

HP Operations Orchestration

For the Windows ®, Solaris ®, and Linux operating systems

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System Requirements

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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.

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	<p>Database server: As described in your database system requirements</p> <p>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.)</p> <p>When the database and Central are installed on the same machine, sum the requirements for the database and the Central servers.</p> <p>Add 100KB for each flow that you have created and its rolling backups.</p> <p>Add 10.2MB if you install HP OO Load Balancer.</p>

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	<ul style="list-style-type: none">• Microsoft .NET Framework 4.0• 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>If you have .NET Framework 3.0 SP 2 or 3.5 SP 1 installed, you must also install .NET Framework 2.0 SP 1, side by side with version 3.0 SP 2 or 3.5 SP 1.</p>

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Database management system	<p>One of the following:</p> <ul style="list-style-type: none">• Microsoft SQL Server 2000 SP3a or later, SQL Server 2005 SP3, SQL Server 2008 SP2, SQL Server 2008 SP3 or SQL Server 2008 R2• 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 R1▪ 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, 8.x, or 9.x• FireFox 3.x,4.x,9.x and 10.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>

Database server 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, 5.x, 6.1, or 6.2 • 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, 5.x, 6.1, 6.2 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 R1 ▪ 11g RAC R2 • MySQL 5.0.41 or 5.1.30 • SQL Server 2000 Service Pack 3a or later • SQL Server 2005 SP3 • SQL Server 2008 SP2 • SQL Server 2008 SP3 • SQL Server 2008 R2
Web browser	Firefox 3.x,4.x,9.x and 10.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, 5.x, 6.1, or 6.2 <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, 5.x, 6.1, or 6.2 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 4.0 • 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

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	<ul style="list-style-type: none">• Microsoft .NET Framework 2.0 Service Pack 1 (SP 1), with ASP.NET enabled for either If you have .NET Framework 3.0 SP 2 or 3.5 SP 1 installed, you must also install .NET Framework 2.0 SP 1, side by side with version 3.0 SP 2 or 3.5 SP 1.• Java Runtime Environment (JRE) version 1.6.0_18 JRE 1.6.0_18 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_18 and install it in the Java home directory.
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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.

Central client software

Web Browser	Required operating system
Microsoft Internet Explorer 6.x, 7.x, 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 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 3.x, 4.x, 9.x and 10.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

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	One of the following: <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, 4.1, or i5
- Microsoft Hyper-V (comes with Windows 2008 R2)

