Project and Portfolio Management Center

Software Version: 10.0.1

System Requirements and Compatibility Matrix

Micro Focus®

Contents

Chapter 1: Introduction

Welcome to Project and Portfolio Management Center (PPM). The goal of this document is to provide you with the details that will allow you to understand the hardware and software options available for your deployment of PPM.

This document provides the details about the environments and products supported by Micro Focus for this version of PPM. Additionally, this guide identifies required third-party software as well as software that can be used to enable optional features, functionality, and topologies.

An Overview of the PPM Architecture

PPM employs a three-tier, client-server architecture as shown in the following conceptual diagram. Refer to the *Installation and Administration Guide* for details about the available system configuration options.

PPM architecture
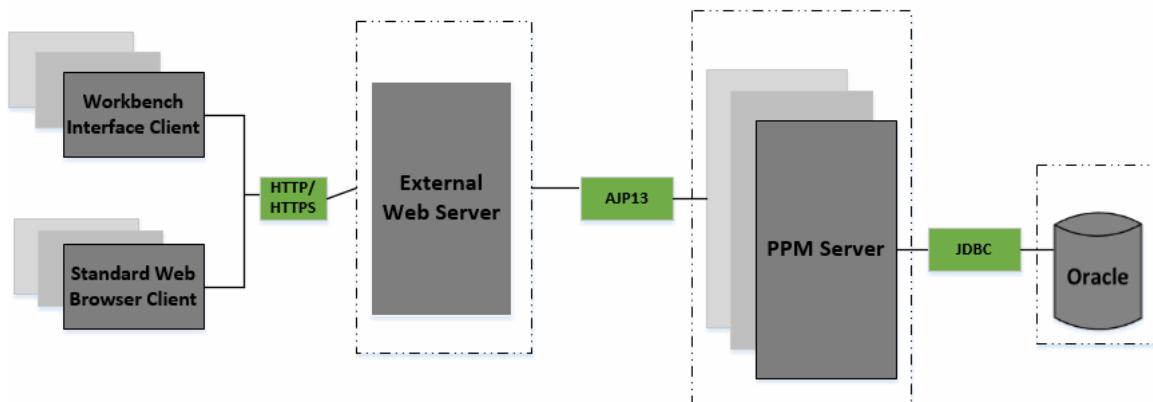
"Client-Side Products and Environments" on page 7 provides details about the requirements and optional software used in the client tier. These components are identified in the client-side (left) portion of the figure above.

"Server-Side Products and Environments" on page 11 focuses on the hardware and software requirements for the application and database tiers. The major components of these tiers are identified the server-side (right) portion of the figure above.

In addition the application and database tier components, the server-side section also provides details about the optional Web server component.

Although not shown in the previous figure, PPM is able to integrate with most industry standard single sign-on systems such as CA SiteMinder version 6.0.

Note: PPM will support single sign-on integration to the extent that the PPM API is used for this purpose. PPM will provide logging information so that customers and third-party vendors can troubleshoot the integration themselves. PPM will not set up the third-party system for debugging purposes. PPM does not commit to changing any PPM-produced code should the integration fail.

"PPM Migrator and Extension Products and Environments" on page 50 details the third-party software supported for the PPM Extensions and Migrators.

An Overview of Language Support

The PPM software must be installed (or upgraded) and maintained on servers relying on either an English-language or Japanese-language operating system. Installation of language packs provide the appropriate language content for the principal areas of the PPM user interface and entities.
PPM clients should use one of the languages deployed on the PPM instance.

The following language packs are available with the initial release of the product and are included in the installation bundle:

- English (en)
- Russian (ru)
- Portuguese (pt_BR)
- Spanish (es)
- Chinese (zh_CN)
- German (de)
- French (fr)
- Turkish (tr)
- Italian (it)
- Japanese(ja)
- Dutch (nl)
- Swedish (sv)
- Arabic(ar)

Note: Language codes (abbreviations) may need to be used when generating fiscal periods, translating customized entities, or identifying language-specific paths on the PPM Server. Make sure that you use the language codes shown in parentheses in the previous list and that the specified language is installed on PPM.

Chapter 2: Client-Side Products and Environments

The following sections provide information about Web client environment requirements for both the PPM standard interface and the PPM Workbench as well as support for optional, third-party, client-based products.

Platform and Browser Requirements

Note: These are minimum requirements. Additional performance enhancing options, such as additional RAM/memory, may be desired.

Client requirements include the following:

- Operating system
  - Microsoft® Windows® 7 Enterprise Edition (both 32- and 64-bit)
  - Microsoft® Windows® 8 Enterprise Edition (both 32- and 64-bit)
  - Microsoft® Windows® 8.1 Enterprise Edition (both 32- and 64-bit)
  - Microsoft® Windows® 10 Enterprise Edition (both 32- and 64-bit)
  - Mac OS 10.12 Sierra
  - Mac OS 10.13 High Sierra
  - Mac OS 10.14 Mojave
- Mobile operating system for PPM Mobile Website Client (PPM Apps)
  - iOS 8 (on iPhone 6/6 plus), or iOS 7 (on iPhone 5/5S)
  - Android 6, Android 4.2 (on Samsung Galaxy S4), or Android 4.4 (on Samsung Galaxy S5)
- Hardware
  - 1.0 GHz (or faster) processor
  - RAM
  - At least 512 MB
  - For PPM Workbench, at least 1 GB
- Tablet computer

  The following tablet computer as PPM client:
  - iPad 2 with iOS 5
  - iPad 3 with iOS 5.1
  - iPad 4 with iOS 6
  - HP ElitePad
  - iPad 4 with iOS 10
- Adobe® Acrobat Reader 5.0 (or later)
- Browsers
  - Microsoft Edge: the latest version
  - Microsoft Internet Explorer 11 (standard mode only) on Windows 7~10 Enterprise Edition
  - Safari 11.1 on Mac OS, 10.12, 10.13, 10.14

- Mozilla Firefox 91.6.0 Extended Support Release (ESR) on Windows 7~10 Enterprise Edition

  Note: For Firefox, PPM certifies ESR versions only. See https://www.mozilla.org/en-US/firefox/organizations/faq/ for Firefox ESR overview.

- Google Chrome 98.0 on Windows 7~10 Enterprise Edition

Multilingual User Interface Support

To support the languages listed in "An Overview of Language Support" on page 6, clients should be configured with at least one of the languages as that installed on the PPM instance.

For example, if your PPM instance has only the French language pack installed, all clients that access this instance should be configured to use French.

PPM Workbench Requirements

Java™ Plug-In Requirements

Access to the PPM Workbench requires an appropriate version of the Oracle Java plug-in installed.

Supported versions include:

- Java 8 Update 191 or later update (32-bit and 64-bit) for IE on Windows
- OpenJDK 8 Update 191 or later update (32bit and 64bit) on Windows

  The desktop application "Workbench App" is required if you want to access PPM Workbench using OpenJDK.

Install Workbench App

1. Select Open > Administration > Workbench > Open workbench App.
2. In this page, click the download link and save the Workbench bundle to computer.
3. Unzip the downloaded zip file.
4. Double click install.bat to register Workbench.

Open Workbench App

To open workbench application from the installation folder:

1. Open the workbench folder of the unzipped workbench bundle.
2. Double click Startup.bat.
3. Enter the PPM URL and user credential information.

To open workbench application from the PPM web page:

1. Select Open > Administration > Workbench > Open workbench App.
2. Accept the browser's prompt to open Workbench smoothly next time.

