

Planning for Java CAPS Installation

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Planning for Java CAPS 6.2 Installation

The topics listed here provide information that you should be aware of before installing the Java Composite Application Platform Suite (Java CAPS). If you have any questions or problems, see the Java CAPS Support web site at <http://goldstar.stc.com/support>.

Tip – To access all the Java CAPS documentation in HTML or PDF format, see the [Java CAPS documentation on docs.sun.com](http://docs.sun.com).

What You Need to Know Before Installing

- “Java CAPS 6.2 Supported Operating Systems” on page 7
- “Java CAPS 6.2 Components and Supported External Systems” on page 11
- “Java CAPS 6.2 System Requirements” on page 16
- “Before You Install” on page 19
- “About the Installation” on page 20
- “Installation Media” on page 25
- “Preparing for Installation” on page 30
- “Troubleshooting the Java CAPS Installation” on page 32
- “Increasing the NetBeans IDE Heap Size” on page 37
- “UNIX and Linux Patches” on page 38

Beginning with Java CAPS 6, GUI and command-line installations are available for all supported operating systems. The GUI installation enables you choose a complete or a custom installation and the command-line installation enables you to either set what you want to install in a properties file that is called from a script or to run an interactive installation where you answer system installation questions.

A complete installation includes the following components. For a complete list of what is installed automatically, see “Overview of the Installation Process” on page 20.

- Sun GlassFish Enterprise Server 2.1 Patch 2

A Java Enterprise Edition (Java EE) 5 compatible platform for developing and delivering server side Java applications and web services. It enables you to deploy and monitor Java Business Integration (JBI) based projects.

- NetBeans IDE 6.5.1 ML
An integrated development environment (IDE) for writing, testing, and debugging secure service-oriented architecture (SOA) applications using XML, BPEL, and Java web services. You use the NetBeans IDE to develop and configure Java CAPS applications.
- Java CAPS Repository v. 6.2
A NetBeans IDE Update Center host and a distributed version control system for non-JBI based Java CAPS projects and objects.
- Enterprise Service Bus API Kit, which includes
 - Java CAPS Management API
 - STCMS API
- Sun JMS IQ Manager v. 6.2
A Sun JMS IQ Manager that is required to run Non-JBI based Projects.
- UDDI Server
Businesses use Universal Description, Discovery, and Integration (UDDI), an XML-based registry, to list themselves on the Internet. Similar in function to a telephone book, this registry enables companies to engage in e-commerce on the web.
- Enterprise Manager v. 6.2
A web-based application used to deploy and monitor Java CAPS runtime components and monitor alerts.
- Java CAPS Installer
- Java CAPS Uploader
- A default domain, which holds the runtime environment that contains the software and other installed components that are required at run time, such as:
 - GlassFish, which provides middleware services for security and state maintenance, data access and persistence, and transactions.
 - The System Management Service, which manages and monitors Java CAPS deployments.
 - The Sun JMS IQ Manager, which provides JMS messaging.Although the domain installation also includes the components necessary for basic communication between the Java CAPS system and files, communications with databases and other products require that you add on components.
- Core components, such as the Enterprise Service Bus (formerly eGate Integrator) and Business Process Manager (formerly eInsight)
- Add-on components, such as Sun Adapters (formerly eWays)

- JBI components

Java CAPS 6.2 Supported Operating Systems

This topic lists the supported operating system requirements for each platform. The requirements listed in this topic are in addition to the supported system requirements.

In previous releases of Java CAPS the runtime was supported on many operating systems while the design-time tools were only supported on Windows. As of Java CAPS v. 6, the supported operating systems are divided into two categories:

- [“Supported Design-Time Platforms” on page 7](#)
- [“Supported Runtime Platforms” on page 8](#)

Supported Design-Time Platforms

The Sun Java CAPS design-time tools are available on the following operating systems:

Operating System	English	Japanese	Korean	Chinese (Traditional)	Chinese (Simplified)
Sun Solaris 10 SPARC	Yes	Yes	Yes	Yes	Yes
Sun Solaris 10 x86 (64 bit)	Yes				
Sun Solaris 10 x86 (32 bit)	Yes				
Apple Mac OS Leopard 10.5 (32 bit)	Yes				
Apple Mac OS Tiger 10.4 (32 bit)	Yes				
Microsoft Windows Vista (32 bit)	Yes	Yes	Yes	Yes	Yes
Microsoft Windows XP SP3 (32 bit)	Yes	Yes	Yes	Yes	Yes
Microsoft Windows Server 2008 (32 bit)	Yes	Yes	Yes	Yes	Yes
Microsoft Windows Server 2003 R2 SP2 (32 bit)	Yes	Yes	Yes	Yes	Yes
Microsoft Windows Server 2003 SP3 (32 bit)	Yes	Yes	Yes	Yes	Yes
Microsoft Windows 2000 SP4 (32 bit)	Yes	Yes	Yes	Yes	Yes

Operating System	English	Japanese	Korean	Chinese (Traditional)	Chinese (Simplified)
Red Hat Enterprise Linux Server 5.3 – basic Server and Advanced Platform (32 and 64 bit)	Yes				
Red Hat Enterprise Linux AS 4 (64 bit)	Yes				
Red Hat Enterprise Linux AS 4 (32 bit)	Yes				

Supported Runtime Platforms

The Sun Java CAPS runtime is available on the following operating systems:

Operating System	English	Japanese	Korean	Chinese (Traditional)	Chinese (Simplified)
Sun Solaris 10 SPARC (JVM: 32 and 64 bit)	Yes	Yes	Yes	Yes	Yes
Sun Solaris 10 x86 (OS: 64 bit; JVM: 32 bit)	Yes	Yes	Yes	Yes	Yes
Sun Solaris 10 x86 (OS: 32 bit; JVM: 32 bit)	Yes	Yes	Yes	Yes	Yes
Sun Solaris 9 SPARC (JVM: 32 bit)	Yes	Yes	Yes		Yes
Open Solaris 2008.11 x86 (OS: 32 bit; JVM: 32 bit)	Yes				
Open Solaris 2008.05 x86 (OS: 64; JVM: 32; evaluation support only)	Yes				
Apple Mac OS Leopard 10.5 (OS: 32 bit; JVM: 32 bit)	Yes				
Apple Mac OS Tiger 10.4 (OS: 32 bit; JVM: 32 bit)	Yes				
IBM AIX 5.3 TL9 (OS: 64 bit; JVM: 32 bit)	Yes	Yes	Yes		
IBM AIX 6.1 (OS: 64 bit; JVM: 32 bit)	Yes				
Microsoft Windows Vista Business (OS: 32 bit; JVM: 32 bit)	Yes	Yes	Yes	Yes	Yes

Operating System	English	Japanese	Korean	Chinese (Traditional)	Chinese (Simplified)
Microsoft Windows XP SP2 and SP3 (OS: 32 bit; JVM: 32 bit)	Yes	Yes	Yes	Yes	Yes
Microsoft Windows Server 2008 (OS: 32 bit; JVM: 32 bit)	Yes	Yes	Yes	Yes	Yes
Microsoft Windows Server 2003 EE R2 SP2 (OS: 64 bit; JVM: 32 bit)	Yes	Yes	Yes	Yes	Yes
Microsoft Windows Server 2003 R2 SP2 (OS: 32 bit; JVM: 32 bit)	Yes	Yes	Yes	Yes	Yes
Microsoft Windows Server 2000 SP4 (OS: 32 bit; JVM: 32 bit)	Yes	Yes	Yes	Yes	Yes
Red Hat Enterprise Linux Server 5.3 – basic Server and Advanced Platform (OS: 64 bit; JVM: 32 bit)	Yes	Yes	Yes	Yes	Yes
Red Hat Enterprise Linux Server 5.3 — basic Server and Advanced Platform (OS: 32 bit; JVM: 32 bit)	Yes	Yes	Yes	Yes	Yes
Red Hat Enterprise Linux AS 4 (OS: 64 bit; JVM: 32 bit)	Yes	Yes	Yes	Yes	Yes
Red Hat Enterprise Linux AS 4 (OS: 32 bit; JVM: 32 bit)	Yes	Yes	Yes	Yes	Yes
SUSE Linux Enterprise Server 10 (OS: 64 bit; JVM: 32 bit)	Yes	Yes	Yes		Yes

Note –

- Where applicable, adapters for external systems are supported on the above platforms if that platform is supported by the external system vendor.
- Sun SeeBeyond JMS IQ Manager (STCMS) and Sun ESB API Kit are supported on a subset of these platforms. Please contact your Sun account representative for more information.
- Macintosh operating system support is limited to Development purposes only.

