



How Products Become Profits™

Agile® e6.0

Agile e6.0.2

Prerequisites Guide Includes the Pre-Installation Checklist

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CONTENTS

Chapter 1 Configuration Support Overview	1
e6 Server and e6 Business and Presentation Services Support	1
About the e6 Business and Presentation Services	2
Client Support	2
About the Agile e6 Clients	3
Chapter 2 Hardware Requirements	4
Minimum Network Connectivity and Bandwidth	4
Minimum Memory Requirements	4
Windows Minimum CPU requirements:	4
Minimum Disk Space	5
Chapter 3 Module Specific Requirements	6
Portals, Client Requirements	6
Microsoft NetMeeting, Client Requirements	6
Digital Signature	6
FileServer	6
Chapter 4 Recommended Software Configurations	7
Windows	7
IBM AIX	7
Web references	8
HP-UX	8
HP-UX 11.11	8
HP-UX 11.23	9
Web references	9
Recommended HP-UX kernel settings	9
Sun Solaris	10
SUSE Linux Enterprise Server 9	10
Chapter 5 Pre-Installation Checklist	12
Company and IT Structure	12
Installation Media	12
Node for License Manager	12
Target Platforms	13
System Administration Requirements	14
Database Administration Requirements	14

Configuration Support Overview

This chapter summarizes the hardware and software configurations supported by the following Agile e6 installation components:

- e6 Server
- e6 Business and Presentation Services
- Windows Client, UNIX Client and Web Client

e6 Server and e6 Business and Presentation Services Support

The following table shows the hardware and software configurations supported by the e6 Server and e6 Business and Presentation Services installation components. A “Yes” in the column for a database system or the e6 Business and Presentation Services component indicates that it can be:

- installed on the given platform/operating system.
- used with an e6 server running on any other supported platform/operating system.

Platform/Operating System	Database System			e6 Business and Presentation Services
	Oracle 10g Release 1 (10.1.0.4)	Oracle 10g Release 2 (10.2.0.2)	Microsoft SQL Server 2005, SP1	
HP UX 11i (11.11) (PA-RISC 2.0 or higher)	Yes	Yes	-	Yes
HP UX 11v2 (11.23) (PA-RISC 2.0 or higher)	Yes	Yes	-	Yes
Sun Solaris 9 (UltraSPARC IIi or higher)	Yes	Yes	-	Yes
Sun Solaris 10 (UltraSPARC IIi or higher)	Yes	Yes	-	Yes
IBM AIX 5V Version 5.2 (Power PC 4 or higher)	Yes	Yes	-	Yes
IBM AIX 5L Version 5.3 (Power PC 4 or higher)	Yes	Yes	-	Yes
SUSE Linux Enterprise Server 9 (i386)	Yes	Yes	-	Yes

Platform/Operating System	Database System			e6 Business and Presentation Services
	Oracle 10g Release 1 (10.1.0.4)	Oracle 10g Release 2 (10.2.0.2)	Microsoft SQL Server 2005, SP1	
Windows 2003 Server (x86) Enterprise Edition	Yes	Yes	Yes	Yes

About the e6 Business and Presentation Services

The e6 Business and Presentation Services component includes the following:

- The Web Presentation Service, which gives users access to Agile e6 functionality through their web browsers
- The Workflow module, which provides a robust and scaleable solution for the automation of business processes in an engineering organization.

For information on administrating the e6 Business and Presentation Services, refer to *Administration Manual for Agile e6.0.2* (PLM602_Admin.pdf) on the product DVD. For information on using Workflow features, refer to the Agile e6 online help: *Using Agile e6 > Workflow*.

Client Support

The following table shows the hardware and software configurations supported by the Agile e6 clients, as well as the web browsers supported for the Web Client for each configuration.

A “Yes” in the column for a client indicates that you can install it on the given server platform.

Note: All supported clients run against the entire supported server platforms described above.

Platform/Operating System	Agile e6 Client		
	Windows Client	Java Client	Web Client
HP UX 11i (PA-RISC 2.0 or higher)	-	Yes	Mozilla 1.7.x
HP UX 11iv2 (PA-RISC or higher)	-	Yes	Mozilla 1.7.x
Sun Solaris 9 (UltraSPARC Ii or higher)	-	Yes	Mozilla 1.7.x
Sun Solaris 10 (UltraSPARC Ii or higher)	-	Yes	Mozilla 1.7.x
IBM AIX 5L Version 5.2 (Power PC 4 or higher)	-	Yes	Mozilla 1.7.x
IBM AIX 5L Version 5.3 (Power PC 4 or higher)	-	Yes	Mozilla 1.7.x

