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PeopleTools 8.52
Hardware and Software Requirements

October 2011

ORACLE

PeopleTools 8.52
Hardware and Software Requirements
SKU iptools852_oct2011_pthwsw

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Understanding This Documentation

This PeopleSoft PeopleTools Hardware and Software Requirements book reflects what Oracle supports for PeopleSoft products when the book is posted. However, our certification support levels are continually evolving. In addition, this document purposely provides a high-level view to avoid too many specifics such as version numbers that may quickly become out of date.

To obtain the up-to-date details about supported platforms, version numbers, and the like, use My Oracle Support.

This guide includes the hardware and software requirements for Oracle's PeopleSoft PeopleTools. To carry out your installation, you will also need the hardware and software requirements for your PeopleSoft application, which are provided separately. For instance, if you are installing Oracle's PeopleSoft Customer Relationship Management (CRM), you need both the PeopleSoft PeopleTools hardware and software requirements guide and any hardware and software requirements for PeopleSoft CRM.

Note. Check My Oracle Support periodically for updated addenda to this documentation.

Another way to get current information is to take classes. Oracle offers training classes for Oracle's PeopleSoft PeopleTools and all Oracle's PeopleSoft applications at Oracle University (OU). If you are planning an installation or upgrade, OU also offers classes specific to those topics.

See Also

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

"PeopleTools Architecture Overview and Support Definitions," Using My Oracle Support

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.

Convention	Description
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.
" " (quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meaning.
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® Business Intelligence Publisher

- 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 Financial Management

- Oracle's PeopleSoft Human Resources Management Systems

- Oracle's PeopleSoft Enterprise Learning Management

- Oracle's PeopleSoft Pay/Bill Management

- Oracle's PeopleSoft PeopleTools

- Oracle's PeopleSoft Enterprise Performance Management

- Oracle's PeopleSoft Portal Solutions

- Oracle's PeopleSoft Staffing Front Office

- Oracle's PeopleSoft Supply Chain Management

Note. This documentation may refer to both Oracle's PeopleSoft Portal Solutions and to PeopleSoft PeopleTools portal or portal technologies. PeopleSoft Portal Solutions is a separate application product. The PeopleSoft PeopleTools portal technologies consist of PeopleSoft Pure Internet Architecture and the PeopleSoft PeopleTools portal technology used for creating and managing portals.

See http://www.oracle.com/us/products/applications/peoplesoft-enterprise.html for a list of PeopleSoft products.

Related Information

Oracle provides reference information about PeopleSoft PeopleTools and your particular PeopleSoft application. The following documentation is available on My Oracle Support:

- Release Notes

  These are documentation updates delivered with every PeopleSoft PeopleTools maintenance release that explain new features and changes, and summarize resolved incidents (fixes).

- PeopleTools PeopleBook: Getting Started with PeopleTools for your release.

  This documentation provides a high-level introduction to PeopleTools technology and usage.

- PeopleSoft Application Fundamentals PeopleBook for your PeopleSoft application and release.

  This documentation provides essential information about the setup, design, and implementation of your PeopleSoft application.

- Installation guides

  Search for the installation guides for PeopleSoft PeopleTools and PeopleSoft applications on My Oracle Support.

- Hardware and software requirements

  Search for the hardware and software guides for PeopleSoft PeopleTools and PeopleSoft applications on My Oracle Support.

- Oracle Software and Documentation

  In addition to My Oracle Support, you can download Oracle software products and documentation, including PeopleSoft PeopleBooks, from the following web sites:

  • Oracle® E-Delivery, at URL http://edelivery.oracle.com

- Oracle Technology Network (OTN), at URL http://www.oracle.com/technetwork
- Upgrade information

  Documentation and supporting files for performing upgrades from previous releases are available on My Oracle Support.
- Certifications

  For current information on certified database, operating system, and additional component configurations, see the PeopleSoft certifications on My Oracle Support. Log into My Oracle Support and select the Certifications tab.
- Additional Component Patches

  The document "Operating System, RDBMS & Additional Component Patches Required for Installation" on My Oracle Support contains all required patches for additional software components.

To install additional component software products for use with PeopleSoft products, including those products that are packaged with your PeopleSoft products, you should refer to the documentation provided with those products, as well as this documentation.

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 our documentation, PeopleSoft PeopleBooks, 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.

PeopleTools Architecture Overview and Support Definitions

This chapter discusses:

• Understanding PeopleTools Architecture

• Using My Oracle Support

• Defining PeopleTools Support

Understanding PeopleTools Architecture

This section discusses:

• Understanding PeopleTools

• Understanding PeopleSoft Pure Internet Architecture

• Defining PeopleSoft Components

• Defining Database Support

Understanding PeopleTools

Oracle's PeopleSoft PeopleTools is the software layer on top of which Oracle's PeopleSoft applications are developed. PeopleSoft PeopleTools provides system-level functionality to all the PeopleSoft applications that use it, and insulates the applications from having to code to the particular specifications of individual platforms. Essentially, PeopleSoft applications are written using PeopleSoft PeopleTools, and PeopleSoft PeopleTools, in turn, handles the hardware and software dependencies necessary to support various platforms.

PeopleSoft applications support numerous hardware and database choices. PeopleSoft servers run on the industry's leading hardware and software platforms. PeopleSoft applications look the same to application users, regardless of the database or hardware platform being used: mainframe, midrange, or PC workstation.

When determining hardware and software platform support, we mostly concern ourselves with those platforms supported by PeopleSoft PeopleTools. In general, if a particular version of PeopleSoft PeopleTools supports a platform, the PeopleSoft application written on top of that PeopleSoft PeopleTools version supports the platform. For exceptions to this rule, consult the hardware and software requirements for the specific PeopleSoft applications you're running; you may also want to check the application release notes and upgrade notes.

For every major release, Oracle re-evaluates our platform support plan and adds or drops platforms depending on the results of our analysis. Determining which operating systems to support, which portions of the PeopleSoft software should run on the various operating systems, and which database systems to support are critical decisions.

Note. Although this Hardware and Software Requirements book provides an overview of your requirements, *My Oracle Support should serve as your definitive resource for supported products and their version numbers*. The PeopleSoft certifications information on My Oracle Support includes up-to-the-minute information on our certified database and operating system configurations.

Understanding PeopleSoft Pure Internet Architecture

PeopleSoft PeopleTools is the technical foundation of the PeopleSoft software and the Oracle's PeopleSoft Pure Internet Architecture. As suggested by the name, the PeopleSoft Pure Internet Architecture lets you use PeopleSoft applications in a purely Internet environment.

The PeopleSoft Pure Internet Architecture is a server-centric execution architecture for deploying Internet applications to end users who access the applications through a web browser. These Internet applications are built using PeopleSoft PeopleTools. The following diagram illustrates the various servers involved in the PeopleSoft Pure Internet Architecture and the protocols they use to communicate:
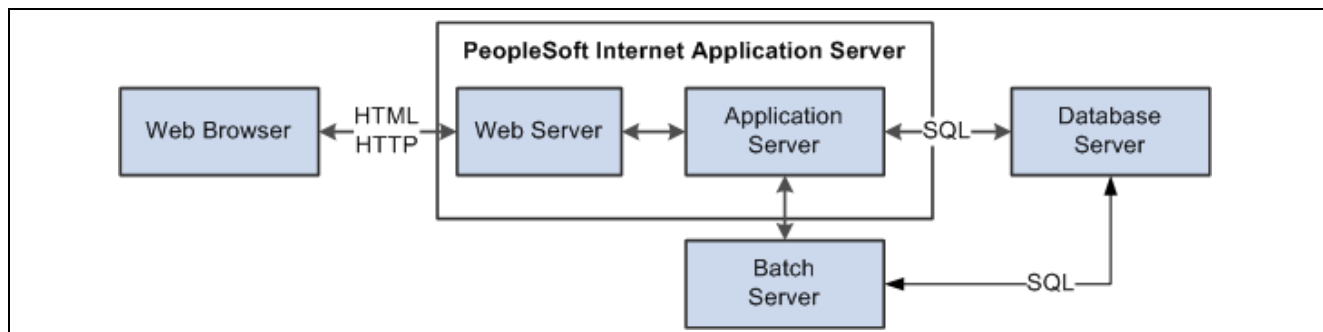
Components and communication protocols of PeopleSoft Pure Internet Architecture

There are several key concepts to take away from the above diagram:

• End users access the applications through a web browser.

• The architecture is very server centric.

 The heart of the architecture is the PeopleSoft Internet application server that consists of the web server and the application server.

• The above architecture supports all of your end users. The only users who will require Microsoft Windows machines and client configurations will be system administrators and developers who use the PeopleTools Development Environment.

The PeopleTools Development Environment is used by developers and system administrators, who are typically a very small percentage of the overall user base. The following diagram illustrates the connection between the PeopleTools Development Environment, the application server, and the database server.
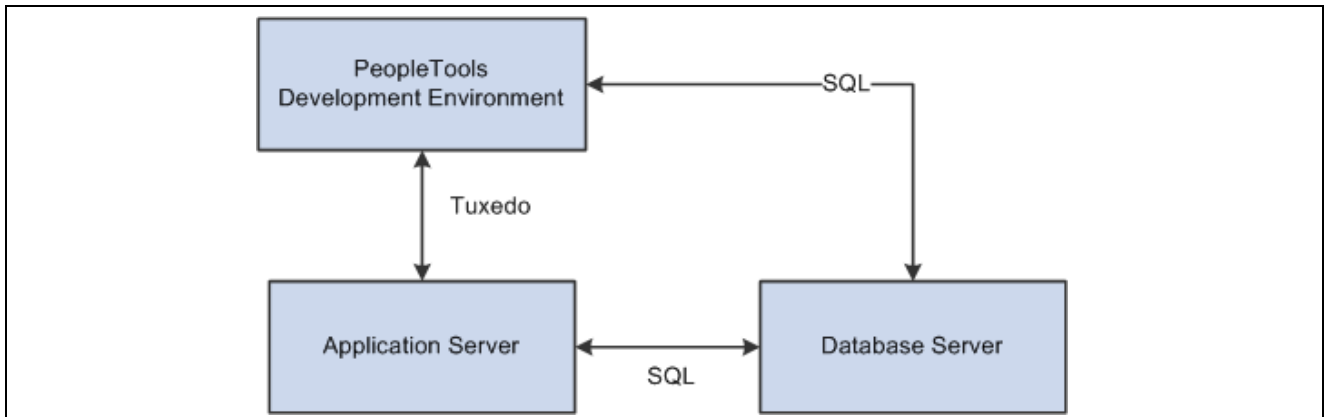
How the PeopleTools Development Environment communicates with the application server and database server

This is just the Microsoft Windows-based PeopleTools Development Environment that can be deployed in either two- or three-tier mode.

In other words, with the PeopleSoft PeopleTools technology, *the client platform should be much less of an issue when compared to past PeopleSoft releases.* The use of server-centric, browser-based applications in the current PeopleSoft software should allow you to focus primarily on the server platforms. All the client machine needs is a standard web browser.

Defining PeopleSoft Components

The hardware and software you need to purchase, install, and test before installing your PeopleSoft application depends on the particular PeopleSoft configuration you choose. The components you need to consider include:

• End User Workstation

• PeopleTools Development Environment

• File Server

• Database Server

• Batch Server

• Application Server

• Web Server

• Auxiliary Hardware/Software

Note. The various servers identified above (application, web, and so on) are considered "logical" servers. Many can exist on the same machine, although each can also reside on its own machine in a "physical" configuration.