Java CAPS 6.2 Supported JDK Versions

The following lists the supported JDK versions for each platform.

Operating System	JDK Versions
Solaris	JDK5: At least release 1.5.0_14 JDK6: Releases 1.6.0_03 to 1.6.0_11
IBM AIX	JDK5: The latest 1.5 release supported by IBM AIX
Linux (Red Hat and SUSE)	JDK5: At least release 1.5.0_14 JDK6: Releases 1.6.0_03 to 1.6.0_11
Macintosh	JDK5: The latest 1.5 release supported by Apple
Microsoft Windows	JDK5: At least release 1.5.0_14 JDK6: Releases 1.6.0_03 to 1.6.0_11

Note – If you are using JDK 1.6.0_12 or later with Java CAPS, you might run into issues with the wizards and editors used to develop applications. In addition, the installation fails on Windows when using JDK 1.6.0_13 or 1.6.0_14. The Java CAPS Installer does not support JDK release 1.6.0_04 in the 64-bit version on the Solaris SPARC or AMD 64-bit environments. The installer also does not support JDK 1.6.0 or later on AIX 5.3.

Interoperability With Java Enterprise System

Interoperability testing has been completed between Java CAPS 6.2 and other Sun application, notably Java Enterprise System (Java ES). The table below indicates the tested versions.

Product	Supported Versions	Versions Out of Scope
NetBeans	NetBeans 6.5.1 ML	
Sun GlassFish Enterprise Server (Sun Java System Application Server)	Sun GlassFish Enterprise Server 2.1 Patch 2	-
Sun Java System Directory Server	Sun Java System Directory Server Enterprise Edition 6.3.1	-
Sun Java System Message Queue	Sun Java System Message Queue 4.3	-

Product	Supported Versions	Versions Out of Scope
Sun Java System Web Server	Sun Java System Web Server 7.0 Update 6	
GlassFish Web Space Server	GlassFish Web Space Server 10.0.6	
OpenSSO Enterprise	OpenSSO Enterprise 8.0 Update 1	
Sun Java System Access Manager	Sun Java System Access Manager 7.1.1 Sun Java System Access Manager 8.0	Sun Java System Access Manager 7.1 and earlier
Sun Identity Manager		
Sun Java Portal server	Sun Java Portal Server 7.2 Sun Java Portal Server 7.1 Update 2	Sun Java Port Server 7.1 Update 1 and earlier

Java CAPS 6.2 Components and Supported External Systems

The following tables list each Java CAPS component along with the external systems they support. All components are supported on the same operating systems as Java CAPS (see [“Java CAPS 6.2 Supported Operating Systems”](#) on page 7).

TABLE 1 Java CAPS Classic Core Components and Supported External Systems

Product Name	Supported External Systems
Sun Enterprise Service Bus (LDAP user management)	SJSDS EE 6, Open LDAP 2.0.27, Microsoft Windows Server 2003 Active Directory Standard Edition SP 2
Sun Business Process Manager	SQL Server 2005, Sybase 12.5, Oracle 10g (10.2.0.1.0), and DB2 9.1
Sun Composite Page Designer	NA
Sun Master Index	SQL Server 2005, Oracle 11g, Oracle 10g (10.2.0.1.0), and Oracle 9i
Sun Master Patient Index	SQL Server 2005, Oracle 11g, 10g (10.2.0.1.0), and Oracle 9i
JMS Grid	WebLogic 9.2, WebLogic 10, WebSphere 6.1, JBOSS 4.2

TABLE 2 Java CAPS Classic Application Adapters and Supported External Systems

Product Name	Supported External Systems
Sun COBOL Copybook Converter	
Sun Adapter for Oracle Applications	Oracle Application 11.5

TABLE 2 Java CAPS Classic Application Adapters and Supported External Systems *(Continued)*

Product Name	Supported External Systems
Sun Adapter for PeopleSoft	PeopleSoft 8, 8.4, and 9 with People Tools 8.13, 8.42, and 8.4.8 Note – Only HTTP communication is supported with PeopleTools 8.13.
Sun Adapter for SAP ALE	SAP R/3 4.6C Non-Unicode, ECC 5.0 Non-Unicode, ECC 5.0 Unicode, ECC 6.0 Non-Unicode, ECC 6.0 Unicode SAP R/3 4.6C, 4.6D, and 4.7 for Japanese and Korean
Sun Adapter for SAP BAPI	SAP R/3 4.6C Non-Unicode, ECC 5.0 Non-Unicode, ECC 5.0 Unicode, ECC 6.0 Non-Unicode, ECC 6.0 Unicode, JCo 3 SAP R/3 4.6C, 4.6D, and 4.7 for Japanese
Sun Adapter for Siebel EAI	Siebel version 7, 7.5.3 (OTD), 7.7, and 8.0
Sun Adapter for Lotus Notes/ Domino	Lotus Notes Domino 6.0, 6.5, and 7.0
Sun Adapter for SWIFT Alliance Access	SWIFT Alliance Access (SAA) 6.0 and 6.1
Sun Adapter for SWIFT Alliance Gateway	Swift 6.0 and 6.1, certified for 2006, 2007, 2008, and 2009 Supported platforms include Windows XP, Solaris 10 (SPARC), AIX 5.2

TABLE 3 Java CAPS Classic Database Adapters and Supported External Systems

Product Name	Supported External Systems
Sun Adapter for Oracle	Oracle 9.2.0, Oracle 10g R2, Oracle 11g
Sun Adapter for DB2 Universal Database	DB2 UDB 8.1, 8.2, 9.0, and 9.1 on Windows and UNIX; DB2 V5R2 and V5R3 on AS400; DB2 8.2 and 9.1 on z/OS
Sun Adapter for DB2 Connect	DB2 Connect 8.1, 8.2, and 9.1
Sun Adapter for SQL Server	Microsoft SQL Server 7, SQL Server 2000, and SQL Server 2005
Sun Adapter for JDBC/ODBC	Type 2, Type 3, and Type 4 drivers DB2 8.2 on AS400, SQL Server 2005, Oracle 10g R2, MySQL 5.0.27, Derby 10.2.1.7, PostgreSQL 8.2
Sun Adapter for Informix	Informix V10
Sun Adapter for Sybase	Sybase Adaptive Enterprise Server 11.9, 12.5, and 15
Sun Adapter for VSAM	WebSphere-II-Classic Federation 8.2 driver

TABLE 4 Java CAPS Classic Communication Adapters and Supported External Systems

Product Name	Supported External Systems
Sun Adapter for COM/DCOM	n/a
Sun Adapter for Batch/FTP	n/a
Sun Adapter for File	n/a
Sun Adapter for e-Mail	Windows 2003 Email server (that comes with IIS), and Sendmail that comes with Solaris 10 Supported protocols are SMTP, POP3, and MIME
Sun Adapter for LDAP	Windows 2000 Server Active Directory, Windows 2003 Server Active Directory, Sun Java System Directory Server v6.0, OpenLDAP 2.1, OpenLDAP 2.3
Sun Adapter for MSMQ	Windows XP, Windows 2003 Server Supports Microsoft MSMQ version 3.0
Sun Adapter for HTTPS	SOAP Version 1.2 Supports SSL 2.0 and 3.0, TLS 1.0 OpenSSO Enterprise 8.0 Update 1 and its corresponding Web Services Security (WSS) Agent
Sun Adapter for SNA	n/a
Sun Adapter for TCP/IP HL7	HL7 Standard versions 2.1, 2.2, 2.3, 2.3.1, 2.4, 2.5, 2.5.1, and V3
Sun Adapter for TCP/IP	n/a

