

HP Operations Orchestration

For Windows[®] and Linux operating systems

Software Version: 9.07.0006

System Requirements

Document Release Date: April 2014

Software Release Date: February 2014



Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notice

© Copyright 2005-2014 Hewlett-Packard Development Company, L.P.

Trademark Notices

Adobe™ is a trademark of Adobe Systems Incorporated.

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.

UNIX® is a registered trademark of The Open Group.

This product includes an interface of the 'zlib' general purpose compression library, which is Copyright © 1995-2002 Jean-loup Gailly and Mark Adler.

Documentation Updates

The title page of this document contains the following identifying information:

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.
- Software Release Date, which indicates the release date of this version of the software.

To check for recent updates or to verify that you are using the most recent edition of a document, go to: <http://h20230.www2.hp.com/selfsolve/manuals>

This site requires that you register for an HP Passport and sign in. To register for an HP Passport ID, go to: <http://h20229.www2.hp.com/passport-registration.html>

Or click the **New users - please register** link on the HP Passport login page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Support

Visit the HP Software Support Online web site at: <http://www.hp.com/go/hpsoftwaresupport>

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support web site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To register for an HP Passport ID, go to:

<http://h20229.www2.hp.com/passport-registration.html>

To find more information about access levels, go to:

http://h20230.www2.hp.com/new_access_levels.jsp

HP Software Solutions Now accesses the HPSW Solution and Integration Portal Web site. This site enables you to explore HP Product Solutions to meet your business needs, includes a full list of Integrations between HP Products, as well as a listing of ITIL Processes. The URL for this Web site is <http://h20230.www2.hp.com/sc/solutions/index.jsp>

Contents

System Requirements	1
Contents	3
System Requirements	4
HP OO Central and Database Server(s)	5
HP OO Central and Database Server Hardware	5
HP OO Central Server Software	5
HP OO Database Server Software	8
HP OO Remote Action Services Installed Separately from Central	9
Hardware for Standalone RAS Installations	9
Software for Standalone RAS Installations	10
HP OO Central Client	13
Hardware Requirements for the Central Client	13
Software Requirements for the Central Client	13
HP OO Studio Installed on its own Machine	15
Hardware Requirements for HP OO Studio Installed on its own Machine	15
Software Requirements for HP OO Studio Installed on its own Machine	15
Virtual systems	17

System Requirements

Following are the minimum hardware and software requirements for servers and clients running Hewlett-Packard Software Operations Orchestration (HP OO).

Support for 64 bit architecture is available on Windows/Linux configurations for the Central, Studio, RAS, and cluster components of HP OO.

Note: There are two methods for installing HP OO: using the UI installer or the CLI (command line interface) installer. Some operating systems and frameworks are only supported in an installation that used a particular one of these installation methods. These restrictions are indicated in this document. For more information about the installation options, see the *HP OO 9.07 Installation Guide*.

HP OO Central and Database Server(s)

The hard-drive space requirements differ depending on whether you install the database and Central on the same machine.

HP OO Central and Database Server Hardware

For 64 bit Windows systems, HP OO supports the AMD64 and Intel64 servers.

Component	Requirement per server
CPU	3 Gigahertz (GHz) for single-processor systems or 2 GHz for multi-processor systems
Memory (RAM)	3 Gigabyte (GB)
Hard-drive space	<p>Database server: As described in your database system requirements.</p> <p>HP OO Central server: 10 GB (This includes room for the flows and operations that are included in the installation and for their rolling backups.)</p> <p>Note: The required disk space depends on the size of your repository, because it will be backed up during the upgrade.</p> <p>When the database and Central are installed on the same machine, add together the requirements for the database and the Central servers.</p>

HP OO Central Server Software

Component	Requirement
Operating system on Windows	<p>One of the following:</p> <ul style="list-style-type: none"> • Windows 2008 Server (32 bit or 64 bit) • Windows 2008 Server SP2 (32 bit or 64 bit) • Windows 2008 Server R2 (32 bit or 64 bit) • Windows 2008 Server R2 SP1 (32 bit or 64 bit) • Windows Server 2012 (64 bit) • Windows 7 SP1 (32 bit or 64 bit)