Platform/Operating System	Agile e6 Client		
	Windows Client	Java Client	Web Client
SUSE Linux Enterprise Server 9 (i386)	-	Yes	Mozilla 1.7.x
Windows XP Professional	Yes	Yes	IE 6.0 SP1 or Mozilla 1.7.x
Windows 2000 Professional	Yes	Yes	IE 6.0 SP1 or Mozilla 1.7.x
Windows Server 2003 Enterprise Edition	Yes	Yes	IE 6.0 SP1 or Mozilla 1.7.x

About the Agile e6 Clients

The Windows Client (also known as the PC Client) is designed specifically for Windows platforms and is installed automatically as part of the Windows Server installation process. For information on installing the Windows Client and the Java Client for Windows on a separate machine from the PLM Server, refer to *Installation Manual for Agile e6.0.2 on Windows Client* (PLM602_WindowsClient.pdf).

The UNIX Java Client is available for installation on supported UNIX machines from the setup dialog box. For more information, refer to *Installation Manual for Agile e6.0.2 on Unix Client* (PLM602_UnixClient.pdf).

The Web Client, which you configure through the Web Presentation Service, is available for use through supported web browsers. For more information, refer to the *Administration Manual for Agile e6.0.2* (PLM602_Admin.pdf).

Note: All Agile e6 installation documentation is available in the doc directory on the product DVD. The installation documentation is shipped in Adobe® Portable Document Format (PDF). To view the files, use the Adobe Acrobat® Reader® software, which is available at no charge at www.adobe.com.

Chapter 2

Hardware Requirements

To read the Agile e6 DVD for installation, your installation machine must have a DVD drive that supports ISO 9660 file system.

To improve the performance and fault tolerance of your database, Agile recommends that you spread disk space across many smaller drives, rather than a few large drives. A configuration with at least two disk drives is recommended.

Minimum Network Connectivity and Bandwidth

- TCP / IP and UDP / IP connections between server, client, database, and license server(s).
- Network bandwidth for clients via WAN: One exclusive ISDN channel (64 kBit – without file transfer) is good for 2-4 working clients.
- Add bandwidth for sharing documents via WAN connections.
- 100 MBit/s LAN between database server and Agile e6 application server.

Note: At a minimum, a TCP/IP loopback device is required

Minimum Memory Requirements

The following recommendations are incremental to the amount of RAM required for other applications and the operating system.

- Client machines: 512 MB

Note: If you want to use the Agile e6 DataView Client, make sure that you have not set the /3GB parameter in the Microsoft boot.ini file.

- Agile e6 Server machine: 512 MB
 - Up to 50 MB per connect
- Database system machine:
 - Oracle: 6 MB per connected user, plus 400 MB for database services
- Machine hosting the Web Presentation Service: additional 20 MB plus 6 MB per concurrent user.
- Swap space should be a minimum of three times the amount of RAM. On systems with large amounts of memory (more than 1 GB), this can be reduced to two times the amount of RAM.

Windows Minimum CPU requirements:

- For Windows platforms, Intel Pentium 1GHz equivalent or better.

Minimum Disk Space

- ❑ Agile e6 Server: 500 MB
- ❑ Oracle 10g Server:
 - 2.5 GB for Windows installations
 - 3 - 4 GB for UNIX installations
- ❑ Oracle 10g Client:
 - 650 MB for Windows installations
 - 650 - 2000 MB for UNIX installations
- ❑ SQL Server 2005: 1GB
- ❑ Windows Client installation on separate machine: 180 MB
- ❑ UNIX Java Client installation on separate machine: 80 MB

Chapter 3

Module Specific Requirements

Portals, Client Requirements

- Internet Explorer 6.0 with SP1, or Mozilla 1.7.x or later
- Windows XP/2000/2003 External Mail
- Your mail application must be conform with MAPI and is compatible with Outlook Express and Netscape
- Windows XP/2000/2003 only
- A display with a resolution of 1024 by 768 pixels or higher

Microsoft NetMeeting, Client Requirements

- Windows XP/2000/2003 only

Digital Signature

- An official signature, certified by an authorized certification authority, is needed; please refer to: <http://www.verisign.com> (for US); <http://www.trustcenter.de> (for Germany)
- Support of the X509v3 and PKCS12 standard for certificates and private keys

FileServer

- For Windows the FileServer system must be based on NTFS. FAT is not supported.
- The electronic vault must be created on a local hard disk.

Chapter 4

Recommended Software Configurations

The Agile e6 software has been certified under the following operating system configurations. Please look below for the supported configuration on your platforms.