Note. COBOL is not needed for PeopleSoft PeopleTools or for applications that contain no COBOL programs. If your application contains COBOL programs, you need to purchase a supported COBOL compiler.

See Also

Getting Started on PeopleSoft Installation, My Oracle Support (search for name)

"Server Requirements," Defining Application Server Requirements

Defining Database Support

Oracle supports a wide range of RDBMS products running on a broad variety of hardware platforms, enabling you to choose the RDBMS platform that best suits your organization's current needs. We currently support the following RDBMS products for PeopleSoft software:

•   Microsoft SQL Server for Microsoft Windows

•   Oracle for AIX, HP-UX, Linux, Microsoft Windows, Oracle Solaris, and IBM Linux on System z.

•   DB2 for z/OS

•   DB2 for AIX, Oracle Solaris, HP-UX, Linux, and Microsoft Windows.

•   Sybase for AIX, HP-UX, and Oracle Solaris.

•   Informix for AIX, HP-UX, and Oracle Solaris.

For details on supported operating systems and hardware for each RDBMS, see My Oracle Support, Certifications.

Using My Oracle Support

You can obtain the documentation to support your PeopleSoft installation from the My Oracle Support web site. Use My Oracle Support to find current PeopleSoft Enterprise certification information, search for documentation and problem solutions, and find PeopleSoft patches, updates and fixes.

Use this URL to access the My Oracle Support sign-in page:

https://support.oracle.com

To access My Oracle Support you must have:

•   Any browser that is supported for PeopleSoft PeopleTools

•   To log in, you must have a valid Support ID.

    For information on getting a Support Identifier, click the link Read the Registration FAQs on the My Oracle Support Sign In page.

•   My Oracle Support requires Adobe® Flash® Player 9.0.115 or higher.

    You can download Adobe Flash Player from the Adobe web site: http://www.adobe.com/support/flashplayer/downloads.html.

•   Because the delivery mechanism for PeopleSoft "patches" and other PeopleSoft maintenance is an ftp server, you will need ftp capability to take advantage of these updates.

When you sign in to My Oracle Support, use the search facility to find the necessary documentation.

Defining PeopleTools Support

This section discusses:

• Understanding PeopleTools Support

- Defining PeopleTools Certification

- Defining Support Levels

- Defining Support Levels for Additional Software Components

Understanding PeopleTools Support

Platform Support:

We certify a wide variety of platforms—combinations of server and client operating systems, database versions and relevant additional component software that is integrated with PeopleTools. This allows you considerable flexibility in defining your PeopleSoft environment.

Frequency of Certification:

We evaluate platforms for every major PeopleSoft PeopleTools release. Factors for determining supported platforms include:

- Reliability

- Performance

- Maintenance costs

- Industry trends

- Existing customer base

- New sales

- Competition

- Vendor support of required PeopleSoft PeopleTools-integrated components

Application Exceptions:

All the platforms supported for a PeopleSoft PeopleTools release may not be supported for all applications. In addition, some applications may require additional components. Application-specific information is covered in the application's hardware and software supplements on My Oracle Support.

See My Oracle Support, (search for the application and release).

Support Availability:

You must remain on a supported environment—including applications and platforms—to be covered by the software support terms and conditions. Sometimes vendors may end support for their platforms before support for your PeopleSoft applications retires. If vendors retire support, you must upgrade to a current certified platform to continue to receive full support from the Oracle Global Customer Support. Our analysts may still attempt to provide as much support as they can, but may not be able to resolve your issue if it is related to a vendor-retired platform.

Note. For the purposes of this discussion, we define a "platform" as a combination of the server operating system version and RDBMS version.

Note. This book provides an overview of your hardware and software requirements, but cannot include up-to-date specifics about version numbers. These details are maintained continuously online on My Oracle Support. The preface to this book includes instructions on how to track down further information on the My Oracle Support web site.

Defining PeopleTools Certification

At Oracle, we have designed a rigorous process for determining the platform configurations we support for PeopleSoft products. Our certification process includes the following components:

- Complete product installation using the published documentation.

- Testing all batch components.

- Execution of automation regression tests during major and minor releases.

We deem a platform "certified" only when PeopleSoft PeopleTools development on the platform is complete and when it successfully passes our certification test process.

Note. Once a platform is certified, Oracle officially supports it.

Our top priority is ensuring that our products are certified on the latest available versions of all the database and operating system versions that we support. Typically, we certify at a specific operating system version, not specific hardware. We expect the operating system version to perform in a similar manner on any hardware that supports that operating system version. Note, however, that we certify operating systems based on their target hardware architecture. For example, there are versions of Oracle Solaris operating system for Oracle's Sun SPARC Enterprise systems, as well as for x86-64 systems. The PeopleSoft certifications on My Oracle Support relate the operating systems to specific hardware architecture, such as Oracle Solaris on SPARC or IBM z/OS on System z.

In addition, we maintain support for previous software versions as long as it is feasible. Generally, we support two or three generations of RDBMS and OS software in any given PeopleSoft PeopleTools release. This means that we always try to provide a migration path forward for our customers who keep their system components reasonably up to date.

Although our certification strategy benefits most of our customers, it can cause problems for customers who fall behind in their PeopleSoft system maintenance. When these customers want to upgrade our software, they may have to upgrade their system components incrementally in order to remain on a supported platform *throughout* the migration.

Defining Support Levels

Certified

A certified environment has been documented, installed, tested, and certified by Oracle. System functionality and performance standards are checked and validated. We fully support this environment and have a working relationship with the vendors involved. If issues are discovered we will work with the customer to find a resolution.

Not Certified

When a product is not certified it is not supported. This means that Oracle does not sell, install, or formally support your software running with products having this classification. If you upgrade any system component to an uncertified version and you have a problem with our software, Oracle may advise you to use an environment combination that is certified to operate PeopleSoft applications.

Withdrawn

In rare occasions we may need to withdraw support on particular combinations after communicating support. This can happen when the additional software component vendor decides to no longer provide support due to a serious issue. When this happens we do our best to alert customers to the support change.

Planned

When an environment is listed as Planned, Oracle is in the process of Certification testing of this environment. Oracle does not guarantee that all environments that are planned will become supported.

Retired

A once certified environment is now listed as Retired. When a vendor retires a product, Oracle retires it. Our analysts may still attempt to provide as much support as they can, but may not be able to resolve your issue if it is related to a vendor-retired platform.

Defining Support Levels for Additional Software Components

A typical PeopleSoft environment is a combination of many different software products. In addition to the operating system and RDBMS, your configuration will require network and connectivity products, desktop applications, and so on.

Because there are so many different hardware and software options available, it is not feasible for Oracle to test *every* potential operating environment configuration. Therefore, we have defined support levels that indicate whether the primary responsibility for support belongs to Oracle or another vendor.

Oracle certifies certain additional components. These components may be provided with our software (such as Oracle Tuxedo) or they may be obtained independently (such as COBOL or Microsoft Office). Oracle certifies additional components that tightly integrate with PeopleSoft PeopleTools, and lists the certified versions by PeopleTools release in the Certifications area on My Oracle Support.

Note. COBOL is not needed for PeopleSoft PeopleTools or for applications that contain no COBOL programs. If your application contains COBOL programs, you need to purchase a supported COBOL compiler.

See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the Micro Focus COBOL Compiler," My Oracle Support (search for the article name).

See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the IBM COBOL Compiler," My Oracle Support (search for the article name).

If a third party (such as a software vendor) claims compatibility with a certified environment, you'll need to contact the vendor for resolution of any problems. Oracle will support these products if you can replicate a problem in a certified environment. However, we will not necessarily make product changes to accommodate incompatibilities introduced by another vendor.

For example, Oracle does not certify specific network software for any of our supported RDBMS platforms. It is the responsibility of each RDBMS vendor to document the network software supported for its product. If you encounter problems running a PeopleSoft application with a particular type of network software but can't replicate it with a different type of software, you will have to work directly with your RDBMS vendor to resolve the problem. On the other hand, if you can demonstrate that the problem exists with many or all network software products, Oracle can be expected to provide a resolution to the problem. Ultimately, the software vendor at fault must resolve errors.

CHAPTER 2

The PeopleSoft Pure Internet Architecture

This chapter discusses:

• Understanding the PeopleSoft Pure Internet Architecture

• Describing End User Workstation Requirements

• Defining Web Server Requirements for PeopleSoft Pure Internet Architecture

Understanding the PeopleSoft Pure Internet Architecture

The PeopleSoft Pure Internet Architecture (PIA) is used to deploy thin HTML client-based applications. This chapter describes the requirements for running PeopleSoft applications using PIA. This situation calls for an application server and a web server. The web server acts as an intermediary between the client and the application server. On the client side, all that is needed is a workstation supplied with a supported browser.

Note. This chapter provides the current information at the time of its release. For the most current support information, go to My Oracle Support, Certifications. Contact your Oracle/PeopleSoft account manager to obtain a password for My Oracle Support.

Describing End User Workstation Requirements

This section discusses:

• Understanding the End User Workstation

• Defining the Certified Web Browser and Client Operating Systems

• Defining End User Workstation Hardware Requirements

• Defining End User Workstation Software Requirements

Understanding the End User Workstation

The PeopleSoft Pure Internet Architecture leverages the PeopleSoft PeopleTools application server to dynamically generate Internet applications that are built in the Application Designer. The PeopleSoft Pure Internet Architecture is not a retrofitted PeopleSoft PeopleTools Windows client built to run on the World Wide Web, but instead is rich with web-specific features and design paradigms. It provides dynamic hyperlinks, image support, and user customizable HTML tags, enabling you to build applications that look and feel like a modern web site. The PeopleSoft Pure Internet Architecture customizations are all done through PeopleSoft PeopleTools and therefore are upgradeable and fully global, supporting multilingual and multicurrency operations.

No end user installation is required; no PeopleSoft software resides on the end user workstation. The browser is all that is needed.

With the PeopleSoft Pure Internet Architecture, PeopleSoft applications can now execute on a wider variety of client platforms than ever before. The web browser is the client of the PeopleSoft Pure Internet Architecture and has enormous impact on the user interface quality and performance of the PeopleSoft 8 applications. The reality of the browser world today is that they are not all created equally. They vary widely in performance and user interface quality.

All PeopleSoft applications are being certified on a subset of the commercially available web browsers and client operating systems on the market today.

Defining the Certified Web Browser and Client Operating Systems

This section lists the combinations of web browser and client operating systems that Oracle is certifying for all PeopleSoft applications on PeopleSoft PeopleTools 8.52.

Note. Based on internal testing, for Internet Explorer, version 8 or 9 is recommended. This is due to the many improvements in download processing as well as JavaScript processing in versions 8 and 9.

- Chrome 6.0

- Internet Explorer 7, 8, and 9 on Microsoft Windows.

- iPad

- Mozilla Firefox 3.x and 4 on Microsoft Windows, UNIX, Linux, and Mac OS X.

- Apple Safari 3, 4, and 5 on Mac OS X.

Note. For bi-directional display such as with Arabic or Hebrew, the supported browsers are Internet Explorer and Mozilla Firefox.

See Also

My Oracle Support, Certifications

Defining End User Workstation Hardware Requirements

The following end user workstation requirements are based on power user type operations such as intensive data-entry, navigating between many pages, and so on. Since these requirements stem from real-world scenarios, they are higher than the manufacturer's minimum for a given web browser and operating system combination. However, PeopleSoft products will function on platforms meeting the manufacturer's minimum requirements for a given web browser and operating system combination, but will not deliver the optimal user experience.