TABLE 5 Java CAPS Classic Web Server Adapters and Supported External Systems

Product Name	Supported External Systems
Sun Adapter for Sun Java System Application Server	Sun Java System Application Server 8.1 and 9.1
Sun Adapter for WebSphere MQ	WebSphere 5.3 and 6.0
Sun Adapter for WebLogic	WebLogic 7.0, 8.1, 9.0, 9.2, and 10

TABLE 6 Java CAPS Classic Mainframe Adapters and Supported External Systems

Product Name	Supported External Systems
Sun Adapter for CICS	CICS version 3.1, can use IBM CICS Transaction Gateway (versions 5.1, 6.0, 6.0.1, and 6.1) or Sun CICSListener to access transactions

TABLE 6 Java CAPS Classic Mainframe Adapters and Supported External Systems *(Continued)*

Product Name	Supported External Systems
Sun Adapter for IMS	WebSphere-II-Classic Federation 8.2 driver, IMS Connect 9.1
Sun Adapter for ADABAS	WebSphere-II-Classic Federation 8.2 driver
Sun Adapter for ADABAS Natural	

TABLE 7 Java CAPS Classic Message Libraries and Supported External Systems

Product Name	Supported External Systems
Sun Message Library for HL7	Supports HL7 Standard versions 2.1, 2.2, 2.3, 2.3.1, 2.4, 2.5, 2.5.1, and V3
Sun Message Library for SWIFT	ISO 15022 FIN messages for SWIFT 2007 and 2008 Standard
Sun Message Library for ASC X12	ASC X12 versions 4010, 4011, 4012, 4020, 4021, 4022, 4030, 4031, 4032, 4040, 4041, 4042, 4050, 4051, 4052, 4060, 4061, 5010, and 5020; SEF Wizard supports SEF 1.5 and 1.6
Sun Message Library for HIPAA	HIPAA 2000 Standard, 2000 Addenda, HIPAA 2005; SEF Wizard supports SEF 1.5 and 1.6
Sun Message Library for EDIFACT	UN/EDIFACT versions 3 and 4, Directories D.00A, D.00B, D.01A, D.95A, D.95B, D.96A, D.96B, D.97A, D.97B, D.98A, D.98B, D.99A, D.99B

TABLE 8 Java CAPS Classic Add-ons and Supported External Systems

Product Name	Supported External Systems
Sun SNMP Agent	SNMP v2, SNMP v3
Sun Alert Agent	n/a
Sun Adapter Development Kit	n/a
Sun Enterprise Service Bus API Kit	JMS v1.1

TABLE 9 Java CAPS JBI Service Engines and Supported External Systems

Product Name	Supported External Systems
BPEL Service Engine	BPEL 2.0, Oracle 11g, Oracle 10g, MySQL ES 5.1.32, JavaDB (Derby) 10.4.2.1
IEP Service Engine	Oracle 11g, Oracle 10g, JavaDB (Derby) 10.2.1.7
XSLT Service Engine	n/a
Java EE Service Engine	n/a

TABLE 9 Java CAPS JBI Service Engines and Supported External Systems *(Continued)*

Product Name	Supported External Systems
Data Mashup Service Engine	MySQL Enterprise Server (ES) 5.1, PostgreSQL, Derby, Oracle 9i or later, Microsoft SQL Server 7 or later, Sybase, DB2 8.1 or later, Axion, and other databases, such as Access and FoxBase, through the JDBC driver Also supports these data sources: spreadsheets, HTML or web tables, RSS/ATOM feeds, and flat files
Sun Data Integrator	MySQL Enterprise Server (ES) 5.1, PostgreSQL, Derby, Oracle 9i or later, Microsoft SQL Server 7 or later, Sybase, DB2 8.1 or later, Axion, and other databases, such as Access and FoxBase, through the JDBC driver Also supports these data sources: spreadsheets, HTML or web tables, RSS/ATOM feeds, and flat files

TABLE 10 Java CAPS JBI Binding Components and Supported External Systems

Product Name	Supported External Systems
Database Binding Component	Oracle 11g, MySQL ES 5.1.32, DB2 9.1, Microsoft SQL Server 2005 with SP2, Sybase 15, Java DB (Derby) 10.4.2.1
File Binding Component	n/a
FTP Binding Component	n/a
HTTP Binding Component	n/a
JMS Binding Component	JMQ 4.3, WebLogic 9.2, WebLogic 10, WebSphere 6.1, JBOSS 4.2
LDAP Binding Component	Sun Java System Directory Server Enterprise Edition 6.3.1, Windows Server 2003 R2 Active Directory Server, OpenLDAP 2.4.11, OpenDS 1.2.0

TABLE 11 Java CAPS Java EE Components and Supported External Systems

Product Name	Supported External Systems
Sun Master Index	MySQL Enterprise Server (ES) 5.1, Oracle 11g, Oracle 10g, Oracle 9i, Microsoft SQL Server 2005
TCP/IP JCA Adapter	n/a
JDBC JCA Adapter	DB2 8.2 on AS400, Microsoft SQL Server 2005, Oracle 10g R2, MySQL ES 5.0.27, Java DB (Derby) 10.2.1.7, PostgreSQL 8.2
File JCA Adapter	n/a
Batch JCA Adapter	n/a
Oracle JCA Adapter	
HL7 JCA Adapter	HL7 Standard versions 2.1, 2.2, 2.3, 2.3.1, 2.4, 2.5, and 2.5.1

Java CAPS 6.2 System Requirements

Your system configuration depends upon which systems you use and how you intend to use Java CAPS. The requirements listed in this topic are in addition to the supported operating system requirements.

Mozilla Firefox Version

Java CAPS supports Mozilla Firefox v. 2.0 or above for accessing all Java CAPS browser components.

Internet Explorer Version

Java CAPS supports Internet Explorer 6.0 (Service Pack 1 or Service Pack 2) and Internet Explorer 7.0 for accessing all Java CAPS browser components.

Repository and Domain Firewall Port Requirements

When you have a firewall in place between a Repository Server and a domain, selected ports must be open in order for monitoring to function properly.

- For Repository ports, ensure that the following monitor-side ports are open:

- Base port +4 (RMI Connector)
- Base port +5 (HTTP Connector)

For example, if the default port is 12000, the RMI Connector port would be 12004 and the HTTP Connector port would be 12005.

- For domain ports, ensure that the following domain-side ports are open:

- Base port +0 (HTTP Connector)
- Base port +1 (RMI)
- Base port +2

For example, if the default port is 18000, the HTTP Connector port would be 18000, the RMI port would be 18001.

Java CAPS Installation Requirements

To install Java CAPS you need:

- For the installation executable file: 800+ MB
- For a complete Java CAPS installation
 - Sun Solaris: 3.25 GB
 - Apple Macintosh: 1.5 GB
 - IBM AIX: 1.75 GB (does not include NetBeans IDE)
 - Microsoft Windows: 1.5 GB
 - Red Hat and SUSE Linux: 1.5 GB

Windows System Requirements

The following table lists the minimum requirements for installing and running each of the Java CAPS components on a Windows system. The RAM and disk space requirements do not take into consideration the RAM and disk space required by the operating system. For the best performance, you should install these components on different systems. However, if you choose to install some or all of these components on the same machine (for example, in a test environment), keep in mind that the requirements for each additional component are cumulative.