<p>Operating system on Linux</p>	<p>On a 32 bit server, one of the following:</p> <ul style="list-style-type: none"> • Red Hat Enterprise Linux 5.6, 6.1, 6.2, 6.4 or any later 6.x release • Oracle Enterprise Linux 5.8, 6.1 • Solaris 10.x (SunOS 5.10) <p>On a 64 bit server, one of the following:</p> <ul style="list-style-type: none"> • Red Hat Enterprise Linux 5.6, 6.1, 6.2, 6.4 or any later 6.x release • Oracle Enterprise Linux 5.8, 6.1
<p>Runtime environments</p>	<ul style="list-style-type: none"> • One of the following Microsoft .NET Framework configurations: <ul style="list-style-type: none"> ■ Microsoft .NET Framework versions 4.0 or 4.5 in side-by-side configuration (i.e., installed together) with previous versions of .NET Framework on the Central server: <p>The recommendation is to install .NET Framework 3.5 SP1 or .NET Framework 3.5, which include the previous versions of .NET Framework, on the same server where .NET Framework 4.0 or 4.5 is installed.</p> <p>Both Full and Client Profile versions of .NET Framework are supported.</p> ■ Microsoft .NET Framework 3.0 Service Pack 1 (SP 1), 3.0 Service Pack 2 (SP 2), 3.5 Service Pack 1 (SP 1) or 3.5 Service Pack 2 (SP 2), with ASP.NET enabled for either. ■ Microsoft .NET Framework 2.0 Service Pack 1 (SP 1), with ASP.NET enabled for either. <div style="background-color: #e0e0e0; padding: 5px; margin: 10px 0;"> <p>Note: If you have .NET Framework 3.0 SP 2 or 3.5 SP 1 installed, .NET Framework 2.0 SP 1 is included in both versions.</p> </div> • Java Runtime Environment (JRE) version 1.6.0_37 <p>JRE 1.6.0_37 is installed with the installation of Central for Linux and Windows operating systems, but not for Solaris. If you are installing on a machine with a Solaris operating system, you must obtain the appropriate version of JRE 1.6.0_37 and install it in the Java home directory.</p>
<p>Web browsers</p>	<p>One of the following:</p> <ul style="list-style-type: none"> • Microsoft Internet Explorer 8.x or 9.x (not on Linux) • FireFox 9.x - 17.x

Scriptlet language support	If you run a flow that contains a Perl scriptlet operation, ActivePerl 5.8.8.824 is required. When installing ActivePerl, select the option to add its path to the PATH environmental variable.
----------------------------	---

Note: Internet Protocol Version 6 (IPv6) is not supported!

The following operating systems are deprecated in HP OO 9.07.0006:

- Linux Red Hat 4.x
- Windows 2003

Note: You can still use these operating systems, but note that they will not be supported in the future.

If you use Network File System (NFS) for a shared repository in Linux deployments, it is strongly recommended to use NFS version 4 and to turn off NFS caching. For more information, see the *HP OO 9.07 High Availability Guide*.

Other software recommendations:

- To play the tutorial Flash animations, your Web browser should include Adobe Flash Player 10.0.x or later.

HP OO Database Server Software

Component	Requirement
Database management system on Windows	One of the following: <ul style="list-style-type: none"> • Oracle: <ul style="list-style-type: none"> ▪ 10g Standard R2 ▪ 10g Enterprise R2 ▪ 11g Standard R2 ▪ 11g Enterprise R2 ▪ 11g RAC R2 • Microsoft SQL Server: <ul style="list-style-type: none"> ▪ SQL Server 2012 SP1 ▪ SQL Server 2008 SP3 ▪ SQL Server 2008 R2 SP 2 ▪ SQL Server 2005 SP4 • Sun Microsystems MySQL 5.1
Database management system on Linux	One of the following: <ul style="list-style-type: none"> • Oracle: <ul style="list-style-type: none"> ▪ 10g Standard R2 ▪ 10g Enterprise R2 ▪ 11g Standard R2 ▪ 11g Enterprise R2 ▪ 11g RAC R2 • Sun Microsystems MySQL 5.1

If you use Network File System (NFS) for a shared repository in Linux deployments, it is strongly recommended to use NFS version 4 and to turn off NFS caching. For more information, see the *HP OO 9.07 High Availability Guide*.