General end user workstation hardware requirements are as follows:

- While additional memory is generally beneficial, 1024 MB is the minimum needed, and 2048 MB or higher is recommended.

- 1.6 GHz Pentium or equivalent processor is the minimum.

  With higher speed processors, PeopleSoft product response time improves significantly.

- The response time also improves with the latest versions of browsers. Versions of Internet Explorer *higher* than Internet Explorer 7 are recommended.

- VGA controller and display of 1024x768 resolution or higher and High Color (16 bit) mode for the best display results.

In the PeopleSoft Pure Internet Architecture (PIA), the web browser renders the user interface. The web browser receives the HTML generated by the application server and displays the graphic representation of the HTML. The CPU speed of the client has a great influence on how fast these HTML pages are rendered. HTML pages for some PeopleSoft applications can be quite complicated. The web browser should be configured to take advantage of the HTTP 1.1 Protocol and should also allow adequate disk space for HTML object caching.

Memory Requirements:

For an optimal user experience, a power user should have a system with 2 GB RAM. A minimum of 512 MB RAM on the client is required for all power user applications. This assumes that a typical power user will run three browsers (two for transactions, one for process monitor).

CPU Requirements:

CPU speed affects HTML page rendering and refresh time. For an optimal user experience, all power users should have an 1 GHz Pentium or equivalent processor with a decent graphics adapter.

Screen Resolution Requirements:

Monitor display resolution should set to a minimum of 1024x768.

Defining End User Workstation Software Requirements

Basic end user workstation software requirements are as follows:

- Recommended browsers are Internet Explorer and Mozilla Firefox.

- Oracle recommends that PeopleSoft customers use Microsoft Excel 2007 or higher on the batch server (Process Scheduler server).

  PS/nVision report layouts should be in Microsoft Excel 2007 format. PS/nVision generates reports in XLSX and XLSM formats on the batch server and the client.

  As a rule, you need to make sure your end users have Microsoft Excel 2007 on the browser machine to open the PS/nVision reports.

Defining Web Server Requirements for PeopleSoft Pure Internet Architecture

This section discusses:

- Understanding the Web Server

- Defining Web Server Software Requirements

- Defining Web Server Hardware Requirements

Understanding the Web Server

The web server performs little logic. It simply relays data back and forth between the user workstation and application server. The web server handles encryption and manages the connections between the browsers. It also caches and serves up images. For the PeopleSoft Pure Internet Architecture, most of the PeopleSoft logic occurs on an application server—this is where panels are run and HTML is generated. This architecture should yield high performance on the network, because it only sends HTML to the client workstation.

See Also

"Server Requirements"

PeopleTools 8.52 Installation <for your database platform>

Defining Web Server Software Requirements

The following web server and Java servlet combinations will be packaged or supported with PeopleSoft PeopleTools 8.51 and higher:

Web Servers:

- Oracle WebLogic Server
- IBM WebSphere Server

Optional Reverse Proxy Servers (HTTP Servers):

- Oracle HTTP Server
- Microsoft IIS v7 on Microsoft Windows 2008
- Sun Java System (formerly Sun ONE or iPlanet) Web Server, Enterprise Edition
- Apache (WebLogic only)
- IBM HTTP Server (IHS) (WebSphere only).

   This is packaged with WebSphere install. Installing IBM HTTP Server is optional.

   Note. Oracle supports the reverse proxy servers supported by IBM WebSphere and Oracle WebLogic servers for PeopleSoft installations. Please consult My Oracle support for a complete list of supported reverse proxy servers and links to IBM and Oracle support web sites.

   See My Oracle Support, Certifications.

These web servers are supported on the following operating systems:

Oracle WebLogic Server	IBM WebSphere Server
HP-UX Itanium 64–bit	HP-UX Itanium 64–bit
64-bit IBM AIX	64-bit IBM AIX
64-bit Linux	64–bit Linux x86–64
Microsoft Windows x64 (64-bit)	Microsoft Windows x64 (64-bit)
64-bit Oracle Solaris on SPARC	64-bit Oracle Solaris on SPARC
64–bit Oracle Solaris on x86–64	64–bit Oracle Solaris on x86–64

Defining Web Server Hardware Requirements

The web server does not do a lot of processing; however, because it is a server, it should run on a multiprocessor machine with fast processors.

- 512 MB of memory or higher is recommended for each web server.

- Disk space is minimal. You just need enough space for the software itself and for the caching of image, JavaScripts, and style sheet files.

- PeopleSoft web servers tend to use a very high number of execute threads, file descriptors, and TCP sockets. Proper tuning in these areas is required.

CHAPTER 3

The PeopleTools Development Environment

This chapter discusses:

- Understanding the PeopleTools Development Environment
- Defining PeopleTools Development Environment Hardware Requirements
- Defining PeopleTools Development Environment Software Requirements
- Defining BI Publisher Developer Environment Software Requirements
- Defining Change Assistant Requirements

Understanding the PeopleTools Development Environment

Much of this document deals with platform support for your end users. This chapter deals with platform support for your developers and system administrators—people who need the PeopleTools Development Environment on their desktops.

Note. This chapter provides the current information at the time of its release. For the most current support information, check My Oracle Support. My Oracle Support is password protected. Contact your PeopleSoft account executive to obtain a password.

See My Oracle Support, Certifications.

Note. Due to the large number of possible combinations of hardware, operating systems, database servers and so on, we do not include specific sizing information in this document. Check with your hardware vendor for published benchmark reports to estimate your sizing requirements.

The Windows-based PeopleTools Development Environment can be deployed in two- or three-tier mode. In three-tier mode, it can connect to the same application server used to serve end users in the runtime environment.

See the certification information on My Oracle Support for the Microsoft Windows platforms that are certified for the PeopleTools Development Environment (PeopleTools client). Be aware that minimum support requirements can differ between the various supported Microsoft Windows operating systems.

See My Oracle Support, Certifications.

Note. In PeopleSoft 8.51 and higher releases, there is no Windows-based client for runtime. All operations that were previously performed within the Windows client are available from within the PeopleSoft Pure Internet Architecture pages.

Note. PeopleSoft Application Servers, batch servers, and web servers are supported on Microsoft Windows Server operating systems, such as Microsoft Windows 2008. The Windows-based client is also supported on non-server Microsoft Windows operating systems, such as Windows XP Professional. Be aware that if you choose to run in three-tier mode from the Windows-based client on Windows XP Professional, for example, you need to set up your application servers running on an operating system platform that is supported for PeopleSoft application servers.

To ensure that your workstations perform consistently, you should configure them as uniformly as possible. Also you should consult the documentation for the application or applications you are installing to check for any application-specific hardware or software requirements. In addition, be sure to review any RDBMS-specific hardware or software requirements for your PeopleTools Development Environment in the section for your particular RDBMS platform.

See "Server Requirements."

Defining PeopleTools Development Environment Hardware Requirements

The following list presents the *minimum* hardware requirements for a workstation being used as a PeopleTools Development Environment. Obviously, the faster your machine, the faster its response time. To achieve optimal performance, you should invest in hardware that maximizes the performance of your operating system environment.

• PC CPU from around 2008 or later. PeopleSoft recommends *at least* an 800 MHz Pentium or comparable chip with 512 MB of RAM or higher.

• VGA controller and display of 1024x768 resolution or higher and minimum 256 color mode with small font size.

• Network interface card.

• Internet connectivity is required for remote PeopleSoft maintenance and access to My Oracle Support, Oracle E-Delivery, and other Oracle sites. The higher the connection speed the better.

Defining PeopleTools Development Environment Software Requirements

The following list presents the *minimum* software requirements for your PeopleTools Development Environment. Note that there may be additional software requirements, depending upon which database platform you are running.

See "Server Requirements," your RDBMS section.

• Supported Windows clients.

• Supported database connectivity software for your RDBMS environment. *All* two-tier PeopleSoft client workstations need database connectivity software. You also need database connectivity to have the option to specify a two-tier or three-tier connection at logon. However, if you are running only in a three-tier environment on a particular client, that machine does not need database connectivity software, because

the application server is responsible for maintaining the SQL connections to the database. Here are the situations in which you need client database connectivity software on the PeopleTools Development Environment:

• If you need to install a database or run Data Mover.

• If you want to log on in two-tier mode.

• If you log on in three-tier mode, but wish to run Process Scheduler (COBOL and SQR) locally.

   See "Server Requirements," your RDBMS section.

• Supported COBOL compiler

Before PeopleSoft PeopleTools 8.4, Oracle delivered both source and compiled COBOL for Microsoft Windows systems, whereas on UNIX systems COBOL source had to be compiled. From PeopleSoft PeopleTools 8.4 onwards, Oracle delivers only COBOL source code for both Microsoft Windows and UNIX systems. Compiled COBOL programs are no longer delivered for Microsoft Windows systems. *If you have PeopleSoft COBOL applications, you will need to compile them.* You will also need a COBOL compiler to compile PeopleSoft COBOL patches, which are downloaded as source code. Several other situations may require that you recompile your COBOL.

See *PeopleTools 8.52 Installation <for your database platform>,* "Installing and Compiling COBOL."

Keep in mind that COBOL is not needed for PeopleSoft PeopleTools or for applications that contain no COBOL programs. If your application contains COBOL programs, you need to purchase a supported COBOL compiler.

See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the Micro Focus COBOL Compiler," My Oracle Support (search for article title).

See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the IBM COBOL Compiler," My Oracle Support (search for article title).

If you are using a Microsoft Windows application server, you can use the COBOL compiler on the application server to compile client COBOL patches. In this case, there is no need to have a COBOL compiler on the client. You must have a COBOL compiler license for each developer that will be compiling COBOL (named user license model). It's possible all developers may be sharing the same machine, but would still need separate licenses.

Note. For more information on COBOL compiler requirements for the batch server, see "Server Requirements," Defining Process Scheduler (Batch) Server Requirements.

Note. For more information on COBOL compiler requirements for the application server, see "Server Requirements," Defining Application Server Requirements.

The following COBOL compilers are supported for Microsoft Windows operating systems:

- Micro Focus Net Express

  The required minimum estimated disk space for Micro Focus COBOL Net Express Compiler is 215 MB. For your PeopleSoft installation, Oracle recommends that you have one copy of the Micro Focus Net Express COBOL compiler, installed on a single Microsoft Windows workstation client. Check for the certified version of COBOL for your applications on My Oracle Support.

  See My Oracle Support, Certifications.

  Note. Oracle does not certify all Micro Focus COBOL patches, but will certify all the required patches listed on My Oracle Support for supported platforms.

  See "Required Operating System, RDBMS & Additional Component Patches Required for Installation," My Oracle Support, (search for article title).

- IBM Rational Developer for System z

  The minimum estimated disk space for COBOL compiler, tools and product information is 210 MB.

  For more information on prerequisites, see the IBM support site:

  http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?subtype=ca&infotype=an&appname= iSource&supplier=897&letternum=ENUS210-342J

- Microsoft Office; estimated disk space 130 MB.

  This only applies to two-tier connection.

- TCP/IP. Required for three-tier connection and the PeopleSoft Pure Internet Architecture.

- Microsoft Visio may be required if you plan on doing ERD diagramming.

  See My Oracle Support, Certifications.

Defining BI Publisher Developer Environment Software Requirements

Here are the requirements for using Oracle Business Intelligence (BI) Publisher with PeopleSoft installations:

- Microsoft Word is required for creating RTF-based BI Publisher Templates

  Check for the certified version of Microsoft Word or Microsoft Office on My Oracle Support.