   Note: If SSO is enabled, exclude the Workbench URL from SSO's protection: http://<PPM _Base_URL>/itg/wbservices

Disk Space Requirements

User machines that access the PPM Workbench require 40 MB of disk space more than is required by the browser. This space is required to store client-side Java files.

Optional Products

This section lists the optional products that can be used with this version of PPM.

Visual Studio Tools for Office (VSTO)

- VSTO version 3.0 for Microsoft Project 2007

  Note: For Microsoft Project 2010 and later, VSTO should be bundled automatically with Office installation. Make sure your system administrator did not disable the automatic VSTO installation.

Microsoft Office Primary Interop Assemblies (PIA) for Microsoft Project

- Version 2007 for Microsoft Project 2007

  Note: For Microsoft Project 2010 and later, PIA should be bundled automatically with Office installation. Make sure your system administrator did not disable the automatic PIA installation.

Microsoft Excel

The following versions of Microsoft Excel are supported:

- Microsoft Office Excel 2007 SP1
- Microsoft Office Excel 2010
- Microsoft Office Excel 2013
- Microsoft Office Excel 2016

Microsoft .NET Framework

- Microsoft .NET Framework version 3.5 or later

Language Support

The optional products should use the corresponding language of the client (and supported on the PPM instance).

For example, if your PPM instance has the French language pack installed, clients with a French session language should use French for their optional software products.

Note: Do not attempt to use PPM with software products that have a mix of languages, such as a PPM instance supporting English, Korean, and French interacting with a German client having an Italian version of Excel software. All the software products used in your PPM client should rely on the same language, and this language must also be supported on the PPM instance.

Chapter 3: Server-Side Products and Environments

PPM Center Software Platform Support is limited to the software and versions specifically mentioned in this document unless otherwise noted.

Third party platform support information provided in this document does NOT supersede anything provided by the third party vendors. Please make sure that all third party software and platform combinations used in conjunction with PPM Center are supported by the respective vendors, and that the combinations are supported by PPM. PPM is not responsible for any discrepancies involving support platforms for third party products.

The following sections list the requirements for the PPM server-side components. Details specific to each component are documented in their own section. For your convenience the information is further categorized by platform and each section includes additional important information and considerations, if necessary.

Important Considerations

Carefully consider each of the following during your planning and deployment phases of PPM:

- Oracle® Support

  - All installed Oracle versions should include the most recent patches and follow the guidelines provided in the latest *Critical Patch Update.* This information is available from the Oracle web site.
    Throughout this guide, any Oracle patches or similar updates that are critical for PPM support are noted.

  - Standard Edition One, as well as the Standard and Enterprise Editions of the Oracle database versions are supported.

  - Micro Focus supports 32-bit and 64-bit Oracle for the versions and operating systems supported by PPM. These are subject to the hardware and operating system requirements established by Oracle.

- Operating System Support

  - Support for each operating system version assumes that the appropriate patch or patches have been applied to support the Java JDK installation on that system.

  - On x86 platforms, the distinction is made whether Micro Focus supports the 32- or 64-bit version of the operating system (Windows or Linux). On other platforms such as Oracle SPARC, IBM Power4/5, and PA-RISC or Itanium®, Micro Focus does support their respective 64-bit UNIX® operating system.

- Transparent Technology and Virtualization Support
  In recent years, a number of "transparent" hardware and software technologies and virtualization solutions (such as Citrix, Microsoft Cluster Software, and VMware) have become increasingly prevalent. These solutions operate in the technology layers adjacent to the operating systems or, in some cases, as extensions of the operating systems. Similarly, database solutions offer transparent components as supported elements.
  Micro Focus supports Project and Portfolio Management Center running on operating systems and databases on particular platforms as described in the matrix above, not specific hardware

and software configurations. Micro Focus will support Project and Portfolio Management Center customers who run Micro Focus software products on supported operating systems and databases, irrespective of whether they are running transparent or virtualization solutions in their environment.

Micro Focus does not support these transparent or virtualization technologies directly. Since the providers of these technologies support a set of certified operating systems and hardware, the customer and the providers of these technologies will be responsible for any interactions or issues that arise at the hardware or operating system layer as a result of their use. Micro Focus will not require customers to re-create and troubleshoot every issue in a non-transparent environment; however, Micro Focus does reserve the right to request that its customers diagnose certain issues in a native certified operating system environment without the transparent technology. Micro Focus will only make this request when there is reason to believe that the environment is a contributing factor to the reported issue.

While Project and Portfolio Management Center is expected to function properly with these transparent technologies in place, there may be performance implications, which can invalidate Micro Focus's typical sizing and recommendations. Analysis must be performed within the context of the specific application to be hosted in a virtual environment to minimize potential resource overload, which can have significant impact on performance and scalability, particularly under peak load.

- HPE Integrity Virtual Machine

  - Project and Portfolio Management Center for HP-UX 11i Integrity is binary compatible to run within an HPE Integrity Virtual Machine (VM).

- Language Support

  - The language for the operating system used for both the PPM Server and database must be either English or Japanese regardless of the languages deployed on the PPM instance.

    Limitation: If Japanese is the default language of Java Virtual Machine, the email notification is displayed in Japanese even though the log-in language is English. Therefore, when the PPM instance is on a platform whose operating system language is Japanese, you must explicitly specify English as the default language of Java Virtual Machine.

    To do so, change *<PPM_HOME>*/bin/kStart.sh by adding the line: SERVER_ OPTION="$SERVER_OPTION -Duser.language=en -Duser.country=US" after the following:

    ```
    if [ "$OS_NAME" = "AIX" ]; then
        SERVER_OPTION=""
    else
        SERVER_OPTION="-server"
    fi
    ```

  - Implementation of the various languages on the PPM instance may require additional configuration and maintenance.

  - National language support is available for the Managing Application Change integration software and the Migrators and Extensions on a limited basis—see the appropriate product documentation for details.

PPM Server Platforms

Microsoft Platforms

Operating System	Requirements	Additional Information
One of the following: • Microsoft Windows Server 2008, SPs 1 through 2, Standard, Enterprise, and Datacenter Edition (64-bit) • Microsoft Windows Server, 2008 R2, Standard, Enterprise, and Datacenter Edition (64-bit) • Microsoft Windows Server, 2012 R2, Standard and Datacenter Edition (64-bit) • Microsoft Windows Server 2016, Standard and Datacenter Edition (64-bit) • Microsoft Windows Server 2019, Standard and Datacenter Edition (64-bit) • Microsoft Azure	All of the following: • x86 and compatible chiparchitectures (1.5 GHz) • 2 GB RAM • 1 GB disk space	• These are minimum requirements— faster processors and additional memory and storageare acceptable. • See"Hardware Sizing Estimates" onpage 38 for additional considerations. • Limitson physical memory for 32-bit Windows operating systems depend in part on whether thePhysical Address Extension (PAE) is enabled. The PAE allows some 32-bit Windows systems (Windows Server 2008 Datacenter and Windows Server2008 Enterprise) to use more than 4 GB of physical memory. (To enable PAE, use the /PAE switch in the Boot.ini file.) The total available physical RAM on thissystem is limited to 4GB. For detailed information about memory support andmemory limitations on Windows operating systems,see Microsoft Support online.
When installed on an x86 VMware ESXi Server version 5.0 or 5.5 partition, one of the following: • All Microsoft operating systems previously identified in this table	All of the following: • x86 and compatible chiparchitectures (1.5 GHz) • 3 GB RAM • 1 GB disk space for installed files • 400 MB temporary space for installation files	• These are minimum requirements— faster processors and additional memory and storageare acceptable. • Remote Management of ESXis required.
JDK Software		

