



FUSE ESB

Installing FUSE ESB

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Making Software Work Together™

Installing FUSE ESB

IONA Technologies

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Installation Prerequisites

Before attempting to install and use FUSE ESB, make sure your system meets the minimum requirements.

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Java and Compiler Requirements	11
Disk Space Requirements	12

Before installing FUSE ESB, do the following:

1. Read this guide to understand the installation process.
2. Make sure your systems meet the minimum requirements for installing and using FUSE ESB.

Supported Platforms

IONA tests and supports FUSE products on the platforms listed in [Table 1 on page 10](#). Support for additional operating systems and versions is considered on a case-by-case basis.

Table 1. Supported Platforms

Operating System	Hardware	OS Patches
Windows XP	x86	SP2
Windows Server 2003	x86	
Red Hat Enterprise Linux Advanced Server 4.0	x86, x86_64	
SuSE Linux Enterprise Server 9	x86_64	
Ubuntu Linux 7.04	x86_64	SP1
Solaris 8 (32-bit)	SPARC	108827-12; 108434-09 (32-bit C++ runtime); 108827-12 (libthread patch); 111685-01 patch
Solaris 9 (32-bit)	SPARC	111685-01 patch
Solaris 10 (32-bit)	SPARC	111685-01 patch
Solaris 8 (64-bit)	SPARC	
Solaris 9 (64-bit)	SPARC	
Solaris 10 (64-bit)	SPARC	
HP-UX 11i	PA-RISC	PHSS_24638 (aCC runtime); PHCO_24402 (1.0 libc cumulative header file patch 60); PHCO_25452 (1.0 libc cumulative patch 23632); PHSS_24304 (1.0 ld and linker tools cumulative patch 21234)
Macintosh OS X Tiger (10.4)	PowerPC, x86	

Java and Compiler Requirements

Java Runtime

To run applications developed with FUSE ESB, you must have JRE 1.5.0_14 or newer.

Java Development

To develop applications using FUSE ESB, you must have JDK 1.5.0_14 or newer.

It is also recommended that you have Apache Ant 1.6.5 or higher. The sample programs supplied with FUSE ESB are set up to build and run using Apache Ant. You can download Apache Ant from <http://ant.apache.org/bindownload.cgi>.



Note

Only JREs and JDKs distributed or OEMed from Sun Microsystems are supported. (That is, FUSE ESB is not guaranteed to run with `gcj`.) On Red Hat-derived Linux systems, `gcj` is the default Java distribution. In these cases, you must download and install a Sun JRE/JDK and set the `JAVA_HOME` environment variable. You can also integrate the Sun JRE/JDK into the `alternatives(1)` system. See the `alternatives(1)` man page for details.

Disk Space Requirements

Table 2 on page 12 shows the amount of disk space you will need to install FUSE ESB.

Table 2. Disk Space Requirements

Installation Type	Windows	Linux
As installed by the Java installer	87 MB	88 MB
Source installation, as installed	19 MB	25 MB
Source installation, after building	574 MB ^a	756 MB ^a

^aplus up to 600 MB placed in the Maven `$HOME/.m2` and `.maven` directories

Installing FUSE ESB

The cross-platform FUSE ESB installer makes it easy to install the tools needed to build and deploy a SOA.

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Installer Files

Table 3 on page 14 lists the available installation files for FUSE ESB.

Table 3. Installer Files

File	Description
<code>fuse-esb-3.3-windows.exe</code>	Installer for Windows platforms.
<code>fuse-esb-3.3-unix.bin</code>	Installer for Linux, OS X, and all UNIX platforms.
<code>fuse-esb-3.3-src.zip</code>	Source code installation package for all platforms. If you prefer to build FUSE ESB from source, see Installing from Source Code on page 23 .

Running the Installer

The installer is a Java application that can run in one of three modes:

- [GUI](#)
- [Console](#)
- [Silent](#)



Warning

Under certain conditions, the UNIX installer might throw an `InvocationTargetException` exception.

