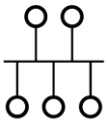

Orbix®

Installation Guide

Version 6.2, June 2005

Making Software Work Together™

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Contents

CHAPTER 1

Installation Prerequisites

Before you install Orbix, check the system requirements, and familiarize yourself with the steps involved in installing the product.

In this chapter

This chapter contains the following sections:

Before You Begin

See the Release Notes	Before installing, visit the documentation web page at: http://www.iona.com/support/docs/orbix/6.2/ and read the *Release Notes* to check for updates to this *Installation Guide*.
Migrating	For detailed information on migrating from Orbix E2A Application Server Platform 6.0, 5.1, 5.0, Orbix 2000, and Orbix 3.3 to Orbix 6.2, please refer to the *Migration Guides* on the documentation web page at: http://www.iona.com/support/docs/orbix/6.2/
Feature restrictions	TLS, OTS Encina and the Orbix security service are not available on IRIX.
OS/compiler patch levels	Customers can use the stated minimum base levels for OS/compiler vendor patches that work with Orbix. It is the usual practice of the OS/compiler vendors that later patches will be binary compatible with earlier patches. If for any reason you need to use higher patch levels, please confirm with the OS/compiler vendor that the patches are fully backward compatible with the set required by the IONA product.

General Requirements

Operating Systems

Table 1 shows the required patches and C++ and Java runtimes for all supported Operating Systems (OS).

Note: All patch numbers listed in Table 1 are the minimum patch levels supported for that version. Any patch that supersedes a patch listed is also supported contigent on the OS vendor compatibility statement.

Table 1: *Supported Operating Systems*

Operating System	Hardware	Required OS Patches; C++/Java Runtime Environment
Windows 2000	x86	C++ runtime `msvcrt.dll`, `msvcirt.dll`, and `msvcp60.dll`; (Only required on a Windows 2000 installation if no Windows Service Pack has been applied) Java (JRE or SDK) 1.3.1_03 and 1.4.2.
Windows XP	x86	C++ runtime Java (JRE or SDK) 1.3.1_03 and 1.4.2.
Windows Server 2003	x86	C++ runtime Java (JRE or SDK) 1.3.1_03 and 1.4.2.
Solaris 8	SPARC	108827-12 (libthread); 108434-12: (32-bit C++ runtime); 108435-12: (64-bit C++ runtime); 109147-21 (linker); Java (JRE or SDK) 1.3.1_03 and 1.4.2.
Solaris 9	SPARC	111711-05: (32-bit C++ runtime); 111712-05: (64-bit C++ runtime); 112963-05: (linker); Java (JRE or SDK) 1.3.1_03 and 1.4.2. JVM 64-bit.
Solaris 10	SPARC	Java (JRE or SDK) 1.4.2

Table 1: *Supported Operating Systems*

Operating System	Hardware	Required OS Patches; C++/Java Runtime Environment
HP-UX 11.0	PA-RISC	PHSS_25170: aCC runtime; PHSS_24627: aCC runtime; PHSS_21075: varargs.h and +DA2.0W; PHSS_23699: libcl; PHSS_24303: dld; PHCO_24148: libc; Java (JRE or SDK) 1.3.1_10 and 1.4.2.
HP-UX 11.i	PA-RISC	PHKL_27094 PHKL_29696 PHKL_30035 PHKL_30541 PHCO_27120 PHKL_27096 PHKL_29704 PHKL_30036 PHKL_30542 PHKL_25233 PHKL_27686 PHKL_30033 PHKL_30216 PHNE_30367 PHKL_25652 PHKL_28122 PHKL_30034 PHKL_30288 PHNE_31247 PHSS_30049 Java (JRE or SDK) 1.3.1_10 and 1.4.2.
HP-UX 11.i v2	Itanium	Java (JRE or SDK) 1.4.2.
AIX 5L 5.2	PowerPC, pSeries, and iSeries	Java (JRE or SDK) 1.3.1_03 and 1.4.2.
IRIX 6.5.19	SGI	Java (JRE or SDK) 1.3.1 and 1.4.1. **Note:** Orbix Enterprise is not available on IRIX.

Table 1: *Supported Operating Systems*

Operating System	Hardware	Required OS Patches; C++/Java Runtime Environment
Red Hat Linux AS 3.0	x86	GCC 3.2 runtime (`libstdc++.so.5` and `libgcc_s.so[.1]`); GCC 3.2 development; Java (JRE or SDK) 1.4.2.
Tru64 UNIX 5.1B	Alpha	Java (JRE or SDK) 1.3.1_06 and 1.4.2.