  You will need to download the delivered BI Publisher Template Builder plug-in from the PeopleSoft Application. Log in to the PeopleSoft Pure Internet Architecture, and select Reporting Tools, BI Publisher, Setup, Design Helper.

  See *PeopleTools 8.52: BI Publisher for PeopleSoft PeopleBook.*

- Adobe Acrobat is required for creating PDF-based BI Publisher Templates.

  Adobe Standard or above and version 6 or above is required for template mapping. In the event that the PDF form does not have form fields, the form field and tags can be inserted using the Designer or Professional versions of Adobe.

Note. BI Publisher supports Adobe Acrobat 5.0 (PDF specification version 1.4). If you are using a later version of Adobe Acrobat, use the File, Reduce File Size option to save your file as Adobe Acrobat 5.0-compatible.

• Oracle JDeveloper

BI Publisher allows you to utilize Data Transformation in order to use common "standardized" templates that can be shared across multiple Data Sources. The required XSLT Transform file to enable this process can be created using an external XSL program or the delivered Oracle XSL Mapper that can be launched from the Report Definition Template Page. This does however require appropriate configuration on the development machine, including the installation of Oracle JDeveloper. See the BI Publisher and Integration Broker PeopleBooks for more detailed configuration instructions.

See *PeopleTools 8.52: BI Publisher for PeopleSoft PeopleBook*, "Defining Report Definitions," Launching Oracle XSL Mapper from Report Definition Template Page.

See *PeopleTools 8.52: Integration Broker PeopleBook*.

Defining Change Assistant Requirements

PeopleSoft Change Assistant is a standalone application that enables you to assemble and organize all of the steps necessary to apply patches and fixes for maintenance updates, and to carry out software upgrades. PeopleSoft Change Assistant is supported only on those Microsoft Windows platforms that are supported for the PeopleTools Development Environment (the Windows-based client).

There is no minimum CPU or memory requirement from Oracle to install and use PeopleSoft Change Assistant. Keep in mind however, that PeopleSoft Change Assistant calls various applications, so the performance will be affected by the specific application. For example, because PeopleSoft Change Assistant runs SQL processes, the minimum hardware requirements are affected by the specific SQL utility that you use. Consult your SQL vendor for additional hardware requirements or minimums that exceed the requirements for the PeopleTools Development Environment.

CHAPTER 4

Server Requirements

This chapter discusses:

- Understanding Server Requirements
- Defining File Server Requirements
- Defining Database Server Requirements
- Defining Process Scheduler (Batch) Server Requirements
- Defining Application Server Requirements
- Describing Supported Server Configurations by RDBMS
- Defining Microsoft SQL Server Support
- Defining Oracle Support
- Defining DB2 for z/OS Support
- Defining DB2 for Linux, UNIX, and Windows Support
- Defining Informix Support
- Defining Sybase Support
- Defining Support for Reporting Tools
- Describing LDAP Server

Understanding Server Requirements

This chapter discusses server requirements for the following types of PeopleSoft servers and the supported configuration specifications for your particular RDBMS:

Note. This chapter provides the current information at the time of its release. For the most current support information, check My Oracle Support. My Oracle Support is password protected. Contact your PeopleSoft account executive to obtain a password.

- *File Server:* The file server is the environment (or file) repository for the PeopleTools Development environment and for the files necessary to perform an upgrade. This includes Change Assistant and all of the executables and scripts which are necessary to perform an upgrade. In addition, the file server is a source repository for COBOL and SQR. You will apply patches and updates from My Oracle Support directly to the File Server and then copy the updated files to your other servers.

> **Note.** Because the PeopleSoft Installer lets you install files to the designated server—whether it is an application server, batch server, database server, web server, and so on—the file server is no longer used to transfer the entire contents of your PeopleSoft CDs to a file server, and you will not need to use the PeopleSoft Server Transfer program to transfer files from your file server to the desired server. *This does not hold true for the z/OS platform*, which still requires a Microsoft Windows file server and use Server Transfer.

- *Database Server:* Your database server houses your PeopleSoft database (in the RDBMS of your choice).

> **Note.** Depending on your application, your application-specific installation documentation may include Demo database sizing information.

- *Process Scheduler (Batch) Server:* Your batch server runs your PeopleSoft batch processes using Process Scheduler.
- *Application Server:* The PeopleSoft application server is designed to improve performance over a WAN. The application server is also an essential component of the PeopleSoft Pure Internet Architecture.
- *BusinessObjects Enterprise XI and Crystal Reports:*

  You have the option to use SAP Crystal Reports and SAP BusinessObjects Enterprise software for running and viewing reports.

- *LDAP Server:* You have the option to use a Lightweight Directory Access Protocol (LDAP) server for authentication and authorization.
- *Web Server:* Web server information is covered in an earlier chapter.

  See "The PeopleSoft Pure Internet Architecture."

- *Supported Server Configurations by RDBMS:* Look here when planning the installation of your PeopleSoft database. These sections, broken down by database, list hardware and software requirements particular to the specific databases.

> **Note.** Due to the large number of possible combinations of hardware, operating systems, database servers and so on, we do not include specific sizing information in this document. Check with your hardware vendor for published benchmark reports to estimate your sizing requirements.

> **Note.** For required non-PeopleSoft PeopleTools patches, check My Oracle Support.

See My Oracle Support, Certifications.

> **Note.** Minor PeopleSoft PeopleTools releases (8.42, 8.43, and so on) are produced regularly. You need new PeopleSoft PeopleTools software to install such releases. For PeopleSoft PeopleTools patches (such as 8.51.01), select the Patches & Updates tab on My Oracle Support.

Defining File Server Requirements

This section discusses:

- Understanding the File Server
- Defining File Server Hardware Requirements

• Defining File Server Software Requirements

Understanding the File Server

A standard PeopleSoft environment contains a file server to share printers and to maintain binaries required for the Windows-based client—the PeopleTools Development Environment. If you are running the PeopleTools Development Environment, you can use the file server to maintain a master copy of the system programs to which your workstation connects. Oracle *strongly* recommends that you either purchase a machine with sufficient disk capacity to act as your file server, or provide the required disk capacity on an existing machine. You need to use a file server that supports a Windows client or UNIX machine.

Defining File Server Hardware Requirements

A typical file server configuration requires the following items:

•   Pentium-based computers running Microsoft Windows Server 2008 or other supported operating systems.

    Alternately, UNIX machines that support NFS or comparable networking software.

•   Sufficient disk space to accommodate the following:

    • PeopleSoft software—10 GB or more, depending on your application(s)

    • Network operating system and associated files

    • Other application files (such as Microsoft Office)

•   Sufficient memory to meet your network operating system requirements. Oracle recommends that you maximize the amount of memory on your file server to ensure optimum performance.

•   VGA video controller and display (800x600 or higher resolution and 256 colors required).

•   Network interface card.

•   Backup system.

Defining File Server Software Requirements

Network operating system such as Windows Server 2008, which may be dictated by your RDBMS selection.

Defining Database Server Requirements

This section discusses:

• Understanding the Database Server

• Defining Database Server Hardware Requirements

• Defining Database Server Software Requirements

Understanding the Database Server

The RDBMS environments that Oracle supports for PeopleSoft software include:

•   Microsoft SQL Server

- Oracle

- DB2 for z/OS

- DB2 for Linux, UNIX, and Windows

- Sybase

- Informix

This section lists the universal requirements for a database server for PeopleSoft software. For product-specific requirements—as in requirements for Oracle—refer to the later section devoted to your particular RDBMS. Note that database sizes vary depending on the application and the number of employees you expect to support. A good rule of thumb is to initially oversize rather than undersize your storage media and to maximize the amount of RAM on your system.

Note. Depending on your application, your application-specific installation documentation may include Demo database sizing information.

Note. Unicode is supported on Oracle, Microsoft SQL Server, DB2 for z/OS, and DB2 for Linux, UNIX, and Windows. It is not supported on Informix or Sybase.

See *PeopleTools 8.52: Global Technology PeopleBook.*

Note. Several operating system vendors have announced the retirement date for some of the operating systems that Oracle supports today. Make sure to take these retirement dates into account when installing new PeopleSoft applications, or upgrading from older versions of PeopleSoft applications or PeopleSoft PeopleTools.

Defining Database Server Hardware Requirements

The following are database server hardware requirements:

- Sufficient disk space to accommodate:

  - RDBMS software and all requisite products.

  - Operating system.

  - One production and one test version of your database, one copy of the PeopleSoft database, and all log and dump files. This is in addition to any disk space required for any training or development databases. Upgrades require additional copies. Database sizes vary depending on the application.

- Backup device.

- Video controller and display.

- Appropriate network interface card and cabling to connect to network.

- Uninterruptible power supply (UPS) with sufficient capacity to allow an orderly shutdown of the database server and operating system in the event of a power failure (optional, but recommended).

Defining Database Server Software Requirements

The following are database server software requirements:

- RDBMS software and all requisite products

- Operating system

- Compilers

- Supported SQL query tool

- Any required network connectivity software

Note. Often there will be a patch that fixes a bug on the client side. If the server is the only piece that's upgraded, the issue will still exist. This is true for both client connectivity on Windows and for client connectivity on application servers and batch servers when connecting to a remote database server.

Defining Process Scheduler (Batch) Server Requirements

This section discusses:

- Understanding the Process Scheduler Server

- Defining Process Scheduler Server Hardware Requirements

- Defining Process Scheduler Server Software Requirements

- Troubleshooting PS/nVision

Understanding the Process Scheduler Server

The term *batch server* is equivalent to the term *Process Scheduler server*. PeopleSoft batch processes, such as COBOL and SQR, are scheduled and invoked by a Process Scheduler server. In almost all configurations, batch server SQR and COBOL files are located and executed on the same computer as the database server.

Oracle supports batch servers for PeopleSoft installations on several UNIX and Linux operating system platforms. For detailed information, consult the certification information on My Oracle Support. The batch server support can be found on the certification pages under "Other Products".

Note. Any computer operating as a batch server must have database connectivity installed so that it can make a two-tier connection to the PeopleSoft database.

Note. COBOL is not needed for PeopleSoft PeopleTools or for applications that contain no COBOL programs. If your application contains COBOL programs, you need to purchase a supported COBOL compiler.

See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the Micro Focus COBOL Compiler," My Oracle Support, (search for the article title).

See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the IBM COBOL Compiler," My Oracle Support, (search for the article title).

Note. The Process Scheduler on UNIX cannot execute Microsoft Windows-specific batch processes, such as Crystal Reports, PS/nVision reports, or Microsoft Word. With UNIX-based databases you need to set up a Process Scheduler environment on a dedicated Windows server. UNIX Process Schedulers can still be used for Application Engine, COBOL, and SQR processing.

The PeopleSoft PeopleTools Application Engine is used primarily for batch processes. It has a GUI definitional "front end" that allows you to define and maintain your Application Engine programs, and a "back end" that executes the programs that you have defined. The Application Engine is tightly coupled to the PeopleSoft PeopleTools environment, which results in improved flexibility and power. For instance, there is tight integration with PeopleSoft PeopleTools objects and features such as PeopleCode, Business Components, Tree APIs, Application Messaging, and Business Interlinks. There is also seamless integration into an online application within the same unit of work.

Report Distribution/Report Repository allows reports and log files from Process Scheduler to be viewed from a web browser.

See *PeopleTools 8.52 Installation for <your database platform>*.

Defining Process Scheduler Server Hardware Requirements

The following are Process Scheduler server hardware requirements.