TABLE 12 Windows System Requirements

Component	CPU	RAM	Disk Space
Repository	1.2 GHz	240 MB	1.2 GB
Enterprise Manager	1.2 GHz	400 MB	170 MB

Note –

- For GlassFish Enterprise Server requirements, see “Supported Platforms” in *Sun GlassFish Enterprise Server 2.1 Release Notes*
- For NetBeans IDE requirements, see <http://www.netbeans.org/community/releases/65/1/relnotes.html>

Additionally, to use the Sun Enterprise Service Bus on Windows, you need the following:

- A TCP/IP network connection
- Internet Explorer 6.0 with Service Pack 1 or Service Pack 2, Internet Explorer 7.0, or Mozilla Firefox 2.0 or later

Additional Windows Considerations

- The disk space requirement listed for the Domain does not include space for the queues and log files that are created by the user as integration and message services are executed.
- The Sun Enterprise Service Bus GUI is supported when using Microsoft Terminal Services®, but not with other remote Windows tools.

UNIX and Linux System Requirements

The following tables list the minimum requirements for installing the Repository and Domain on various UNIX and Linux systems. The RAM and disk space requirements do not take into consideration the RAM and disk space required by the operating system. For the best performance, you should install these components on different systems. However, if you choose

to install these components on the same machine (for example, in a test environment), keep in mind that the requirements for each additional component are cumulative.

Dual (or multi) CPUs are recommended for best performance of the Domain, especially if you run the Repository and the Domain on the same system.

TABLE 13 UNIX and Linux System Requirements

Platform	Component	CPU	RAM	Disk Space
IBM AIX	Repository	450 MHz	180 MB	900 MB
	Enterprise Manager	450 MHz	400 MB	180 MB
Linux (Red Hat and SUSE)	Repository	1.2 GHz	240 MB	900 MB
	Enterprise Manager	1.2 GHz	400 MB	180 MB
Sun Solaris	Repository	400 MHz	240 MB	850 MB
	Enterprise Manager	400 MHz	400 MB	210 MB

Note –

- For GlassFish Enterprise Server requirements, see “Supported Platforms” in *Sun GlassFish Enterprise Server 2.1 Release Notes*
- For NetBeans IDE requirements, see <http://www.netbeans.org/community/releases/65/1/relnotes.html>

Additionally, to use the Enterprise Service Bus on UNIX, you need:

- A TCP/IP network connection
- FTP and Telnet capabilities
- Mozilla Firefox 2.0 or above

Additional UNIX Considerations

The disk space requirement listed for the Domain does not include space for the queues and log files that are created by the user as Integration and Message Services are executed.

Macintosh System Requirements

The following table lists the minimum requirements for installing and running each of the Java CAPS components on a Macintosh system. The RAM and disk space requirements do not take into consideration the RAM and disk space required by the operating system. For the best performance, you should install these components on different systems. However, if you choose

to install some or all of these components on the same machine (for example, in a test environment), keep in mind that the requirements for each additional component are cumulative.

TABLE 14 Macintosh System Requirements

Component	CPU	RAM	Disk Space
Repository	1.2 GHz	500 MB	250 MB
Enterprise Manager	1.2 GHz	400 MB	100 MB

Note –

- For GlassFish Enterprise Server requirements, see “Supported Platforms” in *Sun GlassFish Enterprise Server 2.1 Release Notes*
- For NetBeans IDE requirements, see <http://www.netbeans.org/community/releases/65/1/relnotes.html>

Additionally, to use the Sun Enterprise Service Bus on Macintosh systems, you need the following:

- A TCP/IP network connection
- Internet Explorer 6.0 with Service Pack 1 or Service Pack 2, Internet Explorer 7.0, or Mozilla Firefox 2.0 or later

Note – The disk space requirement listed for the Domain does not include space for the queues and log files that are created by the user as integration and message services are executed.

Before You Install

The following topics explain issues to consider before you begin your Java CAPS installation.

Windows Pre-Installation

Exit from all Windows programs prior to running the setup.

Default User Names and Passwords

The Java CAPS default user name is *admin* and the password is *adminadmin*. You use them when you start Enterprise Manager and the Suite Uploader.

About the Installation

This topic provides an overview of the installation process along with a list of what Java CAPS product names were in the past and what they are now. It also provides the location of the product SAR files on the DVDs.

The installation process is different from installations of Java CAPS prior to Release 6, and with this release you can perform a complete or custom installation on any supported platform. You can also perform the installation from a graphical user interface (GUI) or a command-line interface (CLI), with the exception of installing on Macintosh systems which only support the GUI installation.



Caution – Java CAPS 6.2 does not support spaces in the installation directory path.

The flexible installation of Java CAPS enables you to:

- Install more than one Domain on a single system.
- Manage multiple Projects on a single environment. The separation of design from deployment makes it possible to use the same components in more than one Project.
- Centralize your software distribution.
 - After uploading software into “software packages,” Administrators select which physical server or groups of physical servers receive the software.
 - HTTP connections are used to upload and download the software to and from the Repository.

See the following topics for additional installation information:

- [“Overview of the Installation Process” on page 20](#)
- [“Overview of the Graphical User Interface Installation Process” on page 22](#)
- [“Overview of the Command-Line Interface Installation Process” on page 22](#)
- [“Java CAPS Component Names” on page 23](#)
- [“Repository Names and User Names” on page 25](#)
- [“Environment Names” on page 25](#)

Overview of the Installation Process

The installation stores and manages the setup, component, and configuration information for Java CAPS Projects. All JBI-based Java Caps components are installed in the initial installation, but not all repository-based components are installed. After the initial installation, you can install additional Repository-based products, such as Sun Master Index, the Adapter for TCP/IP HL7, and so on. Use the Java CAPS Uploader to upload and install additional components that are not automatically installed. Once you upload an additional product, you need to use the NetBeans Update Center to complete the installation.

The Java CAPS Installer, run from the command line interface (CLI) or the GUI, will install the following. You can customize the Java CAPS installation.

- Java CAPS Repository Server
- NetBeans IDE 6.5.1 ML, with all JBI-based Java CAPS components packaged with the initial installation including the following:
 - Service Engines
 - BPEL Service Engine
 - Enterprise Data Mashup Server Engine
 - Intelligent Event Processor (IEP) Service Engine
 - Java EE Service Engine
 - XSLT Service Engine
 - Data Integrator Service Engine
 - Binding Components
 - Database Binding Component
 - File Binding Component
 - FTP Binding Component
 - HTTP Binding Component
 - JMS Binding Component
 - LDAP Binding Component
 - Scheduler Binding Component
- Sun GlassFish Enterprise Server 2.1, Patch 2, including
 - Sun JMS IQ Manager
 - UDDI Server
- Enterprise Manager
- One default domain (domain1)
- Java CAPS core products.
 - Sun Enterprise Service Bus
 - Sun Business Process Manager
 - Sun Composite Page Designer
- Sun Adapters, which enable communication with specific external systems or OTD libraries.
 - Sun Adapter for Batch/FTP
 - Sun Adapter for DB2 Connect
 - Sun Adapter for e-Mail
 - Sun Adapter for File
 - Sun Adapter for HTTPS
 - Sun Adapter for JDBC/ODBC
 - Sun Adapter for Oracle
 - Sun Adapter for SQL Server
 - Sun Adapter for Sybase

Overview of the Graphical User Interface Installation Process

You can download the executable file for the Java CAPS Installer from the Sun Download Center or the DVDs from the Media Kit to install Java CAPS. The graphical user interface Java CAPS Installer provides a standard setup wizard where you can specify details about the Java CAPS installation, including the following:

- Java Software Development Kit (JDK) directory
- Installation location
- Repository name and port numbers
- Enterprise Manager
- Whether to install repository components into NetBeans
- Login credentials and secure port numbers

You can also choose to perform a custom installation or a complete installation. A complete installation is recommended. Once you have completed the initial installation, you can install additional products using the Java CAPS Uploader and the NetBeans Update Center.

