

HP Operations Orchestration

For the Linux or Windows® operating systems

Software Version: 9.02

System Requirements

Document Release Date: October 2011

Software Release Date: October 2011



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 2005-2011 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.

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 log on. 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 log on 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

Disclaimer for PDF Version of Online Help

This document is a PDF version of the online help. This PDF file is provided so you can easily print multiple topics from the help information or read the online help in PDF format.

Note: Some topics do not convert properly to PDF, causing format problems. Some elements of online help are completely removed from the PDF version. Those problem topics can be successfully printed from within the online help.

Contents

System Requirements.....	1
Contents.....	6
System Requirements.....	7
HP OO Central and database server(s).....	7
OO Central and database server Hardware.....	7
OO Central and database server software for Windows systems.....	8
Software for Linux systems.....	9
HP OO Remote Action Services installed separately from Central.....	10
Hardware for standalone RAS installations.....	10
Software for standalone RAS installations.....	11
Central client.....	12
Hardware for the Central client.....	12
Software.....	12
HP OO Studio installed on its own machine.....	13
Hardware.....	13
Software.....	14
Virtual systems.....	14

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, Scheduler, RAS, and cluster components of HP OO.

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.

OO Central and database server Hardware

For 64-bit Windows systems, 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	Database server: As described in your database system requirements HP OO Central server: 4 GB (This includes room for the flows and operations that are included in the installation and for their rolling backups.) When the database and Central are installed on the same machine, sum the requirements for the database and the Central servers. Add 100KB for each flow that you have created and its rolling backups. Add 10.2MB if you install HP OO Load Balancer.

The following software requirements are broken out into those for Windows systems and those for Linux systems.

Note: If the Central server and database server are on different physical server:

- A Central server that is installed on a Linux operating system can use a SQL Server database.
- A Central server that is installed on a Windows operating system can use an Oracle database. If the Oracle database is resides on an Oracle RAC, incorporate the Guide to Installing HP OO with RAC (InstallingHPOO_RACGuide.pdf) into your HP OO installation planning and procedures.

OO Central and database server software for Windows systems

Component	Requirement
Operating system	<p>One of the following:</p> <ul style="list-style-type: none"> • Microsoft Windows 2003 Server (Standard, Enterprise, or Datacenter edition) Service Pack (SP) 2, 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. • Microsoft Windows 2008 SP2 Server (Standard, Enterprise, or Datacenter edition), 32-bit or 64-bit. • Microsoft Windows 2008 R2 Server (Standard, Enterprise, or Datacenter edition).
Runtime environments	<p>Microsoft .NET Framework 2.0 Service Pack 1 (SP 1) and either 3.0 or 3.5 SP 1, with ASP.NET enabled for either</p> <p>Note: If you have .NET Framework 3.0 or 3.5 SP 1 installed, you must also install .NET Framework 2.0 SP 1, side by side with version 3.0 or 3.5 SP 1.</p>
Database management system	<p>One of the following:</p> <ul style="list-style-type: none"> • Microsoft SQL Server 2000 Service Pack 3a or later, SQL Server 2005 SP 3, or SQL Server 2008 SP 2. • Oracle (one of the following): <ul style="list-style-type: none"> ▪ 10g Standard R2 ▪ 10g Enterprise R2 ▪ 11g Standard R2 ▪ 11g Enterprise R2 ▪ 11g RAC R2 • Sun Microsystems MySQL 5.0.41 or 5.1.30.
Web browsers	<p>One of the following:</p> <ul style="list-style-type: none"> • Microsoft Internet Explorer 6.x, 7.x, or 8.x • FireFox 1.5, 2.x, or 3.x
Scriptlet language support	<p>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.</p>
Flash animation support	<p>Adobe Flash Player version 10.0</p>

Software for Linux systems

Component	Requirement
Operating system	<p>On a 32-bit server, one of the following:</p> <ul style="list-style-type: none"> • Red Hat Enterprise Linux 4.x or 5.x • Oracle enterprise linux 5.x <p>On a 64-bit server, one of the following:</p> <ul style="list-style-type: none"> • Red Hat Enterprise Linux AS 4.x or 5.x for 86-64 architecture • Oracle Enterprise Linux 5.x
Database management system	<p>One of the following:</p> <ul style="list-style-type: none"> • Oracle (one of the following): <ul style="list-style-type: none"> ▪ 10g Standard R2 ▪ 10g Enterprise R2 ▪ 11g Standard R2 ▪ 11g Enterprise R2 ▪ 11g RAC R2 • MySQL 5.0.41 or 5.1.30 • SQL Server 2000 Service Pack 3a or later • SQL Server 2005 SP 3 • SQL Server 2008 SP 2
Web browser	Firefox 1.5, 2.x, or 3.x
Scriptlet language support	If you run a flow that contains a Perl scriptlet operation, Perl 5.8.8.824 is required. If you did not install Perl when installing the operating system, make sure that the path to Perl is included in the PATH environmental variable.
RAS support for Windows systems	Standalone RAS installed on a Windows system (see the section below, HP OO remote action services installed separately from Central).
Flash animation support	Adobe Flash Player version 10.0