- Sufficient disk space to accommodate the operating system:
  - IBM AIX
  - IBM Linux on System z
  - IBM z/OS on System z
  - HP-UX Itanium
  - Linux x86-64
  - Microsoft Windows
  - Oracle Solaris on SPARC
  - Oracle Solaris on x86_64
- Backup device
- Video controller and display.
- Appropriate network interface card and cabling to connect to network.

Defining Process Scheduler Server Software Requirements

The following are Process Scheduler server software requirements:

- RDBMS connectivity software
- Operating system

- Appropriate COBOL compiler (if your application contains COBOL programs)

Note. *UNIX* COBOL support for z/OS DB2 (EBCDIC) databases:

RemoteCall Cobol and Batch Cobol are *only supported* for Financials/SCM applications.

RemoteCall Cobol and Batch Cobol *are not supported* for any other product lines.

Note. *Windows* COBOL support for z/OS DB2 databases:

RemoteCall Cobol and Batch Cobol *are supported* for Financials/SCM applications.

RemoteCall Cobol and Batch Cobol *are supported* for other applications, but *only if your host's DB2 subsystem is CCSID=37.*

Note. *UNIX and Windows* COBOL support for z/OS DB2 Unicode databases:

RemoteCall Cobol and Batch Cobol are *supported* for Financials/SCM applications.

RemoteCall Cobol and Batch Cobol *are also supported* for any other product lines.

  - Appropriate C compiler (only if your RDBMS requires C compilers—Oracle, for instance)
- Supported SQL query tool
- Any required network connectivity software
- Oracle recommends that customers use Microsoft Excel 2007 on the batch server.

  PS/nVision on the batch server generates reports in XLSX and XLSM formats. PS/nVision on a 2-tier client generates reports in XLS format.

  As a rule, you need to make sure your end-users have Microsoft Excel 2007 on the browser machine to open the PS/nVision reports.
- PS/nVision in Open XML mode requires Microsoft Open XML SDK 2.0 to generate reports on Process Scheduler.

  See *PeopleTools 8.52 Installation for <your database platform>,* "Setting Up Process Scheduler on Windows."
- In order to execute BI Publisher reports with DB2 z/OS databases, you will need to configure a Process Scheduler on a PeopleSoft PeopleTools certified Microsoft Windows or other UNIX batch server. The PeopleTools Process Scheduler on DB2 z/OS cannot execute BI Publisher reports.

Troubleshooting PS/nVision

If you encounter a problem when uninstalling PS/nVision on either Microsoft Windows Vista or Microsoft Windows 2008 server, read the information in this section. This problem may be due to required DLL files, Gpsvc.dll and Linkinfo.dll, that are missing from the system folders in both operating systems. To verify that this is the problem, check the following locations for both Microsoft Windows Vista and Microsoft Windows 2008 Server:

- Gpsvc.dll should be present in C:\Windows\System32.
- Linkinfo.dll should be present in C:\Windows\System32 for a 32-bit machine.

For a 64-bit machine, Linkinfo.dll should be present in C:\Windows\Sysvow64.

If necessary, these DLL files can be installed in the following ways:

- To install Gpsvc.dll, install and enable the Group Policy feature on either Microsoft Windows Vista or Microsoft Windows 2008 Server.

- To install Linkinfo.dll on Microsoft Windows 2008 Server, you can install Desktop Experience.

  To install Linkinfo.dll on Microsoft Windows Vista, run the Windows Repair utility using the Microsoft Windows Vista installation disk.

Defining Application Server Requirements

This section discusses:

- Understanding the Application Server
- Defining Windows Application Server Requirements
- Defining UNIX or Linux Application Server Requirements
- Defining DB2 for z/OS Options

Understanding the Application Server

PeopleSoft Pure Internet Architecture consists of an application server and a web server. The application server serves as an intermediary between the user workstation and the database server. It connects to the PeopleSoft database and handles almost all SQL-intensive interaction with the database server required during online transaction processing. The application server interacts with the end user workstation (which only needs a supported browser) via the web server. The application server also provides functionality required for application messaging and for implementing the PeopleSoft Pure Internet Architecture. If you are using the PeopleTools Development Environment, your workstation machine communicates with the application server using Tuxedo messages. All application servers require database connectivity to the database server. Before beginning your installation, make sure that you can connect from the application server to the database server using a SQL client tool.

Note. An application server is required in all PeopleSoft 8.51 and higher installations. You can no longer use a two-tier-only configuration to run PeopleSoft applications.

When you install a UNIX-based RDBMS such as Oracle for UNIX, the application server is generally installed on the same machine as the database server, a configuration called *logical three-tier*. You can also install application servers on one or more separate UNIX or Microsoft Windows machines. This configuration is called *physical three-tier*.

When you install a Windows-based RDBMS such as Oracle for Windows, you may use a Windows application server. This application server can be installed on the same machine as the database server, but you will probably get better results if you install one or more dedicated application servers (that is, a physical three-tier configuration). If you use a physical three-tier option, you should plan to connect the application server to the database using the highest bandwidth connection available.

Note. You can also have your web server on the same machine as your application server, in a logical configuration, or on a separate machine, in a physical configuration.

See "The PeopleSoft Pure Internet Architecture."

Whether you configure your three-tier environment as physical or logical depends on the combination of your RDBMS and operating system. When implementing an application server, pay close attention to the operating systems on which application servers are supported. For PeopleSoft PeopleTools 8.51 and higher, we support application servers on Microsoft Windows, and UNIX operating systems from Hewlett Packard, IBM, Oracle's Sun, and some Linux implementations. The following sections describe the requirements that the various types of application servers need to meet.

Note. In all cases, Oracle encourages you to provide your application server with the most RAM and processing speed available to take full advantage of the three-tier configuration. You may need to increase memory to attain desirable performance.

Defining Windows Application Server Requirements

This section discusses:

• Understanding the Windows Application Server

• Defining Windows Application Server Hardware Requirements

• Defining Windows Application Server Software Requirements

Understanding the Windows Application Server

A Microsoft Windows application server can be used for every RDBMS platform supported by Oracle for PeopleSoft software. For installation purposes, Oracle recommends that you configure a physical three-tier environment with a Microsoft Windows application server, although you may choose a logical three-tier configuration if running a Microsoft Windows database server.

Defining Windows Application Server Hardware Requirements

The following are Windows application server hardware requirements.

• Recommend two processors minimum; at least four processors for production.

• Memory requirement is 1024 MB (minimum) per server for roughly up to 25 users. After that add 2 MB per user for each user beyond 25 users. 1,000 users require roughly 3.0 GB of memory.

• Recommend fastest or near fastest processors available.

• Sufficient disk space to accommodate:

  • Oracle Tuxedo (235 MB).

  • Micro Focus Net Express COBOL Compiler (270 MB).

  • Database connectivity package varies per platform; check with vendor.

  • PeopleSoft application server files and code (2.5 GB).

• Network interface card.

Note. Oracle recommends an additional 512 MB to 1 GB of disk space, depending on the applications installed.

Defining Windows Application Server Software Requirements

The following are Windows application server software requirements.

• Microsoft Windows

Note. Consult My Oracle Support, Certifications, for details about the Microsoft Windows platforms that are supported for application servers.

• Oracle Tuxedo

Note. Make sure to use the version of Oracle Tuxedo that is certified for your PeopleSoft PeopleTools release.

• COBOL Compiler (Micro Focus Net Express or IBM Rational Developer for System z).

Note. COBOL is not needed for PeopleSoft PeopleTools or for applications that contain no COBOL programs. If your application contains COBOL programs, you need to purchase a supported COBOL compiler for Microsoft Windows.

See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the Micro Focus COBOL Compiler," My Oracle Support (search for the article title).

See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the IBM COBOL Compiler," My Oracle Support (search for the article title).

• Database connectivity package.

• PeopleSoft application server files and code.

• Any required application server patches.

• FTP capability. (The delivery mechanism for PeopleSoft "patches" and other PeopleSoft maintenance files is through an FTP server.)

Defining UNIX or Linux Application Server Requirements

This section discusses:

• Understanding the UNIX or Linux Application Server

• Defining UNIX or Linux Application Server Hardware Requirements

• Defining UNIX or Linux Application Server Software Requirements

Understanding the UNIX or Linux Application Server

Oracle supports logical and physical three-tier configurations for PeopleSoft installations on UNIX or Linux. If your database server is installed on one of the operating systems listed below, you can install the application server on that same machine in a logical three-tier configuration. In addition, you can set up a physical three-tier configuration using Microsoft Windows or any of the UNIX or Linux operating systems listed below as the application server. If your database server is not installed on one of the operating systems listed below, your options are more limited. In this case, you must employ a physical three-tier configuration, using either a Microsoft Windows machine or any UNIX or Linux operating system listed below.

Defining UNIX or Linux Application Server Hardware Requirements

The following are UNIX application server hardware requirements:

• Sufficient disk space to accommodate:

• Oracle Tuxedo (200 MB).

- COBOL Compiler (50 to 70 MB).

- Database connectivity package varies by platform; check with vendor.

- PeopleSoft application server files (3 GB).

- Memory ranges depend on the deployed applications, because each application has a different memory requirement. For example, CRM uses about 300 MB for each PSAPPSRV process, while Financials uses about 600 MB per process. The minimum memory configuration for an application server domain should be 2 GB. For high volume systems, the memory configuration should be 8 GB.

See My Oracle Support, Certifications.

Defining UNIX or Linux Application Server Software Requirements

The following are UNIX and Linux application server software requirements:

- A UNIX or Linux application server must be running one of the following operating systems:

  - Solaris

  - HP-UX

  - AIX

  - Linux

- Oracle Tuxedo

Note. Make sure to use the version of Oracle Tuxedo that is certified for your PeopleSoft PeopleTools release.

- COBOL Compiler

  COBOL is not needed for PeopleSoft PeopleTools or for applications that contain no COBOL programs. If your application contains COBOL programs, you need to purchase one of the COBOL compilers appropriate for your operating system, as listed in this table:

Operating System	Compiler
HP-UX	Micro Focus Server Express
IBM AIX	IBM COBOL Compiler for AIX or Micro Focus Server Express
Linux on System z	Micro Focus Server Express
Linux x86–64	Micro Focus Server Express
Oracle Solaris	Micro Focus Server Express
z/OS	IBM Enterprise COBOL for z/OS

  See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the Micro Focus COBOL Compiler," My Oracle Support (search for the article title).

  See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the IBM COBOL Compiler," My Oracle Support (search for the article title).

- Database connectivity package

- PeopleSoft application server files

- Any required application server patches

- FTP capability. (The delivery mechanism for PeopleSoft "patches" and other PeopleSoft maintenance files is an FTP server.)

See My Oracle Support, Certifications.

Defining DB2 for z/OS Options

If you are running a DB2 for z/OS database, you can configure an application server using physical three-tier only on Microsoft Windows, IBM AIX, Solaris, Linux, or HP-UX IPF.

Describing Supported Server Configurations by RDBMS

This part of the Server Requirements chapter specifies server platform configurations supported by Oracle for the following RDBMS platforms:

- *Microsoft SQL Server:* Look here when planning the installation of your PeopleSoft Microsoft SQL Server database.

- *Oracle:* Look here when planning the installation of your PeopleSoft Oracle database.

- *DB2 for z/OS:* Look here when planning the installation of your PeopleSoft DB2 database on the z/OS operating system.

- *DB2 for Linux, UNIX, and Windows:* Look here when planning the installation of your PeopleSoft DB2 database on Linux, UNIX, or Windows.