Overview of the Command-Line Interface Installation Process

The command-line installation provides three different installation options. You can perform a silent installation in which you run a command and do not interact with the installer. This type of installation relies on a properties file that provides the necessary information to the installer, such as installation locations, JDK location, port numbers and so on. The installation process runs in the background and you do not see the progress.

You can also perform a text console installation. In this case, you interact with a text console to provide information about the installation. With the text console, you are prompted to provide the same information as is provided in the GUI (listed above), but the installer is text-based instead of graphical.

Finally, you can launch the GUI Java CAPS Installer from the command line, which uses the setup wizard to guide you through the installation.

If you install Java CAPS using the CLI, you can customize which of the default components are installed. If you decide to add components to your installation at a later time, you need to use the Java CAPS Uploader and the NetBeans Update Center to do so. There is no command-line installer for adding components to an existing installation

For the command-line installations to function correctly you must first download the ISO images from the Sun Download Center to your installation directory. With these files you can install any or all of the default Java CAPS components:

Java CAPS Component Names

With Release 6, the Java CAPS Repository-based components underwent a name change. The SAR files have not been changed to match the new component names. [Table 15](#) provides Release 5.1.3 component names and what they have changed to for Release 6.

TABLE 15 Component Name Comparison

Release 5.1.3 Component Names	Release 6 Component Names
Sun SeeBeyond eGate Integrator	Sun Enterprise Service Bus
Sun SeeBeyond eInsight Business Process Manager	Sun Business Process Manager
Sun SeeBeyond eVision Studio	Sun Composite Page Designer
Sun SeeBeyond eTL Integrator	Sun Data Integrator
Sun SeeBeyond eView Studio	Sun Master Index
Sun SeeBeyond eIndex Single Patient View	Sun Master Patient Index
Sun Java Message Grid	Sun Java Message Service Grid
Sun SeeBeyond eWay Adapter for SAP ALE	Sun Adapter for SAP ALE
Sun SeeBeyond eWay Adapter for SAP BAPI	Sun Adapter for SAP BAPI
Sun SeeBeyond eWay Adapter for Oracle Applications	Sun Adapter for Oracle Applications
Sun SeeBeyond eWay Adapter for SWIFT Alliance Gateway	Sun Adapter for SWIFT Alliance Gateway
Sun SeeBeyond eWay e-Mail Adapter	Sun Adapter for e-Mail
Sun SeeBeyond eWay TCP/IP Adapter	Sun Adapter for TCP/IP
Sun SeeBeyond eWay LDAP Adapter	Sun Adapter for LDAP
Sun SeeBeyond eWay COM/DCOM Adapter	Sun Adapter for COM/DCOM
Sun SeeBeyond eWay SNA Adapter	Sun Adapter for SNA
Sun SeeBeyond eWay TCP/IP HL7 Adapter	Sun Adapter for TCP/IP HL7
Sun SeeBeyond eWay Adapter for MSMQ	Sun Adapter for MSMQ
Sun SeeBeyond eWay Adapter for Oracle	Sun Adapter for Oracle
Sun SeeBeyond eWay Adapter for SQL Server	Sun Adapter for SQL Server
Sun SeeBeyond eWay Adapter for DB2 Universal Database	Sun Adapter for DB2 Universal Database
Sun SeeBeyond eWay JDBC/ODBC Adapter	Sun Adapter for JDBC/ODBC

TABLE 15 Component Name Comparison (Continued)

Release 5.1.3 Component Names	Release 6 Component Names
Sun SeeBeyond eWay Adapter for DB2 Connect	Sun Adapter for DB2 Connect
Sun SeeBeyond eWay Adapter for Sybase	Sun Adapter for Sybase
Sun SeeBeyond eWay Adapter for VSAM	Sun Adapter for VSAM
Sun SeeBeyond eWay Adapter for Informix	Sun Adapter for Informix
Sun SeeBeyond eWay Adapter for Sun Java System Application Server	Sun Adapter for Sun Java System Application Server
Sun SeeBeyond eWay Adapter for WebLogic	Sun Adapter for WebLogic
Sun SeeBeyond eWay Adapter for WebSphere MQ	Sun Adapter for WebSphere MQ
Sun SeeBeyond eWay Development Kit	Sun Adapter Development Kit
Sun SeeBeyond eWay Adapter for CICS	Sun Adapter for CICS
Sun SeeBeyond eWay Adapter for IMS	Sun Adapter for IMS
Sun SeeBeyond eWay File Adapter	Sun Adapter for File
Sun SeeBeyond eWay Adapter for Siebel EAI	Sun Adapter for Siebel EAI
Sun SeeBeyond eWay Adapter for PeopleSoft	Sun Adapter for PeopleSoft
Sun SeeBeyond eWay Batch Adapter	Sun Adapter for Batch/FTP
Sun SeeBeyond eWay HTTPS Adapter	Sun Adapter for HTTPS
Sun SeeBeyond eGate API Kit	Sun Enterprise Service Bus API Kit
Sun SeeBeyond HL7 OTD Library	Sun Message Library for HL7
Sun SeeBeyond SWIFT OTD Library	Sun Message Library for SWIFT
Sun SeeBeyond OTD Library for ASC X12	Sun Message Library for ASC X12
Sun SeeBeyond OTD Library for HIPAA	Sun Message Library for HIPAA
Sun SeeBeyond Alert Agent	Sun Alert Agent
Sun SeeBeyond SNMP Agent	Sun SNMP Agent
Sun SeeBeyond COBOL Copybook Converter	Sun COBOL Copybook Converter
Sun SeeBeyond Protocol Manager for ASC X12	Sun Protocol Manager for ASC X12
Sun SeeBeyond Protocol Manager for HIPAA	Sun Protocol Manager for HIPAA

Repository Names and User Names

The Sun Enterprise Service Bus maintains its own list of Repository names and user names; it does not poll the operating system or network to obtain or validate user names or Repository names. To simplify system administration, use your current naming conventions for Repository and user names.

Repository and user names (as well as passwords) are case sensitive, even on Windows systems. Although there is no limitation on the length of the names, you should keep them a reasonable length. Valid characters include all letters and numbers, dashes, and underscores.

Note – Periods, spaces, and other punctuation are not valid characters for any Java CAPS user name, password, or component name.

The default user name and password for the Sun Enterprise Service Bus are **admin** and **adminadmin**.

Environment Names

After you complete a Project, you need to define an Environment and deploy the Project to the Environment. An Environment is a collection of domains (also known as logical hosts) that house Project components and information about external systems. A deployment Environment can include:

- Domain (an instance of the Sun Enterprise Service Bus runtime environment)
 - Sun Java System Application Server (GlassFish)
 - Sun JMS IQ Manager
 - Sun Java System Message Queue
 - Unified JMS Resource Adapter
- External Systems

Environment names can contain letters, numbers, dashes, and underscores. There is no character limit. Spaces and punctuation marks are not valid characters for Project names.

Installation Media

There are two ways to install Java CAPS products:

- Use the supplied URL to download the ZIP or TAR file that contains the appropriate executable file. To obtain the appropriate file contact Java CAPS Support at <http://goldstar.stc.com/support> and they will supply you with the link and a serial number to so you can perform the download.

Note – You should have 5.0 Gbyte free disk space.

- Use the DVDs included with the Java Composite Application Platform Suite Media Kit

Contents of the Java CAPS Installer and Components Download Files

Use the Java CAPS Installer TAR and ZIP files to perform a graphical user interface or command-line interface installation. Use the Java CAPS component ZIP files to install the adapters, add-ons, API kits, and message libraries not included with the initial installation. See [“Java CAPS Component Names” on page 23](#) for a complete listing of Release 6 names.