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, 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	4 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>One of the following:</p> <ul style="list-style-type: none"> • Red Hat Enterprise Linux 4.x or 5.x <p>Note: When installed on a Linux operating system, RAS cannot support .NET-based operations.</p> <ul style="list-style-type: none"> • One of the following Microsoft Windows versions: <ul style="list-style-type: none"> ■ 2003 Server (Standard, Enterprise, or Datacenter edition) SP 2, 32-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. ■ 2008 Server SP2 (Standard, Enterprise, or Datacenter edition), 32-bit or 64-bit. ■ 2008 R2 Server (Standard, Enterprise, or Datacenter edition). ■ XP SP 2, 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. ■ Vista Enterprise Edition, SP 2 ■ Windows 7, Professional or Enterprise • Solaris 10.x (SunOS 5.10). If using Solaris 10.x, the server can be a 32-bit SPARC server or a 32-bit x86 server. • Oracle Enterprise Linux 5.x
Operating system, on 64-bit server	<p>One of the following:</p> <ul style="list-style-type: none"> • Red Hat Enterprise Linux AS 4.x or 5.x for 86-64 architecture • Windows 2003 Server (Standard, Enterprise, or Datacenter edition), 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. • Microsoft Windows 2008 R2 Server (Standard, Enterprise, or Datacenter edition).
Runtime environments	<ul style="list-style-type: none"> • Microsoft .NET Framework 2.0 Service Pack 1 (SP 1) and either 3.0 or 3.5 SP 1, with ASP.NET enabled for either <p>Note: If you have .NET Framework 3.0 or 3.5 SP 1 installed, you must also install .NET Framework 2.0 SP 1, side by side with version 3.0 or 3.5 SP 1.</p> <ul style="list-style-type: none"> • Java Runtime Environment (JRE) version 1.6 (listed as 6.0 on the Sun Web site)

	<p>Note: JRE 1.6 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 and install it in the Java home directory.</p>
--	--

Central client

Hardware for the Central client

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

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

Software

Web Browser	Required operating system
Microsoft Internet Explorer 6.x, 7.x, or 8.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 2003 Server (Standard, Enterprise, or Datacenter edition) SP 2, 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 R2 Server (Standard, Enterprise, or Datacenter edition). • Windows Vista Enterprise SP 2, 32-bit or 64-bit. • Windows 7, Professional or Enterprise.
Firefox 1.5, 2.x, or 3.x	<p>One of the following:</p> <ul style="list-style-type: none"> • Microsoft Windows XP Professional Edition, SP 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 2003 Server (Standard, Enterprise, or Datacenter edition) SP 2, 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 R2 Server (Standard, Enterprise, or Datacenter edition). • Windows Vista SP 2, 32-bit or 64-bit. • Windows 7, Professional or Enterprise. • Red Hat Enterprise Linux 4.x or 5.x, 32-bit or 64-bit

System Requirements

System Requirements

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.

Other software requirements:

- To play the tutorial flash animations, Macromedia Flash Player 8.0.

HP OO Studio installed on its own machine

Hardware

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	2 GB (This includes room for the flows and operations that are included in the installation.) Add 100KB for each flow that you have created.

Software

Component	Requirement
Operating system	<p>One of the following:</p> <ul style="list-style-type: none"> • Microsoft Windows XP Professional Edition, Service Pack (SP) 2, 32-bit or 64-bit, with the December 2008 cumulative time zone update for Microsoft Windows operating systems. For information on applying the time zone update, see support.microsoft.com, Knowledge Base article 955839. • Windows 2003 Server (Standard, Enterprise, or Datacenter edition) SP 2, 32-bit or 64-bit, with the December 2008 cumulative time zone update for Microsoft Windows operating systems. For information on applying the time zone update, see support.microsoft.com, Knowledge Base article 955839. • Windows 2008 SP2 Server (Standard, Enterprise, or Datacenter edition), 32-bit or 64-bit. • Windows 2008 R2 Server (Standard, Enterprise, or Datacenter edition). • Vista Enterprise edition SP 2, 32-bit or 64-bit. • Windows 7, Professional or Enterprise.
Flash animation player for tutorials	Flash Player 8.0
Scriptlet language support	If you run a flow that contains a Perl scriptlet operation, ActivePerl 5.8.8.824 is required.

Virtual systems

Installation of the 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
- Microsoft Hyper-V (comes with Windows 2008 R2)