HP OO Remote Action Services Installed Separately from Central

Installations of the Remote Action Service (RAS) for the Central Web application do not have additional hardware requirements for the Web server. The software requirements for computers on which RAS is installed are as follows:

Note: Although RAS supports both Java- and .NET-based operations, Linux operating systems do not support .NET operations. Therefore, RAS installed on a Linux operating system cannot support .NET operations. (RAS installed on a Windows operating system supports both Java- and .NET-based operations.)

Hardware for Standalone RAS Installations

For 64 bit Windows systems, HP OO supports the AMD64 and Intel64 servers.

Component	Requirement
CPU	2 GHz for single- or multi-processor systems
Memory (RAM)	1 GB
Hard-drive space	5 GB (This includes room for the flows and operations that are included in the installation.)

Software for Standalone RAS Installations

Component	Requirement
Operating system, on 32 bit server	<p data-bbox="467 415 699 443">One of the following:</p> <ul data-bbox="467 478 1243 1159" style="list-style-type: none"><li data-bbox="467 478 1243 506">• Red Hat Enterprise Linux 5.6, 6.1, 6.2, 6.4 or any later 6.x release<li data-bbox="467 562 1336 632">Note: When installed on a Linux operating system, RAS cannot support .NET-based operations.<li data-bbox="467 688 857 716">• Oracle Enterprise Linux 5.8, 6.1<li data-bbox="467 751 797 779">• Solaris 10.x (SunOS 5.10)<li data-bbox="467 814 753 842">• Windows 2008 Server<li data-bbox="467 877 808 905">• Windows 2008 Server SP2<li data-bbox="467 940 792 968">• Windows 2008 Server R2<li data-bbox="467 1003 846 1031">• Windows 2008 Server R2 SP1<li data-bbox="467 1066 683 1094">• Windows 7 SP1<li data-bbox="467 1129 797 1157">• Windows Vista Enterprise

<p>Operating system, on 64 bit server</p>	<p>One of the following:</p> <ul style="list-style-type: none">• Red Hat Enterprise Linux 5.6, 6.1, 6.2, 6.4 or any later 6.x release <div data-bbox="500 359 1370 472"><p>Note: When installed on a Linux operating system, RAS cannot support .NET-based operations.</p></div> <ul style="list-style-type: none">• Oracle Enterprise Linux 5.8, 6.1• Windows 2008 Server• Windows 2008 Server SP2• Windows 2008 Server R2• Windows 2008 Server R2 SP1• Windows Server 2012• Windows 7 SP1• Windows Vista Enterprise
---	---

Runtime environments	<ul style="list-style-type: none">● One of the following Microsoft .NET Framework configurations:<ul style="list-style-type: none">■ Microsoft .NET Framework versions 4.0 or 4.5 in side-by-side configuration (i.e., installed together) with previous versions of .NET Framework on the RAS server:<p>The recommendation is to install .NET Framework 3.5 SP1 or .NET Framework 3.5, which include the previous versions of .NET Framework, on the same server where .NET Framework 4.0 or 4.5 is installed.</p><p>Both Full and Client Profile versions of .NET Framework are supported.</p>■ Microsoft .NET Framework 3.0 Service Pack 1 (SP 1), 3.0 Service Pack 2 (SP 2), 3.5 Service Pack 1 (SP 1) or 3.5 Service Pack 2 (SP 2), with ASP.NET enabled for either.■ Microsoft .NET Framework 2.0 Service Pack 1 (SP 1), with ASP.NET enabled for either.<p>Note: If you have .NET Framework 3.0 SP 2 or 3.5 SP 1 installed, .NET Framework 2.0 SP 1 is included in both versions.</p>● Java Runtime Environment (JRE) version 1.6.0_37 <p>JRE 1.6.0_37 is installed with the installation of the standalone RAS for Linux and Windows operating systems, but not for Solaris. If you are installing on a machine with a Solaris operating system, you must obtain the appropriate version of JRE 1.6.0_37 and install it in the Java home directory.</p>
----------------------	---

Note: Internet Protocol Version 6 (IPv6) is not supported!

The following operating systems are deprecated in HP OO 9.07.0006:

- Linux Red Hat 4.x
- Windows 2003

Note: You can still use these operating systems, but note that they will not be supported in the future.