Windows Note: The following System32 Visual C++ Runtime DLLs are required by the Orbix runtime:

`msvcrt.dll; msvcirt.dll`

On Windows XP or Windows 2003, these DLLs will already be present in your Windows installation. If you have installed Visual Studio or applied a Windows Service Pack to Windows 2000, these DLLs will have already been installed.

The System32 Visual C++ Runtime DLLs only need to be installed on a Windows 2000 machines which does not have Visual Studio installed, and which had not had any Windows Service Packs applied.

If required, these DLLs are available in a directory called msvcrt_update on the Product CD. To update the Visual C++ runtime DLLs, run the `msvcrt_update\setup.exe` from the CD.

The update will also update `msvcp60.dll`, which is required if your application code uses standard C++ iostreams.

A window will indicate whether any DLLs were updated or not. If any of the DLLs are updated, you must reboot before launching the installer.

Note: If you want to use the IONA Administrator Web Console, you must have a JDK installed—a JRE is not sufficient.

C++ Development Environment Requirements

C++ compiler support

The C++ development environment requires the compilers shown in Table 2, depending on your operating system.

WARNING: Only the compiler versions listed in Table 2 are supported. You must ensure that the compiler version you use matches one of the listed compiler versions.

Note: All service pack and patch numbers listed in Table 2 are the minimum patch levels supported for that version. Any patch that supersedes a patch listed below will also work, but new compiler versions are not supported. Contact IONA if you have a query on a specific patch level.

Table 2: *C++ Development Requirements*

Operating System	Hardware	C++ Compiler
Windows 2000	x86	Microsoft Visual C++ 6.0 (Service Pack 3), or Visual Studio .NET 2003 (VC7.1).
Windows XP	x86	Microsoft Visual C++ 6.0 (Service Pack 3), or Visual Studio .NET 2003 (VC7.1)
Windows Server 2003	x86	Microsoft Visual C++ 6.0 (Service Pack 3) or Visual Studio .NET 2003 (VC7.1)
Solaris 8	SPARC	Sun C++ 5.3 (part of Forte 6 Update 2) with patch 111685-01. Sun Studio 8 (C++ compiler 5.5)
Solaris 9	SPARC	Sun C++ 5.3 (part of Forte 6 Update 2) with patches 111685-09 to 111685-20. **Note:** Due to Sun bug # 6265238 patch version 21 and above is not supported. Sun Studio 8 (C++ compiler 5.5)

Table 2: *C++ Development Requirements*

Operating System	Hardware	C++ Compiler
Solaris 10	SPARC	Sun C++ 5.3 (part of Forte 6 Update 2) with patch 111685-01. **Note:** Due to Sun bug # 6265238 patch version 21 and above is not supported. Sun Studio 8 (C++ compiler 5.5)
HP-UX 11.0	PA-RISC	aC++ A.03.55.
HP-UX 11.i	PA-RISC	aC++ A.03.55.
HP-UX 11.i v2	Itanium	aC++ A.05.57
AIX 5L 5.2	PowerPC, pSeries, and iSeries	Visual Age 6.0.
IRIX 6.5.19	SGI	MIPSpro 7.4.1
Red Hat Linux AS 3.0	x86	gcc 3.2.3 and binutils 2.14.9
Tru64 UNIX 5.1B	Alpha	Tru64 6.5-033.

Note: Customer applications built using Visual Studio .NET (VC7.0) should use the Microsoft Visual C++ 6.0 header files and link against V6.0 libraries—these are the default lib and include folders.

Note: Customer applications built using Visual Studio .NET 2003 (VC7.1) should use the V7.1 header files and link against the V7.1 libraries—these are in the versioned lib and include folders.

Java Development Environment Requirements

Java 2 Platform, Standard Edition (J2SE) support

The Java 2 Platform, Standard Edition (J2SE), previously called the Java Development Kit (JDK), contains the basic development kit and runtime for building and running Java applications. The Java development environment requires the J2SE versions shown in Table 3.

Table 3: *Java Development Requirements*

Operating Systems	Hardware	J2SE
Windows 2000, XP, and 2003	x86	Sun's J2SE 1.3.1 and 1.4.2.
Solaris 8, 9, 10	SPARC	Sun's J2SE 1.4.2.
HP-UX 11.0 and 11.i	PA-RISC	HP's J2SE 1.4.2.
HP-UX 11.i v2	Itanium	HP's J2SE 1.4.2.
AIX 5L v5.2	PowerPC, pSeries, and iSeries.	IBM's J2SE 1.4.2.
IRIX 6.5.19	SGI	SGI's J2SE 1.4.1.
Red Hat Linux AS 3.0	x86	Sun's J2SE 1.4.2.
Tru64 UNIX 5.1B	Alpha	HP's J2SE 1.4.2.

