver_domain_list:
  "%{hiera('appserver_domain_name')}":
    os_user:            "%{hiera('domain_user')}"
    ps_cfg_home_dir: "%{hiera('ps_config_home')}"
    template_type:    "%{hiera('appserver_template')}"

    db_settings:
      db_name:          "%{hiera('db_name')}"
      db_type:          "%{hiera('db_platform')}"
      db_opr_id:        "%{hiera('db_user')}"
      db_opr_pwd:       "%{hiera('db_user_pwd')}"
      db_connect_id:  "%{hiera('db_connect_id')}"
      db_connect_pwd: "%{hiera('db_connect_pwd')}"
```

```
    config_settings:
      Domain Settings/Domain ID:     "%{hiera('appserver_domain_name')}"
      PSAPPSRV/Min Instances:        2
      PSAPPSRV/Max Instances:        2
      PSAPPSRV/Max Fetch Size:       15000
      Security/DomainConnectionPwd: "%{hiera('domain_conn_pwd')}"
      JOLT Listener/Port:            "%{hiera('jolt_port')}"
      JOLT Listener/Address:         0.0.0.0
      Workstation Listener/Port:     "%{hiera('wsl_port')}"

    feature_settings:
      PUBSUB:          "Yes"
      QUICKSRV:        "No"
      QUERYSRV:        "No"
      JOLT:            "Yes"
      JRAD:            "No"
      WSL:             "Yes"
      DBGSRV:          "No"
      RENSRV:          "No"
      MCF:             "No"
      PPM:             "Yes"
      PSPPMSRV:        "Yes"
      ANALYTICSRV:     "No"
      SERVER_EVENTS:   "Yes"
      DOMAIN_GW:       "No"
########################################################################
# End application server section.                                      #
########################################################################

########################################################################
# Copy the entire section beginning here for                           #
# Process Scheduler customization                                      #
########################################################################

prcs_domain_list:
  "%{hiera('prcs_domain_name')}":
    os_user:          "%{hiera('domain_user')}"
    ps_cfg_home_dir:  "%{hiera('ps_config_home')}"

    db_settings:
      db_name:          "%{hiera('db_name')}"
      db_type:          "%{hiera('db_platform')}"
      db_opr_id:        "%{hiera('db_user')}"
      db_opr_pwd:       "%{hiera('db_user_pwd')}"
      db_connect_id:    "%{hiera('db_connect_id')}"
      db_connect_pwd:   "%{hiera('db_connect_pwd')}"

    config_settings:
      Process Scheduler/PrcsServerName: "%{hiera('prcs_domain_id')}"
      Security/DomainConnectionPwd:     "%{hiera('domain_conn_pwd')}"

    feature_settings:
      MSTRSRV:          "Yes"
```

```
      APPENG:           "Yes"
######################################################################
# End Process Scheduler section.                                     #
######################################################################

######################################################################
# Copy the entire section beginning here for PIA customization.    #
######################################################################
pia_domain_list:
  "%{hiera('pia_domain_name')}":
    os_user:                  "%{hiera('domain_user')}"
    ps_cfg_home_dir:          "%{hiera('ps_config_home')}"
    gateway_user:             "%{hiera('pia_gateway_user')}"
    gateway_user_pwd:         "%{hiera('pia_gateway_user_pwd')}"
    auth_token_domain:        ".%{::domain}"

    webserver_settings:
      webserver_type:             "%{hiera('webserver_type')}"
      webserver_home:             "%{hiera('weblogic_location')}"
      webserver_admin_user:     system

#################################################################
# Replace this password sample with encrypted text from the  #
# generated psft_configuration.yaml file                     #
#################################################################
      webserver_admin_user_pwd:  ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

      webserver_admin_port:     "%{hiera('pia_http_port')}"
      webserver_http_port:      "%{hiera('pia_http_port')}"
      webserver_https_port:     "%{hiera('pia_https_port')}"

    site_list:
      "%{hiera('pia_site_name')}":
        appserver_connections: "%{hiera('pia_psserver_list')}"
        domain_conn_pwd:       "%{hiera('domain_conn_pwd')}"

        webprofile_settings:
          profile_name:        "%{hiera('pia_webprofile_name')}"
          profile_user:        PTWEBSERVER

#################################################################
# Replace this password sample with encrypted text from the  #
# generated psft_configuration.yaml file                     #
#################################################################
          profile_user_pwd:    ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]


        report_repository_dir: "%{hiera('report_repository_dir')}"
######################################################################
# End PIA section.                                                   #
######################################################################
```

```
ohs_domain:
    name:                        ohsdom


########################################################
# Remaining text removed for brevity.                  #
########################################################
```

Task 3-3-3: Reviewing the Customization File for a Single Application Server Domain

This sample shows a psft_customizations.yaml file for a single application server domain with the domain name APPDOM1. Note that the indentation in the original psft_configuration.yaml file must be maintained when creating a psft_customizations.yaml file.

Note. Do not modify the `ps_cfg_home_dir` parameter. If you want to customize the *PS_CFG_HOME* location, see the next section.

```
---
appserver_domain_list:

### Custom domain name ###
  "APPDOM1":
    os_user:          "%{hiera('domain_user')}"
    template_type:    "%{hiera('appserver_template')}"
    ps_cfg_home_dir: "%{hiera('ps_config_home')}"

    db_settings:
      db_name:         "%{hiera('db_name')}"
      db_type:         "%{hiera('db_platform')}"
      db_opr_id:       "%{hiera('db_user')}"
      db_opr_pwd:      "%{hiera('db_user_pwd')}"
      db_connect_id:   "%{hiera('db_connect_id')}"
      db_connect_pwd: "%{hiera('db_connect_pwd')}"

    config_settings:
      Domain Settings/Domain ID:    IBUPG0
      PSAPPSRV/Min Instances:       3
      PSAPPSRV/Max Instances:       5
      JOLT Listener/Port:           "%{hiera('jolt_port')}"
      Workstation Listener/Port:    "%{hiera('wsl_port')}"

    feature_settings:
      PUBSUB:         "Yes"
      QUICKSRV:       "No"
      QUERYSRV:       "No"
      JOLT:           "Yes"
      JRAD:           "No"
      WSL:            "Yes"
      DBGSRV:         "No"
      RENSRV:         "No"
      MCF:            "No"
      PPM:            "Yes"
```

```
    PSPPMSRV:        "Yes"
    ANALYTICSRV:     "No"
    SERVER_EVENTS: "Yes"
    DOMAIN_GW:       "No"
```

Task 3-3-4: Reviewing the Customization File for an Application Server Domain with Custom PS_CFG_HOME

If you want to create application server domains in a non-default PS_CFG_HOME location, you must also specify the value for ps_config_home above the appserver_domain_list section:

```
---
### Custom PS_CFG_HOME location ###
ps_config_home:       C:/user/psft_config/8.56
appserver_domain_list:
### Custom domain name ###
  "APPDOM2":
    os_user:            "%{hiera('domain_user')}"
    template_type:    "%{hiera('appserver_template')}"

### Custom PS_CFG_HOME location ###
    ps_cfg_home_dir:  C:/user/psft_config/8.56

    db_settings:
      db_name:          "%{hiera('db_name')}"
      db_type:          "%{hiera('db_platform')}"
      db_opr_id:        "%{hiera('db_user')}"
      db_opr_pwd:       "%{hiera('db_user_pwd')}"
      db_connect_id:  "%{hiera('db_connect_id')}"
      db_connect_pwd: "%{hiera('db_connect_pwd')}"

    config_settings:
      Domain Settings/Domain ID:    IBUPG0
      PSAPPSRV/Min Instances:       3
      PSAPPSRV/Max Instances:       5
      JOLT Listener/Port:           "%{hiera('jolt_port')}"
      Workstation Listener/Port:    "%{hiera('wsl_port')}"

    feature_settings:
      PUBSUB:          "Yes"
      QUICKSRV:        "No"
      QUERYSRV:        "No"
      JOLT:            "Yes"
      JRAD:            "No"
      WSL:             "Yes"
      DBGSRV:          "No"
      RENSRV:          "No"
      MCF:             "No"
      PPM:             "Yes"
      PSPPMSRV:        "Yes"
      ANALYTICSRV:     "No"
      SERVER_EVENTS: "Yes"
```

```
    DOMAIN_GW:        "No"
```

Task 3-3-5: Reviewing the Customization File for a PIA Domain on a Separate Host

If you want to set up an environment in which the PIA domain and web server are not on the same machine as the application server domain, you must use customizations to specify the machine where the application server is installed. This customization is required for the Integration Broker configuration.

The generated psft_configuration.yaml includes the following parameter, which sets the host for Integration Broker to the PIA host, which by default is the machine where the DPK setup script is run:

```
env.ib_appserver_host:              "%{hiera('pia_host_name')}"
```

If you use the DPK setup script to set up a PIA domain only, and the PIA domain is not on the same machine as your application server domain, the value for the `env.ib_appserver_host` parameter must be set to application server machine name.

See "Deploying the PeopleSoft PeopleTools Deployment Packages," Running the DPK Setup Script to Deploy a PIA Domain.

Copy the entire `component_postboot_setup_list` collection section from psft_configuration.yaml and paste it into psft_customizations.yaml. Change the value for `env.ib_appserver_host` to point to the host where the application server is set up, for example `ps_app_server1`.

This sample shows a sample psft_customizations.yaml file, with annotations added (marked by ###) for the purposes of this explanation.

```
---
component_postboot_setup_list:
  integration_broker:
    run_control_id:                        intbroker
    os_user:                               "%{hiera('domain_user')}"

    db_settings:
      db_name:                             "%{hiera('db_name')}"
      db_type:                             "%{hiera('db_platform')}"
      db_opr_id:                           "%{hiera('db_user')}"
      db_opr_pwd:                          "%{hiera('db_user_pwd')}"
      db_connect_id:                       "%{hiera('db_connect_id')}"
      db_connect_pwd:                      "%{hiera('db_connect_pwd')}"

    acm_plugin_list:
      PTIBActivateDomain:
        domain.activate_retry_count:       10
        domain.activate_wait_time:         10

      PTIBConfigureGatewayNodes:
        env.gateway_host:                  "%{hiera('pia_host_name')}"
        env.gateway_port:                  "%{hiera('pia_http_port')}"
        env.gateway_ssl_port:              "%{hiera('pia_https_port')}"
        env.use_ssl_gateway:               false
        env.default_local_node:            "%{hiera('gateway_node_name')}"
        env.gateway_user:                  "%{hiera('pia_gateway_user')}"
        env.gateway_password:              "%{hiera('pia_gateway_user_⇒
```

```
pwd')}"

###Custom application server name ###
      env.ib_appserver_host:              ps_app_server1
      env.ib_jolt_port:                   "%{hiera('jolt_port')}"
      env.ib_node_proxy_userid:           "%{hiera('db_user')}"
      env.ib_node_proxy_password:         "%{hiera('db_user_pwd')}"
      env.tools_release:                  "%ToolsRelease"
      env.ib_appserver_domain_password:   "%{hiera('domain_conn_pwd')}"
      env.ib_set_as_default_node:         true

   PTIBConfigureGatewayProperties:
     env.gateway_keystore_password:       password

   PTWebServerConfigUpdate:
     env.domainname:                      "%{hiera('pia_domain_name')}"
     env.sitename:                        "%{hiera('pia_site_name')}"
     env.piahome:                         "%{hiera('ps_config_home')}"
     env.psserver:                        ""
     env.KeyStorePwd:                     ""

 acm_plugin_order:
   - PTIBActivateDomain
   - PTIBConfigureGatewayNodes
   - PTIBConfigureGatewayProperties
   - PTWebServerConfigUpdate
```

Task 3-3-6: Reviewing the Customization File for Multiple Domains

For multiple domains, duplicate the entire domain section, again maintaining the indentation from the original psft_configuration.yaml file. This sample shows a psft_customizations.yaml file for two application server domains, two PIA domains, and two Process Scheduler domains, with annotations added (marked by ### characters) for the purposes of this explanation.

Follow these guidelines in creating a psft_customizations.yaml file for customized PeopleSoft domains. The letters correspond to those in the code sample above:

- (A) For more than one application server, include the `pia_psserver_list` entry at the top of the psft_customizations.yaml definitions. List the application server domains that are used by the PIA domains, using the format *<application_server_host>:<Jolt port>*. Separate the entries with a comma.

- (B) Copy the entire section for the domains that you want to customize.

- (C) Specify unique names for each domain.

- (D) Specify unique ports for each domain.

- (E) If specifying more than one application server domain, you must configure the REN server to use a unique port by setting the attribute `PSRENSRV/default_http_port` to a value other than the default, 7180 in the psft_customizations.yaml.

  Note. The REN server setting is also a requirement for a traditional PeopleSoft installation when setting up more than one application server on a single machine.

- (F) If specifying more than one Process Scheduler domain, you must specify unique Process Scheduler server names.

In this sample, the first Process Scheduler server uses the default value, which is defined as an interpolation token. The second Process Scheduler server has a different name, PRCS222.

(G) In addition, the Master Scheduler Server should be enabled for the first Process Scheduler domain (MSTRSRV: "Yes"), and disabled for subsequent Process Scheduler domains (MSTRSRV: "No").

See *PeopleTools: Process Scheduler,* "Understanding PeopleSoft Master Scheduler Server."

- (H) If specifying more than one PIA domain, you must specify different site names for each.

  In this sample, the first PIA site name uses the default value, which is defined as an interpolation token. The second PIA site name has a different name, ps222.

```
---
pia_psserver_list:    "hostname.example.com:9033,hostname.example.com:9043"
### (A) ###

appserver_domain_list:
  "APPDOM111":                                              ###(B), (C)###
    os_user:          "%{hiera('domain_user')}"
    template_type:    "%{hiera('appserver_template')}"
    ps_cfg_home_dir: "%{hiera('ps_config_home')}"

    db_settings:
      db_name:          "%{hiera('db_name')}"
      db_type:          "%{hiera('db_platform')}"
      db_opr_id:        "%{hiera('db_user')}"
      db_opr_pwd:       "%{hiera('db_user_pwd')}"
      db_connect_id:   "%{hiera('db_connect_id')}"
      db_connect_pwd: "%{hiera('db_connect_pwd')}"

    config_settings:
      Domain Settings/Domain ID:      IBUPG0
      PSAPPSRV/Min Instances:         3
      PSAPPSRV/Max Instances:         5
      JOLT Listener/Port:             9033                      ###(D)###
      Workstation Listener/Port:      7000                      ###(D ###

    feature_settings:
      PUBSUB:          "Yes"
      QUICKSRV:        "No"
      QUERYSRV:        "No"
      JOLT:            "Yes"
      JRAD:            "No"
      WSL:             "Yes"
      DBGSRV:          "No"
      RENSRV:          "No"
      MCF:             "No"
      PPM:             "Yes"
      PSPPMSRV:        "Yes"
      ANALYTICSRV:     "No"
      SERVER_EVENTS: "Yes"
      DOMAIN_GW:       "No"

  "APPDOM222":                                              ###(B), (C)###
    os_user:          "%{hiera('domain_user')}"
```

```
     template_type:    "%{hiera('appserver_template')}"
     ps_cfg_home_dir: "%{hiera('ps_config_home')}"

     db_settings:
       db_name:          "%{hiera('db_name')}"
       db_type:          "%{hiera('db_platform')}"
       db_opr_id:        "%{hiera('db_user')}"
       db_opr_pwd:       "%{hiera('db_user_pwd')}"
       db_connect_id:    "%{hiera('db_connect_id')}"
       db_connect_pwd:   "%{hiera('db_connect_pwd')}"

     config_settings:
       Domain Settings/Domain ID:     IBUPG0
       PSAPPSRV/Min Instances:        3
       PSAPPSRV/Max Instances:        5
       JOLT Listener/Port:            9043                          ###(D)###
       Workstation Listener/Port:     7001                          ###(D)###
       PSRENSRV/default_http_port:    7191                          ###(E)###

     feature_settings:
       PUBSUB:          "Yes"
       QUICKSRV:        "No"
       QUERYSRV:        "No"
       JOLT:            "Yes"
       JRAD:            "No"
       WSL:             "Yes"
       DBGSRV:          "No"
       RENSRV:          "No"
       MCF:             "No"
       PPM:             "Yes"
       PSPPMSRV:        "Yes"
       ANALYTICSRV:     "No"
       SERVER_EVENTS:   "Yes"
       DOMAIN_GW:       "No"


pia_domain_list:
  "PIADOM111":                                                 ###(B), (C)###
     os_user:               "%{hiera('domain_user')}"
     ps_cfg_home_dir:       "%{hiera('ps_config_home')}"
     gateway_user:          "%{hiera('pia_gateway_user')}"
     gateway_user_pwd:      "%{hiera('pia_gateway_user_pwd')}"
     auth_token_domain:     ".%{::domain}"

     webserver_settings:
       webserver_type:          "%{hiera('webserver_type')}"
       webserver_home:          "%{hiera('weblogic_location')}"
       webserver_admin_user:    system

################################################################
# Replace this password sample with encrypted text from the  #
# generated psft_configuration.yaml file                     #
################################################################
```

```
        webserver_admin_user_pwd: ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

        webserver_admin_port:     8000                                    ###(D)###
        webserver_http_port:      8000                                    ###(D)###
        webserver_https_port:     8443                                    ###(D)###

     site_list:
       "%{hiera('pia_site_name')}":                                       ###(H)###
          appserver_connections: "%{hiera('pia_psserver_list')}"
          domain_conn_pwd:       "%{hiera('domain_conn_pwd')}"

          webprofile_settings:
            profile_name:        "%{hiera('pia_webprofile_name')}"
            profile_user:        PTWEBSERVER

##################################################################
# Replace this password sample with encrypted text from the  #
# generated psft_configuration.yaml file                     #
##################################################################
            profile_user_pwd:    ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

          report_repository_dir: "%{hiera('report_repository_dir')}"

  "PIADOM222":                                                        ###(B), (C)###
    os_user:              "%{hiera('domain_user')}"
    ps_cfg_home_dir:      "%{hiera('ps_config_home')}"
    gateway_user:         "%{hiera('pia_gateway_user')}"
    gateway_user_pwd:     "%{hiera('pia_gateway_user_pwd')}"
    auth_token_domain:    ".%{::domain}"

    webserver_settings:
      webserver_type:          "%{hiera('webserver_type')}"
      webserver_home:          "%{hiera('weblogic_location')}"
      webserver_admin_user:    system

##################################################################
# Replace this password sample with encrypted text from the  #
# generated psft_configuration.yaml file                     #
##################################################################
        webserver_admin_user_pwd: ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

        webserver_admin_port:     8002                                    ###(D)###
        webserver_http_port:      8002                                    ###(D)###
        webserver_https_port:     8445                                    ###(D)###

     site_list:
       "ps222":                                                           ###(H)###
          appserver_connections: "%{hiera('pia_psserver_list')}"
          domain_conn_pwd:       "%{hiera('domain_conn_pwd')}"

          webprofile_settings:
            profile_name:        "%{hiera('pia_webprofile_name')}"
            profile_user:        PTWEBSERVER
```

```
############################################################
# Replace this password sample with encrypted text from the  #
# generated psft_configuration.yaml file                     #
############################################################
          profile_user_pwd:     ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx]


        report_repository_dir: "%{hiera('report_repository_dir')}"


prcs_domain_list:
  "PRCSDOM111":
    os_user:          "%{hiera('domain_user')}"
    ps_cfg_home_dir: "%{hiera('ps_config_home')}"

    db_settings:
      db_name:          "%{hiera('db_name')}"
      db_type:          "%{hiera('db_platform')}"
      db_opr_id:        "%{hiera('db_user')}"
      db_opr_pwd:       "%{hiera('db_user_pwd')}"
      db_connect_id:  "%{hiera('db_connect_id')}"
      db_connect_pwd: "%{hiera('db_connect_pwd')}"

    config_settings:
      Process Scheduler/PrcsServerName: "%{hiera('prcs_domain_id')}" ###⇒
(F)###
        Security/DomainConnectionPwd:     "%{hiera('domain_conn_pwd')}"

    feature_settings:
      MSTRSRV:       "Yes"                                             ###(G)###
      APPENG:        "Yes"

  "PRCSDOM222":
    os_user:          "%{hiera('domain_user')}"
    ps_cfg_home_dir: "%{hiera('ps_config_home')}"

    db_settings:
      db_name:          "%{hiera('db_name')}"
      db_type:          "%{hiera('db_platform')}"
      db_opr_id:        "%{hiera('db_user')}"
      db_opr_pwd:       "%{hiera('db_user_pwd')}"
      db_connect_id:  "%{hiera('db_connect_id')}"
      db_connect_pwd: "%{hiera('db_connect_pwd')}"

    config_settings:
      Process Scheduler/PrcsServerName: PRCS222                       ###(F)###
        Security/DomainConnectionPwd:     "%{hiera('domain_conn_pwd')}"

    feature_settings:
      MSTRSRV:       "No"                                             ###(G)###
      APPENG:        "Yes"
```

Task 3-4: Preparing the Customization File to Create PeopleSoft Domains Without Configuration

The default DPK initialization includes pre-boot and post-boot processes that use Automated Configuration Manager (ACM) plug-ins to configure and start the PeopleSoft domains. The ACM configuration, for example, sets up Integration Broker and the report repository for the Process Scheduler.

Use this customization if you want to install the necessary software for the PeopleSoft Application Server, PIA, and Process Scheduler servers without configuring and running the domains. After you complete the DPK deployment with this customization, you can use the PSADMIN utility to set up and start the domains.

See *PeopleTools: System and Server Administration,* "Using the PSADMIN Utility."

The generated psft_configuration.yaml file includes the parameters for the ACM plug-ins. However, note that the two parameters specified in this section for this customization are not included in the generated psft_configuration.yaml file.

To prepare the customization file:

1. Create a psft_customizations.yaml using a standard editing tool such as Notepad for Microsoft Windows or vi for Linux, AIX, or Solaris, and save it in the same location as the generated YAML files.

    By default, the DPK setup script installs the YAML files in *BASE_DIR/*dpk/puppet/production/data.

2. Use the sample below in creating the psft_customizations.yaml file, and modify the values as needed.

    Ensure that the file begins with three dashes (---), and add the two parameters shown here.

    ```
    ---
    run_preboot_config_setup: false
    run_postboot_config_setup: false
    ```

3. Save the file.

Task 3-5: Preparing the Customization File for Component Software Locations

Use the information in this section if you want to customize an installation location, for example to use an existing installation of Oracle Tuxedo or Oracle WebLogic.

1. Locate the psft_deployment.yaml file in *BASE_DIR/*dpk/puppet/production/data.

    Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your psft_customizations.yaml file.

    The installation locations for Oracle Tuxedo, Oracle WebLogic, JDK, and Oracle database client are defined in the psft_deployment.yaml file that is installed with the deployment.

2. If necessary, create a psft_customizations.yaml using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux, AIX, or Solaris, and save it in the same location as the psft_deployment.yaml file.

    If this is the first entry in the psft_customizations.yaml file, ensure that the file begins with three dashes (---).

3. Select one or more of the sections corresponding to the components that you want to customize, and copy them to the psft_customizations.yaml file.

As previously mentioned, setting the optional attribute `remove: false` means that the parameters in this section will not be deleted when the deployed environment is removed.

- For JDK, copy the `jdk_location` scalar parameter, and the entire `jdk` collection-type section from the psft_deployment.yaml file into the psft_customizations.yaml file. Be sure to set the locations to the same value. Do not indent `jdk_location` or `jdk`, as shown in this example:

```
---
jdk_location:    C:/jdk
jdk:
  location:  C:/jdk
  remove:        false
```

- For Oracle Tuxedo, copy both the `tuxedo_location` scalar parameter and the entire `tuxedo` collection-type section from the psft_deployment.yaml file into the psft_customizations.yaml file. Be sure to set the locations to the same value. Do not indent `tuxedo_location` or `tuxedo`, as shown in this example:

```
---
tuxedo_location:   C:/psft/tuxedo
tuxedo:
  location:        C:/psft/tuxedo
  remove:          false
```

- For Oracle WebLogic, copy both the `weblogic_location` scalar parameter and the entire `weblogic` collection-type section from the psft_deployment.yaml file into the psft_customizations.yaml file. Be sure to set the locations to the same value. Do not indent `weblogic_location` or `weblogic`, as shown in this example:

```
---
weblogic_location:  C:/psft/weblogic
weblogic:
  location:         C:/psft/weblogic
  remove:           false
```

- For Oracle Client, copy both the `oracle_client_location` scalar parameter and the entire `oracle_client` collection-type section from the psft_deployment.yaml file into the psft_customizations.yaml file. Be sure to set the locations to the same value. Do not indent `oracle_client_location` or `oracle_client`, as shown in this example:

```
---
oracle_client_location: <Oracle_Home>
oracle_client:
  location: <Oracle_Home>
```

  For example, to specify the location of pre-existing Oracle database server software:

```
---
oracle_client_location:  C:/oracle/product/12.1.2/dbhome_1
oracle_client:
  location:  C:/oracle/product/12.1.2/dbhome_1
```

- If you want to customize JDK, Oracle Tuxedo, and Oracle WebLogic, add all three entries to psft_customizations.yaml; for example:

```
---

jdk_location:    C:/jdk
```

```
   jdk:
     location:        C:/jdk
     remove:          false

   tuxedo_location:   C:/psft/tuxedo
   tuxedo:
     location:        C:/psft/tuxedo
     remove:          false

   weblogic_location: C:/psft/weblogic
   weblogic:
     location:          C:/psft/weblogic
     remove:            false
```

4. Save the file.

Task 3-6: Preparing the Customization File for Unicode

Use these instructions if you want to change the Unicode designation for your database.

Note. Do not try to set up a non-Unicode environment if you are deploying the PeopleSoft Update Image DPKs for use with PeopleSoft Update Manager. The environments for the PeopleSoft Updates Images are required to be Unicode.

1. Locate the psft_deployment.yaml file.

    Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your psft_customizations.yaml file.

    By default, the DPK setup script installs the YAML files in *BASE_DIR/*dpk/puppet/production/data.

    The `unicode_db` parameter is part of the `ps_home` section.

```
ps_home:
   db_type:    "%{hiera('db_platform')}"
   unicode_db: "%{hiera('unicode_db')}"
   location:   "%{hiera('ps_home_location')}"
```

2. If necessary, create a psft_customizations.yaml using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux, AIX, or Solaris, and save it in the same location as the psft_deployment.yaml file.

    If this is the first entry in the psft_customizations.yaml file, ensure that the file begins with three dashes (---).

3. Copy the entire `ps_home` section from psft_deployment.yaml, maintaining the indentation, into the psft_customizations.yaml file.

    For a Unicode database, set the value for `unicode_db` to true:

```
---
ps_home:
   db_type:    "%{hiera('db_platform')}"
   unicode_db: true
   location:   "%{hiera('ps_home_location')}"
```

    For a non-Unicode database, set the value for `unicode_db` to false:

```
---
ps_home:
  db_type:    "%{hiera('db_platform')}"
  unicode_db: false
  location:   "%{hiera('ps_home_location')}"
```

4. Save the file.

Task 3-7: Preparing the Customization File for the PeopleSoft Homes

This section discusses:

- Preparing the Customization File for the PS_HOME Location
- Preparing the Customization File for the PS_APP_HOME Location
- Preparing the Customization File for the PS_CFG_HOME Location

Task 3-7-1: Preparing the Customization File for the PS_HOME Location

By default, the DPK setup script creates the *PS_HOME* directory in *BASE_DIR/*pt/ps_home*<release>,* where <release> is the PeopleSoft PeopleTools patch release, such as 8.56.12. Use these steps to specify a different *PS_HOME* location.

1. Locate the psft_deployment.yaml file in *BASE_DIR/*dpk/puppet/production/data.

   Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your psft_customizations.yaml file.

   The *PS_HOME* installation location is specified by the ps_home section.

```
ps_home:
  db_type:    "%{hiera('db_platform')}"
  unicode_db: "%{hiera('unicode_db')}"
  location:   "%{hiera('ps_home_location')}"
```

2. If necessary, create a psft_customizations.yaml using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux, AIX, or Solaris, and save it in the same location as the psft_deployment.yaml file.

   If this is the first entry in the psft_customizations.yaml file, ensure that the file begins with three dashes (---).

3. Copy the entire section from the psft_deployment.yaml file into the psft_customizations.yaml file and modify the location value as needed.

   For example, on Linux, AIX, or Solaris:

```
---
ps_home:
  db_type:    "%{hiera('db_platform')}"
  unicode_db: "%{hiera('unicode_db')}"
  location:   "/home/psft8.56.12"
```

   For example, on Microsoft Windows:

```
---
ps_home:
  db_type:     "%{hiera('db_platform')}"
  unicode_db: "%{hiera('unicode_db')}"
  location:    "C:/psft8.56.12"
```

4. Save the file.

Task 3-7-2: Preparing the Customization File for the PS_APP_HOME Location

By default, the DPK setup script creates the *PS_APP_HOME* directory in *BASE_DIR/*pt/*<Product>*_app_home, where <Product> is the abbreviation for the PeopleSoft application, such as fscm for PeopleSoft Financials and Supply Chain Management.

Here are two scenarios where you might use this customization:

- If you are performing a new installation using the PeopleSoft DPKs, and you do not want to use the default *PS_APP_HOME* location created by the DPK setup script, use this customization to specify and create the desired *PS_APP_HOME* directory.

- If you are performing a mid-tier deployment to connect to an existing environment, use this customization to specify the existing *PS_APP_HOME*.

Use these steps to specify the *PS_APP_HOME* location.

1. Locate the psft_deployment.yaml file in *BASE_DIR/*dpk/puppet/production/data.

   Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your psft_customizations.yaml file.

   The *PS_APP_HOME* installation location is specified by the ps_app_home section.

   ```
   ps_apphome_location:  "%{hiera('pt_location')}/hcm_app_home"
   ps_app_home:
     db_type: "%{hiera('db_platform')}"
     include_ml_files: false
     location: "%{hiera('ps_apphome_location')}"
   ```

2. If necessary, create a psft_customizations.yaml using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux, AIX, or Solaris, and save it in the same location as the psft_deployment.yaml file.

   If this is the first entry in the psft_customizations.yaml file, ensure that the file begins with three dashes (---).

3. To override the location, copy the entire section from the psft_deployment.yaml file into the psft_customizations.yaml file and modify the location value as needed.

   For example, on Linux, AIX, or Solaris:

   ```
   ---
   ps_apphome_location:  "/home/hcm92_home"
   ps_app_home:
     db_type: "%{hiera('db_platform')}"
     include_ml_files: false
     location: "/home/hcm92_home"
   ```

   For example, on Microsoft Windows:

```
---
ps_apphome_location:  "C:/hcm92_home"
ps_app_home:
  db_type: "%{hiera('db_platform')}"
  include_ml_files: false
  location: "C:/hcm92_home"
```

4. Save the file.

Task 3-7-3: Preparing the Customization File for the PS_CFG_HOME Location

By default, the DPK setup script creates the *PS_CFG_HOME* directory in *<user_profile>*/psft/pt/8.56, such as C:/users/username/psft/pt/8.56 on Microsoft Windows, and /home/psadm2/psft/pt/8.56 on Linux, AIX, or Solaris. Note that you cannot specify different *PS_CFG_HOME* locations for different PeopleSoft domains. The DPK installation requires the same *PS_CFG_HOME* be used for all domains. Use these steps to specify the *PS_CFG_HOME* location.

1. Locate the psft_configuration.yaml file in *BASE_DIR/*dpk/puppet/production/data.

   Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your psft_customizations.yaml file.

   The *PS_CFG_HOME* installation location is specified by the ps_config_home parameter.

   ```
   ps_config_home:        "%{hiera('user_home_dir')}/%{hiera('domain_⇒
   user')}/psft/pt/8.56"
   ```

2. If necessary, create a psft_customizations.yaml using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux, AIX, or Solaris, and save it in the same location as the psft_configuration.yaml file.

   If this is the first entry in the psft_customizations.yaml file, ensure that the file begins with three dashes (---).

3. Copy the entire section from the psft_configuration.yaml file into the psft_customizations.yaml file and modify the location value as needed.

   For example, on Linux, AIX, or Solaris:

   ```
   ---
   ps_config_home:        "/home/pt856_config"
   ```

   For example, on Microsoft Windows:

   ```
   ---
   ps_config_home:        "C:/pt856_config"
   ```

4. Save the file.

Task 3-8: Preparing the Customization File for Jolt SSL and WSL SSL Ports

You have the option to use the Secure Socket Layers/Transport Layer Security (SSL/TSL) protocol for Workstation Listener and Jolt Listener ports for the application server configuration. To use this protocol you must set up an Oracle wallet for the digital certificates.

See *PeopleTools: Integration Broker,* "Installing Web Server-Based Digital Certificates."

1. Locate the psft_configuration.yaml file in *BASE_DIR/*dpk/puppet/production/data.

   Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your psft_customizations.yaml file.

2. If necessary, create a psft_customizations.yaml using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux, AIX, or Solaris, and save it in the same location as the psft_configuration.yaml file.

   If this is the first entry in the psft_customizations.yaml file, ensure that the file begins with three dashes (---).

3. Copy the entire `appserver_domain_list` section from psft_configuration.yaml to psft_customizations.yaml:

4. Add the following parameters to the psft_customizations.yaml file:

   Note. These parameters are not included in the delivered psft_configuration.yaml file.

   - Specify the SSL/TSL port for the Jolt listener; for example 9010.
     ```
     JOLT Listener/SSL Port:              9010
     ```

   - Specify the SSL/TSL port for the Workstation listener, for example 9010:
     ```
     Workstation Listener/SSL Port:       9010
     ```

   - Specify the location of the wallet containing the certificates:
     ```
     Oracle Wallet/SEC_PRINCIPAL_LOCATION: test/security
     ```

   - Specify the wallet name, for example psft:
     ```
     Oracle Wallet/SEC_PRINCIPAL_NAME:     psft
     ```

   - Specify the wallet password:
     ```
     Oracle Wallet/SEC_PRINCIPAL_PASSWORD:
     ```

5. Modify the psft_customizations.yaml file, including the added parameters from the previous step, with values for your environment.

   Note. Be sure to retain the indentation shown in this example.

   This sample psft_customizations.yaml file shows the parameters added from step 4 in bold font:
   ```
   ---

   appserver_domain_list:
     "%{hiera('appserver_domain_name')}":
       os_user:         "%{hiera('domain_user')}"
       ps_cfg_home_dir: "%{hiera('ps_config_home')}"
       template_type:   "%{hiera('appserver_template')}"

       db_settings:
         db_name:         "%{hiera('db_name')}"
         db_type:         "%{hiera('db_platform')}"
         db_opr_id:       "%{hiera('db_user')}"
         db_opr_pwd:      "%{hiera('db_user_pwd')}"
   ```

```
            db_connect_id:  "%{hiera('db_connect_id')}"
            db_connect_pwd: "%{hiera('db_connect_pwd')}"

       config_settings:
         Domain Settings/Allow Dynamic Changes:    Y
         Domain Settings/Domain ID:                "%{hiera('appserver_domain_⇒
  name')}"
         PSAPPSRV/Min Instances:            2
         PSAPPSRV/Max Instances:            2
         PSAPPSRV/Max Fetch Size:           15000
         Security/DomainConnectionPwd:      "%{hiera('domain_conn_⇒
  pwd')}"
         JOLT Listener/Port:                "%{hiera('jolt_port')}"
         JOLT Listener/Address:              0.0.0.0
         JOLT Listener/SSL Port:             9010
         Workstation Listener/Port:         "%{hiera('wsl_port')}"
         Workstation Listener/SSL Port:     9010

         Oracle Wallet/SEC_PRINCIPAL_LOCATION: test/security

         Oracle Wallet/SEC_PRINCIPAL_NAME:    psft

         Oracle Wallet/SEC_PRINCIPAL_PASSWORD:


       feature_settings:
         PUBSUB:        "Yes"
         QUICKSRV:      "No"
         QUERYSRV:      "No"
         JOLT:          "Yes"
         JRAD:          "No"
         WSL:           "Yes"
         DBGSRV:        "No"
         RENSRV:        "No"
         MCF:           "No"
         PPM:           "Yes"
         PSPPMSRV:      "Yes"
         ANALYTICSRV:   "No"
         SERVER_EVENTS: "Yes"
         DOMAIN_GW:     "No"
```

6. Save the file.

Task 3-9: Preparing the Customization File for Oracle HTTP Server

Use the information in this section if you want to customize the installation of Oracle HTTP Server (OHS). OHS is included as part of Oracle WebLogic, and is used as a reverse proxy server (RPS).

See *PeopleTools: Portal Technology,* "Using Reverse Proxy Servers."

See *Fusion Middleware Installing and Configuring Oracle HTTP Server,* Oracle Help Center,
https://docs.oracle.com/middleware/1213/core/install-ohs/toc.htm.

1. Locate the psft_deployment.yaml and psft_configuration.yaml files in *BASE_DIR/*
   dpk/puppet/production/data.

   The parameter to turn OHS on, and the installation location are located in psft_deployment.yaml. The OHS
   domain configuration parameters are included in psft_configuration.yaml.

   Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the
   YAML files you install with each new deployment as the basis for your psft_customizations.yaml file.

2. If necessary, create a psft_customizations.yaml using a standard editing tool, such as Notepad on Microsoft
   Windows or vi on Linux, AIX, or Solaris, and save it in the same location as the psft_deployment.yaml and
   psft_configuration.yaml files.

   Ensure that the file begins with three dashes (---).

3. Change the value for `setup_ohs` to true.

   This is mandatory to enable OHS. In addition, select other sections listed below, corresponding to the
   components that you want to customize, and copy them to the psft_customizations.yaml file.

   As previously mentioned, setting the optional attribute `remove: false` means that the parameters in this
   section will not be deleted when the deployed environment is removed.

   • To enable OHS (mandatory), copy the `setup_ohs` scalar parameter from psft_deployment.yaml into the
     psft_customizations.yaml file, and set it to true. Do not indent `setup_ohs`, as shown in this example:

     ```
     ---
     setup_ohs:  true
     ```

     Note. If you copy only this parameter into psft_customizations.yaml, the deployment will use the default
     installation location and default domain configuration.

   • To change the location of the OHS installation (optional), copy the following scalar and collection
     parameters from psft_deployment.yaml into the psft_customizations.yaml file, and edit to specify the
     desired location.

     Enter the full path to the installation location. Do not indent `ohs_location` or `ohs`. Be sure to enter the
     same value for both `ohs_location` and `location`, as shown in the later example.

     ```
     ---
     setup_ohs:  true
     ohs_location:      "%{hiera('pt_location')}/bea/ohs"

     ohs:
       location: "%{hiera('ohs_location')}"
     ```

   • To customize the OHS domain configuration (optional), copy the following collection parameters from
     psft_configuration.yaml into the psft_customizations.yaml file and modify for your environment.

     Replace the password sample below (for `webserver_admin_user_pwd`) with an encrypted
     password. Enter the encrypted password on a single line. Do not include spaces or line feeds. See the
     instructions later in this documentation to generate the encrypted password.

     See "Encrypting Passwords for Customizations on Linux, AIX, or Solaris."

     ```
     ---
     setup_ohs:  true
     ohs_domain:
     ```

```
       name:                          ohsdom
       os_user:                       "%{hiera('domain_user')}"
       domain_home_dir:               "%{hiera('ps_config_home')}"
       pia_webserver_type:            "%{hiera('webserver_type')}"
       pia_webserver_host:            "%{hiera('pia_host_name')}"
       pia_webserver_port:            "%{hiera('pia_http_port')}"
       node_manager_port:             7500

       webserver_settings:
         webserver_type:              ohs
         webserver_home:              "%{hiera('ohs_location')}"
         webserver_admin_user:        system
         webserver_admin_user_pwd:    ENC[PKCS7,MIIBeQYJKoZ......]
         webserver_admin_port:        7700
         webserver_http_port:         7740
         webserver_https_port:        7743
```

- If you want to customize the installation location and domain configuration, copy all three entries into psft_customizations.yaml and edit. For example, to modify the installation location and the OHS domain name:

```
---
setup_ohs:  true

ohs_location:        "C:/psft_ohs"

ohs:
  location: "C:/psft_ohs"

ohs_domain:
     name:                          ohsdomain2
     os_user:                       "%{hiera('domain_user')}"
     domain_home_dir:               "%{hiera('ps_config_home')}"
     pia_webserver_type:            "%{hiera('webserver_type')}"
     pia_webserver_host:            "%{hiera('pia_host_name')}"
     pia_webserver_port:            "%{hiera('pia_http_port')}"
     node_manager_port:             7500

     webserver_settings:
       webserver_type:              ohs
       webserver_home:              "%{hiera('ohs_location')}"
       webserver_admin_user:        system
       webserver_admin_user_pwd:    ENC[PKCS7,MIIBeQYJKoZ........]
       webserver_admin_port:        7700
       webserver_http_port:         7740
       webserver_https_port:        7743
```

4. Save the file.

Task 3-10: Preparing the Customization File for Mid-Tier Connection to a Microsoft SQL Server Database

Use these steps to set up PeopleSoft mid-tier components to connect to a Microsoft SQL Server database. This section assumes that:

- You installed the Microsoft SQL Server client software on the Microsoft Windows host machine.
- You know the Microsoft SQL Server client installation location, SQL Server name, and the name of the ODBC driver required to connect to the database.
- When running the DPK setup script, you specified MSSQL as the database platform.

1. Locate the psft_configuration.yaml file, which was created by the deployment, in *BASE_DIR/*dpk/puppet/production/data.

   Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your psft_customizations.yaml file.

   The information for Microsoft SQL Server, which you will copy and modify, is given in the `mssql_server_list` section in this file:

   ```
   mssql_server_list:
     "%{hiera('db_name')}":
       mss_server_name: "%{::fqdn}"
       mss_odbc_name:   "ODBC Driver 11 for SQL Server"
   ```

2. Locate the psft_deployment.yaml file, which was created by the deployment, in *BASE_DIR/*dpk/puppet/production/data.

   The database platform text, which you will copy, is specified as:

   ```
   db_platform:    MSSQL
   ```

3. If necessary, create a psft_customizations.yaml file using a standard editing tool, such as Notepad, and save it in the same location as the psft_configuration.yaml file.

   If this is the first entry in the psft_customizations.yaml file, ensure that the file begins with three dashes (---).

4. Copy the `db_platform` line from the psft_deployment.yaml file into the psft_customizations.yaml file.

   Copy the entire section for `mss_server_list` from the psft_configuration.yaml file into the psft_customizations.yaml file and modify the values as needed.

   For `mss_server_name`, specify the SQL Server name or named instance. For `mss_odbc_name`, specify the name for the ODBC driver needed for connectivity to the Microsoft SQL Server database.

   For example:

   ```
   ---
   db_platform: MSSQL

   mss_server_list:
     <db_name>:
       mss_server_name: <server_name>
       mss_odbc_name:    <odbc_name>
       remove:  false
   ```

For example:

```
---
db_platform: MSSQL

mss_server_list:
   FS92DEMO:
     mss_server_name: HOSTNAME\SQL2012
     mss_odbc_name:    "SQL Server Native Client 11.0"
     remove:  false
```

For information on the ODBC driver, see the chapters on installing the appropriate version of Microsoft SQL Server in the PeopleSoft 9.2 Application installation product documentation.

See Oracle's PeopleSoft PeopleTools 8.56 Home Page, Installation and Upgrade tab, My Oracle Support, Doc ID 2259140.2.

- Microsoft SQL Server 2012 uses SQL Server Native Client 11.0.

  See "Preparing for Installation," Configuring the Connection to Use SQL Server Native Client for Microsoft SQL Server 2012.

- Microsoft SQL Server 2014 uses ODBC Driver 11 for SQL Server.

  See "Installing Microsoft SQL Server 2014," Configuring the Connection to Use SNAC for Microsoft SQL Server 2014.

- Microsoft SQL Server 2016 uses ODBC Driver 13 for SQL Server.

  See "Installing Microsoft SQL Server 2016," Configuring the Connection to Use SNAC for Microsoft SQL Server 2016.

5. Save the file.

Task 3-11: Preparing the Customization File for Mid-Tier Connection to a DB2 z/OS Database

Use these steps to set up PeopleSoft mid-tier components to connect to a DB2 z/OS database. The DPK setup script does not identify or verify the database client software on the host machine. You have the responsibility to ensure that the installation is supported, complete, and correct.

This section assumes:

- You installed the appropriate client software for DB2 z/OS on the host machine and made a note of the DB2 client installation location.

- When running the DPK setup script, you specified DB2 z/OS (DB2ODBC) as the database platform.

- You have completed manually cataloging the database, and noted the values you used.

1. Locate the psft_configuration.yaml and psft_deployment.yaml files in *BASE_DIR/* dpk/production/puppet/data.

   Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your psft_customizations.yaml file.

   You need parameters from both files. The `db_platform` parameter appears in psft_deployment.yaml, and the `db2_server_list` section appears in psft_configuration.yaml.

2. If necessary, create a psft_customizations.yaml using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux, AIX, or Solaris, and save it in the same location as the psft_configuration.yaml file.

If this is the first entry in the psft_customizations.yaml file, ensure that the file begins with three dashes (---).

3. Copy the `db_platform` section from psft_deployment.yaml to psft_customizations.yaml:

```
db_platform:        DB2ODBC
```

4. Copy the `db_name`, `db_user` and `db_user_password` sections from psft_configuration.yaml to psft_customizations.yaml and change for your environment:

```
db_name:            EP92DMO
db_user:            VP1
db_user_pwd:    ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxx]
```

5. Copy the `db2_server_list` section from psft_configuration.yaml to psft_customizations.yaml:

```
db2_server_list:
  "%{hiera('db_name')}":
    db2_type:         "%{hiera('db_platform')}"
    db2_host:         "%{::fqdn}"
    db2_port:         "%{hiera('db_port')}"
    db2_node:         TCPLNX01
    db2_target_db:    "%{hiera('db_name')}"
```

6. Add the `db2_client` section:

```
db2_client:
  sqllib_location:  /home/ibm/sqllib
  instance_user:    ibm
  remove:           false
```

7. If necessary for your environment, add `db2_user_name`. `db2_user_pwd`, and `instance_user` (Linux, AIX, or Solaris).

8. Modify the psft_customizations.yaml for your environment.

    For example, on Linux, AIX, or Solaris:

```
---
db_platform:        DB2ODBC
db_name:            EP92DMO
db_user:            VP1
db_user_password:   ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

################################################################
# Replace this password sample with encrypted text from the   #
# generated psft_configuration.yaml file                      #
################################################################

db2_client:
  sqllib_location:  /home/ibm/sqllib
  instance_user:    ibm
    remove:          false

db2_server_list:
  "EP92DMO":
    db2_type:         DB2ODBC
    db2_host:         sysb21
    db2_port:         5126
    db2_node:         TCPDS3B
    db2_target_db:    DB2DS3B
    db2_user_name:    psftuser
    db2_user_pwd:     password
    remove:           false
```

Note. The `instance_user` attribute only applies to Linux, AIX, or Solaris platforms. This refers to the user name where the sqllib is installed.

On Microsoft Windows:

```
----
db_platform:        DB2ODBC
db_name:            EP92DMO
db_user:            VP1
db_user_password:   ENC[xxxxxxxxxxxxxxxxxxxxxxxxxxxxx]

################################################################
# Replace this password sample with encrypted text from the   #
# generated psft_configuration.yaml file                      #
################################################################

db2_client:
  sqllib_location:    C:/db2105
  remove:             false

db2_server_list:
  "EP92DMO":
    db2_type:           DB2ODBC
```

```
    db2_host:        sysb21
    db2_port:        5126
    db2_node:        TCPDS3B
    db2_target_db:   DB2DS3B
    db2_user_name:   psftuser
    db2_user_pwd:    password
    remove:          false
```

Use these guidelines in completing the psft_customizations.yaml:

psft_customizations.yaml attribute and sample value	Description
db_platform: DB2ODBC and db2_type: DB2ODBC	Specify the RDBMS, DB2 for z/OS.
db_name: EP92DMO db2_server_list: "EP92DMO":	Specify the database name you supplied to the DPK setup script, This is the logical PeopleSoft database name, and also the name of the ODBC system DSN. The DB2 z/OS system uses this as the database alias.
db_user: VP1	Specify the PeopleSoft User ID (operator ID) such as VP1 or PS.
db_user_password: encryp_password	Specify the password for the PeopleSoft User ID. Enter encrypted text from the psft_configuration.yaml file.
sqllib_location: C:/db2105	Specify the location of the connectivity software for the DB2 client.
db2_host: sysb21	Specify the host name where the DB2 z/OS subsystem resides.
db2_port: 5126	Specify the TCP port used by the DB2 z/OS subsystem
db2_node: TCPDS3B	Specify the TCP/IP node name.
db2_target_db: DB2DS3B	Specify the DB2 subsystem name.
db2_user_name: psftuser db2_user_password: password	Specify the PeopleSoft access ID and password.

9. Save the file.

Task 3-12: Preparing the Customization File for Mid-Tier Connection to a DB2 for Linux, UNIX, and Windows Database

Use these steps to set up PeopleSoft mid-tier components to connect to a DB2 for Linux, UNIX, and Windows (DB2/LUW) database. The DPK setup script does not identify or verify the database client software on the host machine. You have the responsibility to ensure that the installation is supported, complete, and correct.

This section assumes:

- You installed the appropriate client software for DB2/LUW on the host machine and made a note of the DB2 client installation location.

- When running the DPK setup script, you specified DB2/LUW (DB2UNIX) as the database platform.

- You have completed manually cataloging the database, and noted the values you used.

1. Locate the psft_configuration.yaml and psft_deployment.yaml files in *BASE_DIR/*
   dpk/production/puppet/data.

   Note. The code examples in this topic are for illustrative purposes only. Remember to use the text from the YAML files you install with each new deployment as the basis for your psft_customizations.yaml file.

   You need parameters from both files. The `db_platform` parameter appears in psft_deployment.yaml, and the `db2_server_list` section appears in psft_configuration.yaml.

2. If necessary, create a psft_customizations.yaml using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux or AIX, and save it in the same location as the psft_configuration.yaml file.

   If this is the first entry in the psft_customizations.yaml file, ensure that the file begins with three dashes (`---`).

3. Complete the psft_customizations.yaml using these section:

   a. Copy the `db_platform` section from psft_deployment.yaml to psft_customizations.yaml:

   ```
   db_platform:        DB2UNIX
   ```

   b. Copy the `db2_server_list` section from psft_configuration.yaml to psft_customizations.yaml:

   ```
   db2_server_list:
     "%{hiera('db_name')}":
       db2_type:        "%{hiera('db_platform')}"
       db2_host:        "%{::fqdn}"
       db2_port:        "%{hiera('db_port')}"
       db2_node:        TCPLNX01
       db2_target_db:   "%{hiera('db_name')}"
   ```

   c. Add the `db2_client` section:

   ```
   db2_client:
     sqllib_location:  /home/ibm/sqllib
     instance_user:    ibm
     remove:           false
   ```

   d. If necessary for your environment, add `db2_user_name`. `db2_user_pwd`, and `instance_user` (Linux or AIX).

e. Modify the psft_customizations.yaml for your environment.

This table describes some of the values used in this psft_customizations.yaml example:

psft_customizations.yaml attribute and sample value	Description

`db_platform:  DB2UNIX`
and
`db2_type:  DB2UNIX`
	Specify the RDBMS for DB2/LUW.

`sqllib_location:  /home/ibm⇒` `/sqllib`	Specify the location of the connectivity software for the DB2 client.
`instance_user:  ibm`	This attribute only applies to Linux and AIX platforms. This refers to the user name where the sqllib is installed.

`db2_server_list:`
`  EP92DMO:`
and
`db2_target_db:   EP92DMO`
	Specify the database name.

`db2_host:  host.example.com`	Specify the fully qualified host name or host IP address for the TCP/IP node.
`db2_port:  60031`	Specify the TCP/IP port number.
`db2_node:  TCPDBX`	Specify the TCP/IP node name.
`db2_user_name:  psftuser` `db2_user_pwd:  password`	Include these attributes if required for your environment setup.

For example, on Linux or AIX:

```
---
db_platform: DB2UNIX
db2_client:
  sqllib_location:  /home/ibm/sqllib
  instance_user:    ibm
  remove:           false

db2_server_list:
  EP92DMO:
    db2_type:        DB2UNIX
    db2_host:        host.example.com
    db2_port:        60031
    db2_node:        TCPDBX
    db2_target_db:   EP92DMO
    db2_user_name:   psftuser
    db2_user_pwd:    password
    remove:          false
```

On Microsoft Windows:

```
----
db_platform: DB2UNIX
db2_client:
    sqllib_location:    C:/db2105/bin
    remove:             false

db2_server_list:
    EP92DMO:
        db2_type:       DB2UNIX
        db2_host:       host.example.com
        db2_port:       50001
        db2_node:       TCPDBX
        db2_target_db:  EP92DMO
        db2_user_name:  psftuser
        db2_user_pwd:   password
        remove:         false
```

4. Save the file.

Task 3-13: Preparing the Customization File to Exclude Oracle Database Client Installation

The DPK setup script command to deploy all software (`psft-dpk-setup.<ext> --env_type midtier --deploy_only --deploy_type all`) includes the installation of Oracle database client. Use the customization in this section to exclude that installation.

See "Installing the PeopleSoft Homes," Running the DPK Setup Script to Install All Software.

1. If necessary, create a psft_customizations.yaml using a standard editing tool, such as Notepad on Microsoft Windows or vi on AIX, Linux, or Solaris, and save it in the same location as the installed YAML files, .

    If this is the first entry in the psft_customizations.yaml file, ensure that the file begins with three dashes (`---`).

2. Add the content below to the psft_customizations.yaml file.

    ```
    ---
    oracle_client:
        ensure: absent
    ```

3. Save the file.

Task 3-14: Completing the Customized Deployment

Use these steps to complete the customized deployment of the PeopleSoft environment:

1. Run the DPK setup script as previously described.

2. Answer *n* (no) to the following prompt:

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

    The script stops.

3. Prepare the psft_customizations.yaml file as previously described and save it in *BASE_DIR/* dpk/puppet/production/data.

4. Open a command prompt, running as administrator, and change directory to the Puppet manifest directory, *BASE_DIR/*dpk/puppet/production/manifests.

5. Run the following command to set up the PeopleSoft environment using the modified YAML files.

   The debug and trace messages appear in the window where you run the command. See the next step if you want to capture them.

Note. The confdir, debug, and trace options begin with two dashes. Line feeds have been added to these samples for readability.

On Microsoft Windows:

```
"C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply
--confdir=BASE_DIR/dpk/puppet site.pp --debug --trace
```

On Linux:

```
/opt/puppetlabs/bin/puppet apply
--confdir=BASE_DIR/dpk/puppet site.pp --debug --trace
```

On AIX or Solaris:

```
/opt/oracle/puppetlabs/bin/puppet apply
--confdir=BASE_DIR/dpk/puppet site.pp --debug --trace
```

6. To redirect the output to a log file, add the logdest option.

Note. Since these commands redirect the output to a log file, you cannot follow the progress. The process is complete when the prompt returns.

Note. Line feeds have been added to these samples for readability.

On Microsoft Windows:

```
"C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply
--confdir=BASE_DIR/dpk/puppet site.pp --debug --trace
--logdest "BASE_DIR\dpk\dpklog.log"
```

On Linux:

```
/opt/puppetlabs/bin/puppet apply
--confdir=BASE_DIR/dpk/puppet site.pp --debug --trace
--logdest "BASE_DIR/dpk/dpklog.log"
```

On AIX or Solaris:

```
/opt/oracle/puppetlabs/bin/puppet apply
--confdir=BASE_DIR/dpk/puppet site.pp  --debug --trace
--logdest "BASE_DIR/dpk/dpklog.log"
```

Chapter 4

Using and Maintaining the PeopleSoft Environment

This chapter discusses:

- Using the PeopleSoft Installation
- Removing a Deployed PeopleSoft Environment
- Applying CPUs, POCs, and IDDAs

Task 4-1: Using the PeopleSoft Installation

This section discusses:

- Accessing the PeopleSoft Environment
- Reviewing the Deployment File System
- Reviewing the Deployed Users
- Managing PeopleTools Domains with PSADMIN

Task 4-1-1: Accessing the PeopleSoft Environment

After you complete the initialization of the virtual machine the PeopleSoft installation will be available. This section includes brief information to help you work with the PeopleSoft environment. For detailed definitions, and information on working with the components in a PeopleSoft installation, see the PeopleSoft documentation referenced earlier.

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.

Task 4-1-2: 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	The binary installation files are placed into a secure *ps_home<peopletools_patch_version>* directory, where <peopletools_patch_version> is the full release, for example 8.56.01.	*BASE_DIR/*pt/ *ps_home<peopletools_patch _version>*	This directory can only be written to by the PeopleSoft administrator, psadm1.
PS_CFG_HOME	The Application Server and Process Scheduler server configuration files are placed into a *PS_CFG_HOME* directory named *<peopletools_major_version>,* where <peopletools_major_version> does not include patch numbers; for example, 8.56.	• On AIX, Linux, or Solaris, /home/psadm2/psft/pt/ *<peopletools_major_version>* • On Microsoft Windows, C:\%USERPROFILE%\ psft\pt\ *<peopletools_major_version>* For example, if the USERPROFILE environment variable is C:\Users\username, the location is C:\Users\username\psft\pt\8.56.	This directory is owned by psadm2.
PS_APP_HOME	The PeopleSoft application installation files are located in the *<Product>*_app_home directory, where *<Product>* is an abbreviation for the PeopleSoft application, such as hcm for PeopleSoft Human Capital Management.	*BASE_DIR/*pt/*<Product>* _app_home	This directory can only be written to by psadm3.

Directory	Description	Default Location	Access
ORACLE_HOME (Oracle RDBMS software)	This 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 default listener port is 1521.	*BASE_DIR/*db/oracle-server	This directory is owned by user oracle2.
Oracle WebLogic	This includes the installation files for the Oracle WebLogic web server.	*BASE_DIR/*pt/bea/wlserver	This directory is owned by psadm1.
Oracle Tuxedo	This includes the installation files for Oracle Tuxedo.	*BASE_DIR/*pt/bea/tuxedo	This directory is owned by psadm1.
PeopleSoft database files (on Oracle RDBMS)	This includes the Oracle database files and tables for the PeopleSoft application.	*BASE_DIR/*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.

See Also

PeopleTools: System and Server Administration, "Securing PS_HOME and PS_CFG_HOME"

Task 4-1-3: Reviewing the Deployed Users

The deployed configuration includes the default users and default passwords described in the following table.

Important! All default, non-root passwords are set to expire immediately. On the first login of one of the non-root users, 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	Role Definition
psadm1	0radmin (the first character is the number zero)	The PeopleSoft installation administrator who owns *PS_HOME*. This user cannot write into *PS_CFG_HOME*.
psadm2	0radmin (the first character is the number zero)	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)	The PeopleSoft installation administrator who owns *PS_APP_HOME*.
oracle2	oracle	The Oracle Database Server user name.

See Also

"Completing the DPK Initialization with Customizations," Preparing the Customization File for Linux, AIX, or Solaris Users

Task 4-1-4: Managing PeopleTools Domains with PSADMIN

Use the PSADMIN utility to manage any of the PIA, Application Server, or Process Scheduler domains. You can find the PSADMIN utility in *PS_HOME/*appserv. You must first sign in with the PeopleTools domain user psadm2, described in the section Reviewing the File System and Users. When you sign in as the PeopleTools domain user, the psconfig.sh script is automatically invoked through the user's profile. This is referred to as sourcing the psconfig.sh script. This ensures that all of the required environment variables are set prior to working with PSADMIN. You can perform all the usual administrative options for PIA, Application Server, and Process Scheduler domains using PSADMIN. You may reconfigure the existing domains, shut them down, restart them and create additional domains if necessary. The environment as delivered has however been sufficiently configured to perform many of the activities for which this virtual machine has been created.

See Also

PeopleTools: System and Server Administration, "Using the PSADMIN Utility"

Task 4-2: 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 AIX, Linux, or Solaris
- Using Puppet to Remove the PeopleSoft Environment on Microsoft Windows
- Using Puppet to Remove the PeopleSoft Environment on Linux, AIX, or Solaris
- Troubleshooting the Removal Process on Microsoft Windows
- Troubleshooting the Removal Process on Linux, AIX, or Solaris

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.

Task 4-2-1: 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, 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*.

- 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 4-2-2: Using the DPK Setup Script to Remove the PeopleSoft Environment on AIX, Linux, or Solaris

Use these steps to remove a deployed PeopleSoft environment using the PeopleSoft DPK setup script on AIX, Linux, or Solaris:

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*.

   - 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, 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, AIX, or Solaris.

Task 4-2-3: 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 "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:

   ```
   "C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply
   --confdir=BASE_DIR/dpk/puppet site.pp --debug --trace
   ```

   Note. The options require double dashes. Line feeds have been added to these samples for readability.

   To redirect the output to a file, use the logdest option:

   ```
   "C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply
   --confdir=BASE_DIR/dpk/puppet site.pp --debug --trace
   --logdest "BASE_DIR/dpk/dpk.log"
   ```

Task 4-2-4: Using Puppet to Remove the PeopleSoft Environment on Linux, AIX, or Solaris

To remove the environment manually on Linux, AIX, or Solaris:

1. Open the file *BASE_DIR/*dpk/puppet/production/data/defaults.yaml in a text editor, such as vi.

   See "Using the Puppet Hiera YAML Files 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. Line feeds have been added to these samples for readability.

   On Linux:

   ```
   /opt/puppetlabs/bin/puppet apply
   --confdir=BASE_DIR/dpk/puppet site.pp --debug --trace
   ```

   On AIX or Solaris:

   ```
   /opt/oracle/puppetlabs/bin/puppet apply
   --confdir=BASE_DIR/dpk/puppet site.pp --debug --trace
   ```

   To redirect the output to a file, use the logdest option:

   On Linux:

   ```
   /opt/puppetlabs/bin/puppet apply
   --confdir=BASE_DIR/dpk/puppet site.pp --debug --trace
   --logdest "BASE_DIR/dpk/dpk.log"
   ```

On AIX or Solaris:

```
/opt/oracle/puppetlabs/bin/puppet apply
--confdir=BASE_DIR/dpk/puppet site.pp --debug --trace
--logdest "BASE_DIR/dpk/dpk.log"
```

Task 4-2-5: 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.

    Note. If your database is not on an Oracle platform, the references to the Oracle database services here are not applicable.

3. Stop the service for the PeopleSoft PIA domain.

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>
    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_OraWL1213Home *(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 three lines that reference the DPK deployment:

    ```
    <HOME NAME="OraWL1213Home" 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/8.56 (PS_CFG_HOME).

Task 4-2-6: Troubleshooting the Removal Process on Linux, AIX, or Solaris

This section includes advanced steps to be used only if the previous procedures in this section failed. If the cleanup process on Linux, AIX, or Solaris 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, AIX, or Solaris. 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 four PeopleSoft user IDs using this command:

```
id psadm1
id psadm2
id psadm3
id oracle2
```

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 4-3: Applying CPUs, POCs, and IDDAs

This section discusses:

- Understanding CPUs, POCs, and IDDAs
- Prerequisites
- 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 PeopleTools 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 4-3-1: 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: /u01/app/oracle/product/dpk/patches/p21983457_121300_⇒
   Generic.zip

   tuxedo_patches:
     patch_file: /u01/app/oracle/product/dpk/patches/p22389246_121300_⇒
   Linux-x86-64.zip

   oracle_server_patches:
     patch_file: /u01/app/oracle/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 /u01/app/oracle/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.

Appendix A

Applying PeopleTools Patches Using DPKs

This appendix discusses:

- Reviewing PeopleTools Patch Application Options
- Using Scenario 1
- Using Scenario 2
- Using Scenario 3

Reviewing PeopleTools Patch Application Options

This appendix describes various use cases you may encounter when planning to apply a PeopleSoft PeopleTools 8.56.xx patch using the PeopleSoft PeopleTools deployment packages (DPKs). These use cases assume that you want to apply the patch to an existing PeopleSoft PeopleTools 8.56 installation.

Here are some general recommendations for choosing the method to apply PeopleTools patches:

- If there are any changes to one or more additional software components, such as Oracle WebLogic (WL), Oracle Tuxedo (TX), or Oracle Client (OC), then consider Scenario 3.

  Note. References to deploying or removing Oracle Client (OC) in this section are applicable only if your PeopleSoft environment is installed on an Oracle database platform. For other RDBMS, disregard the references to Oracle Client.

- If there are no changes to any of the additional software components, Oracle WebLogic, Oracle Tuxedo, or Oracle Client, then consider Scenario 2.

This graphic summarizes the three scenarios for applying PeopleTools Patch (8.56.xx) using DPKs.
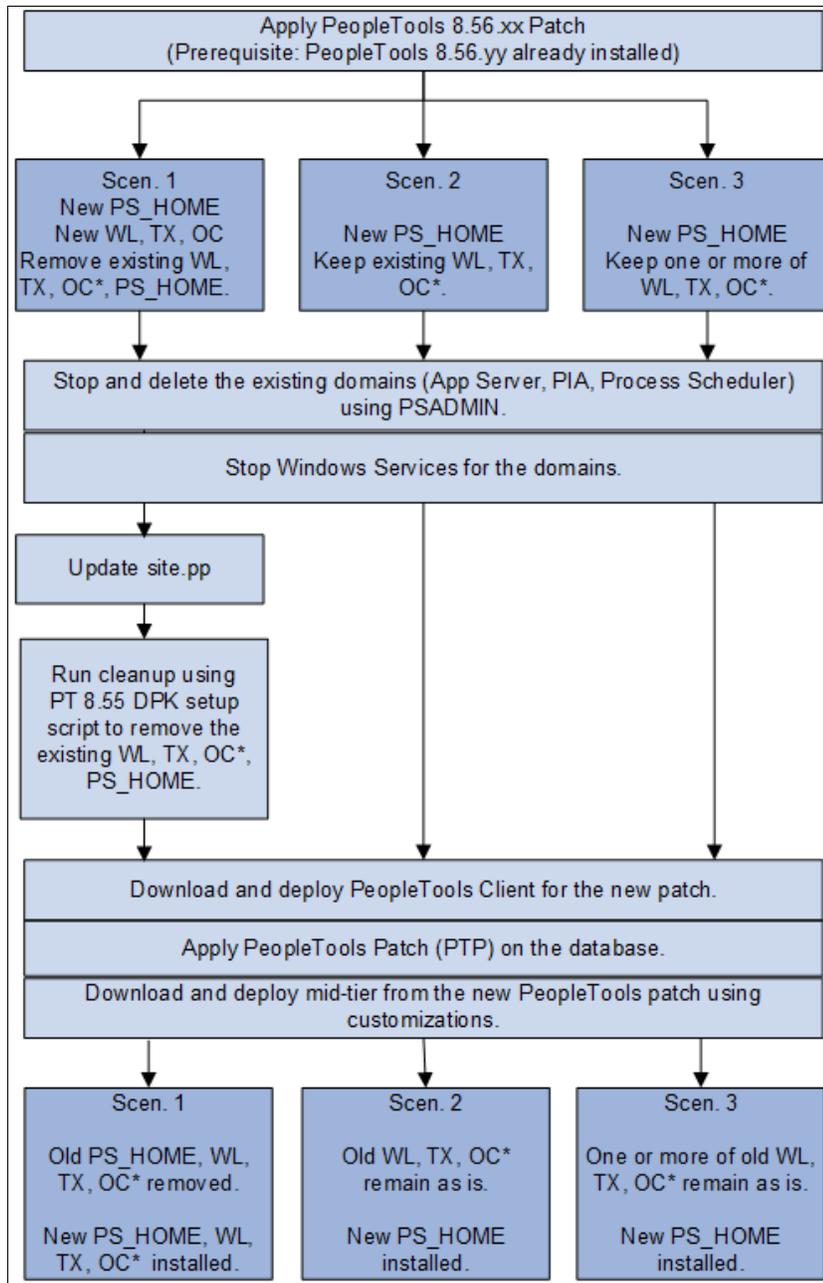
Scenarios for applying PeopleTools patches

OC* indicates that Oracle Client applies only to environments on Oracle RDBMS.

Task A-1: Using Scenario 1

This section discusses:

- Understanding Scenario 1
- Stopping and Deleting the Domains on the Initial Environment

- Stopping the Services for the Domains
- Updating the site.pp File
- Removing the Existing PeopleTools Components
- Downloading and Deploying the PeopleTools Client for the New Release
- Applying the PeopleTools Patch Using Change Assistant
- Deploying the New Release in Mid-Tier Mode
- Preparing psft_customizations.yaml and Completing the Deployment
- Reviewing the Results
- Verifying the Patch Application

Understanding Scenario 1

Scenario 1 assumes that:

- You need a new installation home directory, referred to here as *PS_HOME_NEW,* along with new installations of Oracle WebLogic, Oracle Tuxedo, and Oracle Client.
- You want to discard the existing installation home directory, referred to here as *PS_HOME_INIT* as well as the Oracle WebLogic, Oracle Tuxedo, and Oracle Client installations.
- You have a Microsoft Windows host to install the PeopleTools Client.
- This scenario applies to Linux, AIX, Solaris and Microsoft Windows operating systems.
- Your existing PeopleTools 8.56.*<init>* environment was installed using the PeopleSoft DPKs.

Task A-1-1: Stopping and Deleting the Domains on the Initial Environment

Carry out these steps on the existing PeopleTools 8.56.*<init>* environment (for example, 8.56.01):

If you have not already done so, stop and delete the existing domains running on the initial, existing PeopleTools release, PeopleTools 8.56.*<init>* — Application Server, PIA, and Process Scheduler, using the PSADMIN utility.

See "Using and Maintaining the PeopleSoft Environment," Managing PeopleTools Domains with PSADMIN.

Task A-1-2: Stopping the Services for the Domains

On Microsoft Windows, stop the services for the Application Server, PIA, and Process Scheduler domains:

- Open the Services dialog box, for example by clicking Start and selecting Administrative Tools, Services.
- Right-click on PsftAppServerDomain*<Appserver_domain_name>*Service and select Stop.
- Right-click on PsftPrcsDomain*<ProcSched_domain_name>*Service and select Stop.
- Right-click on PsftPIADomain*<PIA_domain_name>*Service and select Stop.
- Select File, Exit, to close the dialog box.

Task A-1-3: Updating the site.pp File

Carry out these steps on the existing, initial PeopleTools 8.56.*<init>* environment (for example, 8.56.01):

1. Open the site.pp file for editing.

   The site.pp file is installed with the PeopleTools DPKs, and is found in *BASE_DIR/*

dpk/puppet/production/manifests.

2. Verify that the site.pp file includes `pt_tools_deployment`, as shown in the sample below.

Note. There is a space after "include" in these examples.