Java CAPS Installer TAR and ZIP Files

The Java CAPS Installer is packaged in a compressed file (TAR or ZIP) specific to each operating system. Installation documentation is included with each TAR and ZIP file. The files are named for the platform; for example (depending on where you obtain the files):

- Java-Caps-Installer-AIX.tar
- Solaris_ml.tar
- Windows_ml.zip

The contents of each TAR or ZIP file is:

- \Documentation
- \Legal
- JavaCAPS.bin, JavaCAPS.exe, or JavaCAPS.zip

Java CAPS Components ZIP Files

- \adapters.zip
 - \CICSeWay.sar
 - \COMeWay.sar
 - \DB2ConnecteWay.sar
 - \eWayDevelopmentKit.sar
 - \HL7eWay.sar
 - \IMSeWay.sar
 - \InformixeWay.sar
 - \LDAPeWay.sar
 - \MFS.sar
 - \MQSerieseWay.sar
 - \MSMQeWay.sar

- \OracleApplicationseWay.sar
- \PeopleSofteWay.sar
- \SAPALEeWay.sar
- \SAPBAPIeWay.sar
- \SiebelEAIeWay.sar
- \SNAeWay.sar
- \SunJavaSystemeWay.sar
- \SwiftAGeWay.sar
- \TCPIPeWay.sar
- \VSAMeWay.sar
- \WebLogiceWay.sar
- \addons.zip
 - \master_patient_index
 - \oracle
 - \eIndex.sar
 - \sqlserver
 - \eIndex.sar
 - \MDM
 - \eTLMigrationTool.sar
 - \eView.sar
 - \solutions
 - \MDM_Solutions.zip
 - \AdapterPack.zip
 - \AlertAgent.sar
 - \CobolCopyBook.sar
 - \Enterprise_Manager_SVGPlugin-win32.sar
 - \SNMPAgent.sar
- \ESB_API_KIT.zip
 - \EM_API_KIT.zip
 - \STCMS_API_KIT.zip
- \message_libraries.zip
 - \EDIFACT
 - \EDIFACT_v3_D00A_OTD.sar
 - \EDIFACT_v3_D00B_OTD.sar
 - \EDIFACT_v3_D01A_OTD.sar
 - \EDIFACT_v3_D01B_OTD.sar
 - \EDIFACT_v3_D95A_OTD.sar

- \EDIFACT_v3_D95B_OTD.sar
- \EDIFACT_v3_D96A_OTD.sar
- \EDIFACT_v3_D96B_OTD.sar
- \EDIFACT_v3_D97A_OTD.sar
- \EDIFACT_v3_D97B_OTD.sar
- \EDIFACT_v3_D98A_OTD.sar
- \EDIFACT_v3_D98B_OTD.sar
- \EDIFACT_v3_D99A_OTD.sar
- \EDIFACT_v3_D99B_OTD.sar
- \EDIFACT_v3_SyntaxMessages_OTD.sar
- \EDIFACT_v4_D00A_OTD.sar
- \EDIFACT_v4_D00B_OTD.sar
- \EDIFACT_v4_D01A_OTD.sar
- \EDIFACT_v4_D01B_OTD.sar
- \EDIFACT_v4_D95A_OTD.sar
- \EDIFACT_v4_D95B_OTD.sar
- \EDIFACT_v4_D96A_OTD.sar
- \EDIFACT_v4_D96B_OTD.sar
- \EDIFACT_v4_D97A_OTD.sar
- \EDIFACT_v4_D97B_OTD.sar
- \EDIFACT_v4_D98A_OTD.sar
- \EDIFACT_v4_D98B_OTD.sar
- \EDIFACT_v4_D99A_OTD.sar
- \EDIFACT_v4_D99B_OTD.sar
- \EDIFACT_v4_SyntaxMessages_OTD.sar
- \HIPAA
 - \HIPAA_2000_Addenda_OTD.sar
 - \HIPAA_2000_Standard_OTD.sar
 - \HIPAA_2005_OTD.sar
- \HL7
 - \HL7eWay.sar
 - \HL70TDLibrary21.sar
 - \HL70TDLibrary22.sar
 - \HL70TDLibrary23.sar
 - \HL70TDLibrary24.sar
 - \HL70TDLibrary25.sar
 - \HL70TDLibrary231.sar
 - \HL70TDLibrary251.sar
 - \HL70TDLibrary.sar
 - \HL70TDLibraryGeneric.sar
 - \HL7V32006ACCTBilling.sar
 - \HL7V32006ClaimsAndReimb.sar
 - \HL7V32006ClinicalGenomics.sar

- \HL7V32006MedicalRecords.sar
- \HL7V32006MsgContActInfra.sar
- \HL7V32006PatientAdmin.sar
- \HL7V32006PersonnelManagement.sar
- \HL7V32006PublicHealthRepot.sar
- \HL7V32006QueryInfra.sar
- \HL7V32006RegulatedStudies.sar
- \HL7V32006Schedling.sar
- \HL7V32006SharedMessages.sar
- \HL7V32006TransInfra.sar
- \SEF
 - \SEF_OTD_Wizard.sar
- \Swift
 - \SwiftOTDLibrary2007.sar
 - \SwiftOTDLibrary2008.sar
 - \SwiftOTDLibrary.sar
 - \samples
 - \JavaCAPS66.2_SAAMQHA.zip
 - \SAG610_FTA_Sample.zip
- \X12
 - \X12_v4010_OTD.sar
 - \X12_v4011_OTD.sar
 - \X12_v4012_OTD.sar
 - \X12_v4020_OTD.sar
 - \X12_v4021_OTD.sar
 - \X12_v4022_OTD.sar
 - \X12_v4030_OTD.sar
 - \X12_v4031_OTD.sar
 - \X12_v4032_OTD.sar
 - \X12_v4040_OTD.sar
 - \X12_v4041_OTD.sar
 - \X12_v4042_OTD.sar
 - \X12_v4050_OTD.sar
 - \X12_v4051_OTD.sar
 - \X12_v4052_OTD.sar
 - \X12_v4060_OTD.sar
 - \X12_v4061_OTD.sar
 - \X12_v5010_OTD.sar
 - \X12_v5020_OTD.sar

Contents of the Installation DVDs

There are three installation DVDs delivered with the Java Composite Application Platform Suite Media Kit. See [“Java CAPS Component Names” on page 23](#) for a complete listing of Release 6 names.

- Java CAPS 6.2 DVD 1 of 3, Part No. 708-0508-10, contains the ZIP and TAR files for completing an installation of Java CAPS. See [“Java CAPS Installer TAR and ZIP Files” on page 26](#) for a breakdown of the contents of this DVD.
- Java CAPS 6.2 DVD 2 of 3, Part No. 708-0509-10, contains the ZIP files for all the components that are not included with the Java CAPS Installer, including adapters, add-ons, API Kits, and message libraries. See [“Java CAPS Components ZIP Files” on page 26](#) for a breakdown of the contents of this DVD.

Note – The Java CAPS Management and Monitoring APIs ZIP file (EM_API_KIT.zip) and the Sun ESB API Kit (STCMS_API_KIT.zip) are delivered as part of \ESB_API_KIT.

- Java CAPS 6.2 DVD 3 of 3, Part No. 708-0510-10, contains the ZIP files and TAR files for completing an installation of GlassFish ESB products only.

Preparing for Installation

When preparing to install Java CAPS you must consider the computer systems on which you plan to install the Suite components, along with gathering important information to help you make the necessary decisions before performing the installation.