This is the result of a known bug in `InstallAnywhere` when `gcj` is the default Java version. The workaround is to install a Sun JVM and make sure its `java` executable is before any others on your path.

Installing in GUI Mode

Overview

By default, the installer runs as a Java GUI. In this mode, you have full control over what is installed on your local machine.

Running the installer

Use the following steps to install FUSE ESB in GUI mode:

1. For UNIX, log in as (or **su** to) the username that will own the FUSE ESB installation. The default installation path presumes you have root access, but you can specify any installation directory for which you have write rights.
2. Start the installer by entering the following command:

Table 4. Command for Running the Installer in GUI Mode

Platform	Command
Windows	<code>fuse-esb-3.3-windows.exe</code>
UNIX	<code>sh fuse-esb-3.3-unix.bin</code>

3. Click **Next**.
4. Read and accept the **License Agreement**, then click **Next**.
5. Specify the top-level directory for your installation.

Table 5. Default Installation Directory

Platform	Default Value
UNIX	<code>/opt/iona/fuse-esb-3.3</code>
Windows	<code>C:\iona\fuse-esb-3.3</code>



Tip

Click **Choose** to select a path by navigating to it.

6. Click **Next**.

7. If you are installing on Windows you will need to specify where the installer will create program icons.



Tip

If you want to install the icons for all users check the **Create Icons for All Users** box.

8. Click **Next**.
9. Review the installation summary.

If you see something you need to correct, click the **Previous** button to go back through the installation steps.

If the summary is correct, click **Install**.
10. Choose whether you want the installer to save the selected options in a properties file.

The properties file is used to perform identical installations on other machines in a silent installation, as described in [Installing in Silent Mode on page 20](#).
11. Click **Next**.
12. If you choose to save the installer properties, enter a path name for the properties file and click **Next**.
13. Click **Next**.
14. Click **Done** to complete the installation.

Installing in Console Mode

Overview

The installer's console mode is provided for situations where you want to have control over what is installed, but cannot launch a Java GUI. In console mode, you are presented with the same options as in GUI mode.



Note

Console mode is only for UNIX and Linux systems. Do not use the `-i console` option when installing on Windows.

Running the Installer

Use the following steps to install FUSE ESB using console mode:

1. Start the installer:

```
sh fuse-esb-3.3-unix.bin -i console
```

2. Press **Enter** a number of times to page through the license agreement.
3. Accept the license agreement by entering **y**.



Note

Entering **n** exits the installer.

4. Press **Enter**.
5. Enter your the full path to a top-level directory to contain your installation.
6. Review the installation summary.
7. If the summary is correct, press **Enter**.



Tip

You can type **back** to step backwards through the installer if the summary is not correct.

8. Choose whether to create a properties file.

The properties file can be used to perform identical installations on other machines, as described in [Installing in Silent Mode on page 20](#).

9. If you choose to save the installer properties, enter a path name for the properties file.
10. Press **Enter** to exit the installer.

Installing in Silent Mode

Overview

The installer's silent mode is intended for use in installing on remote machines. It is also useful for administrators to set up installations in which the person installing cannot change any installation options. You can customize how FUSE ESB is installed by providing an `installer.properties` file specifying the options you wish to install.

Running the Installer

To install FUSE ESB using the silent installation mode, do the following:

1. If you do not want a default installation, create an `installer.properties` file that specifies how you want FUSE ESB installed.

You can create an `installer.properties` file in one of two ways:

- Save one when running the installer in GUI or console mode.
- Create a new one using a text editor. See [Table 7 on page 21](#) for the possible entries.

2. Run the installer using the following command:

Table 6. Command for Running the Installer in Silent Mode

Platform	Command
Windows	<code>fuse-esb-3.3-windows -i silent [-f installer.properties]</code>
UNIX	<code>sh fuse-esb-3.3-unix.bin -i silent [-f installer.properties]</code>

The `-f` argument instructs the installer to load the specified properties file. (If you specify `-i silent` without the `-f` argument, the installer silently performs a default installation.)