```
node default {

include ::pt_role::pt_tools_deployment

}
```

Save the file and close.

Task A-1-4: Removing the Existing PeopleTools Components

Carry out these steps on the existing PeopleTools 8.56.<*init*> environment (for example, 8.56.01):

Remove the existing PeopleTools home directory, referred to here as *PS_HOME_INIT,* as well as Oracle WebLogic, Oracle Tuxedo, Oracle Client, and JDK.

See "Using and Maintaining the PeopleSoft Environment," Removing a Deployed PeopleSoft Environment, for details on removing the deployment components and verifying the removal.

- If you retained the downloaded DPKs in the original location, go to the download location, *DPK_INSTALL_INIT/*setup and run the cleanup command.

  On Microsoft Windows, open a command prompt with Run as Administrator and run:

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

  On Linux, AIX, or Solaris, open a terminal window as root and run:

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

- If you did not retain the downloaded DPKs, use the `puppet apply` command or manual methods to remove the existing deployed components.

Note. Verify that the cleanup was complete before proceeding. For more details, refer to the section Troubleshooting the Removal Process.

Task A-1-5: Downloading and Deploying the PeopleTools Client for the New Release

On the Microsoft Windows host that you have designated for the PeopleTools Client for the new PeopleTools 8.56.<*new*> patch; for example, PeopleTools 8.56.11:

1. Locate and download the PeopleTools 8.56.<*new*> DPKs for the new release to a directory with sufficient disc space, referred to here as *DPK_INSTALL_NEW*.

   See PeopleTools Patches Home Page, My Oracle Support, Doc ID 2062712.2, for links to the most recent patches. For earlier releases, search My Oracle Support, Patches and Updates.

2. In the downloaded DPKs, locate the DPK for the PeopleTools Client for the new PeopleTools 8.56.<*new*> patch, which is the fourth zip file *(Filename_*4of4.zip)

   Copy the DPK to the Microsoft Windows Client machine.

3. To deploy the PeopleTools Client for the new 8.56.<*new*> PeopleTools patch in the Microsoft Windows

Client host, use the instructions for standalone deployment described in this documentation, with the following guidelines.

See "Deploying the PeopleTools Deployment Packages," Deploying the PeopleTools Client in Standalone Mode for detailed steps and explanations.

a. Run `SetupPTClient.bat -t`.

b. Answer yes when asked if you want to deploy PeopleTools client.

c. Specify an installation directory, the RDBMS, and other information for your environment.

   The default installation directory is C:\PT*<release_number>*_Client_*<database_type>*, for example C:\PT8.56.11_Client_ORA.

d. Specify the PeopleTools Patch (2) option at this prompt:

```
Please make your selection for the Tools Client deployment:
1. People Tools Full Upgrade
2. People Tools Patch
3. None of the above
Enter your choice [1-3]: 2
```

e. Answer y (yes) when asked if you want to install Change Assistant:

```
Do you want to install Change Assistant? [Y/N]: y
```

Task A-1-6: Applying the PeopleTools Patch Using Change Assistant

Use the Change Assistant (CA) you installed in the previous section to apply the new PeopleTools 8.56.*<new>* patch database changes. In the current PeopleTools release you can apply all patch database changes for the patch by installing a single PeopleTools change package (PTP) using Change Assistant. By using this new preferred method in PeopleTools 8.56, you can avoid applying the patch manually.

The database changes for the new release patch are delivered in a change package located in the *PS_HOME/*PTP directory in the Change Assistant installation; for example, C:\PT8.56.11_Client_ORA\PTP.

Here is a brief summary of the steps required to apply the change package using the Change Assistant graphical user interface. For detailed steps and explanations, see the PeopleTools product documentation.

See *PeopleTools: Change Assistant and Update Manager,* "Using Change Assistant to Apply PeopleTools Patch."

1. Start Change Assistant from the desktop icon or program menu.

2. Configure the general options and target database definitions.

3. Select Tools, Change Actions.

4. Select Update Manager and click Next.

5. Select Apply a Patch to your Current PeopleTools Release and click Finish.

6. Review the Change Package Settings page and click Next.

7. Select the target database, or if the database has not been defined yet, use the Create button to create the database.

8. Click Next.

9. Select the Change Package for the PeopleTools patch.

10. Click Next.

    Change Assistant performs a PeopleTools patch version check. Review the messages and click Next. A warning is displayed if the selected patch is at the same or a lower level than the installed PeopleTools patch. It is not recommended to re-apply or downgrade PeopleTools patches.

11. The Apply Summary page is displayed; review the summary and click Finish.

12. Change Assistant will load the change package and run the PeopleTools patch job.

    All steps will run unattended and when the last step is complete you will receive a message that there are no more steps to run.

Alternatively, if you have configured a target environment and general options in Change Assistant, you can apply the change package via the command line. To apply the PTP on the command line, use the following command, edited for your environment:

```
Changeassistant.bat -MODE UM -ACTION PTPAPPLY -TGTENV <YOUR_TARGET_DB_ENV_⇒
NAME_LIKE_PT856TST> -UPD <patchxxx>
```

See *PeopleTools: Change Assistant and Update Manager,* "Running Change Assistant Job from the Command Line."

Task A-1-7: Deploying the New Release in Mid-Tier Mode

To install the PeopleTools DPKs for the new PeopleTools 8.56.*<new>* release; for example, PeopleTools 8.56.11:

1. Go to the directory where you downloaded the PeopleTools 8.56.*<new>* DPKs for the new release, referred to here as *DPK_INSTALL_NEW.*

    See Downloading and Deploying the PeopleTools Client for the New Release.

2. Extract the first downloaded DPK zip file, for example, *Filename_*1of4.zip, in the same directory.

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

3. To set up the PeopleTools mid-tier components for the new PeopleTools 8.56.*<new>* patch release:

    • On Microsoft Windows, open a command prompt with Run as Administrator, go to *DPK_INSTALL_NEW/* setup and run this command:

      ```
      psft-dpk-setup.bat --env_type midtier
      ```

    • On Linux, AIX, or Solaris, open a terminal window as root, go to *DPK_INSTALL_NEW/*setup, and run this command:

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

4. At the following prompt, enter the full path for a new directory (that is, different from that used for the existing 8.56 installation) for the PeopleSoft base folder (referred to in this documentation as *BASE_DIR_NEW*):

    Note. When entering the path for the base folder, use forward slashes (/). For example, C:/psft_new. Enclose any names with special characters in double quotes. Do not use a name for the base folder that begins with a number.

    Note. The script progress and validation messages are not included here. See the task Running the PeopleSoft PeopleTools DPK Setup Script for Mid-tier Deployment for more details.

    ```
    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 permissions and should
    have enough free space.

    Enter the PeopleSoft Base Folder: C:/psft_new
    ```

```
Are you happy with your answer? [Y|n|q]:
```

The deployment sets up a new installation home directory, *PS_HOME_NEW* and installs Oracle WebLogic, Oracle Tuxedo, Oracle Client, and JDK under the specified PeopleSoft base folder, *BASE_DIR_NEW/*pt.

5. Specify the information for the database that you want to connect to.

   a. For the database platform, enter ORACLE, MSSQL (Microsoft SQL Server), DB2UNIX (DB2 for Linux, UNIX, and Windows), or DB2ODBC (DB2 for z/OS).

   ```
   Enter the PeopleSoft database platform [ORACLE]:
   ```

   b. Enter *y* (yes) if the database you are connecting to is a Unicode database, or n (no) for a non-Unicode database.

   ```
   Is the PeopleSoft database unicode? [Y|n]:
   ```

   c. Enter the PeopleSoft database name.

   If the database name includes non-alphanumeric characters such as periods, enclose the name in double quotes. For example, "HCM.92".

   ```
   Enter the PeopleSoft database name [HCM92]:
   ```

   d. Enter the database service name.

   Note. The service name is required for Oracle RDBMS.

   For the service name, enter the full name, including the domain, if the database was installed with the domain. Use forward slashes if necessary. If the service name includes non-alphanumeric characters such as periods, enclose the name in double quotes. For example, "HCM.92.example.com".

   ```
   Enter the PeopleSoft database service name [HCM92]:
   ```

   e. Enter the name of the host where the database is installed, and the port number:

   Use forward slashes if necessary. If the host name includes non-alphanumeric characters such as periods, enclose the name in double quotes. For example, "host.example.com".

   ```
   Enter the PeopleSoft database host name:
   Enter the PeopleSoft database port [1521]: 1521
   ```

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

   The default is people.

   ```
   Enter the PeopleSoft database Connect ID [people]:
   ```

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

   ```
   Enter the PeopleSoft database Connect ID [people] password:
   The password should contain only alphanumeric characters and is
   between 6 and 30 characters in length:
   Re-Enter the PeopleSoft database Connect ID password:
   ```

8. Enter *y* (yes) if you want the DPK setup script to update user passwords, as described in the prompt:

   Note. You see this prompt only if you specified Oracle as the PeopleSoft database platform in a previous prompt.

   ```
   Note: If the PeopleSoft environment is setup using DPKs in a distributed
   topology with dbtier on one host and midtier on another, the PeopleSoft
   ```

```
application users [Access ID, Operator ID, WebProfile User] passwords
need to be reset from a midtier after DB provision. If this is the first
midtier instance accessing the database, we can automate the process of
updating these passwords.

Do you want to update the user passwords in PeopleSoft database? [y|N]:N
```

9. Enter the password twice for the database administrator:

```
Enter the PeopleSoft database Admin ID password:
Re-Enter the PeopleSoft database Admin ID password:
```

Note. You see this prompt if you answered yes to the previous prompt for updating the user passwords, and if you specified Oracle as the database platform.

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

```
Enter a new PeopleSoft database Operator ID [PS] password.
The password should contain only alphanumeric characters and is
between 1 and 32 characters in length:
Re-Enter the PeopleSoft Operator ID password:
```

11. Enter the password for the Access ID for the database:

```
Enter a new PeopleSoft database Access ID [SYSADM] password. Ensure
that the password contains only alphanumeric characters and is no
more than 8 characters in length:
Re-Enter the PeopleSoft Access ID password:
```

Note. You see this prompt if you answered yes to the previous prompt for updating the user passwords, and if you specified Oracle as the database platform.

12. 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 is between 8 and 30 characters in length and do
not contain any space ( ), percentage (%), slash (/), quote (",')
and equals (=) characters:
Re-Enter the Application Server Domain connection password:
```

13. Enter the password for the PTWEBSERVER web profile user.

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
```

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

14. 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 and one number
or one special character (!@#$%^&):
Re-Enter the WebLogic Server Admin user password:
```

15. 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 ID password does not allow special characters. However, the PeopleSoft system does allow special characters for the Integration Gateway user ID 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:
```

16. 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]:
```

17. Answer *n* (no) to the following prompt:

```
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]: ⇒
n

You have decided not to continue with the default PeopleSoft environment
setup process. Any customizations to the PeopleSoft environment should
be done in the Hiera YAML file 'psft_customizations.yaml' and place it
under [c:\psft\dpk\puppet\production\data] folder. After making the
necessary customizations, run the following commands to continue with
```

```
the setup of PeopleSoft environment.

1. cd /d C:\psft_new\dpk\puppet\production\manifests
2. "C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply
--confdir=C:\psft_new\dpk\puppet site.pp --debug --trace

Exiting the PeopleSoft environment setup process.
```

The script stops.

18. Complete the instructions in the next section to prepare the psft_customizations.yaml file and complete the initialization.

See Also

"Deploying the PeopleSoft PeopleTools Deployment Packages," Running the DPK Setup Script for Mid-tier Deployment.

Task A-1-8: Preparing psft_customizations.yaml and Completing the Deployment

Carry out these steps on the existing PeopleTools 8.56.*<init>* environment (for example, 8.56.01). Create or edit a psft_customizations.yaml file, and complete the initialization using the puppet apply command.

See "Completing the DPK Initialization with Customizations."

The documentation lists several types of customizations you can use for your environment. For this scenario, it is important that you include the location for an existing *PS_APP_HOME* (if you have one) to be associated with the *PS_HOME* in the psft_customizations.yaml file.

Here is a sample psft_customizations.yaml file that specifies the location for an existing *PS_APP_HOME* location which will be associated to *PS_HOME* during the deployment process:

Note. . Be sure to retain the spacing and indentation as shown in this sample.

```
---
ps_apphome_location: c:/fscm_app_home
```

Complete the initialization using the `puppet apply` command as described in the documentation.

See "Completing the DPK Initialization with Customizations."

Task A-1-9: Reviewing the Results

After completing the steps above:

- *PS_HOME,* Oracle WebLogic, Oracle Tuxedo, and the Oracle Client from the initial environment have been removed.

- There are new installations of *PS_HOME,* Oracle WebLogic, Oracle Tuxedo, and the Oracle Client.

- The Application Server, Process Scheduler, and PIA domains have been configured.

After applying the PeopleTools patch, review the patch's readme.txt for any manual configuration instructions that may be needed for your particular environment.

Task A-1-10: Verifying the Patch Application

Your host should have initialized successfully and started participating in your PeopleSoft environment. Many of the steps that you should take to verify this or diagnose problems will be the same for Microsoft Windows, Linux, AIX, or Solaris hosts.

1. Verify that you can sign in to PeopleSoft:

    Start a browser and sign on to the PeopleSoft Application with the URL http://*<hostname>*:*<pia_http_port>*/ps/signon.html.

2. If you do not see the log in page, verify that the environment can be reached from your machine using a utility such as ping.

3. If your host can be pinged, verify that the PIA domain is running in the following step.

4. Verify that Application Server, Process Scheduler and PIA domains have started:

    a. On Linux, AIX, or Solaris, using an SSH client, log in as the psadm2 user.

        On Microsoft Windows, open a command prompt with Run as Administrator.

    b. Start the psadmin utility by typing `psadmin` at the command prompt.

        When logged in as the psadm2 user the environment variables for PeopleSoft administration are set as part of the psadm2 user's log-in profile.

    c. Use the PSADMIN menus for the Application Server, Process Scheduler, and Web server (PIA) to verify the status of each of the installed components.

    d. If one or more of the components has not started, examine the log files for the required PeopleSoft component to establish what has caused the component to not start.

        The log files are in the default locations for each of the PeopleSoft components.

5. To verify the *PS_APP_HOME* location, check the value of the PS_APP_HOME environment variable.

    On Linux, AIX, or Solaris, the environment variable is found in the .profile file for the psadm2 user. Use the following command on Linux, AIX, or Solaris to check the environment variable:

    ```
    export PS_APP_HOME=/home/fscm_app_home
    ```

    On Microsoft Windows, open the System Properties dialog box and click Environment Variables.

6. You can review the psprcs.cfg file to verify that the SQR section includes a path for PS_APP_HOME.

    ```
    [SQR]
    ;========================================================================⇒
    ==
    ; Settings for SQR Software
    ;========================================================================⇒
    ==
    SQRBIN=%PS_HOME%/bin/sqr/ORA/bin
    PSSQRFLAGS=-ZIF%PS_HOME%/sqr/pssqr%LANGUAGECD%.unx
    Print Log=N
    Enhanced HTML=N
    PSSQR=%PS_APP_HOME%/sqr:%PS_HOME%/sqr
    ```

    See *PeopleTools: Process Scheduler,* "Using the PSADMIN for the Process Scheduler Configuration File."

Task A-2: Using Scenario 2

This section discusses:

- Understanding Scenario 2
- Stopping and Deleting the Domains on the Initial Environment
- Stopping the Services for the Domains
- Downloading and Deploying the PeopleTools Client for the New Release
- Applying the PeopleTools Patch Using Change Assistant
- Deploying the New Release in Mid-tier Mode
- Preparing psft_customizations.yaml and Completing the Deployment
- Reviewing the Results
- Verifying the Patch Application

Understanding Scenario 2

Scenario 2 assumes that:

- You want to install only the new patch release *PS_HOME*
- You want to retain the existing installations of Oracle WebLogic, Oracle Tuxedo, and Oracle Client.
- This scenario applies to Linux, AIX, Solaris, or Microsoft Windows operating systems.

Task A-2-1: Stopping and Deleting the Domains on the Initial Environment

Carry out these steps on the existing PeopleTools 8.56.*<init>* environment (for example, 8.56.01):

If you have not already done so, stop and delete the existing domains running on the initial, existing PeopleTools release, PeopleTools 8.56.*<init>* — Application Server, PIA, and Process Scheduler, using the PSADMIN utility.

See "Using and Maintaining the PeopleSoft Environment," Managing PeopleTools Domains with PSADMIN.

Task A-2-2: Stopping the Services for the Domains

On Microsoft Windows, stop the services for the Application Server, PIA, and Process Scheduler domains:

- Open the Services dialog box, for example by clicking Start and selecting Administrative Tools, Services.
- Right-click on PsftAppServerDomain*<Appserver_domain_name>*Service and select Stop.
- Right-click on PsftPrcsDomain*<ProcSched_domain_name>*Service and select Stop.
- Right-click on PsftPIADomain*<PIA_domain_name>*Service and select Stop.
- Select File, Exit, to close the dialog box.

Task A-2-3: Downloading and Deploying the PeopleTools Client for the New Release

On the Microsoft Windows host that you have designated for the PeopleTools Client for the new PeopleTools 8.56.*<new>* patch; for example, PeopleTools 8.56.11:

1. Locate and download the PeopleTools 8.56.*<new>* DPKs for the new release to a directory with sufficient disc space, referred to here as *DPK_INSTALL_NEW*.

   See PeopleTools Patches Home Page, My Oracle Support, Doc ID 2062712.2, for links to the most recent patches. For earlier releases, search My Oracle Support, Patches and Updates.

2. In the downloaded DPKs, locate the DPK for the PeopleTools Client for the new PeopleTools 8.56.*<new>* patch, which is the fourth zip file *(Filename_4of4.zip)*

   Copy the DPK to the Microsoft Windows Client machine.

3. To deploy the PeopleTools Client for the new 8.56.*<new>* PeopleTools patch in the Microsoft Windows Client host, use the instructions for standalone deployment described in this documentation, with the following guidelines.

   See "Deploying the PeopleTools Deployment Packages," Deploying the PeopleTools Client in Standalone Mode for detailed steps and explanations.

   a. Run `SetupPTClient.bat -t`.

   b. Answer yes when asked if you want to deploy PeopleTools client.

   c. Specify an installation directory, the RDBMS, and other information for your environment.

      The default installation directory is C:\PT*<release_number>*_Client_*<database_type>,* for example C:\PT8.56.11_Client_ORA.

   d. Specify the PeopleTools Patch (2) option at this prompt:

      ```
      Please make your selection for the Tools Client deployment:
      1. People Tools Full Upgrade
      2. People Tools Patch
      3. None of the above
      Enter your choice [1-3]: 2
      ```

   e. Answer y (yes) when asked if you want to install Change Assistant:

      ```
      Do you want to install Change Assistant? [Y/N]: y
      ```

Task A-2-4: Applying the PeopleTools Patch Using Change Assistant

Use the Change Assistant (CA) you installed in the previous section to apply the new PeopleTools 8.56.*<new>* patch database changes. In the current PeopleTools release you can apply all patch database changes for the patch by installing a single PeopleTools change package (PTP) using Change Assistant. By using this new preferred method in PeopleTools 8.56, you can avoid applying the patch manually.

The database changes for the new release patch are delivered in a change package located in the *PS_HOME/*PTP directory in the Change Assistant installation; for example, C:\PT8.56.11_Client_ORA\PTP.

Here is a brief summary of the steps required to apply the change package using the Change Assistant graphical user interface. For detailed steps and explanations, see the PeopleTools product documentation.