- *Sybase:* Look here when planning the installation of your PeopleSoft Sybase database.

- *Informix:* Look here when planning the installation of your PeopleSoft Informix database.

Note. These sections provides the current information at the time of printing. For the most up-to-date information and for specifics about supported version numbers, check the Certifications page on My Oracle Support.

See My Oracle Support, Certifications.

Note. Remember, Unicode is supported on Oracle, Microsoft SQL Server, DB2 for z/OS, and DB2 for Linux, UNIX, and Windows. It is not supported on Informix or Sybase.

See *PeopleTools 8.52: Global Technology PeopleBook*

Defining Microsoft SQL Server Support

This section discusses:

- Understanding Microsoft SQL Server

- Defining Microsoft SQL Server Hardware Requirements

- Defining Microsoft SQL Server Software Requirements

- Defining Supplemental Workstation Requirements for Microsoft SQL Server

• Defining Microsoft SQL Server Maintenance Levels

Understanding Microsoft SQL Server

This section specifies Oracle-supported server platform configurations for Microsoft SQL Server. For universal database server requirements, refer to the database server section of this chapter. Any additional hardware or software required for Microsoft SQL Server servers is listed below.

Defining Microsoft SQL Server Hardware Requirements

The hardware requirements for the database server will vary from site to site. For that reason, please consult your hardware vendor, your software vendor, and your Oracle service representative to assist you in determining your hardware sizing requirements. Your service representatives should provide questionnaires that will help you determine the hardware required. This process should also include projections of your future needs and must involve software and hardware vendors.

Defining Microsoft SQL Server Software Requirements

You need the following:

• *Microsoft SQL Server Software.* Choosing the right version of the SQL Server software should be part of the sizing process describe above. To select the appropriate service pack:

Note. The minimum version of Microsoft SQL Server that is supported for PeopleSoft applications 9.0 and later is Microsoft SQL Server 2005. If you are installing PeopleSoft application 9.0 or later you must have installed at least Microsoft SQL Server 2005.

See My Oracle Support, Certifications.

• *SQL Server ODBC Driver.* As a rule of thumb the minimum ODBC driver you should run with is the one that came bundled with the certified SQL Server release in use.

As an example if the certified release you are installing is SQL Server 2005 SP3, you should install the SQL Native Client (SNAC) ODBC driver that came with that service pack in all the clients that need to connect to the server through ODBC. Microsoft SQL Server includes a "client only" installation, which you can use to deploy the ODBC driver. The PeopleSoft system uses only the ODBC driver that comes with that setup.

Defining Supplemental Workstation Requirements for Microsoft SQL Server

Any workstation that requires a two-tier access to the application database must have the appropriate client software installed. Microsoft SQL Server delivers a "client only" installation that you can use to deliver the ODBC drivers necessary to install the client libraries and applications required to connect to the database. Note the drivers may change when applying a service pack or fix to the server. For this reason, make sure all the clients accessing in two-tier mode are updated when installing a service pack or fix.

The PeopleSoft system uses only ODBC to connect to Microsoft SQL Server.

See Also

"The PeopleSoft Pure Internet Architecture"

"The PeopleTools Development Environment"

My Oracle Support, Certifications

Defining Microsoft SQL Server Maintenance Levels

Microsoft uses service packs to update Microsoft SQL Server. The list of service packs certified is available on the My Oracle Support web site. In addition, Microsoft may deliver last-minute updates to protect the software from vulnerabilities or to fix problems. Oracle does not certify for all these updates. However, your environment remains certified if Microsoft requires the installation of one of these updates to solve a specific problem. If your environment does not show the problem the updates describe, you should not apply additional fixes. If you observe problems in your PeopleSoft environment after applying a Microsoft fix, please contact Microsoft first to solve the problem; if necessary, Microsoft will contact Oracle to coordinate the resolution of the problem.

See the Microsoft web site, www.microsoft.com

See My Oracle Support, Certifications.

Defining Oracle Support

This section discusses:

- Understanding Oracle

- Defining Oracle Software Requirements

- Defining Supplemental Workstation Requirements for Oracle

Understanding Oracle

This section specifies Oracle-supported server platform configurations for Oracle. For universal database server requirements, refer to the database server section of this chapter. Any additional hardware or software required for Oracle servers is listed below.

Defining Oracle Software Requirements

The following are the Oracle software requirements:

- Oracle 10g plus patch. Search My Oracle Support for required Oracle RDBMS patches.

  See "Operating System, RDBMS & Additional Component Patches Required for Installation," My Oracle Support, (search for the article name).

  See My Oracle Support, Certifications.

- SQL*Plus.

Defining Supplemental Workstation Requirements for Oracle

Oracle Net (see My Oracle Support, Certifications, for details about specific version numbers). See the earlier section on database connectivity for details about when you would want connectivity on the client.

Note. The client and server must be the same version. Often there will be an Oracle patch or a patch rolled into a patchset that fixes a bug on the client side. If the server is the only piece that you upgrade, the issue will still exist. For example, if you are running Oracle 10.2.0.5.0, your client needs to also be on 10.2.0.5.0. This is true for both client connectivity on Windows and for client connectivity on application servers and batch servers when connecting to a remote database server.

See Also

"The PeopleSoft Pure Internet Architecture"

"The PeopleTools Development Environment"

Defining DB2 for z/OS Support

This section discusses:

• Understanding DB2 for z/OS

• Defining DB2 for z/OS Hardware Requirements

• Defining DB2 for z/OS Software Requirements

• Defining DB2 for z/OS Configuration

• Defining Supported Gateway Configurations

Understanding DB2 for z/OS

This section specifies Oracle-supported server platform configurations for DB2 for z/OS.

For universal database server requirements, refer to the database server section of this chapter. Any additional hardware or software required for DB2 for z/OS servers can be found on My Oracle Support.

See My Oracle Support, Certifications.

Database sizes vary by application and the amount of data stored. Use IBM's "large" system model guidelines as a starting point when planning your PeopleSoft implementation. The following IBM documentation contains detailed information for determining DASD ("Direct Access Storage Device") requirements for system and application databases:

See *IBM DB2 Administration Guide, Volume 1*.

Note. Only the minimum required z/OS release will be listed in the certification documents, and only z/OS releases installed and tested here at Oracle are supported.

Note. COBOL is not needed for PeopleSoft PeopleTools or for applications that contain no COBOL programs. If your application contains COBOL programs, you need to purchase a Micro Focus COBOL compiler for Windows, UNIX, or Linux platforms, or an IBM Enterprise COBOL for z/OS and OS/390 compiler for z/OS platforms.

See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the Micro Focus COBOL Compiler," My Oracle Support, (search for the article title).

Defining DB2 for z/OS Hardware Requirements

The following are DB2 for z/OS hardware requirements:

- IBM or compatible mainframe capable of running the host software itemized below.

- Sufficient disk space to accommodate one production and one test version of your database, one copy of the PeopleSoft database, and all log files. This is in addition to any disk space required for any training or development databases. Upgrades require additional copies. Database sizes vary depending on the application.

- Router or bridge, and bridge software, such as packages offered by Cisco, IBM, Netronix, VitaLink, or Wellfleet (required only if you use a bridged Token Ring solution).

Note. IBM recommends G5 or later processors for running PeopleSoft installations. PeopleSoft batch applications can make extensive use of IEEE floating-point processing. G5 hardware has improved IEEE floating-point by many folds with integration of the floating-point functionality in to the hardware. G4 and earlier processors provide IEEE floating-point emulation in software, which yields lower performance for application engine and other floating-point intensive applications.

- IBM recommends IBM System z10 Enterprise Class systems for the best performance when installing a Unicode database in PeopleSoft installations.

Defining DB2 for z/OS Software Requirements

The following are DB2 for z/OS software requirements:

- ACF/VTAM version 2 or later.

- Security software: RACF, ACF2, or TopSecret.

- TSO.

- IND$FILE Host file transfer program or FTP or other capability to upload PeopleSoft batch program source, JCL, and others to mainframe.

- IBM Enterprise COBOL for z/OS compiler for the mainframe, including compiler, runtime and LE environment.

- DB2 Connect (see My Oracle Support, Certifications for precise version numbers).

- The minimum supported Java Runtime Environment (JRE) version for PeopleSoft PeopleTools 8.51 and above is JRE 1.6.0.

- TCP/IP for MVS, Version 3 Release 2 or higher.

- DB2 Open Database Connectivity (ODBC).

- See My Oracle Support, Certifications for the minimum required z/OS version.

- The %UpdateStats metaSQL function requires the following:

  - IBM stored procedure DSNUTILS. DSNUTILS is an IBM delivered stored procedure that allows application programs to execute DB2 utilities (such as Runstats).

  - Note that DSNUTILS must execute in an authorized WLM (Work Load Manager) Application Environment. See the DB2 for z/OS Installation and Administration documentation for more details on using DSNUTILS.

  - IBM APAR UQ67239 / UQ67238 is required to use DSNUTILS with a Secondary Authid.

- Unicode support requires a minimum of DB2 for z/OS v8.1 running in New Function Mode.

Note. *UNIX* COBOL support for z/OS DB2 (EBCDIC) databases:

RemoteCall Cobol and Batch Cobol are *only supported* for Financials/SCM applications.

RemoteCall Cobol and Batch Cobol *are not supported* for any other product lines.

Note. *Windows* COBOL support for z/OS DB2 databases:

RemoteCall Cobol and Batch Cobol *are supported* for Financials/SCM applications.

RemoteCall Cobol and Batch Cobol *are supported* for other applications, but *only if your host's DB2 subsystem is CCSID=37*.

Note. *UNIX and Windows* COBOL support for z/OS DB2 Unicode databases:

RemoteCall Cobol and Batch Cobol *are supported* for Financials/SCM applications.

RemoteCall Cobol and Batch Cobol *are also supported* for any other product lines.

See Also

PeopleTools 8.52 Installation for DB2 for z/OS

My Oracle Support, Certifications

"Important PTFs for PeopleSoft on DB2 for z/OS," My Oracle Support (search for the article name)

Defining DB2 for z/OS Configuration

This section discusses:

• Understanding DB2 for z/OS Configuration

• Describing DB2 Connect

• Using Gateway Connection with DB2 Connect Enterprise Edition

• Using Native TCP/IP Connection DB2 Connect Personal Edition

Understanding DB2 for z/OS Configuration

PeopleSoft access to IBM-compatible mainframes on LANs can be provided either through a gateway machine or directly. If you are using DB2 Connect Enterprise Edition, it is paramount to have a fast network connection between the DB2 Connect EE gateway machine and DDF on the mainframe. You can use various LAN types for connecting the DB2 Connect EE machine to the mainframe, including mainframe-attached ESCON, FDDI, or OSA-2 adapters using fast ethernet connections. This is also true when using DB2 Connect PE to connect directly to DDF on the mainframe using native TCP/IP. The LAN for your workstations should have a connection to the mainframe that is optimal for performance and uses the fastest available bridges and routers.