What You Must Decide Before You Start the Installation Process

- Select the system that will host the Repository.
- Select the system(s) that will serve as Domains (logical hosts). It is possible for the same system to serve both as a Repository and a Domain. Whether you decide to do this depends on the requirements of your installation. Contact Sun Support if you need assistance making this determination.
- Select the system(s) that will host NetBeans IDE.
- Determine which add-on applications you require.
- Ensure that each system that you select meets the system requirements for Java CAPS. For more information on resource requirements, see [“Java CAPS 6.2 System Requirements” on page 16](#).

What Information is Required Before You Start the Installation Process

- The default Java CAPS administrator password. For more information see [“Before You Install” on page 19](#).

- The name of each system on which a Repository or Domain will be installed. For more information see [“Repository Names and User Names” on page 25](#).
- Confirmation that you have 10 consecutive ports available for the Repository installation (the default is 12000–12009). You will need the base port number when you connect to the Repository.

Note – To determine which ports are in use, type: `netstat -a | find port_number`.

- Confirmation that you have five consecutive ports available for the Enterprise Manager installation (the default is 15000–15004).

JDK and JAVA_HOME

The Java Development Kit (JDK) must be installed and the JAVA_HOME environment variable must be set on the computer on which you install Java CAPS prior to beginning the installation. This is required to perform the installation and for Java CAPS utilities, such as Enterprise Manager Command-Line Client and code generation, to function correctly. Different operating systems require different JDK versions. To determine which JDK version you need, see [“Java CAPS 6.2 Supported JDK Versions” on page 10](#).

Upgrading to Release 6.2

Beginning with Release 6, you no longer perform an in-place installation. Instead, install Java CAPS 6 in a new directory, and then import your Projects from previous releases.

When upgrading from previous releases of Java CAPS to release 6:

- Install Java CAPS in a new directory.
- Export your Projects and Environments from the earlier release of Java CAPS
- Import your Projects and Environments into release 6 using the NetBeans IDE Update Center

For instructions on how to complete a successful upgrade see [Upgrading to Java CAPS 6](#).

Troubleshooting the Java CAPS Installation

If problems occur during an installation, check below for some of the more common resolutions

- **Java CAPS Installer Fails to Parse the Property File**

During installation if your environment contains a backward slash (\), a `java.lang.IllegalArgumentException: Malformed \uxxxx encoding` is thrown. This happens because the environment variables `ps1` and `PS1` contain the backslash character \; that is, `\u@h:\W\$. The Java CAPS Installer first loads the environment variable values into the env.properties.xxxx file and then reads the property file. If this file contains the \ character, it will fail to read. You must reset these environment variable values to blank or some other values without a backslash; such as, export ps1= and export PS1=. This corrects the error.`

- **Java CAPS Installer Does Not Support Silent Mode Installation on Mac OS**

Currently the Java CAPS installer does not accept the arguments to run in silent mode on Macintosh operating systems. It can only run in GUI mode.

Note – As this would be costly to develop there is a good chance that the Java CAPS Installer will not support silent installations on Macintosh operating systems.

- **Executing the Windows Link File from the DOS Command Line**

You cannot type the *.lnk file and press Enter from the command line to execute the link file. Instead, you have two options.

- From Windows command line, type **start *FileName*** and then press Enter. For example **start start_appserver_domain1.**
- From Windows Explorer double-click the *.lnk file. For example `start_appserver_domain1.`

- **Changing the Locale on Sun Solaris or Generic UNIX Systems**

You can change the locale on Solaris and generic UNIX systems by setting the environment and using the correct commands.

- To list the available installed locales, type the command `> locale -a.`
- To change to the locale, type the command `> export LANG=zh_TW#` and then `> export LC_ALL=zh_TW#` to set up the environment, where `zh_TW` is the locale for traditional Chinese.

- **Java CAPS Installer Fails to Launch When Temp Directory Not Found**

If you encounter the problem that you cannot access the /tmp folder, you can work around this by setting the environment variable `IATEMPDIR=/var/tmp`. After this environment variable is set, the Java CAPS Installer uses `/var/tmp` as its temp directory.

■ Overriding the JVM

You can override the JVM in the Java CAPS Installer. To do this, pass `LAX_VM javaexecutable` to the Java CAPS Installer. For example, `JavaCAPS.exe LAX_VM javapath/java.exe`.

Note – The Java executable that is specified must match the Installer Valid VM List, located under `Project\Config`.

■ Finding the Java (JDK) Version

On UNIX systems, the response to the `which java` command indicates the Java version that the Java CAPS Installer uses. Make sure that `jdk1.6.0_05/bin` is set in the path. To double check the JDK version, always run `which java` or `java -version` on UNIX systems to ensure you are using the desired version.

You can also pass the JDK to the Java CAPS Installer: `JavaCAPS.exe LAX_VM javapath/java.exe`.

■ Debugging the Win32 Installer

To view or capture the debug output from a Java CAPS Installer, hold down the Ctrl key immediately after launching the Java CAPS Installer until a console window appears. Before you exit the Java CAPS Installer, copy the console output to a text file for later review.

If you have trouble capturing the console output, there is a more complicated method to copy the output; this is often the case when using Win9x.

1. Launch the Java CAPS Installer and allow it to extract the necessary files.
2. When the Java CAPS Installer reaches the Preparing to Install screen where it gives you the opportunity to choose a language, navigate to your Windows "temp" directory.
This directory should contain a folder named with several numeric digits.
3. Ensure you have the most recent directory by sorting the directories by "last modified," and then open the appropriate directory.
4. Delete the file named `sea_loc`.
5. Return to the Java CAPS Installer, click OK, and then at the first opportunity, select Exit.
6. Return to the directory from which you deleted the `sea_loc` file and open the directory named `Windows`.
In the `Windows` directory there is an `*.exe` file, most likely named `install.exe`, and a file with the same name but with an `*.lax` extension, for example `install.lax`.
7. Open the `*.lax` file with a plain text editor and change the lines `lax.stderr.redirect=` and `lax.stdout.redirect=` to `lax.stderr.redirect=output.txt` and `lax.stdout.redirect=output.txt`.
8. After you have made these changes, save the file and launch the `*.exe` file, for example `install.exe`.

9. After the installation is complete there is an output .txt file in the same directory as the *.lax file.

The output .txt file should contain the same information as that generated in the console.

- **Debugging the UNIX Installer**

To capture the debug output from the UNIX command line you need to enter one of the following (based on which shell you are using) at the command line prior to executing the Java CAPS Installer:

- `export LAX_DEBUG=true`
- `setenv LAX_DEBUG true`
- `LAX_DEBUG=true`
`set LAX_DEBUG`
- Or whatever would be appropriate for your shell.

Run the Java CAPS Installer. The output that is produced should help you debug the Java CAPS Installer. If you want to redirect the output to a file, set `LAX_DEBUG=file` as per the above instruction, and then run the Java CAPS Installer. Once the installation completes, a file named `jax.log` is generated in the same directory as the Java CAPS Installer. This file contains the entire debug output generated by the installation. If you are capturing this information in order to send it to Zero G, include both debug output formats above in their entirety.

Example of UNIX Debugging Commands

```
boreas% sh
$ LAX_DEBUG=true
$ export LAX_DEBUG
$ PATH=/home/yLee/boreas/jdk1.6.0_05/bin:$PATH
$ export PATH
$ which java
/home/yLee/boreas/jdk1.6.0_05/bin/java
$ sh ./JavaCAPS.bin -i console
Preparing to install...
```

- **Debugging the Mac OS X Installer**

By default both `stderr` and `stdout` is redirected to `/Applications/Utilities/Console.app`. This application is built into Mac OS X. Review the output, and save it to a file if necessary.

- **Debugging the Mac OS Installer**

To view or capture the debug output from the Java CAPS Installer, hold down the `Ctrl` key immediately after launching the Installer until a console window appears. Before exiting the Installer, copy the console output to a text file for later review.