See *PeopleTools: Change Assistant and Update Manager,* "Using Change Assistant to Apply PeopleTools Patch."

1. Start Change Assistant from the desktop icon or program menu.

2. Configure the general options and target database definitions.

3. Select Tools, Change Actions.

4. Select Update Manager and click Next.

5. Select Apply a Patch to your Current PeopleTools Release and click Finish.

6. Review the Change Package Settings page and click Next.

7. Select the target database, or if the database has not been defined yet, use the Create button to create the database.

8. Click Next.

9. Select the Change Package for the PeopleTools patch.

10. Click Next.

    Change Assistant performs a PeopleTools patch version check. Review the messages and click Next. A warning is displayed if the selected patch is at the same or a lower level than the installed PeopleTools patch. It is not recommended to re-apply or downgrade PeopleTools patches.

11. The Apply Summary page is displayed; review the summary and click Finish.

12. Change Assistant will load the change package and run the PeopleTools patch job.

    All steps will run unattended and when the last step is complete you will receive a message that there are no more steps to run.

Alternatively, if you have configured a target environment and general options in Change Assistant, you can apply the change package via the command line. To apply the PTP on the command line, use the following command, edited for your environment:

```
Changeassistant.bat -MODE UM -ACTION PTPAPPLY -TGTENV <YOUR_TARGET_DB_ENV_⇒
NAME_LIKE_PT856TST> -UPD <patchxxx>
```

See *PeopleTools: Change Assistant and Update Manager,* "Running Change Assistant Job from the Command Line."

Task A-2-5: Deploying the New Release in Mid-tier Mode

To install the PeopleTools DPKs for the new PeopleTools 8.56.*<new>* release; for example, PeopleTools 8.56.11:

1. Go to the directory where you downloaded the PeopleTools 8.56.*<new>* DPKs for the new release, referred to here as *DPK_INSTALL_NEW.*

    See Downloading and Deploying the PeopleTools Client for the New Release.

2. Extract the first downloaded DPK zip file, for example, *Filename_*1of4.zip, in the same directory.

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

3. To set up the PeopleTools server for the new PeopleTools 8.56.*<new>* patch release:

    • On Microsoft Windows, open a command prompt with Run as Administrator, go to *DPK_INSTALL_NEW/* setup and run this command:

      ```
      psft-dpk-setup.bat --env_type midtier
      ```

    • On Linux, AIX, or Solaris, open a terminal window as root, go to *DPK_INSTALL_NEW/*setup, and run this command:

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

4. At the following prompt, enter the full path for a new directory (that is, different from that used for the

existing 8.56 installation) for the PeopleSoft base folder (referred to in this documentation as
BASE_DIR_NEW):

Note. When entering the path for the base folder, use forward slashes (/). For example, `C:/psft_new`.
Enclose any names with special characters in double quotes. Do not use a name for the base folder that begins
with a number.

Note. The script progress and validation messages are not included here. See the task Running the PeopleSoft
PeopleTools DPK Setup Script for Mid-tier Deployment for more details.

```
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 permissions and should
have enough free space.

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

The deployment sets up a new installation home directory, *PS_HOME_NEW* and installs Oracle WebLogic,
Oracle Tuxedo, Oracle Client, and JDK under the specified PeopleSoft base folder, *BASE_DIR_NEW/*pt.

5. Specify the information for the database that you want to connect to.

   a. For the database platform, enter ORACLE, MSSQL (Microsoft SQL Server), DB2UNIX (DB2 for Linux,
      UNIX, and Windows), or DB2ODBC (DB2 for z/OS).

      ```
      Enter the PeopleSoft database platform [ORACLE]:
      ```

   b. Enter *y* (yes) if the database you are connecting to is a Unicode database, or n (no) for a non-Unicode
      database.

      ```
      Is the PeopleSoft database unicode? [Y|n]:
      ```

   c. Enter the PeopleSoft database name.

      If the database name includes non-alphanumeric characters such as periods, enclose the name in double
      quotes. For example, "HCM.92".

      ```
      Enter the PeopleSoft database name [HCM92]:
      ```

   d. Enter the database service name.

      Note. The service name is required for Oracle RDBMS.

      For the service name, enter the full name, including the domain, if the database was installed with the
      domain. Use forward slashes if necessary. If the service name includes non-alphanumeric characters such
      as periods, enclose the name in double quotes. For example, "HCM.92.example.com".

      ```
      Enter the PeopleSoft database service name [HCM92]:
      ```

   e. Enter the name of the host where the database is installed, and the port number:

      Use forward slashes if necessary. If the host name includes non-alphanumeric characters such as periods,
      enclose the name in double quotes. For example, "host.example.com".

      ```
      Enter the PeopleSoft database host name:
      Enter the PeopleSoft database port [1521]: 1521
      ```

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

The default is people.

```
Enter the PeopleSoft database Connect ID [people]:
```

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

```
Enter the PeopleSoft database Connect ID [people] password:
The password should contain only alphanumeric characters and is
between 6 and 30 characters in length:
Re-Enter the PeopleSoft database Connect ID password:
```

8. Enter *y* (yes) if you want the DPK setup script to update user passwords, as described in the prompt:

Note. You see this prompt only if you specified Oracle as the PeopleSoft database platform in a previous prompt.

```
Note: If the PeopleSoft environment is setup using DPKs in a distributed
topology with dbtier on one host and midtier on another, the PeopleSoft
application users [Access ID, Operator ID, WebProfile User] passwords
need to be reset from a midtier after DB provision. If this is the first
midtier instance accessing the database, we can automate the process of
updating these passwords.

Do you want to update the user passwords in PeopleSoft database? [y|N]:N
```

9. Enter the password twice for the database administrator:

```
Enter the PeopleSoft database Admin ID password:
Re-Enter the PeopleSoft database Admin ID password:
```

Note. You see this prompt if you answered yes to the previous prompt for updating the user passwords, and if you specified Oracle as the database platform.

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

```
Enter a new PeopleSoft database Operator ID [PS] password.
The password should contain only alphanumeric characters and is
 between 1 and 32 characters in length:
Re-Enter the PeopleSoft Operator ID password:
```

11. Enter the password for the Access ID for the database:

```
Enter a new PeopleSoft database Access ID [SYSADM] password. Ensure
that the password contains only alphanumeric characters and is no
more than 8 characters in length:
Re-Enter the PeopleSoft Access ID password:
```

Note. You see this prompt if you answered yes to the previous prompt for updating the user passwords, and if you specified Oracle as the database platform.

12. 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 is between 8 and 30 characters in length and do
not contain any space ( ), percentage (%), slash (/), quote (",')
and equals (=) characters:
Re-Enter the Application Server Domain connection password:
```

13. Enter the password for the PTWEBSERVER web profile user.

> **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
that the password contains only alphanumeric characters and is between
8 and 30 characters in length:
Re-Enter the PeopleSoft WebProfile user password:
```

14. 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 and one number or
one special character (!@#$%^&):
Re-Enter the WebLogic Server Admin user password:
```

15. 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 ID password does not allow special characters. However, the PeopleSoft system does allow special characters for the Integration Gateway user ID 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:
```

16. 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]:
```

17. Answer *n* (no) to the following prompt:

```
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]: ⇒
n

You have decided not to continue with the default PeopleSoft environment
setup process. Any customizations to the PeopleSoft environment should
be done in the Hiera YAML file 'psft_customizations.yaml' and place it
under [c:\psft\dpk\puppet\production\data] folder. After making the
necessary customizations, run the following commands to continue with
the setup of PeopleSoft environment.

1. cd /d C:\psft_new\dpk\puppet\production\manifests
2. "C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply
--confdir=C:\psft_new\dpk\puppet site.pp --debug --trace

Exiting the PeopleSoft environment setup process.
```

The script stops.

18. Complete the instructions in the next section to prepare the psft_customizations.yaml file and complete the initialization.

See Also

"Deploying the PeopleSoft PeopleTools Deployment Packages," Running the DPK Setup Script for Mid-tier Deployment.

Task A-2-6: Preparing psft_customizations.yaml and Completing the Deployment

Carry out these steps on the existing PeopleTools 8.56.*<init>* environment (for example, 8.56.01). Create or edit a psft_customizations.yaml file, and complete the initialization using the puppet apply command.

See "Completing the DPK Initialization with Customizations."

The documentation lists several types of customizations you can use for your environment. For this scenario, it is important that you include the following in the psft_customizations.yaml file:

• Location for an existing *PS_APP_HOME* (if you have one) to be associated with the *PS_HOME.*

• Existing installation locations for Oracle WebLogic, Oracle Tuxedo and Oracle Database client.

Here is a sample psft_customizations.yaml file that specifies the location for the Oracle WebLogic, Oracle Tuxedo, and Oracle Database client. This customization also specifies an existing *PS_APP_HOME* location which will be associated to *PS_HOME* during the deployment process.

Note. The Oracle Database client entry applies only to environments on Oracle RDBMS.

Note. Be sure to retain the spacing and indentation as shown in this sample.

```
---
oracle_client_location:  C:/Oracle/Oracle-Client
oracle_client:
  location: C:/Oracle/Oracle-Client

jdk_location:  C:/Oracle/JDK
jdk:
  location:  C:/Oracle/JDK

weblogic_location: C:/Oracle/weblogic
weblogic:
  location: C:/Oracle/weblogic

tuxedo_location: C:/Oracle/weblogic/tuxedo
tuxedo:
 location: C:/Oracle/weblogic/tuxedo

ps_apphome_location: c:/fscm_app_home
```

Complete the initialization using the `puppet apply` command as described in the documentation.

See "Completing the DPK Initialization with Customizations."

Task A-2-7: Reviewing the Results

After completing the steps above:

- *PS_HOME_INIT,* Oracle WebLogic, Oracle Tuxedo, and the Oracle Client from the initial environment remain as is.
- The Application Server, Process Scheduler, and PIA domains are configured.
- There is new installation of *PS_HOME_NEW.*

After applying the PeopleTools patch, review the patch's readme.txt for any manual configuration instructions that may be needed for your particular environment.

Task A-2-8: Verifying the Patch Application

Your host should have initialized successfully and started participating in your PeopleSoft environment. Many of the steps that you should take to verify this or diagnose problems will be the same for Microsoft Windows, Linux, AIX, or Solaris hosts.

1. Verify that you can sign in to PeopleSoft:

    Start a browser and sign on to the PeopleSoft Application with the URL http://*<hostname>*:*<pia_http_port>*/ ps/signon.html.

2. If you do not see the log in page, verify that the environment can be reached from your machine using a utility such as ping.

3. If your host can be pinged, verify that the PIA domain is running in the following step.

4. Verify that Application Server, Process Scheduler and PIA domains have started:

    a. On Linux, AIX, or Solaris, using an SSH client, log in as the psadm2 user.

       On Microsoft Windows, open a command prompt with Run as Administrator.

    b. Start the psadmin utility by typing `psadmin` at the command prompt.

When logged in as the psadm2 user the environment variables for PeopleSoft administration are set as part of the psadm2 user's log-in profile.

   c. Use the PSADMIN menus for the Application Server, Process Scheduler, and Web server (PIA) to verify the status of each of the installed components.

   d. If one or more of the components has not started, examine the log files for the required PeopleSoft component to establish what has caused the component to not start.

The log files are in the default locations for each of the PeopleSoft components.

5. To verify the *PS_APP_HOME* location, check the value of the PS_APP_HOME environment variable.

On Linux, AIX, or Solaris, the environment variable is found in the .profile file for the psadm2 user. Use the following command on Linux, AIX, or Solaris to check the environment variable:

```
export PS_APP_HOME=/home/fscm_app_home
```

On Microsoft Windows, open the System Properties dialog box and click Environment Variables.

6. You can review the psprcs.cfg file to verify that the SQR section includes a path for PS_APP_HOME.

```
[SQR]
;=======================================================================⇒
==
; Settings for SQR Software
;=======================================================================⇒
==
SQRBIN=%PS_HOME%/bin/sqr/ORA/bin
PSSQRFLAGS=-ZIF%PS_HOME%/sqr/pssqr%LANGUAGECD%.unx
Print Log=N
Enhanced HTML=N
PSSQR=%PS_APP_HOME%/sqr:%PS_HOME%/sqr
```

See *PeopleTools: Process Scheduler,* "Using the PSADMIN for the Process Scheduler Configuration File."

Task A-3: Using Scenario 3

This section discusses:

- Understanding Scenario 3
- Stopping and Deleting the Domains on the Initial Environment
- Stopping the Services for the Domains
- Downloading and Deploying the PeopleTools Client for the New Release
- Applying the PeopleTools Patch Using Change Assistant
- Deploying the New Release in Mid-tier Mode
- Preparing psft_customizations.yaml and Completing the Deployment
- Reviewing the Results
- Verifying the Patch Application

Understanding Scenario 3

Scenario 3 assumes that:

- You want to install only the new patch release *PS_HOME*

- You want to retain one or more of the existing installations of Oracle WebLogic, Oracle Tuxedo, or Oracle Client.

- This scenario applies to Linux, AIX, Solaris and Microsoft Windows operating systems.

Task A-3-1: Stopping and Deleting the Domains on the Initial Environment

Carry out these steps on the existing PeopleTools 8.56.*<init>* environment (for example, 8.56.01):

If you have not already done so, stop and delete the existing domains running on the initial, existing PeopleTools release, PeopleTools 8.56.*<init>* — Application Server, PIA, and Process Scheduler, using the PSADMIN utility.

See "Using and Maintaining the PeopleSoft Environment," Managing PeopleTools Domains with PSADMIN.

Task A-3-2: Stopping the Services for the Domains

On Microsoft Windows, stop the services for the Application Server, PIA, and Process Scheduler domains:

- Open the Services dialog box, for example by clicking Start and selecting Administrative Tools, Services.

- Right-click on PsftAppServerDomain*<Appserver_domain_name>*Service and select Stop.

- Right-click on PsftPrcsDomain*<ProcSched_domain_name>*Service and select Stop.

- Right-click on PsftPIADomain*<PIA_domain_name>*Service and select Stop.

- Select File, Exit, to close the dialog box.

Task A-3-3: Downloading and Deploying the PeopleTools Client for the New Release

On the Microsoft Windows host that you have designated for the PeopleTools Client for the new PeopleTools 8.56.*<new>* patch; for example, PeopleTools 8.56.11:

1. Locate and download the PeopleTools 8.56.*<new>* DPKs for the new release to a directory with sufficient disc space, referred to here as *DPK_INSTALL_NEW*.

   See PeopleTools Patches Home Page, My Oracle Support, Doc ID 2062712.2, for links to the most recent patches. For earlier releases, search My Oracle Support, Patches and Updates.

2. In the downloaded DPKs, locate the DPK for the PeopleTools Client for the new PeopleTools 8.56.*<new>* patch, which is the fourth zip file *(Filename_*4of4.zip)

   Copy the DPK to the Microsoft Windows Client machine.

3. To deploy the PeopleTools Client for the new 8.56.*<new>* PeopleTools patch in the Microsoft Windows Client host, use the instructions for standalone deployment described in this documentation, with the following guidelines.

   See "Deploying the PeopleTools Deployment Packages," Deploying the PeopleTools Client in Standalone Mode for detailed steps and explanations.

   a. Run `SetupPTClient.bat -t`.

   b. Answer yes when asked if you want to deploy PeopleTools client.

   c. Specify an installation directory, the RDBMS, and other information for your environment.

      The default installation directory is C:\PT*<release_number>*_Client_*<database_type>,* for example C:\PT8.56.11_Client_ORA.

    d.   Specify the PeopleTools Patch (2) option at this prompt:

```
Please make your selection for the Tools Client deployment:
1. People Tools Full Upgrade
2. People Tools Patch
3. None of the above
Enter your choice [1-3]: 2
```

    e.   Answer y (yes) when asked if you want to install Change Assistant:

```
Do you want to install Change Assistant? [Y/N]: y
```

Task A-3-4: Applying the PeopleTools Patch Using Change Assistant

Use the Change Assistant (CA) you installed in the previous section to apply the new PeopleTools 8.56.*<new>* patch database changes. In the current PeopleTools release you can apply all patch database changes for the patch by installing a single PeopleTools change package (PTP) using Change Assistant. By using this new preferred method in PeopleTools 8.56, you can avoid applying the patch manually.

The database changes for the new release patch are delivered in a change package located in the *PS_HOME/*PTP directory in the Change Assistant installation; for example, C:\PT8.56.11_Client_ORA\PTP.

Here is a brief summary of the steps required to apply the change package using the Change Assistant graphical user interface. For detailed steps and explanations, see the PeopleTools product documentation.

See *PeopleTools: Change Assistant and Update Manager,* "Using Change Assistant to Apply PeopleTools Patch."

1. Start Change Assistant from the desktop icon or program menu.

2. Configure the general options and target database definitions.

3. Select Tools, Change Actions.

4. Select Update Manager and click Next.

5. Select Apply a Patch to your Current PeopleTools Release and click Finish.

6. Review the Change Package Settings page and click Next.

7. Select the target database, or if the database has not been defined yet, use the Create button to create the database.

8. Click Next.

9. Select the Change Package for the PeopleTools patch.

10. Click Next.

     Change Assistant performs a PeopleTools patch version check. Review the messages and click Next. A warning is displayed if the selected patch is at the same or a lower level than the installed PeopleTools patch. It is not recommended to re-apply or downgrade PeopleTools patches.

11. The Apply Summary page is displayed; review the summary and click Finish.

12. Change Assistant will load the change package and run the PeopleTools patch job.

     All steps will run unattended and when the last step is complete you will receive a message that there are no more steps to run.

Alternatively, if you have configured a target environment and general options in Change Assistant, you can apply the change package via the command line. To apply the PTP on the command line, use the following command, edited for your environment:

```
Changeassistant.bat -MODE UM -ACTION PTPAPPLY -TGTENV <YOUR_TARGET_DB_ENV_⇒
```

```
NAME_LIKE_PT856TST> -UPD <patchxx>
```

See *PeopleTools: Change Assistant and Update Manager,* "Running Change Assistant Job from the Command Line."

Task A-3-5: Deploying the New Release in Mid-tier Mode

To install the PeopleTools DPKs for the new PeopleTools 8.56.*<new>* release; for example, PeopleTools 8.56.11:

1. Go to the directory where you downloaded the PeopleTools 8.56.*<new>* DPKs for the new release, referred to here as *DPK_INSTALL_NEW.*

   See Downloading and Deploying the PeopleTools Client for the New Release.

2. Extract the first downloaded DPK zip file, for example, *Filename_*1of4.zip, in the same directory.

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

3. To set up the PeopleTools server for the new PeopleTools 8.56.*<new>* patch release:

   • On Microsoft Windows, open a command prompt with Run as Administrator, go to *DPK_INSTALL_NEW/* setup and run this command:

     ```
     psft-dpk-setup.bat --env_type midtier
     ```

   • On Linux, AIX, or Solaris, open a terminal window as root, go to *DPK_INSTALL_NEW/*setup, and run this command:

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

4. At the following prompt, enter the full path for a new directory (that is, different from that used for the existing 8.56 installation) for the PeopleSoft base folder (referred to in this documentation as *BASE_DIR_NEW*):

   Note. When entering the path for the base folder, use forward slashes (/). For example, `C:/psft_new`. Enclose any names with special characters in double quotes. Do not use a name for the base folder that begins with a number.

   Note. The script progress and validation messages are not included here. See the task Running the PeopleSoft PeopleTools DPK Setup Script for Mid-tier Deployment for more details.

   ```
   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 permissions and should
   have enough free space.

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

   The deployment sets up a new installation home directory, *PS_HOME_NEW* and installs Oracle WebLogic, Oracle Tuxedo, Oracle Client, and JDK under the specified PeopleSoft base folder, *BASE_DIR_NEW/*pt.

5. Specify the information for the database that you want to connect to.

   a. For the database platform, enter ORACLE, MSSQL (Microsoft SQL Server), DB2UNIX (DB2 for Linux, UNIX, and Windows), or DB2ODBC (DB2 for z/OS).

      ```
      Enter the PeopleSoft database platform [ORACLE]:
      ```

   b. Enter *y* (yes) if the database you are connecting to is a Unicode database, or n (no) for a non-Unicode

database.

```
Is the PeopleSoft database unicode? [Y|n]:
```

c. Enter the PeopleSoft database name.

If the database name includes non-alphanumeric characters such as periods, enclose the name in double quotes. For example, "HCM.92".

```
Enter the PeopleSoft database name [HCM92]:
```

d. Enter the database service name.

Note. The service name is required for Oracle RDBMS.

For the service name, enter the full name, including the domain, if the database was installed with the domain. Use forward slashes if necessary. If the service name includes non-alphanumeric characters such as periods, enclose the name in double quotes. For example, "HCM.92.example.com".

```
Enter the PeopleSoft database service name [HCM92]:
```

e. Enter the name of the host where the database is installed, and the port number:

Use forward slashes if necessary. If the host name includes non-alphanumeric characters such as periods, enclose the name in double quotes. For example, "host.example.com".

```
Enter the PeopleSoft database host name:
Enter the PeopleSoft database port [1521]: 1521
```

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

The default is people.

```
Enter the PeopleSoft database Connect ID [people]:
```

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

```
Enter the PeopleSoft database Connect ID [people] password:
The password should contain only alphanumeric characters and is
between 6 and 30 characters in length:
Re-Enter the PeopleSoft database Connect ID password:
```

8. Enter *y* (yes) if you want the DPK setup script to update user passwords, as described in the prompt:

Note. You see this prompt only if you specified Oracle as the PeopleSoft database platform in a previous prompt.

```
Note: If the PeopleSoft environment is setup using DPKs in a distributed
topology with dbtier on one host and midtier on another, the PeopleSoft
application users [Access ID, Operator ID, WebProfile User] passwords
need to be reset from a midtier after DB provision. If this is the first
midtier instance accessing the database, we can automate the process of
updating these passwords.