All Microsoft operating systems previously identified in this table, except as described in the row below	The following: • Java SE Development Kit (JDK) 8u101 (1.8.0 Update 101) or later update (available from Oracle) • OpenJDK 8 Update 242 or later update. Amazon Corretto JDK, Azul JDK, and OpenJDK which are bundled in RHEL are certified. **Caution**: It is recommended that you upgrade JDK to the latest update according to the vendor's security suggestions. If you upgrade JDK to the latest update, and run kConfig script in Windows OS, it throws an error. In this case, PPM suggests that you use server.conf file or Administration Console to update parameters, or run this script in the compatibility mode.	We recommend the following for JDK 8: • Use 64-bit JVM If you use JDK 8 for PPM Server platforms, the server configuration parameter SERVER_ MAX_PERM_SIZE stops working, and perm size would be included in heap size which is controlled by the parameter SERVER_MAX_HEAP_SIZE. • Update the RSA keys size to be greater than 1024 bits if you use X.509 certificates with RSA keys.
Communications Software		
All Microsoft operating systems previously identified in this table	One of the following: • Microsoft Windows Services for UNIX versions 3.0 and 3.5 • Microsoft Telnet Services	
All Microsoft operating systems previously identified in this table	One of the following: • Internet Protocol version 4 (IPv4) (default) • Internet Protocol version 6 (IPv6)	To enable support for IPv6, set the ENABLE_ IPV6 parameter to true in the server.conf file. For more information, see the Installation and Administration Guide.
Secure Communications Software		

For:	One of the following:	
• All previously identified Microsoft Windows Serverversions	• OpenSSH (included inCygwin) • Version 5.9 • Version 6.9 • Version 7.4 • VanDyke (VShell Server) • Version 2.6 • Version 3.0 • Version 3.5 • Version 3.6.2	
Terminal Emulation Software		
All Microsoft operating systems previously identified in this table	One of the following: • "Dumb" mode • VT100 mode • VT220 mode	
Other Software		
All Microsoft operating systems previously identified in this table	The following: • SQL*Net • SQL*Plus	• The Oracle client version should correspond to the version of the database used withthe PPM instance. • SQL*Net must be configured to recognize the connection string ofthe Oracle databasethat contains the PPM database schema. • Oracle Javavirtual machine (OracleJVM) must be enabled for PPM. For more information, see the Installation and Administration Guide or the *Upgrade Guide*.
All Microsoft operating systems previously identified in this table	(Optional) The following: • Email application configuration	• If you are planning to use notifications, an email application is needed. See "EmailServer Requirements" on page 39 for details.
All Microsoft operating systems previously identified in this table	The following: • Bourne shell	• This software isincluded in the Cygwin utilities. • The Bourne shell (bash) must be available on both thesource and destination servers.

Oracle Platforms

Operating System	Requirements	Additional Information
Platform		
One of the following: • Oracle Solaris 10, Updates 1 through 11 (Sparc) • Oracle Solaris 11, Updates 1 through 3 (Sparc)	All of the following: • UltraSPARC III (1050 MHz) • 2 GB RAM • 1 GB disk space • 400 MB temp space • 300 MB on root partition (for installation only) The following packages (or later versions) are required for Oracle database 11g R2 for Oracle Solaris 10: • SUNWarc • SUNWbtool • SUNWhea • SUNWlibC • SUNWlibm • SUNWlibms • SUNWsprot • SUNWtoo • SUNWi1of • SUNWi1cs (ISO8859-1) • SUNWi15cs (ISO8859-15) • SUNWxwfnt • SUNWcsl	• These are minimum requirements - faster processor and additional memory and storage are acceptable. • See "Hardware Sizing Estimates" for additional considerations.
One of the following: • Oracle Enterprise Linux (OEL) 5 (RHEL Clone) • Oracle Enterprise Linux (OEL) 6 (RHEL Clone) • Oracle Enterprise Linux (OEL) 7 (RHEL Clone) • Oracle Enterprise Linux (OEL) 7.5 (RHEL Clone)	All of the following: • x86, x86_64 • 1 GB RAM (minimum)	These are minimum requirements – faster processors and additional memory and storage are acceptable.
JDK Software		

All Oracle Solaris operating systems previously identified in this table	The following: • Java SE Development Kit (JDK) 8u101 (1.8.0 Update 101) or later update (available from Oracle) • OpenJDK 8 Update 242 or later update **Caution:** It is recommended that you upgrade JDK to the latest update according to the vendor's security suggestions.	We recommend the following for JDK 8: • Use 64-bit JVM If you use JDK 8 for PPM Server platforms, the server configuration parameter SERVER_MAX_ PERM_SIZE stops working, and perm size would be included in heap size which is controlled by the parameter SERVER_MAX_ HEAP_SIZE.
All Oracle Linux operating systems previously identified in this table	The following: • Java SE Development Kit (JDK) 8u101 (1.8.0 Update 101) or later update (available from Oracle) • OpenJDK 8 Update 191 or later update **Caution:** It is recommended that you upgrade JDK to the latest update according to the vendor's security suggestions.	• Update the RSA keys size to be greater than 1024 bits if you use X.509 certificates with RSA keys.
Communications Software		
All Oracle operating systems previously identified in this table	One of the following: • Internet Protocol version 4 (IPv4) (default) • Internet Protocol version 6 (IPv6)	To enable support for IPv6, set the ENABLE_IPV6 parameter to true in the server.conf file. For more information, see the *Installation and Administration Guide*.
Secure Communications Software		
For: • All previously identified Oracle Solaris versions	One of the following: • SSH-2.0_Sun_SSH_1.1 • OpenSSH version 5.9 • OpenSSH version 6.9 • OpenSSH version 7.x • OpenSSH version 8 • Reflection for Secure IT for Unix v7.1	
Terminal Emulation Software		
All Oracle operating systems previously identified in this table	One of the following: • "Dumb" mode • VT100 mode • VT220 mode	

Other Software		
All Oracle operating systems previously identified in this table	The following: - SQL*Net - SQL*Plus	- The Oracle client version should correspond to theversion of the database used with the PPM instance. - SQL*Net must be configured to recognize the connection stringof the Oracle database that contains the PPM database schema. - Oracle Java virtual machine (OracleJVM) mustbe enabled for PPM. For more information, see the *Installation and Administration Guide* or the *Upgrade Guide*.
All Oracle operating systems previously identified in this table	(Optional) The following: - Emailapplication configuration	If you are planning to use notifications, an email application is needed. See "EmailServer Requirements" on page 39 for details.
All Oracle operating systems previously identified in this table	The following: - Bourne shell	The Bourne shell is available by default on most UNIX systems. However, in some environments, it might be not configured or enabled. Check withyour UNIX system administrator to make sure that the Bourne shell is available and configured on your system.