Silent Installation Properties

[Table 7 on page 21](#) shows the properties you can set and their possible values.



Note

When specifying Windows paths, escape the colon in drive letter specifications with a backslash, and double any backslash path separators. In your `JDK_HOME` entry, you can use the 8.3 version of space-containing directory names, but do not use space-containing path components in your `USER_INSTALL_DIR` entry. (Use **DIR /X** to determine the 8.3 version of file and directory names.)

Table 7. Installer Properties

Property	Values	Description
<code>USER_INSTALL_DIR</code>	The full path to the top-level directory where you want the product installed.	Specify a full absolute path, making sure no path component has a space in its name.
<code>CHOSEN_INSTALL_FEATURE_LIST</code>	There is only one feature component for FUSE ESB, <code>SMX</code> .	
<code>SILENT_ACCEPT_LICENSE_AGREEMENT</code>	<code>true</code> (default) or <code>false</code>	Specifies whether the installer accepts the license agreement without prompting.
<code>JDK_HOME</code>	The full absolute path to the JDK that FUSE ESB will use.	This is the same path that should be set in the <code>JAVA_HOME</code> environment variable.
<code>INSTALLER_UI</code>	<code>silent</code> , <code>gui</code> (default), or <code>console</code>	Specifies the mode in which the installer runs.
<code>USER_INPUT_SAVE_PROPERTIES_YES_NO</code>	<code>Yes</code> (default) or <code>No</code>	Specifies whether you want to save a properties file that describes the current run of the installer.
<code>SET_PATH</code>	This entry is not used by the FUSE ESB installer.	

Example Installer Properties File

[Example 1 on page 21](#) shows a sample `installer.properties` file for a Windows system.

Example 1. Installer Properties File

```

❶ USER_INSTALL_DIR=C:\\iona\\fuse-esb-3.2
   CHOSEN_INSTALL_FEATURE_LIST=SMX
❷ SILENT_ACCEPT_LICENSE_AGREEMENT=true
❸ JDK_HOME=C:\\Progra~1\\Java\\jdk1.5.0_11

```

Installing FUSE ESB

```
❶ INSTALLER_UI=silent  
❷ USER_INPUT_SAVE_PROPERTIES_YES_NO=No
```

The properties file shown in [Example 1 on page 21](#) tells the installer to do the following:

- ❶ Install FUSE ESB into `C:\\iona\\fuse-esb-3.2.`
- ❷ Accept the license agreement without prompting.
- ❸ Use the specified JDK.
- ❹ Run the installer silently.
- ❺ Do not save an `installer.properties` file.

Installing from Source Code

The FUSE ESB source distribution includes the source code and tools for building a number of the components included in FUSE ESB. Once built, you can use them to create an installation of FUSE ESB.

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Before installing FUSE ESB from source code, do the following:

1. Read this chapter to make sure you understand the build process.
2. Make sure your system has the required tools for building from source.
3. Make sure your system meets the minimum requirements for using FUSE.

Source Installation Requirements

You must have the following in order to build a FUSE product from its source distribution:

- An active connection to the Internet. The build system uses the Maven build engine, which connects to one or more Maven repositories on the Internet to download JAR files that are determined to be dependencies of the current build.
- [A Java 5 JDK](#)
- [Apache Maven 2](#)
- [Apache Ant](#)

Java 5 JDK

You must have installed a Java Development Kit (JDK), version 1.5.0_11 or later. You can download the JDK from <http://java.sun.com/javase/downloads/previous.jsp>.

Once you have installed the JDK you must:

1. Set the `JAVA_HOME` environment variable to point to the top-level directory containing your JDK.
2. Add the JDK's `bin` directory to the `PATH`.

On Windows, the Sun JDK installs by default into `C:\Program Files\Java\jdk1.5.0_version`. When specifying this path in your `JAVA_HOME` environment variable, you can use `Progra~1` instead of `Program Files`, as shown in the [example scripts](#) below.