Do you want to update the user passwords in PeopleSoft database? [y|N]:N
```

9. Enter the password twice for the database administrator:

```
Enter the PeopleSoft database Admin ID password:
Re-Enter the PeopleSoft database Admin ID password:
```

Note. You see this prompt if you answered yes to the previous prompt for updating the user passwords, and if you specified Oracle as the database platform.

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

```
Enter a new PeopleSoft database Operator ID [PS] password.
The password should contain only alphanumeric characters and is
between 1 and 32 characters in length:
Re-Enter the PeopleSoft Operator ID password:
```

11. Enter the password for the Access ID for the database:

```
Enter a new PeopleSoft database Access ID [SYSADM] password. Ensure
that the password contains only alphanumeric characters and is no
more than 8 characters in length:
Re-Enter the PeopleSoft Access ID password:
```

Note. You see this prompt if you answered yes to the previous prompt for updating the user passwords, and if you specified Oracle as the database platform.

12. 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 is between 8 and 30 characters in length and do
not contain any space ( ), percentage (%), slash (/), quote (",')
and equals (=) characters:
Re-Enter the Application Server Domain connection password:
```

13. Enter the password for the PTWEBSERVER web profile user.

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

14. 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 and one number or
one special character (!@#$%^&):
```

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

15. 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 ID password does not allow special characters. However, the PeopleSoft system does allow special characters for the Integration Gateway user ID 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:
    ```

16. 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]:
    ```

17. Answer *n* (no) to the following prompt:

    ```
    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]: ⇒
    n

    You have decided not to continue with the default PeopleSoft environment
    setup process. Any customizations to the PeopleSoft environment should
    be done in the Hiera YAML file 'psft_customizations.yaml' and place it
    under [c:\psft\dpk\puppet\production\data] folder. After making the
    necessary customizations, run the following commands to continue with
    the setup of PeopleSoft environment.

    1. cd /d C:\psft_new\dpk\puppet\production\manifests
    2. "C:\Program Files\Puppet Labs\Puppet\bin\puppet.bat" apply
    --confdir=C:\psft_new\dpk\puppet site.pp --debug --trace

    Exiting the PeopleSoft environment setup process.
    ```

    The script stops.

18. Complete the instructions in the next section to prepare the psft_customizations.yaml file and complete the initialization.

See Also

"Deploying the PeopleSoft PeopleTools Deployment Packages," Running the DPK Setup Script for Mid-Tier Deployment.

Task A-3-6: Preparing psft_customizations.yaml and Completing the Deployment

Carry out these steps on the existing PeopleTools 8.56.*<init>* environment (for example, 8.56.01). Create or edit a psft_customizations.yaml file, and complete the initialization using the puppet apply command.

See "Completing the DPK Initialization with Customizations."

The documentation lists several types of customizations you can use for your environment. For this scenario, it is important that you include the following in the psft_customizations.yaml file:

• Location for an existing *PS_APP_HOME* (if you have one) to be associated with the *PS_HOME.*

• Existing installation locations for one or more of Oracle WebLogic, Oracle Tuxedo and Oracle Database client.

Here is a sample psft_customizations.yaml file that specifies the location for Oracle WebLogic and Oracle Tuxedo. This customization also specifies an existing *PS_APP_HOME* location which will be associated to *PS_HOME* during the deployment process.

Note. . Be sure to retain the spacing and indentation as shown in this sample.

```
---
weblogic_location: C:/MyCurrentWeblogicLocation/weblogic
weblogic:
  location: C:/MyCurrentWeblogicLocation/weblogic

tuxedo_location: C:/MyCurrentTuxedoLocation/weblogic/tuxedo
tuxedo:
  location: C:/MyCurrentTuxedoLocation/weblogic/tuxedo

ps_apphome_location: c:/MyCurrentAppHomeLocation/fscm_app_home
```

Complete the initialization using the `puppet apply` command as described in the documentation.

See "Completing the DPK Initialization with Customizations."

Task A-3-7: Reviewing the Results

After completing the steps above:

• One or more of the Oracle WebLogic, Oracle Tuxedo, and the Oracle Client installations from the initial environment have been retained, as specified by the psft_customizations.yaml file.

• The Application Server, Process Scheduler, and PIA domains have been configured.

• There is new *PS_HOME_NEW* installation in the same location as the initial *PS_HOME_INIT.*

After applying the PeopleTools patch, review the patch's readme.txt for any manual configuration instructions that may be needed for your particular environment.

Task A-3-8: Verifying the Patch Application

Your host should have initialized successfully and started participating in your PeopleSoft environment. Many of the steps that you should take to verify this or diagnose problems will be the same for Microsoft Windows, Linux, AIX, or Solaris hosts.

1. Verify that you can sign in to PeopleSoft.

   Start a browser and sign on to the PeopleSoft Application with the URL http://*<hostname>*:*<pia_http_port>*/ps/signon.html.

2. If you do not see the log in page, verify that the environment can be reached from your machine using a utility such as ping.

3. If your host can be pinged, verify that the PIA domain is running in the following step.

4. Verify that Application Server, Process Scheduler and PIA domains have started:

   a. On Linux, AIX, or Solaris, using an SSH client, log in as the psadm2 user.

      On Microsoft Windows, open a command prompt with Run as Administrator.

   b. Start the psadmin utility by typing `psadmin` at the command prompt.

      When logged in as the psadm2 user the environment variables for PeopleSoft administration are set as part of the psadm2 user's log-in profile.

   c. Use the PSADMIN menus for the Application Server, Process Scheduler, and Web server (PIA) to verify the status of each of the installed components.

   d. If one or more of the components has not started, examine the log files for the required PeopleSoft component to establish what has caused the component to not start.

      The log files are in the default locations for each of the PeopleSoft components.

5. To verify the *PS_APP_HOME* location, check the value of the PS_APP_HOME environment variable.

   On Linux, AIX, or Solaris, the environment variable is found in the .profile file for the psadm2 user. Use the following command on Linux, AIX, or Solaris to check the environment variable:

   ```
   export PS_APP_HOME=/home/fscm_app_home
   ```

   On Microsoft Windows, open the System Properties dialog box and click Environment Variables.

6. You can review the psprcs.cfg file to verify that the SQR section includes a path for PS_APP_HOME.

   ```
   [SQR]
   ;========================================================================⇒
   ==
   ; Settings for SQR Software
   ;========================================================================⇒
   ==
   SQRBIN=%PS_HOME%/bin/sqr/ORA/bin
   PSSQRFLAGS=-ZIF%PS_HOME%/sqr/pssqr%LANGUAGECD%.unx
   Print Log=N
   Enhanced HTML=N
   PSSQR=%PS_APP_HOME%/sqr:%PS_HOME%/sqr
   ```

   See *PeopleTools: Process Scheduler,* "Using the PSADMIN for the Process Scheduler Configuration File."

Appendix B

Using an IBM WebSphere Web Server

Task B-1: Installing the PeopleSoft Application Images with IBM WebSphere

The PeopleTools DPKs install Oracle WebLogic as the web server. This section provides an overview of the steps needed to use IBM WebSphere as the web server with the PeopleSoft Application Images and the PeopleTools DPKs.

Several of the steps refer to the installation documentation for the PeopleSoft 9.2 Application Images. To locate the documentation, go to Oracle's PeopleSoft PeopleTools 8.56 Home Page, My Oracle Support, Doc ID 2259140.2, and select the Installation and Upgrade tab. Go to Installation Documentation, and look in the section PeopleSoft Application Images to locate the following installation guides:

*   *PeopleSoft 9.2 Application Installation on DB2 for Linux, UNIX, and Windows (PeopleSoft PeopleTools 8.56)*
*   *PeopleSoft 9.2 Application Installation on DB2 for z/OS (PeopleSoft PeopleTools 8.56)*
*   *PeopleSoft 9.2 Application Installation on Microsoft SQL Server (PeopleSoft PeopleTools 8.56)*
*   *PeopleSoft 9.2 Application Installation on Oracle (PeopleSoft PeopleTools 8.56)*

To install the PeopleSoft Application Images and use IBM WebSphere as the web server for your PeopleSoft installation:

1. Download the necessary DPK from the PeopleSoft Application Image, and the PeopleTools 8.56 DPKs.

    Note. Note that you must obtain and download the PeopleTools 8.56 DPKs separately.

    See "Installing the PeopleSoft Homes," Obtaining the PeopleSoft Application and PeopleTools DPKs, in the PeopleSoft 9.2 Application Installation documentation.

2. Use the DPK setup script command `psft-dpk-setup.bat --env_type midtier -- deploy_only` on Microsoft Windows or `./psft-dpk-setup.sh --env_type midtier -- deploy_only` on Linux to install the PeopleSoft PeopleTools installation directory, Oracle Tuxedo, and Oracle WebLogic software.

    This option deploys the *PS_HOME* directory, as well as the Oracle Tuxedo and Oracle WebLogic software, but does not create the PeopleSoft Application Server, web server, and Process Scheduler domains. Because there is no script option to install Oracle Tuxedo alone, we install both, but do not use the Oracle WebLogic installation.

    See "Deploying the PeopleSoft PeopleTools Deployment Packages," Reviewing the DPK Script Options, in this documentation.

3. Obtain and install IBM WebSphere 9.0.0.0.

    See "Installing Web Server Products, "Installing IBM WebSphere Application Server, in the PeopleSoft 9.2 Application Installation documentation.

4. Create a System or Demo application database.

   See the chapters on database creation in the PeopleSoft 9.2 Application Installation documentation.

5. Create the Application Server domain using PSADMIN.

   See the chapters on configuring the application server, in the PeopleSoft 9.2 Application Installation documentation.

6. Set up PeopleSoft Pure Internet Architecture (PIA). and specify IBM WebSphere in the silent mode response file.

   For example:

   ```
   # Web server type. Possible values are "weblogic", "websphere"
   SERVER_TYPE=websphere
   # WebSphere Home, the location where IBM WebSphere is installed (for⇒
    WebSphere deployment only)
   WS_HOME=C:/IBM/WebSphere/AppServer
   ```

   See "Setting Up the PeopleSoft Pure Internet Architecture in Silent Mode," in the PeopleSoft 9.2 Application Installation documentation.

7. Configure the Process Scheduler.

   See the chapters on setting up Process Scheduler, in the PeopleSoft 9.2 Application Installation documentation.

8. Complete optional tasks, such as installing and compiling COBOL.

Appendix C

Encrypting Passwords for Customizations on Linux, AIX, or Solaris

Task C-1: Encrypting Passwords for Customization Files on Linux, AIX, or Solaris

This section describes how to produce an encrypted version of a clear text password and include it in the psft_customizations.yaml file for a customized deployment for non-default users and groups on Linux, AIX, or Solaris. This section applies to installations with the Native OS for Linux, AIX, or Solaris DPKs.

In general, when you run the DPK setup script, you supply several user IDs and passwords, such as the Connect ID password and operator ID password. The script encrypts the passwords that you supply and includes them in the generated YAML files in *BASE_DIR/*dpk/puppet/production/data. When you create a psft_customizations.yaml file, you can copy these encrypted passwords from the generated YAML files and include them in the psft_customizations.yaml file. However, the passwords for the Linux, AIX, or Solaris users are not prompted for, and therefore the encrypted passwords are not available in any of the generated YAML files.

Note that the successful use of the encrypted password depends on the presence of the public and private keys in the *BASE_DIR/*dpk/puppet directory referred to in the eyaml encrypt command. You cannot save an encrypted password and use it with a deployment with an installation with a different *BASE_DIR*

This procedure assumes that you have carried out the first portion of a customized deployment, and stopped at the question "Do you want to continue with the default initialization?"

See "Completing the DPK Initialization with Customizations," Preparing the Customization Files for Linux, AIX, or Solaris Users and Groups.

To encrypt a password:

1. Open the *BASE_DIR/*dpk/puppet/hiera.yaml file and note the full path to the public and private keys:

   ```
   :pkcs7_private_key: BASE_DIR/dpk/puppet/secure/keys/private_⇒
   key.pkcs7.pem
   :pkcs7_public_key:  BASE_DIR/dpk/puppet/secure/keys/public_key.pkcs7.pem
   ```

2. Run the following command in a terminal window, supplying the paths from the previous step:

   ```
   eyaml encrypt -s "<clear_password>" --pkcs7-private-key=<private_key_⇒
   location> --pkcs7-public-key=<public_key_location> --output=string
   ```

   Note. The double-quotes around the password are required.

   Example for Linux:

   ```
   /opt/puppetlabs/puppet/bin/eyaml encrypt -s "password" --pkcs7-private-⇒
   ```

```
key=/cs1/psft/dpk/puppet/secure/keys/private_key.pkcs7.pem --pkcs7-⇒
public-key=/cs1/psft/dpk/puppet/secure/keys/public_key.pkcs7.pem --⇒
output=string
```

Example for AIX or Solaris:

```
/opt/oracle/puppetlabs/bin/eyaml encrypt -s "password" --pkcs7-private-⇒
key=/cs1/psft/dpk/puppet/secure/keys/private_key.pkcs7.pem --pkcs7-⇒
public-key=/cs1/psft/dpk/puppet/secure/keys/public_key.pkcs7.pem --⇒
output=string
```

3. Copy the encrypted password from the output in the terminal window.

   The encrypted text will be a long single line of letters and numbers. Be sure to copy the text in one unbroken line, with no spaces or line feeds. Here is a truncated representation of an encrypted password:

   ```
   ENC[PKCS7,MIIBeQYJKoZIhvc...................]
   ```

4. Paste the encrypted password in the psft_customizations.yaml file, replacing the text password.

   Again, the encrypted text must be a single line. Also, be sure to retain the indentation in the psft_customizations.yaml file. This is a sample psft_customizations.yaml for a new single user and existing single group:

   ```
   ---
   psft_runtime_user_name: newusr3

   users:
     psft_user:
       name: newusr3
       gid: 35000
       home_dir: /dpk_base/home/userhome
       password: ENC[PKCS7,MIIBeQYJKoZIhvc...................]
       remove: false
   ```

5. Use the psft_customizations.yaml file for deployment with the puppet apply command.

   The DPK deployment will automatically decrypt the password from the psft_customizations.yaml and use it for deployment.

Appendix D

Using the Puppet Hiera YAML Files for Customization

This appendix discusses:

- Understanding the Puppet Hiera YAML Files
- Describing the Puppet Hiera YAML Files

Understanding the Puppet Hiera YAML Files

This appendix includes samples of the Hiera YAML data files delivered with the PeopleSoft DPKs.

The PeopleSoft Profiles modules rely on a fixed layout of the Hiera content. The Profiles modules retrieve data from Hiera in a pre-defined path contextual manner. For this reason, if you change the structure your Profiles will cease to work. You are however encouraged to add, remove and change values in this structure as long as the structural integrity is retained. These changes will reflect the standards of your organization such as where additional component software such as Oracle Tuxedo is installed, the names of AppServer domains, or ports on which PIA listens for incoming HTTP(S) connections.

When you deploy the PeopleSoft DPKs, the Hiera YAML files are installed in the following locations.

- *BASE_DIR/*dpk/puppet/hiera.yaml
- *BASE_DIR/*dpk/puppet/production/data/default.yaml
- *BASE_DIR/*dpk/puppet/production/data/psft_configuration.yaml
- *BASE_DIR/*dpk/puppet/production/data/psft_deployment.yaml
- *BASE_DIR/*dpk/puppet/production/data/psft_unix_system.yaml

To customize your deployment, you must create an additional file named psft_customizations.yaml.

The delivered YAML files and the user-created psft_customizations.yaml file are described in the following sections.

Describing the Puppet Hiera YAML Files

This section discusses:

- Describing the defaults.yaml File
- Describing the psft_configuration.yaml File
- Describing the psft_deployment.yaml File
- Describing the psft_unix_system.yaml File (Linux, AIX, or Solaris Only)

• Describing the psft_customizations.yaml File

Describing the defaults.yaml File

The defaults.yaml file is used by the PeopleTools Puppet profiles modules when creating the runtime configuration particular to the PeopleSoft environment.

```
---
ensure: present
env_type: midtier
tools_version: 8.56.02
domain_type: all
```

Describing the psft_configuration.yaml File

The psft_configuration.yaml file includes PeopleSoft user IDs and passwords.

The DPK setup script encrypts user-supplied passwords and includes them in the generated YAML files. The encrypted text is a long single line of letters and numbers. Be sure to copy the text in one unbroken line, with no spaces or line feeds. This sample includes short strings of text beginning with "ENC" to represent encrypted passwords.

Some of the parameters in this file use Facter, which is part of the Puppet implementation. For example, the function `%{::fqdn}`, which is used for `db_host_name`, is used to discover the fully-qualified domain name of the system and make it available as a variable. The function `%{::rand}`, which is used for `prcs_domain_id`, is used to return a random number.

```
---
db_name:               FS856808
db_user:               USER
db_user_pwd:           ENC[xxxxxxxxxxxxxxxxxxxxxxx]

db_connect_id:         people
db_connect_pwd:        ENC[xxxxxxxxxxxxxxxxxxxxxxx]

domain_user:           "%{hiera('psft_runtime_user_name')}"
ps_config_home:        "C:/Users/%{::env_username}/psft/pt/8.56"
appserver_template:    small
appserver_domain_name: APPDOM
prcs_domain_name:      PRCSDOM
prcs_domain_id:        "PRCS%{::rand}"
report_node_name:      "%{hiera('prcs_domain_id')}"
pia_domain_name:       peoplesoft
pia_site_name:         ps
pia_http_port:         8000
pia_https_port:        8443
jolt_port:             9033
wsl_port:              7000
db_port: 1521
gateway_node_name:     PSFT_LOCAL
pia_gateway_user:      administrator
pia_gateway_user_pwd:  ENC[xxxxxxxxxxxxxxxxxxxxxxx]
webserver_type:        weblogic
```

```
pia_webprofile_name:    PROD
pia_psserver_list:      "%{::fqdn}:%{hiera('jolt_port')}"
report_repository_dir: "%{hiera('ps_config_home')}/psreports"

domain_conn_pwd:
pia_host_name:              "%{::fqdn}"
db_host_name:              "%{::fqdn}"
db_is_rac:                 false
db_service_name:           FS856808
help_uri:                  pt856pbr0
tns_dir:                   "%{hiera('db_location')}"
tns_admin_list:
  "%{hiera('db_name')}":
    db_host:           "%{hiera('db_host_name')}"
    db_port:           "%{hiera('db_port')}"
    db_protocol:       TCP
    db_service_name: "%{hiera('db_service_name')}"

db2_server_list:
  "%{hiera('db_name')}":
    db2_type:          "%{hiera('db_platform')}"
    db2_host:          "%{::fqdn}"
    db2_port:          "%{hiera('db_port')}"
    db2_node:          TCPLNX01
    db2_target_db:     "%{hiera('db_name')}"

mssql_server_list:
  "%{hiera('db_name')}":
    mss_server_name: "%{::fqdn}"
    mss_odbc_name:     "ODBC Driver 11 for SQL Server"

appserver_domain_list:
  "%{hiera('appserver_domain_name')}":
    os_user:           "%{hiera('domain_user')}"
    ps_cfg_home_dir: "%{hiera('ps_config_home')}"
    template_type:    "%{hiera('appserver_template')}"

    db_settings:
      db_name:           "%{hiera('db_name')}"
      db_type:           "%{hiera('db_platform')}"
      db_opr_id:         "%{hiera('db_user')}"
      db_opr_pwd:        "%{hiera('db_user_pwd')}"
      db_connect_id:   "%{hiera('db_connect_id')}"
      db_connect_pwd: "%{hiera('db_connect_pwd')}"

    config_settings:
      Domain Settings/Domain ID:     "%{hiera('appserver_domain_name')}"
      PSAPPSRV/Min Instances:        2
      PSAPPSRV/Max Instances:        2
      PSAPPSRV/Max Fetch Size:       15000
      Security/DomainConnectionPwd: "%{hiera('domain_conn_pwd')}"
      JOLT Listener/Port:            "%{hiera('jolt_port')}"
      JOLT Listener/Address:         0.0.0.0
```

```
      Workstation Listener/Port:     "%{hiera('wsl_port')}"


    feature_settings:
      PUBSUB:          "Yes"
      QUICKSRV:        "No"
      QUERYSRV:        "No"
      JOLT:            "Yes"
      JRAD:            "No"
      WSL:             "Yes"
      DBGSRV:          "No"
      RENSRV:          "No"
      MCF:             "No"
      PPM:             "Yes"
      PSPPMSRV:        "Yes"
      ANALYTICSRV:     "No"
      SERVER_EVENTS:   "Yes"
      DOMAIN_GW:       "No"


prcs_domain_list:
  "%{hiera('prcs_domain_name')}":
    os_user:          "%{hiera('domain_user')}"
    ps_cfg_home_dir:  "%{hiera('ps_config_home')}"

    db_settings:
      db_name:         "%{hiera('db_name')}"
      db_type:         "%{hiera('db_platform')}"
      db_opr_id:       "%{hiera('db_user')}"
      db_opr_pwd:      "%{hiera('db_user_pwd')}"
      db_connect_id:   "%{hiera('db_connect_id')}"
      db_connect_pwd:  "%{hiera('db_connect_pwd')}"

    config_settings:
      Process Scheduler/PrcsServerName: "%{hiera('prcs_domain_id')}"
      Security/DomainConnectionPwd:     "%{hiera('domain_conn_pwd')}"

    feature_settings:
      MSTRSRV:        "Yes"
      APPENG:         "Yes"


pia_domain_list:
  "%{hiera('pia_domain_name')}":
    os_user:                "%{hiera('domain_user')}"
    ps_cfg_home_dir:        "%{hiera('ps_config_home')}"
    gateway_user:           "%{hiera('pia_gateway_user')}"
    gateway_user_pwd:       "%{hiera('pia_gateway_user_pwd')}"
    auth_token_domain:      ".%{::domain}"

    webserver_settings:
      webserver_type:           "%{hiera('webserver_type')}"
      webserver_home:           "%{hiera('weblogic_location')}"
      webserver_admin_user:     system
      webserver_admin_user_pwd: ENC[xxxxxxxxxxxxxxxxxxxxxxxx]
      webserver_admin_port:     "%{hiera('pia_http_port')}"
```

```
            webserver_http_port:        "%{hiera('pia_http_port')}"
            webserver_https_port:       "%{hiera('pia_https_port')}"

        site_list:
          "%{hiera('pia_site_name')}":
              appserver_connections: "%{hiera('pia_psserver_list')}"
              domain_conn_pwd:        "%{hiera('domain_conn_pwd')}"

              webprofile_settings:
                profile_name:          "%{hiera('pia_webprofile_name')}"
                profile_user:          PTWEBSERVER
                profile_user_pwd:      ENC[xxxxxxxxxxxxxxxxxxxxxxxx]

              report_repository_dir: "%{hiera('report_repository_dir')}"

ohs_domain:
    name:                       ohsdom
    os_user:                    "%{hiera('domain_user')}"
    domain_home_dir:            "%{hiera('ps_config_home')}"
    pia_webserver_type:         "%{hiera('webserver_type')}"
    pia_webserver_host:         "%{hiera('pia_host_name')}"
    pia_webserver_port:         "%{hiera('pia_http_port')}"
    node_manager_port:          7500

    webserver_settings:
      webserver_type:           ohs
      webserver_home:           "%{hiera('ohs_location')}"
      webserver_admin_user:     system
      webserver_admin_user_pwd: ENC[xxxxxxxxxxxxxxxxxxxxxxxx]
      webserver_admin_port:     7700
      webserver_http_port:      7740
      webserver_https_port:     7743

component_preboot_setup_list:
  web_profile:
    run_control_id:                     webprofile
    os_user:                            "%{hiera('domain_user')}"

    db_settings:
      db_name:                          "%{hiera('db_name')}"
      db_type:                          "%{hiera('db_platform')}"
      db_opr_id:                        "%{hiera('db_user')}"
      db_opr_pwd:                       "%{hiera('db_user_pwd')}"
      db_connect_id:                    "%{hiera('db_connect_id')}"
      db_connect_pwd:                   "%{hiera('db_connect_pwd')}"

    acm_plugin_list:
      PTWebProfileConfig:
        env.webprofilename:             "%{hiera('pia_webprofile_name')}"
        env.helpurl:                    "http://www.oracle.com/pls/topic⇒
/lookup?id=%CONTEXT_ID%&ctx=%{hiera('help_uri')}"
        env.updateonlycustomproperty:   N
        env.propertyname:               EnablePNSubscriptions
```