HP Platform

Operating System	Requirements	Additional Information
Platform		
One of the following: - HP-UX 11iv2 (B.11.23) (IA64) (64-bit) - HP-UX 11i v3 (B.11.31) (IA64) (64-bit) When using the Integrity VM, one of the following: - HP-UX 11iv2 (B.11.23) (IA64) (64-bit) - HP-UX 11i v3 (B.11.31) (IA64) (64-bit)	All of the following: - Itanium 2 (1.4 GHz) - 2 GB RAM - 1 GB disk space - 400 MB temp space - 300 MB on root partition (for installation only	- These are minimum requirements—faster processors and additional memory and storage are acceptable. - See "Hardware Sizing Estimates" on page 38 for additional considerations. - When performing upgrade, make sure that there is at least 2GB free disk space for the root directory. Otherwise you may receive a message similar to the following: "WARNING: / partition has insufficient space to install the items selected."
JDK Software		
All HP operating systems previously identified in this table	The following: - HP-UX 11i Java Development Kit (JDK) for the Java 2 Platform Standard Edition 8.0.07 (Java SE 8) or later (available from HP) **Caution:** It is recommended that you upgrade JDK to the latest update according to the vendor's security suggestions.	
Communications Software		
All HP operating systems previously identified in this table	One of the following: - Internet Protocol version 4 (IPv4) (default) - Internet Protocol version 6 (IPv6)	To enable support for IPv6, add the ENABLE_IPV6 parameter to the server.conf file and set it to true. For more information, see the *Installation and Administration Guide*.
Secure Communications Software		

All HP operating systems previously identified in this table	One of the following: • OpenSSH version 5.9 • OpenSSH version 6.9 • OpenSSH version 7.x • OpenSSH version 8 • Reflection for Secure IT for Unix v7.1	
Terminal Emulation Software		
All HP operating systems previously identified in this table	One of the following: • "Dumb" mode • VT100 mode • VT220 mode	
Other Software		
All HP operating systems previously identified in this table	The following: • SQL*Net • SQL*Plus	• The Oracle client version should correspond to the version of the database used with the PPM instance. • SQL*Net must be configured to recognize the connection string of the Oracle database that contains the PPM database schema. • Oracle Java virtual machine (Oracle JVM) must be enabled for PPM. For more information, see the Installation and Administration Guide or the *Upgrade Guide*.
All HP operating systems previously identified in this table	(Optional) The following: • Email application configuration	If you are planning to use notifications, an email application is needed. See "Email Server Requirements" on page 39 for details.
All HP operating systems previously identified in this table	The following: • Bourne shell	The Bourne shell is available by default on most UNIX systems. However, in some environments, it might be not configured or enabled. Check with your UNIX system administrator to make sure that the Bourne shell is available and configured on your system.

IBM Platforms

Operating System	Requirements	Additional Information
Platform		
IBM AIX version 6.1	All of the following: - POWER4TM / POWER5TM / POWER7® (both 32- and 64-bit) - 2 GB RAM - 1 GB disk space - 400 MB temp space - 300 MB on root partition (for installation only) The following operating system filesets are required for AIX 6.1: - bos.adt.base - bos.adt.lib - bos.adt.libm - bos.perf.libperfstat 6.1.2.1 or later - bos.perf.perfstat - bos.perf.proctools - xlC.aix61.rte.10.1.0.0 or later - xlC.rte.10.1.0.0 or later - gpfs.base 3.2.1.8 or later	- These are minimum requirements—faster processors and additional memory and storage are acceptable. - See "Hardware Sizing Estimates" on page 38 for additional considerations.

IBM AIX version 7.1	All of the following: • POWER4TM / PPC970 / POWER5TM / POWERR6 / POWER7 (both 32- and 64-bit) • 2 GB RAM • 1 GB disk space • 400 MB temp space • 300 MB on root partition (for installation only) The following operatingsystem filesets are required for AIX 7.1: • bos.adt.base • bos.adt.lib • bos.adt.libm • bos.perf.libperfstatr • bos.perf.perfstat • bos.perf.proctools • xlC.aix61.rte.13.1.0.1 or later • xlC.rte.10.1.0.0 or later	
IBM AIX version 7.2	All of the following: • POWER4TM / PPC970 / POWER5TM / POWER6® / POWER7® (both 32- and 64-bit) 2 GB RAM 1 GB disk space 400 MB temp space 300 MB on rootpartition (for installation only) The following operating system filesets are required for AIX 7.2: • bos.adt.base bos.adt.lib • bos.adt.libm • bos.perf.libperfstat • bos.perf.perfstat • bos.perf.proctools • xlC.aix61.rte:13.1.0.1 or later • xlC.rte.13.1.0.1 or later	
JDK Software		
All IBM operating systems previously identified in this table	The following: • Java SDK8 last update:8.0.5.31 **Caution:** It is recommended that you upgrade JDK tothe latest update according to the vendor's security suggestions.	
Communications Software		

All IBM operating systems previously identified in this table	One of the following: - Internet Protocolversion 4 (IPv4) (default) - Internet Protocol version 6 (IPv6)	To enable support for IPv6, add the ENABLE_IPV6 parameter to the server.conf fileand set it to true. For more information, see the *Installation and Administration Guide*.
Secure Communications Software		
All IBM operating systems previously identified in this table	One of the following: - OpenSSH version 5.9 - OpenSSH version 6.9 - OpenSSH version 7.x - OpenSSH version 8 - Reflection for Secure IT for Unix v7.1	
Terminal Emulation Software		
All IBM operating systems previously identified in this table	One of the following: - "Dumb" mode - VT100 mode - VT220 mode	
Other Software		
All IBM operating systems previously identified in this table	One of the following: - SQL*Net - SQL*Plus	- The Oracle client version shouldcorrespond to the version of thedatabase used with the PPM instance. - SQL*Netmust be configured to recognize the connection string of the Oracle database that contains the PPM database schema. - Oracle Javavirtualmachine (OracleJVM) must be enabled for PPM. For more information, see the *Installation and Administration Guide* or the *Upgrade Guide*.
All IBM operating systems previously identified in this table	(Optional) The following: - Email applicationconfiguration	If you are planning to use notifications, an email application is needed. See "Email Server Requirements" on page 39 for details.

| All IBM operating systems previously identified in this table | The following:

• Bourne shell | The Bourne shell is available by default on most UNIX systems. However, in some environments, it might be not configured or enabled.Check with your UNIX system administrator to make sure that theBourne shell is available and configured on your system. |

Red Hat Platforms

OperatingSystem	Requirements	Additional Information
Platform		
One of thefollowing: • Red Hat Enterprise Linux AdvancedPlatform 5.x (both 32- and 64-bit) • Red Hat Enterprise Linux 6.x (both 32- and 64-bit) • Red Hat Enterprise Linux 7.0-7.6 (both 32- and64-bit) • Red Hat Enterprise Linux 7.8 (both 32- and 64- bit) • Red Hat Enterprise Linux 8.2 (both 32- and 64- bit) • Red Hat Enterprise Linux 8.3 (both 32- and 64- bit) • Red Hat Enterprise Linux 8.4 (both 32- and 64- bit)	All of the following: • x86 and compatible chip architectures (1.5 GHz) • 2 GB RAM • 1 GB disk space • 400 MB temp space • 300 MB on root partition (for installation only	• These are minimum requirements—fasterprocessors and additional memory and storage are acceptable. • See"Hardware Sizing Estimates" on page 38 for additional considerations.
When installed on an x86 VMware ESXi Server version 5.0 or 5.5partition, one of the following: • Red Hat Enterprise Linux AdvancedPlatform 5.0 (both 32- and 64-bit) • Red Hat Enterprise Linux 6 (both 32- and 64-bit) • Red Hat Enterprise Linux 7.0-7.6(both 32- and64-bit)	All of the following: • x86 and compatible chip architectures (1.5 GHz) • 3 GB RAM • 1 GB disk spacefor installed files • 400 MB temporary spacefor installation files • 300 MB on root partition (for installation only	• These are minimum requirements—fasterprocessors and additional memory and storage are acceptable. • Remote Management of ESX is required. • For systemsizing impact, contact Software Support (https://softwaresupport.softwaregrp.com/)
The following on Micro Focus CloudServices environment: • CentOS 6 Server (64-bit) • CentOS 7.0-7.5Server (64-bit)		**Note:** This is the only operating system PPM iscertified for when running a PPM server in theMicro Focus Cloud Services environment.
JDK Software		