Windows

The recommended service packs for the supported Windows Operating systems are found below:

Windows Version	Service Pack
Windows Server 2003 Enterprise Edition (client & server)	SP1
Windows XP Professional (client)	SP2
Windows 2000 Professional (client)	SP3

IBM AIX

The supported OS Versions for the IBM workstation are AIX 5L Version 5.2 and 5.3. This can be tested with the command:

```
oslevel
```

The recommended maintenance levels for the supported AIX Operating systems are found below:

AIX Version	Maintenance Level
5.2	5 or higher
5.3	2 or higher

The AIX file sets bos.adt.base and bos.adt.libm must also be installed:

To determine which operating system file sets are installed enter the following command:

```
lspp -l [fileset_name]
```

Or, if you enter the following command all file sets are listed:

```
lspp -l
```

To determine which operating system patches are installed enter the following command:

```
instfix -a
```

To determine if a patch has been installed enter the following command:

```
instfix -ivk APAR_number
```

Web references

IBM Fixes:

<http://www-1.ibm.com/servers/eserver/support/pseries/aixfixes.html>

<http://www-912.ibm.com/eserver/support/fixes/fcgui.jsp>

IBM JDK:

<http://www.ibm.com/developerworks/java/jdk/aix/index.html>

HP-UX

The supported OS Versions for the HP-UX (PA-RISC 2.0 or higher) workstation are HP-UX 11.11 and 11.23. This can be tested with the command:

```
uname -r
```

The recommended patch bundles for the supported HP-UX Operating systems are found below:

HP-UX Version	Patch Bundles
B.11.11	December 2001
B.11.23	September 2004

HP-UX 11.11

The patch bundles from the HP-UX SupportPlus CD December/2001 CD-No 5012-0015, KIT No. 5065-8711 are required. You can check this on your workstation with:

```
swlist -l bundle | grep GOLD
```

Output should be:

```
GOLDAPPS11i  B.11.11.0112.6 Gold Applications Patches for HP-UX 11i, December 2001
GOLDBASE11i  B.11.11.0112.6 Gold Base Patches for HP-UX 11i, December 2001
```

These bundles contain the necessary patches PHCO-24400 'libc cumulative patches'. In addition, you should install patch PHSS_24638 to update the C++ runtime libraries. You can check this on your workstation with:

```
swlist -l patch | grep PHSS_24638
```

This should show the following patches applied:

```
PHSS_24638.CORE-64SLIB      1.0  OS-Core.CORE-64SLIB      applied
PHSS_24638.CORE-SHLIBS     1.0  OS-Core.CORE-SHLIBS     applied
# PHSS_24638                1.0  HP aC++ -AA runtime libraries (aCC A.03.33)
```

# PHSS_24638.CORE-64SLIB	1.0	OS-Core.CORE-64SLIB	applied
# PHSS_24638.CORE-SHLIBS	1.0	OS-Core.CORE-SHLIBS	applied
# PHSS_24638.LANG-64ALIB	1.0	B.11.11	applied
# PHSS_24638.LANG-MIN	1.0	B.11.11	applied
PHSS_24638.LANG-64ALIB	1.0	B.11.11	applied
PHSS_24638.LANG-MIN	1.0	B.11.11	applied

HP-UX 11.23

The patch bundle from the HP-UX Application Software DVD September/2004 DVD-No 5013-2297 or the September 2004 Media KIT No. 5990-8167 is required. You can check this on your workstation with:

```
swlist -l bundle | grep BUNDLE11i
```

Output should be:

```
BUNDLE11i B.11.23.0409.3 Required Patch Bundle for HP-UX 11i v2 (B.11.23), September 2004
```

Web references

HP-UX Fixes:

<http://itrc.hp.com/>

HP JDK:

<http://www.hp.com/products1/unix/java/>

Recommended HP-UX kernel settings

The HP-UX 11i default value for maximum threads per process is 64. Agile recommends that you use the maximum kernel setting for the `max_thread_proc` and `maxusers` parameters. Setting `maxusers` to a higher value increases other machine-wide limits, such as `nkthread` (max number of kernel threads).

The following table shows the recommended configuration of the HP-UX kernel.

Parameter	Old	New	Description
<code>max_thread_proc</code>	64	1024	Maximum threads per process
<code>maxfiles</code>	60	256	Soft file limit per process
<code>maxusers</code>	32	256	Influences other parameters

Parameter	Old	New	Description
nkthread	499	3635	Number of threads total on the system
nproc	276	2068	Maximum number of processes
ncallout	292	2084	Number of pending timeouts

If you want to install the Oracle Server on HP-UX, refer to *Installation Manual for Oracle 10g for Agile e6.0.2 on UNIX* (PLM602_10g_UNIX.pdf) for further kernel adaptations. The values become valid after rebooting.