```
        env.validationtype:                1
        env.longvalue:                     true

  integration_broker:
    run_control_id:                        intbroker
    os_user:                               "%{hiera('domain_user')}"

    db_settings:
      db_name:                             "%{hiera('db_name')}"
      db_type:                             "%{hiera('db_platform')}"
      db_opr_id:                           "%{hiera('db_user')}"
      db_opr_pwd:                          "%{hiera('db_user_pwd')}"
      db_connect_id:                       "%{hiera('db_connect_id')}"
      db_connect_pwd:                      "%{hiera('db_connect_pwd')}"

    acm_plugin_list:
      PTIBRenameNode:
        env.default_local_node:            "%{hiera('gateway_node_name')}"
        env.app_msg_purge_all_dms:         true

      PTIBConfigureDBNode:
        env.pia_webserver_host:            "%{hiera('pia_host_name')}"
        env.pia_webserver_port:            "%{hiera('pia_http_port')}"
        env.pia_webserver_ssl_port:        "%{hiera('pia_https_port')}"
        env.pia_site_name:                 "%{hiera('pia_site_name')}"
        env.gateway_host:                  "%{hiera('pia_host_name')}"
        env.gateway_port:                  "%{hiera('pia_http_port')}"
        env.gateway_ssl_port:              "%{hiera('pia_https_port')}"
        env.use_ssl_gateway:               false
        env.use_ssl_webserver:             false
        env.default_user_id:               "%{hiera('db_user')}"
        env.default_local_node_pass:       "%{hiera('db_user_pwd')}"
        env.anonymous_default_user_id:     "%{hiera('db_user')}"
        env.configure_wsdl_node:           false

    acm_plugin_order:
      - PTIBRenameNode
      - PTIBConfigureDBNode

  report_distribution:
    run_control_id:                        reportdistribution
    os_user:                               "%{hiera('domain_user')}"

    db_settings:
      db_name:                             "%{hiera('db_name')}"
      db_type:                             "%{hiera('db_platform')}"
      db_opr_id:                           "%{hiera('db_user')}"
      db_opr_pwd:                          "%{hiera('db_user_pwd')}"
      db_connect_id:                       "%{hiera('db_connect_id')}"
      db_connect_pwd:                      "%{hiera('db_connect_pwd')}"

    acm_plugin_list:
      PTProcessSchedulerReportNode:
```

```
        env.distnodename:                       "%{hiera('report_node_name')}"
        env.opsys:                              2
        env.uri_port:                           "%{hiera('pia_http_port')}"
        env.uri_host:                           "%{hiera('pia_host_name')}"
        env.uri_resource:                       "SchedulerTransfer/%{hiera('pia_⇒
site_name')}"
        env.url:                                "http://%{hiera('pia_host_⇒
name')}:%{hiera('pia_http_port')}/psreports/%{hiera('pia_site_name')}"
        env.cdm_proto:                          0

    PTProcessSchedulerServerConfig:
        env.servername:                         "%{hiera('prcs_domain_id')}"
        env.distnodename:                       "%{hiera('report_node_name')}"
        env.heartbeat:                          60
        env.sleeptime:                          15
        env.distid:                             ACM Administrator
        env.distidtype:                         3
        env.prcstype:                           'Application Engine,Data⇒
 Mover,Optimization Engine,SQR Process,SQR Report,COBOL SQL,XML⇒
 Publisher,nVision-Report,nVision-ReportBook,PSJob'
        env.prcscategory:                       Default,LOADCACHE
        env.processtypepriority:                '5,5,5,5,5,5,5,5,5,5'
        env.processtypemaxconcurrent:           '3,1,2,3,3,3,3,5,5,5'
        env.maxconcurrent:                      '5,2'
        env.prcspriority:                       '5,5'
        env.descr:                              Server Configured via ACM
        env.transfermaxretry:                   3
        env.daemonprcsinst:                     0
        env.maxapiaware:                        5
        env.transferinterval:                   60
        env.transferlogfiles:                   1
        env.daemonsleeptime:                    0
        env.daemoncyclecnt:                     0
        env.srvloadbaloptn:                     1
        env.redistwrkoption:                    2
        env.start_hours:                        '0,0,0,0,0,0,0'
        env.start_minutes:                      '0,0,0,0,0,0,0'
        env.day_ofweek:                         '0,1,2,3,4,5,6'
        env.end_hours:                          '23,23,23,23,23,23,23'
        env.end_minutes:                        '59,59,59,59,59,59,59'

    acm_plugin_order:
      - PTProcessSchedulerReportNode
      - PTProcessSchedulerServerConfig

component_preboot_setup_order:
  - web_profile
  - integration_broker
  - report_distribution

component_postboot_setup_list:
  integration_broker:
```

```
        run_control_id:                             intbroker
        os_user:                                    "%{hiera('domain_user')}"

        db_settings:
          db_name:                                  "%{hiera('db_name')}"
          db_type:                                  "%{hiera('db_platform')}"
          db_opr_id:                                "%{hiera('db_user')}"
          db_opr_pwd:                               "%{hiera('db_user_pwd')}"
          db_connect_id:                            "%{hiera('db_connect_id')}"
          db_connect_pwd:                           "%{hiera('db_connect_pwd')}"

        acm_plugin_list:
          PTIBActivateDomain:
            domain.activate_retry_count:     10
            domain.activate_wait_time:       10

          PTIBConfigureGatewayNodes:
            env.gateway_host:                "%{hiera('pia_host_name')}"
            env.gateway_port:                "%{hiera('pia_http_port')}"
            env.gateway_ssl_port:            "%{hiera('pia_https_port')}"
            env.use_ssl_gateway:             false
            env.default_local_node:          "%{hiera('gateway_node_name')}"
            env.gateway_user:                "%{hiera('pia_gateway_user')}"
            env.gateway_password:            "%{hiera('pia_gateway_user_⇒
pwd')}"
            env.ib_appserver_host:           "%{::fqdn}"
            env.ib_jolt_port:                "%{hiera('jolt_port')}"
            env.ib_node_proxy_userid:        "%{hiera('db_user')}"
            env.ib_node_proxy_password:      "%{hiera('db_user_pwd')}"
            env.tools_release:               "%ToolsRelease"
            env.ib_appserver_domain_password: "%{hiera('domain_conn_pwd')}"
            env.ib_set_as_default_node:      true

          PTIBConfigureGatewayProperties:
            env.gateway_keystore_password:   "%{hiera('pia_gateway_user_⇒
pwd')}"

        acm_plugin_order:
          - PTIBActivateDomain
          - PTIBConfigureGatewayNodes
          - PTIBConfigureGatewayProperties
```

Describing the psft_deployment.yaml File

The psft_deployment.yaml file provides options for deployment components, such as installation locations for Oracle Tuxedo and the Oracle Database client.

```
---
peoplesoft_base: C:/psft

dpk_location:      C:/psft/dpk
archive_location: "%{hiera('dpk_location')}/archives"
```

```
pt_location:        "%{hiera('peoplesoft_base')}/pt"
db_location:        "%{hiera('peoplesoft_base')}/db"
db_platform:        ORACLE
setup_ohs:          false

unicode_db:         true
db_type:            DEMO
install_type:       FRESH

ps_home_location:        "%{hiera('pt_location')}/ps_home8.56.02"
inventory_location:      "%{hiera('db_location')}/oraInventory"
oracle_server_location:  "%{hiera('db_location')}/oracle-server/12.1.0.2"
jdk_location:            "%{hiera('pt_location')}/jdk1.8.0_xx"
weblogic_location:       "%{hiera('pt_location')}/bea"
tuxedo_location:         "%{hiera('pt_location')}/bea/tuxedo"
ohs_location:            "%{hiera('pt_location')}/bea/ohs"

ps_home:
  db_type:     "%{hiera('db_platform')}"
  unicode_db: "%{hiera('unicode_db')}"
  location:    "%{hiera('ps_home_location')}"

inventory:
  location: "%{hiera('inventory_location')}"

oracle_server:
  listener_name: psft_listener
  listener_port: "%{hiera('db_port')}"
  location: "%{hiera('oracle_server_location')}"

jdk:
  location: "%{hiera('jdk_location')}"

weblogic:
  location: "%{hiera('weblogic_location')}"

tuxedo:
  location: "%{hiera('tuxedo_location')}"

ohs:
  location: "%{hiera('ohs_location')}"


psft_db_location: "%{hiera('db_location')}/oradata/%{hiera('db_name')}"
psft_db:
  type: qedmo
  location: "%{hiera('psft_db_location')}"
```

Describing the psft_unix_system.yaml File (Linux, AIX, or Solaris Only)

This file is used to set up OS groups, OS users, sysctl parameters and ulimit parameters on a Linux, AIX, or Solaris system.

```
---
psft_runtime_group_name:     psft
psft_app_install_group_name: appinst
oracle_install_group_name:   oinstall
oracle_runtime_group_name:   dba

groups:
  psft_runtime_group:
    name:      "%{hiera('psft_runtime_group_name')}"
  app_install_group:
    name:      "%{hiera('psft_app_install_group_name')}"
  oracle_install_group:
    name:      "%{hiera('oracle_install_group_name')}"
    remove:    false
  oracle_runtime_group:
    name:      "%{hiera('oracle_runtime_group_name')}"
    remove:    false

psft_user_pwd:    password
oracle_user_pwd: password
user_home_dir:    /home

psft_install_user_name:     psadm1
psft_runtime_user_name:     psadm2
psft_app_install_user_name: psadm3
oracle_user_name:           oracle2
psft_es_user_name:          esadm1

users:
  tools_install_user:
    name:      "%{hiera('psft_install_user_name')}"
    gid:       "%{hiera('oracle_install_group_name')}"
    groups:    "%{hiera('psft_runtime_group_name')}"
    expiry:    absent
    home_dir: "%{hiera('user_home_dir')}/%{hiera('psft_install_user_⇒
name')}"
    password: "%{hiera('psft_user_pwd')}"
  psft_runtime_user:
    name:      "%{hiera('psft_runtime_user_name')}"
    gid:       "%{hiera('oracle_install_group_name')}"
    groups:    "%{hiera('psft_runtime_group_name')}"
    expiry:    absent
    home_dir: "%{hiera('user_home_dir')}/%{hiera('psft_runtime_user_⇒
name')}"
    password: "%{hiera('psft_user_pwd')}"
  app_install_user:
    name:      "%{hiera('psft_app_install_user_name')}"
    gid:       "%{hiera('psft_app_install_group_name')}"
    groups:    "%{hiera('psft_runtime_group_name')}"
    expiry:    absent
    home_dir: "%{hiera('user_home_dir')}/%{hiera('psft_app_install_user_⇒
name')}"
```

```
        password: "%{hiera('psft_user_pwd')}"
    oracle_user:
      name:     "%{hiera('oracle_user_name')}"
      gid:      "%{hiera('oracle_install_group_name')}"
      groups:   "%{hiera('oracle_runtime_group_name')}"
      expiry:   absent
      home_dir: "%{hiera('user_home_dir')}/%{hiera('oracle_user_name')}"
      password: "%{hiera('oracle_user_pwd')}"
    es_user:
      name:     "%{hiera('psft_es_user_name')}"
      gid:      "%{hiera('oracle_install_group_name')}"
      groups:   "%{hiera('psft_runtime_group_name')}"
      expiry:   absent
      home_dir: "%{hiera('user_home_dir')}/%{hiera('psft_es_user_name')}"
      password: "%{hiera('psft_user_pwd')}"

setup_samba:      true
setup_sysctl:     true
setup_services:   true

services_lock_dir: '/var/lock/subsys'
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'