All Red Hat operating systemspreviously identified in this table	The following: • Java SE Development Kit (JDK) 8u101 (1.8.0 Update 101) or laterupdate (available from Oracle) • OpenJDK 8 Update 242 or later update **Caution:** It is recommended thatyou upgrade JDK to the latest update according to the vendor's security suggestions.	We recommend the following for JDK8: • Use 64-bit JVM If you use JDK 8 for PPM Serverplatforms, the server configuration parameter SERVER_MAX_PERM_SIZEstop sworking, and perm size would be included in heap sizewhich is controlled by the parameter SERVER_MAX_HEAP_SIZE. • Update the RSA keys size to begreater than1024 bits if you use X.509 certificates with RSA keys.
Communications Software		
All Red Hat operating systemspreviously identified in this table	One of the following: • Internet Protocolversion 4 (IPv4) (default) • Internet Protocol version 6 (IPv6)	To enable support for IPv6, add the ENABLE_ IPV6parameter to theserver.conf file and setit to true. For more information, see the *Installation and AdministrationGuide*.
Secure Communications Software		
All Red Hat operating systemspreviously identified in this table	One of the following: • OpenSSH version5.9 • OpenSSH version 6.9 • OpenSSH version 7.x • OpenSSH version 8 • Reflection for Secure IT for Unixv7.1	
Terminal Emulation Software		
All Red Hat operating systemspreviously identified in this table	One of the following: • "Dumb" mode • VT100 mode • VT220 mode	
Other Software		
All Red Hat operating systemspreviously identified in this table	One of the following: • SQL*Net • SQL*Plus	• The Oracle client version should correspond to the version of the database used with the PPM instance.

	• SQL*Net must be configured to recognize the connection string of the Oracle database that contains the PPM database schema.

		Oracle Java virtual machine (OracleJVM) must be enabled for PPM. For more information, see the *Installation and Administration Guide* or the *Upgrade Guide*.
All Red Hat operating systemspreviously identified in this table	(Optional) The following: Email application configuration	If you are planning to use notifications, an emailapplication is needed. See "Email Server Requirements" on page 39 for details.
All Red Hat operating systemspreviously identified in this table	The following: Bourne shell	The Bourne shell is available by default on mostUNIX systems. However, in some environments,it might be not configured or enabled. Check with your UNIX system administrator to make sure that the Bourne shell is available and configured on your system.

SUSE Platforms

Operating System	Requirements	Additional Information
Platform		
One of the following: • SUSE Linux EnterpriseServer 10 (both 32- and 64-bit) • SUSE Linux EnterpriseServer 11 (both 32- and 64-bit) • SUSE Linux EnterpriseServer 12 (both 32- and 64-bit) • SUSE Linux EnterpriseServer 12 SP3 (both 32- and 64-bit) • SUSE Linux EnterpriseServer 12 SP4 (both 32- and 64-bit) • SUSE Linux EnterpriseServer 15 (both 32- and 64-bit)	All of the following: • x86 and compatible chip architectures (1.5 GHz) • 2 GB RAM • 1 GB disk space • 400 MB temp space • 300 MB on root partition (for installation only	• These are minimum requirements—faster processors and additional memory and storage are acceptable. • See "Hardware Sizing Estimates" on page 38 for additional considerations.
When installed on an x86 VMware ESXi Server version 5.0 or 5.5 partition, one of the following: • All SUSE Linux operating systems previously identified in this table	All of the following: • x86 and compatible chip architectures (1.5 GHz) • 3 GB RAM • 1 GB disk space • 400 MB temp space • 300 MB on root partition (for installation only	• These are minimum requirements—faster processors and additional memory and storage are acceptable. • Remote Management of ESX is required.
JDK Software		

All SUSE Linux operating systems previously identified in this table	The following: - Java SE Development Kit (JDK) 8u101 (1.8.0 Update 101) or later update (available from Oracle) - OpenJDK 8 Update 242 or later update **Caution:** It is recommended that you upgrade JDK to the latest update according to the vendor's security suggestions.	We recommend the following for JDK 8: - Use 64-bit JVM If you use JDK 8 for PPM Server platforms, the server configuration parameter SERVER_MAX_PERM_SIZE stops working, and perm size would be included in heap size which is controlled by the parameter SERVER_MAX_HEAP_SIZE. - Update the RSA keys size to be greater than 1024 bits if you use X.509 certificates with RSA keys.
Communications Software		
All SUSE operating systems previously identified in this table	One of the following: - Internet Protocol version 4 (IPv4) (default) - Internet Protocol version 6 (IPv6)	To enable support for IPv6, add the ENABLE_IPV6 parameter to the server.conf file and set it to true. For more information, see the *Installation and Administration Guide*.
Secure Communications Software		
All SUSE Linux operating systems previously identified in this table	One of the following: - OpenSSH version 5.9 - OpenSSH version 6.9 - OpenSSH version 7.x - OpenSSH version 8 - Reflection for Secure IT for Unix v7.1	
Terminal Emulation Software		
All SUSE Linux operating systems previously identified in this table	One of the following: "Dumb" mode - VT100 mode - VT220 mode	
Other Software		

All SUSE Linux operating systems previously identified in this table	One of the following: • SQL*Net • SQL*Plus	• The Oracle client version should correspond to the version of the database used with the PPM instance. • SQL*Net must be configured to recognize the connection string of the Oracle database that contains the PPM database schema. • Oracle Java virtual machine (OracleJVM) must be enabled for PPM. For more information, see the *Installation and Administration Guide* or the *Upgrade Guide*.
All SUSE Linux operating systems previously identified in this table	(Optional) The following: • Email application configuration	If you are planning to use notifications, an email application is needed. See "Email Server Requirements" on the next page for details.
All SUSE Linux operating systems previously identified in this table	The following: • Bourne shell	The Bourne shell is available by default on most UNIX systems. However, in some environments, it might be not configured or enabled. Check with your UNIX system administrator to make sure that the Bourne shell is available and configured on your system.

Hardware Sizing Estimates

Email Server Requirements

An email server is required if you are planning to use notifications. PPM can send email notifications to identify pending actions or to notify users of status changes for various packages, requests, and tasks.

PPM can integrate with any SMTP-compliant mail server, including Microsoft Exchange, UNIX send mail, and others. For example, the following Microsoft Exchange Server versions are supported:

• Microsoft Exchange Server 2007

• Microsoft Exchange Server 2010

To work with these third-party products, the PPM Server needs the IP address of the email server and the logon name of one or more valid users on the email server, which the PPM Server uses as "from" addresses for its notifications.