Note: The J2SE patch numbers mentioned above are the minimum patch levels supported for that version. Any patch that supersedes a patch listed will also work, but new J2SE versions are not supported.

Tru64 UNIX and JDK 1.4.2

When deploying on Tru64 (OSF1) using JDK 1.4.2, you require 256 MB of minimum memory. This extra memory is not required for previous JDK versions, or for other operating systems.

If you want to use a domain created previously using Orbix 6.1 and JDK 1.3.1, and run the services with JDK 1.4.2, you must edit the configuration and change the following variable for all Java-based services.

```
plugins:java_server:X_options = ["rs"];
```

should now be

```
plugins:java_server:X_options = ["rs", "ms128M", "mx256M"];
```

Disk Space Requirements

Disk space

Table 4 lists the approximate amount of disk space (in MB) required to install Orbix 6.2.

Table 4: *Disk Space Requirements*

Installation type	Win	Sol	Tru64	HP-UX	AIX	Linux	IRIX
Orbix Standard Runtime (32 bit)	145	168	n/a	441	262	152	207
Orbix Standard Runtime (64 bit)	n/a	284	228	599	n/a	n/a	n/a
Orbix Standard Development and Runtime	257	340	274	737	323	193	266
Orbix Enterprise Runtime (32 bit)	145	168	n/a	441	262	152	207
Orbix Enterprise Runtime (64 bit)	n/a	284	228	599	n/a	n/a	n/a
Orbix Enterprise Development and Runtime	257	340	274	737	323	193	266

Table 5 lists the approximate amount of disk space (in MB) required to install Orbix 6.2 Service pack 1.

Table 5: *Disk Space Requirements*

Installation type	Windows	Solaris	Tru64	HP-UX	AIX	Linux	IRIX	HP-UX Itanium
Orbix Standard Runtime (32 bit)	216	268	n/a	758	436	241	368	463
Orbix Standard Runtime (64 bit)	n/a	460	362	1008	n/a	241	n/a	758

Table 5: *Disk Space Requirements*

Installation type	Windows	Solaris	Tru64	HP-UX	AIX	Linux	IRIX	HP-UX Itanium
Orbix Standard Development and Runtime	392	556	438	1306	536	418	433	903
Orbix Enterprise Runtime (32 bit)	216	268	n/a	758	436	241	368	463
Orbix Enterprise Runtime (64 bit)	n/a	460	362	1008	n/a	241	n/a	758
Orbix Enterprise Development and Runtime	392	556	438	1306	536	418	433	903

Note: You will also need an extra 10 MB for temporary work space in `%TEMP%` on Windows, and an extra 5 MB in `/tmp` on UNIX.

If the required space is not available on `/tmp`, you can set a different partition for use by InstallAnywhere by setting the environment variable `IATEMPDIR` to point to this partition, for example: `IATEMPDIR=/local2;export IATEMPDIR`.

CHAPTER 2

Installing Orbix

Before you install Orbix 6.2, check the system requirements and familiarize yourself with the steps involved in installing the product.

In this chapter

This chapter contains the following sections:

Before you Begin

Overview

Before you launch the installer, see the following:

- "Installing on UNIX".
- "Downloading the installer".
- "Installation directory".
- "Screen resolution".

Installing on UNIX

The following considerations apply to UNIX operating systems:

- The installer is a Java application that can be run in GUI or console mode. By default the installer runs in console mode. To run the installer in GUI mode, run the `asp` script as follows:

  ```
  ./asp -i gui
  ```

- If you are installing the product from a location other than the install CD-ROM, copy the following items from the CD-ROM to the same directory level:
  - The installer binary (`asp`) for your operating system, which is located in `/cdrom`.
  - The channels directory for your operating system, which is located in `/cdrom/channels`.
  - The following files: `channels.list`, `install.xml`, `installer-options.xml`, `installer-platforms.xml`, `install.properties`, `ASP-6.2.xpd`, and the `/images` directory for your operating system, which is located in `/cdrom`.

Note: The directory structure of the CD-ROM must be preserved when copying the files. If it is not, the installer will fail.

Downloading the installer

If you are downloading Orbix 6.2 installer rather than installing from the CD-ROM, complete the following steps:

1. Download `orbix_6.2._platform.zip` or for UNIX `orbix_6.2._platform.tar`.
2. Extract the zip or tar file into a temporary directory (for example, `\temp` on Windows, or `/tmp` on UNIX).
3. Run the `asp.exe` or `asp` to launch InstallAnywhere.
4. Follow the instructions in "Installing with the GUI" on page 21.