The discussion in this section explains these different configuration options. The following diagram illustrates the difference in the interaction between the various servers when using DB2 Connection Enterprise Edition and a gateway machine, or using DB2 Connect Personal Edition.
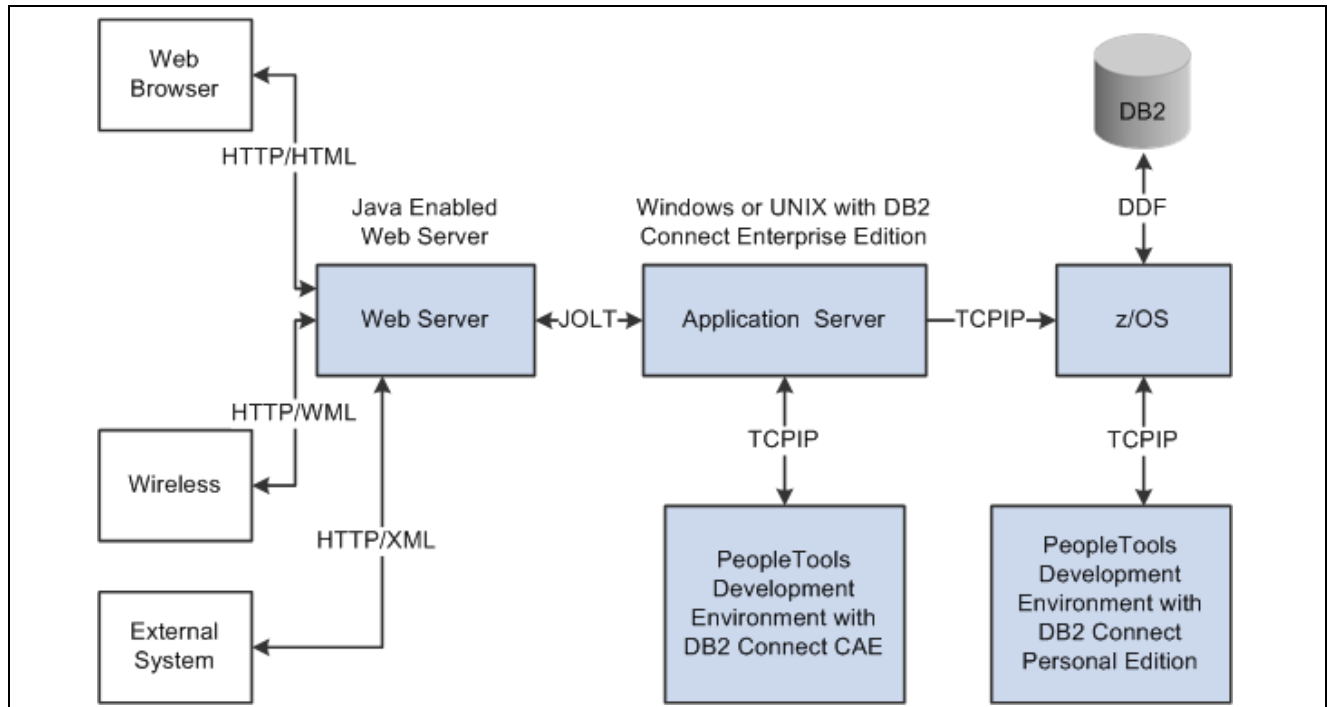
Connecting through a gateway machine using DB2 Connection Enterprise Edition and connecting directly using DB2 Connect Personal Edition

Describing DB2 Connect

When using an IBM DB2 Connect Enterprise Edition (EE) gateway together with the IBM DB2 Client Application Enabler (CAE) client component, the supported network protocol for communication between an end user workstation and the DB2 Connect EE gateway is TCP/IP. The supported network protocol for communication between the DB2 Connect EE gateway and the mainframe is TCP/IP. DB2 Connect supports TCP/IP protocols for connections with all Distributed Relational Database Architecture (DRDA) servers.

When using DB2 Connect Personal Edition (PE), the supported network protocol for direct communication to the mainframe is TCP/IP.

The host connectivity component used with DB2 Connect is DB2's Distributed Data Facility (DDF). Oracle supports the DB2 Connect Enterprise Edition for PeopleSoft software on all IBM supported operating systems.

The following sections provide a brief overview of the DB2 Connect architecture. For more detailed information, please refer to the following DB2 Connect product documentation: DB2 Connect Enterprise Edition Quick Beginnings, and DB2 Connect Personal Edition Quick Beginnings.

Using Gateway Connection with DB2 Connect Enterprise Edition

PeopleSoft customer experience indicates that a single gateway can support between 100 and 200 concurrent users before degradation in response time occurs. This practical limit is principally due to the processor limitations of the gateway machine. You can alleviate this per gateway limitation by implementing additional gateways. The IBM DB2 Connect Enterprise Edition gateway scales to approximately 200 users.

Note. If your configuration includes a gateway, we recommend that the gateway be connected directly to the mainframe communications controller to optimize the performance of gateway-to-mainframe communications.

Using Native TCP/IP Connection DB2 Connect Personal Edition

As mentioned, DB2 Connect Personal Edition provides the option for a direct native TCP/IP connection between Microsoft Windows-based clients (the PeopleTools development environment) and DB2 for z/OS, as shown in the Application Server diagram above.

Defining Supported Gateway Configurations

Your communications gateways can be configured like normal workstations with the exception of the following additional requirements:

• Sufficient disk space for the operating system and connectivity software (approximately 50 MB).

• Ample memory, with a minimum of 64 MB.

• Fast network card/connection to mainframe. It is highly recommended that you use fast connectivity options—such as Open Systems Adapter 2 card (OSA-2) with 100 MB Ethernet or Fiber Distributed Data Interface (FDDI), or Enterprise System Connection (ESCON) channel-attached.

• Optional uninterruptible power-supply (UPS) with sufficient capacity to permit orderly shutdown of gateway and operating system in event of power failure.

See Also

"The PeopleSoft Pure Internet Architecture"

"The PeopleTools Development Environment"

Defining DB2 for Linux, UNIX, and Windows Support

This section discusses:

• Understanding DB2 for Linux, UNIX, and Windows

• Defining Supplemental Workstation Requirements for DB2 for Linux, UNIX, and Windows

• Defining Supplemental Requirements for DB2 for Linux, UNIX, and Windows

Understanding DB2 for Linux, UNIX, and Windows

This section specifies Oracle-supported server platform configurations for DB2 for Linux, UNIX, and Windows. For universal database server requirements, refer to the database server section of this chapter. Any additional hardware or software required for DB2 for Linux, UNIX, and Windows servers is listed below.

Defining Supplemental Workstation Requirements for DB2 for Linux, UNIX, and Windows

The following are supplemental workstation requirements for DB2 for Linux, UNIX, and Windows:

• DB2 for Linux, UNIX, and Windows (see My Oracle Support, Certifications for precise version numbers)

• DB2 Connect

See Also

"The PeopleSoft Pure Internet Architecture"

"The PeopleTools Development Environment"

My Oracle Support, Certifications

Defining Supplemental Requirements for DB2 for Linux, UNIX, and Windows

Check the My Oracle Support site for required patches. Consult the following document, which also lists the patches required for other components.

See "Operating System, RDBMS & Additional Component Patches Required for Installation," My Oracle Support (search for the article name).

Defining Informix Support

This section discusses:

• Understanding Informix

• Defining Informix Software Requirements

• Defining Supplemental Workstation Requirements for Informix

Understanding Informix

This section specifies Oracle-supported server platform configurations for Informix. For universal database server requirements, refer to the database server section of this chapter. Any additional hardware or software required for Informix servers is listed below.

For PeopleSoft installations, Oracle supports databases created in MODE ANSI and non-ANSI databases that have transaction logging enabled.

Defining Informix Software Requirements

The following are minimum software requirements for Informix:

•   Informix 11.1 (minimum).

     See My Oracle Support, Certifications.

•   Informix Connect 3.5 (minimum). The PeopleSoft installation does not require the Informix Client SDK (Software Development Kit) product unless you are installing the DB-Access for Windows product.

•   Informix Client SDK 3.5 (minimum)

Defining Supplemental Workstation Requirements for Informix

If you want to run a Windows-based client, Informix Connect or Informix CSDK must be installed with network protocol such as TCP/IP. See the earlier section on database connectivity for more information on client connectivity.

See Also

"The PeopleSoft Pure Internet Architecture"

"The PeopleTools Development Environment"

My Oracle Support, Certifications

Defining Sybase Support

This section discusses:

• Understanding Sybase

• Defining Sybase Software Requirements

Understanding Sybase

This section specifies Oracle-supported server platform configurations for Sybase. For universal database server requirements, refer to the database server section of this chapter. Any additional hardware or software required for Sybase servers is listed below.

For Sybase, Oracle only supports binary sort order. These settings are per server, and you set them at installation.

Defining Sybase Software Requirements

The minimum ASE release required is Sybase Adaptive Server Enterprise (ASE) 15.0.3.

Oracle only supports a binary sort order for its applications running on ASE. The supported character set for PeopleSoft databases is iso_1.

Note. HP defaults to *roman8,* which Oracle changes to iso_1 during certification testing.

For PeopleSoft PeopleTools 8.44 and above, Oracle supports a minimum of 4 K page sizes. You need to know which page size you will use when installing your server software. This may not be the default when installing the database server software, so make sure you chose the correct option when installing the software.

For PeopleSoft PeopleTools 8.52, Sybase Open Client 15.0 can be used to connect to ASE.

Defining Support for Reporting Tools

This section discusses:

• Understanding Reporting Options for PeopleSoft PeopleTools

• Understanding SAP BusinessObjects Software and PeopleSoft Software

• Defining System Requirements for Crystal Reports 2008

• Defining Certified Releases of SAP BusinessObjects Enterprise XI 3.1

- Defining System Requirements for SAP BusinessObjects Enterprise XI 3.1

- Defining Supported Platforms for SAP BusinessObjects Enterprise XI 3.1

- Defining Hardware Requirements for SAP BusinessObjects Enterprise XI 3.1

Understanding Reporting Options for PeopleSoft PeopleTools

Beginning with PeopleSoft PeopleTools 8.52, the strategic PeopleSoft reporting option provided with PeopleSoft PeopleTools is Business Intelligence (BI) Publisher for PeopleSoft (formerly known as XML Publisher for PeopleSoft). This option has been provided with PeopleSoft PeopleTools since release PeopleSoft PeopleTools 8.48, and PeopleSoft PeopleTools continues to distribute this reporting functionality and provide a no-cost license for it.

Prior to July 1, 2011, Oracle provided a license for, and distributed SAP Crystal Reports and Business Objects with PeopleSoft PeopleTools. Customers that have previously been granted a license from Oracle to SAP Crystal Reports 2008 or Business Objects Enterprise XI 3.1 may continue to use those products, but they are no longer required to run PeopleSoft. Customers who do not have a license granted by Oracle, or those desiring to upgrade to newer Crystal/BOE releases will need to obtain a license from SAP. See "Oracle Modifies Business Objects Enterprise and Crystal Reports Licensing for PeopleSoft" (Doc ID 1184384.1) on My Oracle Support for more information. For current certification levels, please see My Oracle Support, Certifications.

See Also

"The PeopleTools Development Environment," Defining BI Publisher Developer Environment Software Requirements

Understanding SAP BusinessObjects Software and PeopleSoft Software

You have the option of using the following SAP BusinessObjects software with your PeopleSoft installation:

- Crystal Reports

- SAP BusinessObjects Enterprise XI

In addition to using the SAP Crystal Reports 2008 runtime environment, if you are using PeopleSoft PeopleTools 8.51 or higher and are using PeopleSoft applications at releases 9 or higher, you can optionally use the SAP BusinessObjects Enterprise XI 3.1 runtime environment to run and view your reports. SAP BusinessObjects Enterprise XI 3.1 has been integrated with PeopleSoft Report Manager and Process Scheduler. You can schedule, monitor, and purge SAP BusinessObjects XI Enterprise reports from Process Scheduler and you can interface with the SAP BusinessObjects Enterprise XI report repository through Report Manager.