For information about configuring the email server, see the *Installation and Administration Guide.*

PPM Database Requirements

Oracle Database

The following Oracle database versions are supported on all PPM Server platforms:

- Oracle 11.2.0.2, Standard and Enterprise Edition (RAC and Non-RAC)
- Oracle 11.2.0.3, Standard and Enterprise Edition (RAC and Non-RAC)
- Oracle 11.2.0.4, Standard and Enterprise Edition (RAC and Non-RAC)
- Oracle 12.1.0.1, Standard and Enterprise Edition (RAC and Non-RAC)
- Oracle 12.1.0.2, Standard and Enterprise Edition (RAC and Non-RAC)
- Oracle 12.2.0.1, Standard and Enterprise Edition (RAC and Non-RAC)
- Oracle 18.x, Standard and Enterprise Edition (RAC and Non-RAC)
- Oracle 19c, Standard and Enterprise Edition (RAC and Non-RAC)
- Oracle 19.3, Standard and Enterprise Edition (RAC and Non-RAC)

Note:

- For the production environment only, PPM can run on Oracle 12c with Container Database (CDB) or Pluggable Database (PDB) enabled.
- Note: Because Oracle Enterprise DB Server is not supported on VMware, PPM does not work with Oracle Enterprise DB Server on VMware.
- There is a known issue in Oracle 12.1.0.2. If you are using this version, you should permanently alter the session parameter "optimizer_adaptive_features".

  To do so:

  a. Log on to PPM database schema as PPM_SCHEMA.

  b. Run the commands as follows:

  ```
  create  trigger  PPM_LOGON_ORACLE_18311854after  logon  on
  <PPM_SCHEMA_NAME>.schemabegin
  execute immediate 'alter session set "optimizer_adaptive_features" =false';
  end;
  ```

For sizing information for database-based DMS solutions, see "Database Sizing" on page 45.

For details about server requirements, see the Oracle documentation specific to your operating system in the Oracle Database Documentation Library (https://docs.oracle.com/en/database/oracle/oracle-database/index.html)

For information on periodic database maintenance tasks, see the Oracle Database Administrator's Guide.

Oracle Database Character Sets

The table below lists the database character sets supported for English-language deployments of this version of PPM.

Code	Description

US7ASCII	ASCII 7-bit U.S. America
WE8ISO8859P1	ISO 8859-1 Western Europe
WE8ISO8859P9	ISO 8859-9
WE8ISO8859P15	ISO 8859-15

WE8MSWIN1252	Microsoft Windows code page 1252 8-bit Western Europe **Note:** Supported for legacy reasons. Do not use for new PPM installations.
UTF8	Unicode 3.0 UTF-8
AL32UTF8	Unicode 3.0 UTF-8 **Note:** For new PPM installations, make sure you ALWAYS use AL32UTF8.

You should also specify:

- AL32UTF8 for NLS_CHARACTERSET
- AL16UTF16 for NLS_NCHAR_CHARACTERSET

Note: We strongly recommend the use of AL32UTF8 for new installations.

PostgreSQL Database

The following PostgreSQL database version is supported on the PPM server version 10.0.x:

- PostgreSQL 11.0

Note: You must also install the latest version of the orafce extension. For instructions,see https://github.com/orafce/orafce.

Cloud Computing

PPM is certified to be installed and run on the Amazon Web Services (AWS), Microsoft Azure, Oracle cloud, and IBM cloud.

Cloud computing - AWS

Operating System	Database	Networking
Linux	AWS RDS for Oracle EE 12.1.0.2.v21	Amazon Classic Load Balancer

Cloud computing – Azure

Operating System	Database	Networking
Linux	Oracle EE 11.2.0.4.0	Azure Load Balancer

Cloud computing – Oracle Cloud

Operating System	Database	Networking
Oracle Linux	Oracle Database Cloud Service	Oracle Cloud Infrastructure Load Balancing

Cloud computing – IBM Cloud

Operating System	Database	Networking
RHEL 8	Oracle Database In IBM Cloud Virtual Servers	IBM Cloud Load Balancing

For details, see the *Installation and Administration Guide and Install PPM on the Cloud.*

Single Sign-On and Authentication

The following Single Sign-On (SSO) and authentication software products are supported for this version of PPM:

- NTLM version 2 (Microsoft Windows operating systems only)
- Any LDAP v3.0-compliant Server
    - LDAP + SSL
    - LDAP (special mode)
- SiteMinder 6.x
- SiteMinder 12

Operational Reporting Solution

The following table describes compatibility matrix between Operational Reporting solutions and PPM.

Operational Reportingfor PPM Version	PPM Version							
	9.4x	9.50-9.52	9.53-9.54	9.55	9.60-9.62	9.63 – 9.66	10.0.x
Content Pack 4.0	√						
Content Pack 4.1	√						
Content Pack 5.0	√	√					
Content Pack 5.1	√	√	√				
Content Pack 5.2		√	√	√	√		
Content Pack 5.3		√	√	√	√	√	√

Note: Since Operational Reporting Content Pack 2.0, PPM is independent of SAP BusinessObjects Enterprise Server.

For detailed information of the solutions, see the release notes, administrator guide, and userguide for each content pack.

External Web Servers

PPM comes with an internal Web server to handle HTTP requirements in many implementations.

External Web servers are required in the following situations:

- PPM is deployed as a cluster configuration and you do not want to use a hardware load

balancer to distribute the load.

- HTTPS is required to access PPM.

- PPM Server is running on a UNIX platform and the HTTP port number must be lower than 1024.

- Integration with a single sign-on system that utilizes the PPM Web Server Module (such as CA SiteMinder) is desired.

An external Web server does not have to be installed on the same machine as the PPM Server. The optional Web servers supported by Micro Focus are listed in the table below

For information about configuring an external Web server (as well as setting up a cluster environment), see the *Installation and Administration Guide.*

Web Server support

Operating System	Requirements
Microsoft Platforms	
For: • Microsoft Windows Server 2008, SPs 1 through 2 (both32- and 64-bit)	The following: • Microsoft IIS 7.0 (32-bit only)
For: • Microsoft Windows Server 2008,SPs 1 through 2 (64-bit only)	The following: • Apache HTTP 2.2 (32-bit only)
For: • Microsoft Windows Server 2008 R2 (64-bit)	The following: • Microsoft IIS 7.5 (64-bit only)
For: • Microsoft Windows Server 2012 R2 (64-bit)	The following: • Microsoft IIS 8.5 (64-bit only) • Apache HTTP 2.4 (both 32- and 64-bit)
For: • Microsoft Windows Server 2016 (64-bit)	The following: • Microsoft IIS 10 (64-bit only) • Apache HTTP 2.4 (both 32- and 64-bit)
Oracle Platforms	
For: • Oracle Solaris (SPARC-32)	One of the following: • Sun Java System Web Server 6.1 (GA and Updates 1through 9) (32-bit only) • Sun Java System Web Server 7.0 (GA and Updates 1through 2) (32-bit only)
For: • Oracle Solaris 10, Updates 1 through 8 (PA-RISC/Itanium) • Oracle Solaris 11	One of the following: • Sun Java System Web Server 6.1 (GA and Updates 1through 9) (64-bit only) • Sun Java System Web Server 7.0 (GA and Updates 1through 2) (64-bit only)
HP Platforms	
For: • HP-UX 11i v2 • HP-UX 11i v3	The following: • Apache HTTP Server 2.2 (32-bit only on 64-bit HP-UX)
IBM Platforms	

For:	The following:
• IBM AIX version 6.1 • IBM AIX version 7.0	• IBM HTTP Server (IHS) version 6.1.0 (32-bit only)(available from IBM) • IBM HTTP Server 7.0 (both 32-bit and 64-bit) (availablefrom IBM)
Red Hat Platforms	
For: • Red Hat Enterprise Linux Advanced Platform 5.0,Updates 1 through 6 (both 32- and 64-bit)	The following: • Apache HTTP Server 2.2 (both 32- and 64-bit) • Apache HTTP Server 2.4 (both 32- and 64-bit)
SUSE Platforms	
For: • SUSE Linux Enterprise Server 10, SPs 1 through 3 (both32- and 64-bit) • SUSE Linux Enterprise Server 11 (both 32- and 64-bit)	The following: • Apache HTTP Server 2.2 (both 32- and 64-bit) • Apache HTTP Server 2.4 (both 32- and 64-bit)

Document Management System Solutions

The PPM document management system (DMS) is remodeled to fully leverage your current Oracle databases—either a PPM Center-dedicated database or an external database on your network.