Sun Solaris

The recommended patch sets for the supported Solaris operating systems are found below:

Solaris Version	Recommended Patches
9	22.04.2003
10	

Solaris 9 12/02 with recommended patches (state: Apr/22/03) and Solaris 10 are the supported Solaris versions.

In addition, you will need the SUNWlibC packages to meet the Sun C++ runtime environment requirements. You will also need the following operating system packages to be installed on your Solaris machine:

SUNWarc, SUNWbtool, SUNWhea, SUNWlibm, SUNWlibms, SUNWsprot, SUNWtoo

If you enter `pkginfo -i`, all installed packages are listed.

To verify installed patches on your SUN system, enter:

```
showrev -p
```

SUSE Linux Enterprise Server 9

The recommended package levels for the supported Linux Operating systems are found below:

Package	Version
kernel	2.6.5-7.151
glibc	2.3.3-98.38

libstdc++	3.3.3-43.28
-----------	-------------

You can test installed versions of rpm packages with:

```
rpm -q -a | grep <package-name>.
```

To determine the amount of RAM memory installed on your system, enter the following command:

```
cat /proc/meminfo | grep MemTotal
```

To determine the bytes of swap space currently configured on your system, enter the following command and multiply the BLOCKS column by 512:

```
/sbin/swapon -s
```

For further help on installation and configuration of Oracle 10g on SUSE Linux see:

<http://www.novell.com/products/linuxenterpriseserver/oracle/matrix.html>

For more information about software configurations, refer to the Customer Support page:

<http://www.agile.com/support>

Chapter 5

Pre-Installation Checklist

As a courtesy to you, we have a pre-installation checklist provided to help you prepare your installation. If an Agile project manager will assist you with the installation, you will need to complete this checklist and return it to them before the planned installation date.

Company and IT Structure

- Company Name:
- Company Address:
- System Administrator:
 - Phone
 - Fax:
 - Email:
- Database Administrator:
 - Phone
 - Fax:
 - Email:
- Agile e6 Administrator:
 - Phone
 - Fax:
 - Email:

Installation Media

Please verify:

- We are able to locally mount and read DVDs (ISO9660 with rrip) on each target machine for the Agile e6 installation.

Node for License Manager

The License Manager should be installed on the following target node:

- Node Name:
- Operating System (uname -a or Windows version):
- UCHOSTID (as shown by ughostid):

Note: Make sure that you run the ughostid program as Administrator (NT) or as root (UNIX) on the license manager node.

Please check:

- The operating system on the target machine for the license server is supported. Refer to Section “PLM Server and PLM Business and Presentation Services Support”.

For more information regarding the License Manager, refer to the section “Licensing Overview” in the Agile e6 Installation Overview.

Target Platforms

Please check:

- The operating system, database, and patch sets on all target machines are compliant with the currently supported versions. Refer to sections 1, 2 and 4 of this document.

For Unix, check:

- Portmapper is running
- Lockd is running
- Statd is running
- Database – client installation is already installed and configured
- C-Shell is installed (Linux:tcsh)
- X11 is installed
- Up-to-date C++ libraries are installed

For both Windows and UNIX:

Please list of all target platforms (uname -a or Windows version) the nodename(s) and version(s):

1. Node Name:

Operating System:

2. Node Name:

Operating System:

3. Node Name:

Operating System:

4. Node Name:

Operating System:

5. Node Name:

Operating System:

6. Node Name:

Operating System:

System Administration Requirements

Please check:

- A system administrator prepared to login as root (UNIX) and/or (Domain) Administrator (Windows) is available to assist for system specific parts of the installation at any time during the installation process.
- Recovery procedures for installation nodes and trained personnel for recovery are available at any time during the installation process.
- Nodes can be rebooted prior to the installation
- Nodes can be rebooted for startup testing after and during installation

System Administrator Contact:

- Name:
- Phone:
- Fax:
- Email:

Database Administration Requirements

Please check:

- The system requirements are met on all target machines running a database or a database client installation as listed earlier in this document.
- Recovery procedures for database nodes/databases and trained personnel for recovery are available any time during the installation process.

Database software:

- The database software is already installed and supported as shown earlier in this document
- or
- You purchased your database software through Agile and it will be installed and configured as part of the contracted installation.
 - A database administrator, who is prepared to log in as database administrator, is available to assist for database specific parts of the installation any time during the installation process (for example, to create database users and tablespaces).

Database administrator contact:

- Name:
- Phone:
- Fax
- Email:

Checklist filled out by:

- Name:
- Phone:
- Fax
- Email:

City, Date

Signature