PeopleSoft PeopleTools 8.51 and higher supports an optional integration with SAP BusinessObjects Enterprise XI 3.1 under certain circumstances.

Defining System Requirements for Crystal Reports 2008

Crystal Reports is a Windows client report designer that helps you rapidly create flexible, feature-rich reports that can be deployed on SAP BusinessObjects Enterprise XI. Here are the minimum hardware requirements as described by SAP BusinessObjects:

- Operating system

  - Microsoft Windows 2008 Server

  - Microsoft Windows XP SP2 Professional

- Microsoft Windows Vista or Vista SP1

- Microsoft Windows 7

- Processor — Intel Pentium III or equivalent

- Memory — 256 MB of RAM (512 MB recommended)

- Hard disk — 600 MB of free hard disk space

Defining Certified Releases of SAP BusinessObjects Enterprise XI 3.1

PeopleSoft PeopleTools 8.52 general release is certified to work with the following version of SAP BusinessObjects Enterprise:

SAP BusinessObjects Enterprise XI 3.1.

Consult My Oracle Support for current information on certifications or planned certifications of other releases of SAP BusinessObjects Enterprise XI.

See My Oracle Support, Certifications.

Defining System Requirements for SAP BusinessObjects Enterprise XI 3.1

Generally, the following components must be installed and configured correctly before you install SAP BusinessObjects Enterprise XI 3.1:

- Database software that is compatible with the SAP BusinessObjects Enterprise XI Central Management Server (CMS)

- Web server software

- Web application server software (J2EE for Java environments).

- Web browsers (on web desktop clients' machines)

Note. The versions of system software (such as operating system, database, and web server) required for SAP BusinessObjects Enterprise XI 3.1 may be different than the versions required for installation of PeopleSoft servers.

Defining Supported Platforms for SAP BusinessObjects Enterprise XI 3.1

Oracle certifies integration between PeopleSoft PeopleTools and SAP BusinessObjects Enterprise XI 3.1 for a sub-set of all platforms that SAP BusinessObjects Enterprise XI 3.1 runs on. This sub-set generally corresponds to those platforms on which PeopleSoft PeopleTools is supported.

In certain cases there are platforms on which PeopleSoft PeopleTools runs that are not supported by Business Objects. In that case, of course, that platform is not supported.

There may be slight differences at the point release level between a certified platform for PeopleSoft PeopleTools and a certified platform for SAP BusinessObjects Enterprise XI. While we make an effort to keep these certifications consistent between the two products, you must follow the certifications specific to each product.

Consult the certifications information for PeopleSoft products on My Oracle Support for the specific version numbers that are certified for the operating systems, database platforms, and so on discussed in this section. You can also find information on required patches for PeopleSoft PeopleTools installations on My Oracle Support.

See My Oracle Support, Certifications.

Note. For more details on supported platforms for SAP BusinessObjects Enterprise XI 3.1 go to the SAP BusinessObjects web site.

• *Operating Systems*
    • HP-UX for PA-RISC
    • IBM AIX
    • Microsoft Windows Server
    • Oracle Solaris for SPARC
    • RedHat Enterprise Linux for x86
    • SuSE Enterprise Linux for x86
• *Database Platforms*
    • IBM DB2 for Linux, UNIX, and Windows
    • Microsoft SQL Server
    • Oracle
    • Sybase
• *Web Servers*
    • Oracle WebLogic
    • IBM WebSphere Application Server
• *Browsers*
    • Microsoft Windows:

      Firefox

      Internet Explorer
    • Apple Mac OS X:

      Safari

See Also

"Operating System, RDBMS & Additional Component Patches Required for Installation PeopleTools 8.52," My Oracle Support, (search for article name).

Defining Hardware Requirements for SAP BusinessObjects Enterprise XI 3.1

The following specifications are *minimum* hardware requirements for running SAP BusinessObjects Enterprise XI 3.1. These specifications are appropriate for a development environment and not a production environment. The sizing of your test and production environment will be based on your enterprise's expected volume and usage characteristics.

- HP-UX
  - PA-RISC processor
  - 2 GB RAM
  - 6 GB available hard drive space
- IBM AIX
  - 1 CPU, Power 4
  - 2 GB RAM
  - 6.25 GB hard drive
- Microsoft Windows OS
  - 2.0 GHz Pentium 4-class processor
  - 2 GB RAM
  - 6.75 GB available hard drive space
- Linux
  - 2 GHz Pentium 4-class processor
  - 2 GB RAM
  - 5.5 GB hard drive space
- Oracle Solaris
  - SPARC v8plus
  - 1 GB RAM
  - 4 GB hard drive space

Describing LDAP Server

The current PeopleSoft release provides the option of using an LDAP server for authentication and authorization. An LDAP server is a directory server that is compliant with the LDAP version 3 protocol. Directory servers hold a hierarchical datastore, which can house data common to many applications across the enterprise. Oracle supports all directory servers that are compliant with the LDAP version 3 protocol.

For information on your LDAP server software and hardware requirements, refer to the LDAP directory server vendor's documentation.

CHAPTER 5

Additional Requirements

This chapter discusses:

• Describing Debugger Requirements

• Describing JRE Requirements

• Using Performance Monitor

Describing Debugger Requirements

This section discusses:

• Describing Debugger Requirements for the AIX Operating System

• Describing Debugger Requirements for the HP-UX Operating System

• Describing Debugger Requirements for the Linux Operating System

• Describing Debugger Requirements for the Solaris Operating System

• Describing Debugger Requirements for the z/OS Operating System

Describing Debugger Requirements for the AIX Operating System

If you are installing on an AIX platform, download and install the latest gdb RPM from IBM's website, and install it.

Describing Debugger Requirements for the HP-UX Operating System

If you are installing on an HP-UX platform, download and install the latest wdb from http://www.hp.com/go/wdb.

Describing Debugger Requirements for the Linux Operating System

If you are installing on a Linux platform, install the "glibc-debuginfo" RPM package. This requirement applies to both x86_64 and zSeries Linux installations.

There should be one "glibc-debuginfo" package for each installed "glibc" package and the version numbers must match exactly. Use the following commands to determine the packages installed:

- To see the installed "glibc" versions, run:

  ```
  rpm -q --queryformat "%{NAME}-%{VERSION}-%{RELEASE}-%{ARCH}\n" glibc
  ```

  For example, running this command on an Intel-based Linux system should produce output similar to this:
  ```
  glibc-2.5-24-i686
  glibc-2.5-24-x86_64
  ```

  Running this command on a zSeries Linux system should produce output similar to this:
  ```
  glibc-24-31.2-s390x
  ```

- To see the installed "glibc-debuginfo" packages, run:

  ```
  rpm -q --queryformat "%{NAME}-%{VERSION}-%{RELEASE}-%{ARCH}\n" glibc-debuginfo
  ```

Make sure that the "glibc-debuginfo" RPM version is exactly the same as the "glibc" version.

Describing Debugger Requirements for the Solaris Operating System

If you are installing on a Solaris platform, install dbx. No compiler license of any kind is needed for this. Download the latest Sun Studio, and on the Select Components page of the installer, expand the Compilers and Tools component and deselect all of the subcomponents except dbx. Also deselect the Performance Library and Third-Party Tools components. The installer will install the dbx subcomponent and the Support files subcomponent. The Support files subcomponent includes packages on which dbx depends.

Describing Debugger Requirements for the z/OS Operating System

If you are installing on a z/OS platform, dbx comes with z/OS UNIX. Starting with z/OS v1r5, dbx requires the Common Debug Architecture (CDA) libraries to be present. They must be accessible by dbx in order for it to run. The libraries are as follows:

Library	Description
CDAEED	Amode31 ELF/DWARF library
CDAEQED	Amode64 ELF/DWARF library
CDAEDPI	Amode31 DDPI library
CDAEQDPI	Amode64 DDPI library

Note. CDAEDPI and CDAEQDPI are only present on a z/OS v1r7 and higher systems.

Depending on the size of the program you are debugging with dbx, plus how many others are also using dbx on your system, you may run out of SQA and/or CSA storage on your z/OS system, because this storage is global z/OS storage. Consult the z/OS initialization and tuning guide for information on how to modify the z/OS parameters.

When diagnosing crashes, be aware that a crash is more strictly defined on z/OS as a program check that is handled by z/OS UNIX as a fatal signal (for example, SIGSEGV for PIC4; 10, 11, or SIGILL for PIC1). A crash would also occur because of a fault in the JVM, or because of a fault in native (JNI) code that is being run inside the Java process.

When one of these fatal signals occurs, obtain the following documents to help you debug:

- a formatted LE dump (CEEDUMP)

  The CEEDUMP shows the C-Stack (or native stack). The traceback from a CEEDUMP shows where a failure occurred for a C/C++ program

- a JVM trace snap dump

- a formatted JVM dump (javacore)

The default action of the z/OS UNIX signal handler is to produce a transaction dump (through the BCP IEATDUMP service), CEEDUMP, JVM dump javacore.

Describing JRE Requirements

The PeopleSoft Installer requires Java Runtime Environment (JRE), which is bundled for all operating system platforms. PeopleSoft PeopleTools also requires that JRE be installed on the web servers, application servers, Process Scheduler and report distribution servers. To determine the correct JRE version for your system, see the information on My Oracle Support.

After installation, you can upgrade your JRE to a newer patch version without upgrading PeopleSoft PeopleTools, as long as the new JRE is certified. The new version must be the same base version as the original. For example, if JRE 6 is required, you can replace it after installation with 6 update 11, but not with JRE 7. For information on how to upgrade your JRE version, see the information on My Oracle Support.

See Also

"Operating System, RDBMS, and Additional Component Patches Required for Installation," My Oracle Support (search for the article name)

"JRE - Web Servers" My Oracle Support (search for the article name)

"JRE - Application/Batch Server" My Oracle Support (search for the article name)

Using Performance Monitor

Understanding Performance Monitor

PeopleSoft Performance Monitor is an optional application that delivers an integrated infrastructure to support the monitoring of performance throughout your PeopleSoft systems. PeopleSoft Performance Monitor collects and stores performance data on *events,* and *Performance Measurement Units* (PMUs). Event data reports system resources, such as CPU and memory usage. PMU data reports key metrics on user transactions, such as duration of a transaction and response size.

Note. Oracle does not support the self-monitoring implementation for production systems. For a production system, you must set up the PeopleSoft Performance Monitor in a separate database.

See Also

PeopleTools 8.52: PeopleSoft Performance Monitor PeopleBook

Defining Sizing Requirements for Performance Monitor

Performance Monitor database sizing estimates are based on the sum of space requirements for events and performance measurement units (PMUs) performance data. Use the information in the Performance Monitor PeopleBook to estimate the space required for your PeopleSoft Performance Monitor database server based on your system setup and predicted usage.

For example, suppose a company uses Performance Monitor to monitor two PeopleSoft Applications, Financial and HCM. Both applications use DB2 for z/OS Unicode databases. It is decided the performance history data will be kept for a 7-day period. Each system has two web server domains, two application server domains, and two process scheduler domains. The implementation team decides to use medium application server configuration for both domains. There is one master scheduler for each of the system.

It is estimated that, on average, 10,000 user sessions will be logged per day in each of the systems. During each session, 50 user interactions (clicking buttons, tab to next field or page, and so on) will occur. The Performance Monitor database server in this scenario will require 1,024 MB for event data and 232,032 MB for PMU data, a total of 233,056 MB.

See Also

PeopleTools 8.52: Performance Monitor PeopleBook, "Administering the Performance Monitor"

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