Note: Even though any Oracle version supporting Oracle TEXT indexes should work as an external DMS database, PPM only certified the solution with the same Oracle versions as are currently supported by PPM Center.

For detailed system requirements and supportability matrices for the database-based DMS solutions (PPM Center Database DMS or PPM Center External Database DMS), see "PPM Server Platforms" on page 14 and "PPM Database Requirements" on page 39.

Database Sizing

The only sizing impact of using PPM Database DMS or PPM External Database DMS is in your Database Server, as everything happens in the database.

Database Disk Space

The database disk space consumed by PPM Database DMS or PPM External Database DMS canbe split into three different parts:

• Space taken up by Document contents (about equal to total documents size)

• Space taken up by Documents metadata (proportional to number of documents and propensity of PPM users to input lengthy documents descriptions, key words, and version comments.

• Space taken up by TEXT Indexes

 • Index on document contents, proportional to total size and types of documents (index on pure text file such as a logs file might take more space than the file itself, while index on a picture file, even very large, does not take any space as no text content can be extracted from

the picture).

- Index on text metadata, proportional to the size of metadata (as all indexed metadata is text and can be indexed).

The PPM DMS Statistics & PPM Database DMS Sizing tool available from PPM Support automatically estimates the extra disk space needed in database to migrate an existing
PPM Server environment to either of the database-based DMS solution. The tool computes estimates based on quantity of documents, total size of documents, and types of documents. All this information are retrieved from the KNTA_DOCUMENTS table of PPM database.
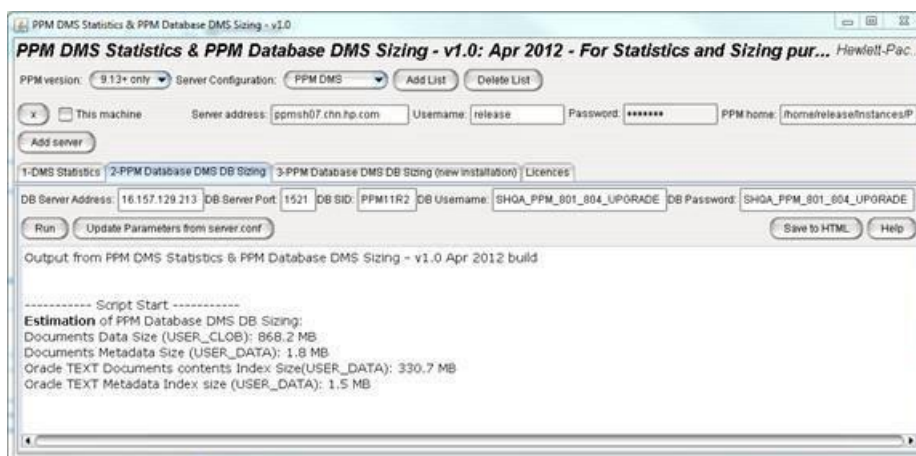
The tool can also provide estimates for new PPM installations, based on user's input on planned usage of documents in PPM (estimated total number and size of documents, text concentration of stored documents).
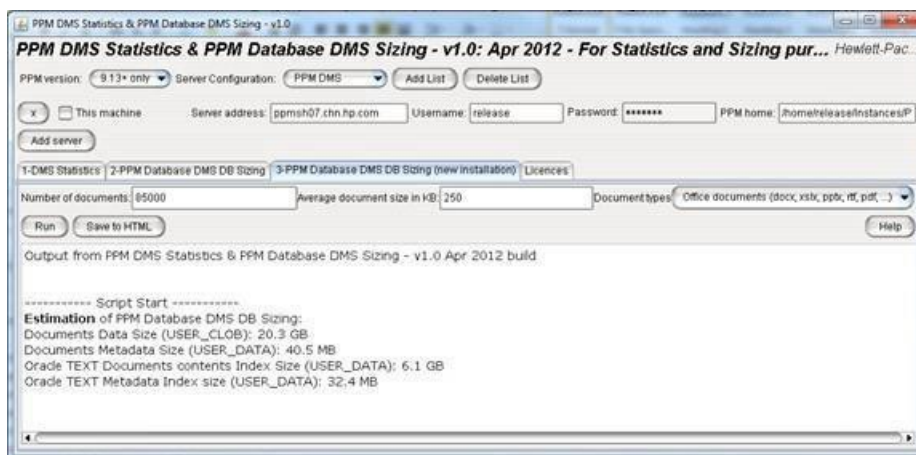
Customer Case

Here is an example of Database Space consumption from an existing PPM customer who used a Documentum-based DMS solution previously. "Customer documents statistics" below lists customer documents statistics, and "Customer Case: Document repartition by type" on the next page lists detailed document repartition information.

Customer documents statistics

Item	Statistics
Total number of documents	128,853
Average number of versions per document	1.003
Maximum number of versions for a document	8
Total number of documents versions	129,221
Cumulated size of all documents versions (estimated)	32,056 MB
Document repartition by type	See the table below

Customer Case: Document repartition by type

Document Type	Text Content	Files Count	Cumulated total size (MB)
RTF	Medium	2,175	10,513
MSG	Medium	49,088	6,507
DOC	Medium	21,767	4,684
TXT	High	14,365	3,367
XLS	Medium	5,457	1,500
PDF	Medium	8,634	1,399
ZIP	Unknown	864	797
XLSX	Medium	1,248	650
DOCX	Medium	2,604	649
BMP	None	302	386
none	Unknown	1,922	342
HTM	High	16,783	319
TIF	None	667	242
REP	Unknown	22	141
EXE	None	21	76
DOT	Medium	126	57
JPG	None	349	54
MDB	Medium	2	48

SQL	High	782	27
PPT	Medium	13	21
Other	Unknown	2,030	278

Text-only documents contain high level text contents, Microsoft Office documents contain medium level text contents, and images as well as binary documents contain practically no textcontent. This is reflected in the document contents index size.

Text Index creation time: ~ 6 hours (on a 2-instance RAC server with 4 x Dual Core CPU Intel(R) Xeon(R) E5540 @ 2.53GHz per instance).

Diskspace consumed by PPM Database DMS:

Item	Disk Space Consumed(MB)
Documents binary contents (BLOB Columns)	32,041
DMS Tables without BLOB columns (not including KNTA_DOCUMENTS):	30
Total Metadata Indexes	21.7
Document Contents Indexes	6,011

As you can see, the size of document contents index (~6 GB) accounts for almost 20 percent ofthe documents contents size (~32 GB). This is a relatively ratio, which can be explained by the large amount of office documents in the customer's attachments.

It might be possible that the index size is larger than the document contents if all the attachments are pure text files (such as .txt, .sql, and .logfiles).

Caution: The BLOB columns containing the documents are appearing slightly smaller than the estimated total size of documents (15 MB smaller). The reason is that the total size of the documents is an estimation, computed using "Versions count * file size of latest version" for each document. It appears that the earlier versions of documents are smaller in size in average, resulting in the observed discrepancy.