Apache Maven

Apache Maven is a popular build management tool. FUSE source builds require Apache Maven 2.0.9 or later; you can download Apache Maven from <http://maven.apache.org/download.html>.

Once you have installed Apache Maven, you must:

1. Set the `M2_HOME` environment variable to point to the top-level directory containing your Maven installation.

2. Add Maven's `bin` directory to the `PATH`.
 3. Set the `MAVEN_OPTS` environment variable to `-Xmx512M` to give the Maven build more memory in which to run.
-

Apache Ant

Building FUSE source and sample code also requires Apache Ant. The source build requires Apache Ant 1.6.5 or later; you can download it from <http://ant.apache.org/bindownload.cgi>.

After unzipping the Apache Ant distribution, you must:

1. Set the `ANT_HOME` environment variable to the top-level directory where you unzipped Apache Ant.
 2. Add Apache Ant's `bin` directory to your `PATH`.
-

Example Scripts

You can make all settings for the required programs with a script like the following examples. Adjust the paths in these examples to reflect your actual installed locations of Ant, Maven, and the JDK.

Example 2. Windows Environment Script

```
set JAVA_HOME=C:\Progra~1\Java\jdk1.5.0_11
set ANT_HOME=C:\Ant
set M2_HOME=C:\Maven
set PATH=%JAVA_HOME%\bin;%PATH%
set PATH=%ANT_HOME%\bin;%PATH%
set PATH=%M2_HOME%\bin;%PATH%
set MAVEN_OPTS=-Xmx512M
```

Example 3. UNIX and Linux Environment Script

```
export JAVA_HOME=/usr/lib/jvm/java-1.5.0-sun
export ANT_HOME=/opt/ant
export M2_HOME=/opt/maven
export PATH=$JAVA_HOME/bin:$PATH
export PATH=$ANT_HOME/bin:$PATH
export PATH=$M2_HOME/bin:$PATH
export MAVEN_OPTS=-Xmx512M
```

Unpacking the Distribution

The source distribution is packaged as a `.zip` file that must be unpacked before you can build the FUSE ESB installation. Unpack the distribution into a directory to which you have full access.



Warning

Do not unpack the archive file into a folder that has spaces in its path name. For example, do not unpack into `C:\Documents and Settings\Greco Roman\Desktop\fusesrc`.

Building the Source

Build Commands

Build the FUSE ESB distribution using the instructions in this section.

Follow these steps to build the entire distribution.

1. Change to the `src` subdirectory of the folder into which you unpacked the source distribution.
2. Run the following command:

```
mvn install -Dmaven.test.skip=true
```



Tip

If you have errors building the source distribution, try removing your private Maven repository (`$HOME/.m2/repository/*`), then running

```
mvn -U install.
```

You can run the same build including all unit tests by removing the `-Dmaven.test.skip=true` argument from the above command. Note that building with tests enabled takes much longer.

Distribution Files Built

When the build runs successfully, FUSE ESB distribution `.zip` and `.tar.gz` files are found in the `distribution/target` folder of the source installation directory.

To install FUSE ESB from the a newly built distribution file, unzip its contents into the directory of your choice.

Uninstalling FUSE ESB

This chapter describes how to uninstall FUSE ESB.

Uninstalling On Windows Systems

To uninstall FUSE ESB on a Windows system, do the following:

1. From the Windows **Start** menu, select **(All) Programs** → **IONA** → **FUSE ESB 3.3** → **Uninstall FUSE ESB 3.3**.
2. Click **Uninstall**.

As an alternative, you can run the following from a command prompt:

```
InstallDir\uninstall\uninstall-fuse-esb.exe
```

Uninstalling on UNIX Systems

To uninstall FUSE ESB on Linux and UNIX systems, run the following script:

```
InstallDir/uninstall/uninstall-fuse-esb
```



Important

Remember that after a silent installation, the next uninstallation is also run silently.