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
```

This table includes the default and allowable values for each parameter:

Parameter	Description	Default Value	Usage
users: tools_install_user: name	PeopleTools user name	psadm1	Any string that obeys the Linux/AIX/Solaris standards for user names.
users: tools_install_user: gid	PeopleTools Global ID	oinstall	Any string that obeys the Linux/AIX/Solaris standards for global IDs.
users: tools_install_user: groups	PeopleTools user group name	Psft	Any string that obeys that obeys the Linux/AIX/Solaris standard for group names.
users: tools_install_user: expiry	PeopleTools user password expiration setting	absent	The allowed values are: • present • absent
users: tools_install_user: home_dir	PeopleTools user home directory	/home/psadm1	Any directory path
users: tools_install_user: password	PeopleTools user password	*password*	Change the password to match your organization's security rules. See "Using and Maintaining the PeopleSoft Environment," Using the PeopleSoft Installation.
users: psft_runtime_user: name	PeopleSoft runtime user name	psadm2	Any string that obeys the Linux/AIX/Solaris standards for user names
users: psft_runtime_user: gid	PeopleSoft runtime global ID	oinstall	Any string that obeys the Linux/AIX/Solaris standards for global IDs.
users: psft_runtime_user: groups	PeopleSoft runtime group name	Psft	Any string that obeys the Linux/AIX/Solaris standards for group names.
users: psft_runtime_user: expiry	PeopleSoft runtime password expiration setting	absent	The allowed values are: • present • absent
users: psft_runtime_user: home_dir	PeopleSoft runtime user home directory	/home/psadm2	Any directory path

Parameter	Description	Default Value	Usage
users: psft_runtime_user: password	PeopleSoft runtime user password	*password*	Change the password to match your organization's security rules. See "Using and Maintaining the PeopleSoft Environment," Using the PeopleSoft Installation.
users: app_install_user: name	PeopleSoft Application user name	psadm3	Any string that obeys the Linux/AIX/Solaris standards for user names
users: app_install_user: gid	PeopleSoft Application global id	appinstall	Any string that obeys the Linux/AIX/Solaris standards for global IDs
users: app_install_user: groups	PeopleSoft Application group name	psft	Any string that obeys the Linux/AIX/Solaris standards for group names
users: app_install_user: expiry	PeopleSoft Application user password expiration setting	absent	Absent is the only allowed value.
users: app_install_user: home_dir	PeopleSoft Application home directory	/home/psadm3	Any directory path
users: app_install_user: password	PeopleSoft Application user password	*password*	Change the password to match your organization's security rules. See "Using and Maintaining the PeopleSoft Environment," Using the PeopleSoft Installation.
users: oracle_user: name	Oracle Database user name	oracle	Any string that obeys the Linux/AIX/Solaris standards for user names
users: oracle_user: gid	Oracle Database global ID	oinstall	Any string that obeys the Linux/AIX/Solaris standards for global IDs
users: oracle_user: groups	Oracle Database group name	dba	Any string that obeys the Linux/AIX/Solaris standards for group names
users: oracle_user: expiry	Oracle Database password expiration setting	absent	The allowed values are: • present • absent

Parameter	Description	Default Value	Usage
users: oracle_user: home_dir	Oracle Database home directory	/home/oracle	Any directory path
users: oracle_user: password	Oracle Database password	*password*	Change the password to match your organization's security rules. See "Using and Maintaining the PeopleSoft Environment," Using the PeopleSoft Installation.
setup_samba	Determines whether to create a Samba shared drive folder for the PeopleTools Client deployment. **Note.** This is applicable only on Linux.	true	The allowed values are: • True — The Samba shared drive folder is created as part of the deployment. • False— No Samba shared drive folder is created. It is the user's responsibility to manually create the Samba shared drive folder and extract the PeopleTools Client DPK for deployment.
setup_sysctl	See your Linux documentation for information on sysctl.	true	true or false
services_lock_dir	See your Linux documentation.	/var/lock/subsys	
sysctl: kernel.msgmnb	The msgmnb tunable specifies the maximum allowable total combined size of all messages queued in a single System V IPC message queue at one time, in bytes.	65538	Value that obeys the kernel standards.
sysctl: kernel.msgmni	The msgmni tunable specifies the maximum number of system-wide System IPC message queue identifiers (one per queue	1024	Value that obeys the kernel standards.

Parameter	Description	Default Value	Usage
sysctl: kernel.msgmax	The msgmax tunable specifies the maximum allowable size of any single message in a System V IPC message queue, in bytes. msgmax must be no larger than msgmnb (the size of the queue).	65536	Value that obeys the kernel standards.
sysctl: kernel.shmmax	This parameter can be used to query and set the run-time limit on the maximum System V IPC shared memory segment size that can be created. Oracle recommends 4 GB for optimum system performance.	68719476736	Value that obeys the kernel standards.
sysctl: kernel.shmall	This parameter represents the system-wide limits on the total number of pages of System V IPC shared.	4294967296	Value that obeys the kernel standards.
sysctl: kernel.core_uses_pid	The default coredump filename is "core". By setting core_uses_pid to 1, the coredump filename becomes core.PID. If core_pattern does not include "%p" (default does not) and core_uses_pid is set, then .PID will be appended to the filename.	1	Value that obeys the kernel standards.
sysctl: net.ipv4.tcp_keepalive_time	The net.ipv4.tcp_keepalive_time parameter is the time before the first keepalive packet is sent out.	90	Value that obeys the kernel standards.
sysctl: net.ipv4.tcp_timestamps	Enable timestamps	1	Value that obeys the kernel standards.
sysctl: net.ipv4.tcp_window_scaling	Enable window scaling	1	Value that obeys the kernel standards.

Parameter	Description	Default Value	Usage
sysctl: net.ipv4.ip_local_port_range	Defines the local port range that is used by TCP and UDP to choose the local port. The first number is the first, the second the last local port number. If possible, it is better these numbers have different parity (one even and one odd values).	'10000 65500'	Value defined by the kernel limits.
ulimit: group: hard.nofile	Maximum number of open files	65536	Value defined by the kernel limits.
ulimit: group: soft.nofile	Maximum number of open files	65536	Value defined by the kernel limits.
ulimit: group: hard.nproc	Maximum number of processes	65536	Value defined by the kernel limits.
ulimit: group: soft.nproc	Maximum number of processes	65536	Value defined by the kernel limits.
ulimit: group: hard.core	Limits the core file size (KB)	unlimited	Value defined by the kernel limits.
ulimit: group: soft.core	Limits the core file size (KB)	unlimited	Value defined by the kernel limits.
ulimit: group: hard.memlock	Maximum locked-in-memory address space (KB)	500000	Value defined by the kernel limits.
ulimit: group: soft.memlock	Maximum locked-in-memory address space (KB)	500000	Value defined by the kernel limits.
ulimit: group: hard.stack	Maximum stack size (KB)	102400	Value defined by the kernel limits.
ulimit: group: soft.stack	Maximum stack size (KB)	102400	Value defined by the kernel limits.
user: hard.nofile	Maximum number of open files	131072	Value defined by the kernel limits.
user: soft.nofile	Maximum number of open files	131072	Value defined by the kernel limits.
user: hard.nproc	Maximum number of processes	131072	Value defined by the kernel limits.

Parameter	Description	Default Value	Usage
user: soft.nproc	Maximum number of processes	131072	Value defined by the kernel limits.
user: hard.core	Limits the core file size (KB)	unlimited	Value defined by the kernel limits.
user: soft.core	Limits the core file size (KB)	unlimited	Value defined by the kernel limits.
user: hard.memlock	Maximum locked-in memory address space (KB)	500000	Value defined by the kernel limits.
user: soft.memlock	Maximum locked-in memory address space (KB)	500000	Value defined by the kernel limits.

Describing the psft_customizations.yaml File

To customize your environment, create a new file called psft_customizations.yaml, and copy the entire section with the modified parameters from one of the other PeopleSoft YAML files into the psft_customizations.yaml file. During the DPK deployment, any parameters listed in the psft_customizations.yaml file are accessed first. If the parameters are not specified in the psft_customizations.yaml file, they are taken from the default parameters in the other YAML files, in the order listed in hiera.yaml. Do not modify the original parameter names, and retain the order and indentation of the sections that you copy.

To use the customization file:

1. Create the file using a standard editing tool, such as Notepad on Microsoft Windows or vi on Linux.

    Be sure to include three single dashes at the top, as shown in the examples of the other YAML files in this section.

2. Save it with the name psft_customization.yaml in the same directory as the other psft_*.yaml files

3. Copy the sections that you want to modify from one of the delivered YAML files into psft_customizations.yaml, modify as necessary, and save.

Using the psft_customizations.yaml file in this way allows you to retain the customizations when applying new PeopleSoft DPKs.

Appendix E

Learning About the PeopleSoft Deployment Process

This appendix discusses:

- Understanding the PeopleSoft Deployment Framework
- Understanding PeopleSoft Components
- Understanding Puppet and the PeopleSoft Puppet Modules
- Reviewing the Deployment Packages
- Reviewing the PeopleSoft PeopleTools Patch DPKs
- Reviewing the PeopleTools Client DPK

Understanding the PeopleSoft Deployment Framework

Oracle recommends that you use the PeopleSoft Deployment Packages (DPKs) to install and configure your PeopleSoft environment. DPKs offer out-of-the-box functionality that greatly enhances the installation and configuration of your PeopleSoft environment, which is not available with the standard VCD installation.

DPKs allow fast deployment of a PeopleSoft environment on any hardware platform — physical hardware ("bare metal") or virtual. The DPKs allow you to skip the manual steps associated with the following:

- Gathering the necessary installation programs
- Installing third-party products such as Oracle Tuxedo and WebLogic and the latest patches (CPUs)
- Installing Application Home (PS_APP_HOME) (for PI DPKs)
- Installing both PeopleTools and the PeopleTools patch binaries
- Configuring the PeopleSoft domains

The DPKs can be installed on Oracle Linux and Red Hat Enterprise Linux, and on Microsoft Windows platforms supported by Oracle for PeopleSoft systems.

The DPKs include a setup script that deploys a default instance of each of the PeopleSoft mid-tier domains— PeopleSoft Pure Internet Architecture (PIA), Application Server and Process Scheduler domains. These domains are fully functional out-of-the-box. However, it is assumed that you will need to make changes to these deployments. These changes will be required to reflect your organizational standards, preferences, and customizations. DPKs set up your infrastructure for you—"infrastructure as a code," which allows you to customize the environments to produce various topologies to serve different functionality, such as test environments, environments for performance testing or development environments, and so on. Notably, these customizations can be retained across maintenance application (upgrades, patches, and updates).

The best practice for environments deployed with the DPKs is to modify the environments using the methods provided by the PeopleSoft customizations. With the delivered customization method you have the ability to safely modify a wide variety of installation locations, integration definitions, and other configuration settings, while at the same time ensuring that the customizations are retained after applying software patches.

See Understanding Puppet and the PeopleSoft Modules

See the sections on customizing a PeopleSoft environment in the chapters on deploying the DPKs.

Using DPKs to create a PeopleTools middle-tier environment (Application Server, Process Scheduler, and PIA) typically takes less than 15 minutes. This allows for dynamic scaling and quick patching. With such fast creation of the middle-tier components, you can optimize hardware resources by creating middle-tier virtual machines (VMs) on demand. These VMs can be removed to release the resources when not in use, yet be quickly recreated as needed.

DPKs are integrated with PeopleSoft Automated Configuration Management (ACM) to provide PeopleSoft application configuration using plug-ins delivered by the PeopleSoft Application. For example, for all deployed environments, the Integration Broker and Gateway are set with ACM plug-ins.

DPKs allow for fast environment cloning. After creating an environment clone, you can use PeopleSoft ACM plug-ins to modify the configuration settings, such as those for Integration Broker, from those used in the original environment, to those required for the cloned environment, during the deployment of the middle-tier using PeopleTools DPK. DPKs can be used, to easily and effectively, create a fresh clone from your existing environments. Using database snap cloning, an environment clone can be achieved in less than 30 minutes.

Understanding PeopleSoft Components

Here are brief descriptions of some of the terms referenced in this documentation for components included in a PeopleSoft environment. The components included for each deployment depend upon the types of DPKs downloaded and method used to deploy them. PeopleSoft components, including PeopleSoft Pure Internet Architecture (PIA), application server and Process Scheduler, are described in the PeopleSoft PeopleTools product documentation.

See the PeopleTools System and Server Administration product documentation for an explanation of PeopleSoft architecture fundamentals.

- PeopleSoft Pure Internet Architecture (PIA)

  This is the Web Server component of the PeopleSoft system.

- Application server and Process Scheduler

  The application server acts as the business logic engine of the PeopleSoft system. The Process Scheduler is responsible for processing scheduled tasks or jobs that typically do not happen during the course of a user's browser request.

- PeopleSoft application database

  PeopleSoft applications refers to Oracle PeopleSoft products such as PeopleSoft Customer Relationship Management (CRM), PeopleSoft Enterprise Learning Management (ELM), PeopleSoft Financials and Supply Chain Management (FSCM), PeopleSoft Human Capital Management (HCM), and PeopleSoft Interaction Hub.

- Mid-tier components

  This documentation uses the term "mid-tier" to refer to PeopleSoft Application Server, Process Scheduler, and PIA, and the software required to deploy them, including Oracle Tuxedo and Oracle WebLogic.

- AppBatch components

  This documentation uses the term "AppBatch" to refer to the Application Server and Process Scheduler server.

Understanding Puppet and the PeopleSoft Puppet Modules

This section discusses:

- Understanding Puppet
- Understanding Hiera
- Understanding Puppet Modules
- Understanding How the PeopleSoft DPKs Use Puppet
- Understanding PeopleSoft Puppet Component Modules
- Understanding PeopleSoft Puppet Profiles and Roles Modules
- Understanding Puppet Third-Party Modules

Understanding Puppet

The DPKs are delivered with the PeopleSoft Puppet modules, which are initialization and management scripts based upon the open-source Puppet software. The PeopleSoft Puppet modules can be used to customize and control the PeopleSoft environments deployed from the DPKs. This section includes a brief introduction to Puppet. For detailed information, see the documentation on the Puppet Labs Web site.

See Puppet Labs Documentation, http://docs.puppetlabs.com.

Puppet is a tool designed to manage the configuration of UNIX-like and Microsoft Windows systems declaratively. The user describes system resources and their state, either using Puppet's declarative language or a Ruby DSL (domain-specific language). This information is stored in files called "Puppet manifests." Puppet discovers the system information and compiles the Puppet manifests into a system-specific catalog containing resources and resource dependency, which are applied against the target systems. Any actions taken by Puppet are then reported. Puppet consists of a custom declarative language to describe system configuration, which can be either applied directly on the system, or compiled into a catalog and distributed to the target system with a client–server paradigm (using a REST API), and the agent uses system-specific providers to enforce the resource specified in the manifests. The resource abstraction layer enables administrators to describe the configuration in high-level terms, such as users, services, and packages without the need to specify OS specific commands (such as rpm, yum, or apt).

Puppet has been chosen by Oracle as a solution for provisioning PeopleSoft environments for the following reasons:

- Community

  Puppet has a significant presence in the configuration management marketplace and a strong user community. This community contributes to improving and testing Puppet core functionality.

- Open source and Enterprise solutions

  Puppet Open Source is sufficiently rich in features to meet the requirements of Oracle for orchestrating the provisioning of large numbers of PeopleSoft environments in a fully automated fashion.

- Lightweight

  Puppet can be run in standalone (master-less) mode and therefore does not require complex steps to get started.

- Data and code separation

  Puppet encourages clean separation of the data that describes your environment and the way in which it is provisioned.

- Component modules

    The creation of Application Component modules allows vendors such as Oracle to create lightweight, isolated modules that can be independently obtained and plugged into existing Puppet environments.

- Role isolation — separation of infrastructure instructions and application instructions

    This allows your system administrators to provision the OS independently of the Application steps. Puppet facilitates this role separation and allows the administrators to focus on the operational needs of the environments.

- OS platform support

    Puppet agent can run on all supported PeopleSoft OS platforms.

- Virtualization platform support

    Virtualization and cloud vendors are offering direct support for provisioning environments using Puppet. For example, OpenStack and Amazon EC2 both document how to use Puppet in their infrastructure.

Understanding Hiera

Hiera is a feature of Puppet that allows data to be stored and subsequently queried from any number of file formats ("back-end" structures). These structures may be in a number of different formats, the most preferable being YAML, which is a readable properties file format with hierarchical structure support. The value of Hiera to the PeopleSoft modules is that it allows separation of the data from the code that performs the actual system configuration. In the context of a PeopleSoft environment, the database connectivity information and any other custom configuration settings to be applied to the Application Server domain are placed in a Hiera data file. Any number of domains with varying configuration settings can be represented in a Hiera data file. Hiera data files can be associated with a particular environment such as Dev, Test or Production. A Production Hiera data file may contain connectivity information for a single database with a number of Application Server domains. A Dev Hiera data file on the other hand may only contain a single Application Server domain and may have specific configuration features enabled such as the Work Station Listener process for three-tier PeopleSoft connections. This ability to define all abstractions of the PeopleSoft environment in Hiera completely decouples the runtime characteristics of your environment from the code that actually creates it. This is a very powerful feature.

Understanding Puppet Modules

A Puppet module can be thought of as a self-contained bundle of code that implements a related set of functionality. Developers write custom modules and combine these with pre-built modules from the Puppet Labs repository, Puppet Forge. Modules are how Puppet finds the classes and types it can use — it automatically loads any class, defined type, or custom types stored in its modules. A module can be thought of as being somewhat like an EAR file in the sense that it is a container or archive that stores a self-contained archive of functionality. A Puppet module contains some of the following:

- Puppet source files — manifests with the .pp extension, which implement the functionality exhibited by the module

- Test manifests that allow your module to be tested in an isolated fashion

- Library of types and providers

- Template files into which custom values may be substituted

- Meta-data file that describes the version and purpose of the modules

Understanding How the PeopleSoft DPKs Use Puppet

The PeopleSoft DPKs use Puppet to automate the process of deploying and configuring a PeopleSoft environment. Oracle has created custom modules and types to deploy and configure a PeopleSoft environment. These modules make use of pre-built modules from Puppet Forge. All the PeopleSoft developed modules and types along with the pre-built modules are packaged with PeopleTools server DPKs as well as PeopleSoft application DPKs. In addition, the PeopleSoft and PeopleTools DPKs package Hiera YAML files with default data values that can be used to set up a fully working PeopleSoft environment out-of-the-box.

The modules delivered with the PeopleSoft DPKs adhere to the following Puppet design patterns:

- Use Hiera as an external data store

  See Understanding Hiera.

- Do not use Hiera at any point in component modules

- Apply the Puppet Roles and Profiles pattern

  See Understanding PeopleSoft Puppet Profiles and Roles Modules.

- Ensure idempotency in component modules so that your modules create the same result regardless of the initial state of the underlying resource

- Follow the module naming and documentation guidelines from Puppet Labs.

PeopleSoft Puppet modules are broadly divided into the following three categories. These modules are described in more detail in the following sections.

- Component Modules

  - Atomic — building block modules that work on a single abstraction

  - Low-level — contain minimal dependencies on other modules

- Profiles Modules

  - Assemble data from Hiera to be used for configuring the hosts

  - Do not operate on single artifacts such as files or users

- Roles Modules

  Focus on operational responsibilities of the hosts

See Modules Fundamentals on the Puppet Labs documentation Web site, http://docs.puppetlabs.com/puppet/latest/reference/modules_fundamentals.html.

Understanding PeopleSoft Puppet Component Modules

Component modules are a specific sub-category of Puppet modules. They typically deal with a specific technical abstraction. The PeopleSoft DPKs are delivered with such building-block component modules to free you from needing to create platform-specific shell scripts to automate environment provisioning (deployment and configuration). These scripts typically invoke the Oracle Universal Installer (OUI) for installing components like Oracle WebLogic, Oracle Database Server or Database Client, and Oracle Tuxedo. The scripts use PeopleSoft utilities like PSADMIN, PeopleSoft Application Engine (psae) and other low-level utilities for configuring a PeopleSoft environment.

All the PeopleSoft Puppet component modules are implemented as custom resource types using Puppet Types and Providers paradigm. This paradigm provides a powerful way to extend Puppet by separating the interface and implementation of each resource managed by Puppet.

The PeopleSoft Puppet component modules are packaged as two separate modules:

- pt_deploy — This component module contains PeopleSoft custom resource types for deploying various PeopleSoft components.

- pt_config — This component module contains PeopleSoft custom resource types for configuring various parts of a PeopleSoft environment.

Understanding PeopleSoft Puppet Profiles and Roles Modules

Roles and Profiles are considered to be Puppet modules that contain manifests that operate at a higher level of abstraction than the component modules which act directly on manageable system components. Understanding the purpose of Roles and Profiles modules is crucial when taking full advantage of Puppet in your PeopleSoft architecture. Roles and Profiles refer to an established pattern in the Puppet community for increasing the reusability of modules. This pattern encourages the separation of how Application components are configured from which components should be configured. The use of this pattern is fundamental to the way in which the PeopleSoft component modules have been created.

Note that the word "roles" and "profiles" as used in the context of Puppet development have quite different meanings than the accepted definitions.

See The Puppet Labs installation guide, https://docs.puppetlabs.com/guides/install_puppet/pre_install.html.

The primary purpose of the Roles and Profiles pattern is to isolate and abstract functionality along the separate lines of business and technical perspectives. In such cases we want to isolate the description of an environment from the way in which it is implemented while retaining a relationship between these abstractions. For example, consider a PeopleSoft deployment comprised of three distinct pillars: PeopleSoft Human Capital Management 9.1, PeopleSoft Human Capital Management 9.2 and PeopleSoft Financials 9.2, all in production. There is a Dev and Test environment for each of these PeopleSoft application pillars.

Now consider the business and technical perspectives on this system. The business managers see the systems as being independent of one another servicing different business functions. The technical team sees them as variants of the same tech stack, as all of the systems contain JEE servers, databases, firewalls and so on. In the PeopleSoft DPK implementation, the business perspectives are associated with Puppet roles, and the technical perspectives with profiles.

The Roles and Profiles pattern implemented in PeopleSoft DPKs is comprised of two separate modules:

- pt_role — This module contains pre-defined roles that can be assigned to an host.

- pt_profile — This module contains PeopleSoft classes and defined types to set up various aspects of a PeopleSoft environment. The classes and defined types in this module interact with Hiera to access the data, and call in the low-level custom types to deploy and configure the PeopleSoft environment.

Understanding Puppet Third-Party Modules

The PeopleSoft DPKs are delivered with modules made available to the Puppet community through the Puppet Forge. These external modules are required by the PeopleSoft component modules in order to efficiently implement their functionality. This helps the developer to write cleaner Puppet code and not have to rewrite code that has already been implemented elsewhere. The following are external modules that are included as dependencies by the PeopleSoft component modules:

- stdlib — provides data structure and string manipulation capabilities

- concat — allows construction of files from multiple ordered fragments of text

- easy_type — provides an easy way to build custom Puppet resource types

- sysctl — supports the modification of kernel parameters

Task E-1: Reviewing the Deployment Packages

This section discusses:

• Understanding Deployment Package Types

• Defining the Deployment Packages

Understanding Deployment Package Types

The PeopleSoft DPKs are the delivery method for many PeopleSoft installation, upgrade, and maintenance products. Depending upon the usage, you may see a variety of terms used in connection with the DPKs. Some of the products mentioned in this documentation include:

• A DPK is a zip file which includes specific PeopleSoft functionality.

   The PeopleSoft products delivered as DPKs include one or more zip files numbered sequentially. Normally you need to extract only the first zip file to obtain documentation and scripts. The DPK setup script will extract the rest. See the appropriate documentation for details.

• PeopleTools patches are provided to update the PeopleSoft PeopleTools software.

   A PeopleTools patch is comprised of four DPKs for AIX, Linux, Oracle Solaris, and Microsoft Windows operating systems. For other operating systems, the PeopleTools patches are delivered in the traditional manner, not as DPKs.

   See "Applying PeopleTools Patches Using DPKs."

   See PeopleSoft PeopleTools Patches Home Page, My Oracle Support, Doc ID 2062712.2.

   The DPKs delivered for the PeopleTools patches can also be used to install the PeopleSoft mid-tier components for an existing database.

• PeopleSoft Update Images (PIs) are used for applying maintenance for PeopleSoft applications (Campus Solutions, CRM, ELM, Interaction Hub, FSCM, and HCM).

   A PI is comprised of eleven or more DPKs. The PIs are available for Microsoft Windows, Linux, and for VirtualBox.

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

   These images can also be used for carrying out a fresh installation, with some differences in the installation procedure. When used for fresh installation, the documentation uses the term PeopleSoft Application Images.

   See Oracle's PeopleSoft PeopleTools 8.56 Home Page, My Oracle Support, Doc ID 2259140.2.

• PeopleSoft Upgrade Source Images can be used during a PeopleSoft application upgrade as a demo database.

   The Upgrade Source Images are typically comprised of eleven DPKs, and are available for Microsoft Windows, Linux, and VirtualBox. Note that the Upgrade Source Images and the PIs are delivered on different schedules, and are not interchangeable.

   See PeopleSoft Upgrade Source Images Home Page, My Oracle Support, Doc ID 1552580.1.

Task E-1-1: Defining the Deployment Packages

This documentation discusses the PeopleSoft PeopleTools DPKs. Here are some of the other types of DPKs that are available to use in installing PeopleSoft software, with references for further information.

• DPK Setup Zip file

The first zip file that you download will include a setup folder with the scripts needed to automate the deployment process and documentation. You follow the instructions in this documentation to extract the first zip file to obtain the setup script to begin the installation. The subsequent zip files are extracted during the deployment. Each zip file includes a manifest that lists the software versions included in the DPK.

• PeopleSoft PeopleTools server DPKs

Two PeopleSoft PeopleTools server DPKs are included with both the PeopleSoft PeopleTools patches, and with the PeopleSoft application images.

• PeopleSoft PeopleTools Client DPK

The PeopleSoft PeopleTools Client DPK for the current release is included with the PeopleTools patches. The PeopleSoft application images include PeopleTools Client DPK for the last three releases.

• PeopleSoft application DPKs

Three PeopleSoft application DPKs are included with the PeopleSoft application images. They include the following features:

   • PeopleSoft application installation directory *(PS_APP_HOME)*

   • PeopleSoft Update Manager data files *(PI_HOME)*

   • Application database (Oracle pluggable database)

• Oracle Database Client DPK

The Oracle Database Client (ODC) DPK is included with the PeopleSoft application images.

• Oracle Database Server DPK

The Oracle Database Server (ODS) DPK is included with the PeopleSoft application images. It is used for full-tier or database tier deployments.

• Elasticsearch DPK

The Elasticsearch DPK deploys open-source software used for the PeopleSoft Search Framework. The Elasticsearch DPKs for Linux and Microsoft Windows are posted on My Oracle Support. You can also obtain the Elasticsearch DPKs in the PeopleSoft PeopleTools for PSFT Application products installation files from Oracle Software Delivery Cloud.

Note. Elasticsearch is the supported search engine for PeopleSoft 9.2 applications on PeopleSoft PeopleTools 8.56.

See PeopleTools Elasticsearch Home Page, My Oracle Support, Doc ID 2205540.2.

Task E-2: Reviewing the PeopleSoft PeopleTools Patch DPKs

To apply a PeopleTools patch, including the PeopleSoft PeopleTools server and client, on Microsoft Windows and Linux physical hardware and virtual operating systems, use the PeopleSoft PeopleTools patch DPKs. The DPKs replace the patch delivery mechanism used in previous releases for Microsoft Windows and Linux operating systems. For patch application on other operating systems, download the patch and follow the instructions included in the Readme file, as in previous releases.

For more information, review the various scenarios for using the PeopleTools Patch DPKs later in this documentation.

See "Applying PeopleTools Patches Using DPKs."

The PeopleSoft PeopleTools patch DPKs set up a mid-tier environment to connect to an existing PeopleSoft database. You should be prepared to supply information about the existing database before applying the patch.

This table describes the usage, requirements, and results associated with using the PeopleTools Patch DPKs:

Usage	• Install PeopleSoft PeopleTools Server using the mid-tier option on Microsoft Windows or Linux, and connect to an existing database to apply a PeopleTools patch.
	• Install the PeopleSoft PeopleTools Client on a Microsoft Windows host.
	Note. This usage can be part of the patch application or carried out separately.
	As with a traditional installation, you may not need to perform a separate installation of the PeopleTools Client if your environment is installed on a Microsoft Windows host. If your environment is installed on Linux, you need to install the PeopleTools Client on a Microsoft Windows host to set up Change Assistant.
	• Install the new release for PeopleTools-only upgrade
	If you are upgrading to PeopleSoft PeopleTools 8.56 on Microsoft Windows or Linux, you can use the PeopleTools 8.56.01 or higher patch DPK to install the new release. The PeopleTools patch DPKs contain the upgrade documentation, upgrade template for Change Assistant, and files. Follow the instructions in the upgrade getting started guide, included in the DPK.
	See *Getting Started on Your PeopleTools Upgrade*
	• Install selected PeopleSoft components
	You can choose to deploy only mid-tier components, or only the *PS_HOME* installation directory, for example, using the PeopleTools DPKs.
	See Reviewing the Options for Selective Deployment.
Requirements	• The latest PeopleTools DPKs (4 zip files)
	• Database specifications for the customer target database
	• Microsoft Windows or Linux hosts that are supported for PeopleTools servers, such as database, application server, Process Scheduler.

PeopleTools Server installation

- *PS_HOME*
- *PS_CFG_HOME*

Note. The PIA installation is found under *PS_CFG_HOME*.

- Oracle Tuxedo
- Oracle WebLogic
- Oracle database Server and Client
- Microsoft Windows DPKs include Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries.
- PeopleTools utilities and scripts including:
  - *PS_HOME/*appserv/PSADMIN.exe
  - *PS_HOME/*bin/client/winx86/pscfg.exe (Configuration Manager)
  - *PS_HOME/*bin/client/winx86/psdmt.exe (Data Mover)
  - *PS_HOME/*bin/client/winx86/pside.exe (Application Designer)
  - *PS_HOME/*scripts
  - Other PeopleTools utilities
- Setup utilities including:
  - *PS_HOME/*setup/PsMpPIAInstall (PeopleSoft Pure Internet Architecture installer)
  - *PS_HOME/*setup/PsMpDbInstall (Database installer)
  - *PS_HOME/*setup/PsCA (Change Assistant installer)
  - *PS_HOME/*setup/PsCIA (Change Impact Analyzer installer)
  - *PS_HOME/*setup/PsMpWebAppDeployInstall (Web Application Deployment installer)

PeopleTools Client installation

See the next section, Reviewing the PeopleTools Client DPK.

Task E-3: Reviewing the PeopleTools Client DPK

One of the DPKs provided with PeopleSoft PeopleTools patches is a PeopleSoft PeopleTools Client DPK. Deploy the PeopleTools Client DPK, for example, to use with a PeopleTools-only upgrade, or to install utilities such as Application Designer to connect to an existing environment.

Usage	• Install the PeopleSoft PeopleTools Client on a Microsoft Windows host.
	Note. As with a traditional installation, you may not need to perform a separate installation of the PeopleTools Client if your environment is installed on a Microsoft Windows host. If your environment is installed on Linux, you need to install the PeopleTools Client on a Microsoft Windows host to set up Change Assistant.
	• Install Change Assistant and Change Impact Analyzer.
	• Install and configure PeopleSoft Test Framework (PTF).
Requirements	The last zip file of the 4 PeopleTools DPKs.
	Microsoft Windows host that is supported for the PeopleTools client.
PeopleTools Client installation	• *PS_CLIENT_HOME*
	• Oracle database client, if not already installed
	• Microsoft Windows DPKs include Microsoft Visual C++ Redistributable Packages for Visual Studio, which include required Microsoft C++ runtime libraries.
	• PeopleTools utilities including:
	• *PS_CLIENT_HOME/*bin/client/winx86/pscfg.exe (Configuration Manager)
	• *PS_CLIENT_HOME/*bin/client/winx86/psdmt.exe (Data Mover)
	• *PS_CLIENT_HOME/*bin/client/winx86/pside.exe (Application Designer)
	• *PS_CLIENT_HOME/*bin/sqr
	• Setup utilities including:
	• *PS_CLIENT_HOME/*setup/PsCA (Change Assistant installer)
	• *PS_CLIENT_HOME/*setup/PsCIA (Change Impact Analyzer installer)
	• *PS_CLIENT_HOME/*setup/PsTestFramework (PeopleSoft Test Framework installer)
	• Upgrade deployment mode files
	If you select the People Tools Full Upgrade deployment type, the client setup script installs the directories needed for a PeopleSoft PeopleTools-only upgrade, such as data, projects, and scripts directories.
	• Patch deployment mode files
	If you select the People Tools Patch deployment type, the client setup script installs the directories needed for a PeopleSoft PeopleTools patch application, such as the data, PTP, and scripts directories.
	• None of the above deployment mode files
	If you select the None of the above deployment type, the client setup script installs the basic client directories.