Database Server CPU

If you have no plan to enable full-text search (or more precisely, if you do not need to create TEXT indexes), there is virtually no impact on database CPU, as reading and writing documentscontents to database are mainly I/O intensive operations.

If you do create TEXT indexes, but schedule them to be updated only out of peak hours, there should be no need to consider an upgrade of DB Server CPU based on standard PPM sizings.

However, if you are using frequent index updates, or use SYNC (ON COMMIT) indexes for real time indexing, a CPU upgrade of your DB Server might be necessary, especially if your PPM users tend to store a large amount of text intensive files in PPM (more than 1 GB of new documents perweek, with peak document activity concentrated on a few hours in the week).

Chapter 4: PPM Migrator and Extension Products and Environments

Thesystem requirements provided in the following sections are in addition to the requirementsfor this version of PPM.

Thesesupplemental products are available in English language only.

Migrators

Application Requirements

Various versions of PPM support particular combinations of Object Migrator, GL Migrator, andthe following Oracle E-Business Suite Releases:

- 11i (11.5.7 through 11.5.10.2 (CU2))

- Release 12 (12.0.0 through 12.2.3 or later)

Note: Oracle no longer supports Oracle E-Business Suite Release 11 or Releases 11.5.1 through 11.5.6 (which are early releases of 11i), so Micro Focus no longer supports use of PPM Extensions, GL Migrator, or Object Migrator with those releases.

Each unshaded cell in "Migrators" above lists the versions of PPM that support the combination of Oracle E-Business Suite release (in a table row) and a migrator (in a table column). Combinations that are *not* supported on any version of PPM are shown in the lightly shaded table cells.

Oracle E-Business SuiteRelease	Object* Migrator Version 5.1	Object Migrator Version 6.0	Object Migrator Version 7.5	Object Migrator 12.2	GL Migrator Version 6.0	GL Migrator Version 9.12
11.5.7 Application Object Library: FND.E Applications DBA: AD.F Common Modules: AK.D Financials Suite: Family Pack A	9,4x, 9.5x,9.6x, 10.0.x	9,4x, 9.5x	9.3x, 9,4x, 9.5x		9,4x, 9.5x, 9.6x, 10.0.x	9,4x, 9.5x, 9.6x, 10.0.x
11.5.8 Application Object Library: FND.F Applications DBA: AD.G	9,4x, 9.5x, 9.6x, 10.0.x	9,4x, 9.5x, 9.6x, 10.0.x	9,4x, 9.5x, 9.6x, 10.0.x		9,4x, 9.5x, 9.6x, 10.0.x	9,4x, 9.5x, 9.6x, 10.0.x

Common Modules: AK.E Financials Suite: Family Pack C						
11.5.9 [a] Application Object Library: FND.G Applications DBA: AD.H Common Modules: AK.F Financials Suite: Family Pack D	9,4x, 9.5x, 9.6x, 10.0.x	9,4x, 9.5x, 9.6x, 10.0.x	9,4x, 9.5x, 9.6x, 10.0.x		9,4x, 9.5x, 9.6x, 10.0.x	9,4x, 9.5x, 9.6x, 10.0.x
11.5.10 with FND.HMini Pack [b, c] Application Object Library: FND.H Applications DBA:AD.I Common Modules: AK.G Financials Suite: Family Pack F		9,4x, 9.5x, 9.6x, 10.0.x	9,4x, 9.5x, 9.6x, 10.0.x		9,4x, 9.5x, 9.6x, 10.0.x	9,4x, 9.5x, 9.6x, 10.0.x
11.5.10.2 (CU2) [c, d] Application Object Library: FND.H Applications DBA: AD.I.6 Common Modules: AK.G Financials Suite: Family Pack F		9,4x, 9.5x, 9.6x, 10.0.x	9,4x, 9.5x, 9.6x, 10.0.x		9,4x, 9.5x, 9.6x, 10.0.x	9,4x, 9.5x, 9.6x, 10.0.x

12.0.0 through 12.1.3 [e] Applications Technology: R12.ATG_PF.A through R12.ATG_PF.B.DELTA.3 Applications DBA: R12.AD.A through R12.AD.B.DELTA.3			9,4x, 9.5x, 9.6x, 10.0.x			9,4x, 9.5x, 9.6x, 10.0.x
12.2.3 or later				9,4x, 9.5x, 9.6x, 10.0.x		

a. 11.5.8 with the FND.G Mini Pack is functionally equivalent to 11.5.9.

b. 11.5.8-11.5.9 with the FND.H Mini Pack is functionally equivalent to 11.5.10 (for Object Migrator). 11.5.8-11.5.9 with the Financials Family Pack F is functionally equivalent to 11.5.10 (for GL Migrator).

c. Support for the Oracle Applications E-Business Suite version 11.5.10 with the 10G database version requires installation of patch 154770. See the Object Migrator Version 6.0 Database version 10G Compatibility Patch (#154770) readme for details.

d. See the Object Migrator Oracle Apps Version 11.5.10.2 Compatibility Patch (#174141) readme for details.

e. Object Migrator version 7.5 requires patch PPMC_00090 in order to work with Oracle E-Business Suite Release 12.1.2 or later.

File and Table Space Requirements

The following table lists the file and table space requirements for Object Migrator. The table space sizings may vary widely depending on your database version, configuration, and the number of entities you have under version control.

Object Migrator file and table space requirements

Item	Required Space	Recommended Space
Install bundle	30 MB (temporary)	35 MB (temporary)
Install scripts	5 MB	
Programs (.rdf files)	1.5 MB per program 30 MB total	
Interface tables	30 MB	60 MB
Indexes on interface tables	20 MB	30 MB

Archive tables and indexes	30 MB See "Archive Tables" below.	60 MB

Archive Tables

When saving an object to the object archive, Object Migrator takes the entire definition of the entity and stores it in special archive tables. The growth of these archive tables directly corresponds to the number of objects and the number of versions put into these tables. For some objects, complexity and size may also be a factor.

If you plan to periodically store versions of entire groups of objects rather than only objects that change, then more table space will be required than the recommended 30 MB. We recommend starting with a 30 MB allocation and then adding table space as needed.

Deployment Management Extension for Oracle E-Business Suite

This version of PPM used with Deployment Management Extension for Oracle E-Business Suite supports the following Oracle E-Business Suite releases:

- 11.5.7
  - Application Object Library: FND.E
  - Applications DBA: AD.F
  - Common Modules: AK.D
  - Financials Suite: Family Pack A
- 11.5.8
  - Application Object Library: FND.F
  - Applications DBA: AD.G
  - Common Modules: AK.E
  - Financials Suite: Family Pack C
- 11.5.9
  - Application Object Library: FND.G
  - Applications DBA: AD.H
  - Common Modules: AK.F
  - Financials Suite: Family Pack D
- 11.5.10
  - Application Object Library: FND.H
  - Applications DBA: AD.I
  - Common Modules: AK.G
  - Financials Suite: Family Pack F
- 11.5.10.2 (CU2)
  - Application Object Library: FND.H
  - Applications DBA: AD.I.6
  - Common Modules: AK.G
  - Financials Suite: Family Pack F
- Release 12.0.0–12.1.3
  - Applications Technology:
    R12.ATG_PF.A through R12.ATG_PF.B.DELTA.3
  - Applications DBA: R12.A through R12.AD.B.DELTA.3
- Release 12.2.3 or late

Deployment Management Extension for Oracle Technology

This version of PPM used with Deployment Management Extension for Oracle Technologysupports:

- Oracle Developer 2000, Developer 6i, or Developer