To debug the Java CAPS Installer specifically on Mac OS 9.1:

1. Run the Java CAPS Installer as normal.
2. When you get to the point of picking a language, open the trash can. There should be a folder named something like IA Javainstaller (delete) xxxxxx. Sort by date to make sure that you get the latest version.
3. Move this folder to the desktop, open it, and then open the Mac OS directory.
4. Delete the file named sea_loc inside this folder.
5. Exit the Java CAPS Installer.
6. Edit the .lax file with a text editor, and add the word “console” to the property values as shown below.
 - Change `lax.stderr.redirect=` to `lax.stderr.redirect=console`
 - Change `lax.stdout.redirect=` to `lax.stdout.redirect=console`
7. Save the file and close.
8. Run the Java CAPS Installer.

The application should run normally, and bring up the debug output.
9. Review the debug output to determine any issues.

Creating a Windows Service for the GlassFish Domain

After you install Java CAPS, you can create a Windows Service for the Java CAPS domain in GlassFish by running a script that uses a tool provided with GlassFish ES specifically for this purpose. The script in the instructions below requires you to create a password file.

▼ To Create the Windows Service

- 1 **Create a text file named `passwordfile` and save it to a local directory. Add the following text to the file:**

```
AS_ADMIN_ADMINPASSWORD=adminadmin
```

```
AS_ADMIN_MASTERPASSWORD=changeit
```

```
AS_ADMIN_PASSWORD=adminadmin
```

Note – If you changed any of the default passwords, substitute the actual values for the default values in the text above.

- 2 **Save and close the password file.**
- 3 **Enter the following at the command line.**



Caution – This text, and the text in the example below, has been wrapped for readability. When you enter this command, enter it all on one line and substitute a space for each line break.

```
C:\WINDOWS\system32\sc.exe create service-name
binPath= "fully-qualified-path-to-appservService.exe
\ "fully-qualified-path-to-asadmin.bat
start-domain --user admin --passwordfile
fully-qualified-path-to-password-file domain-name\ "
\ "fully-qualified-path-to-asadmin.bat stop-domain domain-name\ ""
start= auto DisplayName= "display-name"
```

where:

- *service-name* is the name you want to give the service; for example, “DOMAIN1”.
- *domain-name* is the name of the domain you are creating the service for. The default domain is named domain1.
- *display-name* is the name of the service as you want it to appear on the Services window.

The following example creates a service named “Java CAPS DOMAIN1” that starts and stops the domain named domain1, which was installed in the default Java CAPS location. It uses the password file C:\JavaCAPS62\appserver\passwordfile. Again, in an actual command line, this would be entered all in one line with spaces in place of the line breaks below.

```
C:\WINDOWS\system32\sc.exe create DOMAIN1
binPath= "C:\JavaCAPS62\appserver\lib\appservServer.exe
\C:\JavaCAPS62\appserver\bin\asadmin.bat
start-domain --user admin --passwordfile C:\JavaCAPS62\appserver\passwordfile
domain1\ "
\C:\JavaCAPS62\appserver\bin\asadmin.bat stop-domain domain1\ ""
start= auto DisplayName= "JavaCAPS DOMAIN1"
```

The output is [SC] CreateService SUCCESS.

▼ To Start, Stop, and Delete the Windows Service

In the following commands, *DomainName* is the name of the domain you are using for Java CAPS. By default, this is domain1.

1 To start the Windows Service, enter the following at the command prompt:

```
net start DomainName
```

Note – The output is The SunJavaSystemAppServer DOMAIN1 service is starting.. and The SunJavaSystemAppServer DOMAIN1 service was started successfully.

2 To stop the Windows Service, enter the following at the command prompt:

```
net stop DomainName
```

3 To delete the Windows Service, enter the following at the command prompt:

```
sc delete DomainName
```

Increasing the NetBeans IDE Heap Size

If you install the Sun Message Library for HL7, we recommend that you increase the NetBeans IDE heap memory size. If the heap size is not sufficient it could result in out of memory exceptions from the built-in parser. Use the `netbeans.conf` file to set the heap size for the JVM on which NetBeans IDE runs.

The recommended heap sizes for NetBeans C/C++ Development Pack for medium- and large-sized applications are:

- For developing medium-sized applications, that is 100–2000 source files, on a system with one CPU and 1 GB of RAM: 512 MB
- For developing large-sized applications, that is more than 2000 source files, on a system with one or multiple CPUs and 2 GB of RAM: 1.5 GB

▼ To Increase the Heap Size in NetBeans IDE

Before You Begin Save a backup copy of the `netbeans.conf` file before beginning this process.

1 Navigate to `JavaCAPS-home/netbeans-home/etc` and copy the `netbeans.conf` file to the NetBeans user directory (`JavaCAPS-home/.netbeans/caps/etc`).

Note – You may need to create the `etc` directory in the NetBeans IDE user directory.

2 In your NetBeans IDE user directory, edit the `-J-Xmx` command line Java startup switch in the `netbeans.conf` file, for example:

```
# command line switches
netbeans_default_options=" -J-Xms32m -J-Xmx128m -J-XX:PermSize=32m
-J-XX:MaxPermSize=96m -J-Xverify:none -J-Dapple.laf.useScreenMenuBar=true"
```

3 Restart the NetBeans IDE.

Note – To ensure that you do not run out of memory while the built-in parser is running, you can also add the garbage collector switches, `-J-XX:+UseConcMarkSweepGC` (concurrent collector) and `-J-XX:+UseParNewGC` (parallel collector), to the `netbeans.conf` file.

GlassFish Enterprise Server Patches

GlassFish ESB provides a utility that will limit the number of `server.log` files that are retained. You can download this tool, the Sun GlassFish Enterprise Manager Performance Advisor, as a patch from <http://sunsolve.sun.com>. The patch ID is 140751. Follow the installation instructions in the readme file. The readme file also provides links to additional information about the Performance Advisor.

UNIX and Linux Patches

There are required and certified UNIX and Linux patches for Java CAPS 6.

- “Checking Patch Levels” on page 38
- “Certified Sun Solaris 9 and 10 Patches” on page 38
- “IBM AIX 5L 5.3 Patches” on page 39
- “Linux Patches” on page 39

Checking Patch Levels

Use these commands to check which patch levels are currently installed on your operating system:

- Sun Solaris patches

```
pkginfo  
cat /etc/release
```

- IBM AIX patches

```
instfix -i
```

- Linux patches

```
uname -a
```

Certified Sun Solaris 9 and 10 Patches

There is one certified patch for Sun Solaris 9:

Solaris 9 Maintenance Update 3 4-2003

Note – This patch is also valid on Japanese and Korean operating systems.

A complete list of the patches included in these Clusters is available from Sun Support.

Note – This patch is recommended but not required.

Daylight Savings Time Patches

If you want your logger and scheduling to be correct, you need to install the appropriate patches:

- **SPARC Platform**
 - Solaris 9 with timezone patch 113225-08 or later and libc patch 112874-33 or later
 - Solaris 10 with timezone patch 122032-04 or later and libc patch 119689-07 or later
- **AMD Opteron Platform**
 - Solaris 10 with timezone patch 122033-03 or later and libc patch 121208-02 or later

IBM AIX 5L 5.3 Patches

There is one certified patch for IBM AIX 5L version 5.3:

5300-05_AIX_ML (Maintenance Level 5)

If you want your logger and scheduling to be correct, you need to install this Daylight Savings Time patch:

5.3 APAR IY75211

Note – The IBM AIX patches are also valid on Japanese and Korean operating systems.

Linux Patches

The following patches are certified patches for Red Hat Linux and SUSE Linux:

Certified SUSE Linux Enterprise Server 10 Daylight Savings Time Patch

If you want your logger and scheduling to be correct on your Linux systems, you need to install this Daylight Savings Time patch:

`tzdata-2007c-1.el2_1`