HP OO Central Client

Hardware Requirements for the Central Client

For 64 bit Windows systems, HP OO supports the AMD64 and Intel64 servers.

Web client machines for Central must meet the hardware requirements for their Web browser.

Software Requirements for the Central Client

Web Browser	Required operating system
Microsoft Internet Explorer 8.x or 9.x, 32 bit or 64 bit	<p>One of the following:</p> <ul style="list-style-type: none"> • Microsoft Windows XP Professional Edition, Service Pack 2 or higher, 32 bit or 64 bit, with the December 2008 cumulative time zone update for Microsoft Windows operating systems applied. For information on applying the time zone update, see support.microsoft.com, Knowledge Base article 955839. • Windows 2008 Server (32 bit or 64 bit) • Windows 2008 Server SP2 (32 bit or 64 bit) • Windows 2008 Server R2 (32 bit or 64 bit) • Windows 2008 Server R2 SP1 (32 bit or 64 bit) • Windows Server 2012 64 bit • Windows Vista Enterprise SP 2 (32 bit or 64 bit) • Windows 7, Professional or Enterprise (32 bit or 64 bit)

FireFox 9.x - 17.x	<p>One of the following:</p> <ul style="list-style-type: none"> • Microsoft Windows XP Professional Edition, Service Pack 2 or higher, 32 bit or 64 bit, with the December 2008 cumulative time zone update for Microsoft Windows operating systems applied. For information on applying the time zone update, see support.microsoft.com, Knowledge Base article 955839. • Windows 2008 Server (32 bit or 64 bit) • Windows 2008 Server SP2 (32 bit or 64 bit) • Windows 2008 Server R2 (32 bit or 64 bit) • Windows 2008 Server R2 SP1 (32 bit or 64 bit) • Windows Server 2012 64 bit • Windows Vista Enterprise SP 2 (32 bit or 64 bit) • Windows 7, Professional or Enterprise (32 bit or 64 bit) • Red Hat Enterprise Linux 5.6, 6.1, 6.2, 6.4 or any later 6.x release
Flash animation support	Adobe Flash Player version 10.x or later

Note: If you run the Central client on a Linux operating system, the Web browser must be FireFox. Using Microsoft Internet Explorer for the Central client's Web browser is not supported on a Linux operating system.

The Windows 2003 operating system is deprecated in HP OO 9.07.0006:

Note: You can still use this operating system, but note that it will not be supported in the future.

HP OO Studio Installed on its own Machine

Hardware Requirements for HP OO Studio Installed on its own Machine

Machines on which you install Studio must meet the hardware requirements for their Web browser or the following, whichever is greater.

Component	Requirement
CPU	2 Gigahertz (GHz) for single- or multi-processor systems
Memory (RAM)	2 GB (This is the amount of memory that the Studio process requires.)
Hard-drive space	5 GB (This includes room for the flows and operations that are included in the installation.)

Software Requirements for HP OO Studio Installed on its own Machine

Component	Requirement
Operating system	One of the following: <ul style="list-style-type: none"> • Windows 2008 Server (32 bit or 64 bit) • Windows 2008 Server SP2 (32 bit or 64 bit) • Windows 2008 Server R2 (32 bit or 64 bit) • Windows 2008 Server R2 SP1 (32 bit or 64 bit) • Windows Server 2012 (64 bit) • Windows 7 SP1 (32 or 64 bit) • Windows 8.1 (32 or 64 bit)
Scriptlet language support	If you run a flow that contains a Perl scriptlet operation, ActivePerl 5.8.8.824 is required.

Other software recommendations:

- To play the tutorial Flash animations, your Web browser should include the Adobe Flash Player 10.0.x or later.

The Windows 2003 operating system is deprecated in HP OO 9.07.0006:

Note: You can still use this operating system, but note that it will not be supported in the future.

Virtual systems

Installation of the HP OO components on guest systems hosted by the following hypervisors is supported, as long as the guest systems meet the requirements described in this *System Requirements* document:

- VMware ESX Server, version 3.0, 3.2, 3.5, 3i, 4.0, or 4.1
- VMware ESXi Server, version 4.0, 4.1, 5.0, or 5.1
- Microsoft Hyper-V (comes with Windows 2008 R2)