Installation directory

When entering the pathname for your Orbix 6.2 installation, be sure to enter an absolute pathname, without wildcards. Do not use the ~ character in a UNIX pathname.

Note: Spaces in directory paths are supported on Windows only. Spaces are not supported on UNIX platforms.

WARNING: No part of Orbix should be installed on an NFS-mounted file system. All Orbix services should be run with local persistent stores.

Screen resolution

To use the Orbix 6.2 GUI, you should set your screen resolution to at least 256 colors.

Launching the Installer

Overview

To start the Orbix 6.2 installer, follow the appropriate steps for your operating system:

- "Windows" on page 16.
- "Solaris" on page 16.
- "HP-UX" on page 17.
- "AIX" on page 17.
- "IRIX" on page 18.
- "Linux" on page 18.
- "Tru64 UNIX" on page 20.

Windows

If autorun is enabled, the installer program launches automatically. If it does not launch, select the CD-ROM drive and run the following program:

```
asp.exe
```

Solaris

If the automounter opens a File Manager window displaying the contents of the CD-ROM, only complete step **3**. Otherwise, complete all of the following steps:

1. Mount the CD-ROM by typing:

   ```
   mount -F hsfs -o nomaplcase <device name> /cdrom
   ```

2. Type **`cd /cdrom`**
3. Run the following program:

   ```
   ./asp [-i gui]
   ```

4. Follow the steps in "Installing with the GUI" on page 21.
5. When the installation completes, unmount the CD-ROM by typing:

   ```
   umount /cdrom
   ```

HP-UX

Complete the following steps:

1. If `pfs_mountd` is not running, start it by typing the following commands:

   ```
   pfs_mountd &
   pfsd &
   ```

2. Mount the CD-ROM by typing:

   ```
   pfs_mount <device name> /cdrom
   ```

3. Type **`cd /cdrom`**
4. Run the following program:

   ```
   ./asp  [-i gui]
   ```

5. Follow the steps in "Installing with the GUI" on page 21.
6. When the installation finishes, unmount the CD-ROM by typing:

   ```
   pfs_umount /cdrom
   ```

AIX

If the automounter opens a File Manager window displaying the contents of the CD-ROM, only complete step **4**. Otherwise, complete all of the following steps:

1. Make sure the mount point `/cdrom` exists. If it does not exist, create it by typing:

   ```
   mkdir /cdrom
   ```

2. Mount the CD-ROM with the `mount` command. For example, type:

   ```
   mount -r -v cdrfs /dev/cd0 /cdrom
   ```

3. Type **`cd /cdrom`**
4. Run the following program:

   ```
   ./asp  [-i gui]
   ```

5. Follow the steps in "Installing with the GUI" on page 21.
6. When installation finishes, unmount the CD-ROM by typing:

   ```
   umount /cdrom
   ```

Note: To use OTS/Encina on AIX 5L v. 5.2, you must ensure that the synchronous I/O subsystem is enabled. To check that it is enabled, use the following command:

```
lsdev -C -H | grep aio
```

If synchronous I/O is enabled, it will return the following:

```
aio0    Available    Asynchronous I/O
```

If it is not enabled, it will return the following:

```
aio0    Defined    Asynchronous I/O
```

IRIX

Complete the following steps:

1. Make sure the mount point `/cdrom` exists. If it does not exist, create it by typing:

   ```
   mkdir /cdrom
   ```

2. Mount the CD-ROM with the `mount` command. For example, type:

   ```
   mount -r /dev/disk/cdrom0c /cdrom
   ```

3. Type **`cd /cdrom`**
4. Run the following program from a shell:

   ```
   ./asp  [-i gui]
   ```

5. Follow the steps in "Installing with the GUI" on page 21.
6. When the installation finishes, unmount the CD-ROM by typing:

   ```
   umount /cdrom
   ```

Linux

Complete all of the following steps on Red Hat Linux AS 3.0 Update 3:

1. Ensure that Linux is installed and configured correctly with users and permissions, and has been upgraded correctly.
2. Install JDK 1.4.2 and note the location of the installation (for example, `/opt/j2sdk1.4.2`).

   Note: It is recommended that you use a JDK 1.4.2. Before installing Orbix, ensure that the `DISPLAY` variable is unset.

3. Export the JAVA_HOME environment variable to point to the correct installation folder for the JDK. For example:

   ```
   export JAVA_HOME=/opt/j2sdk1.4.1_02
   ```

4. Install Orbix 6.2 as follows:

   (i) Make sure that the mount point /cdrom exists. If it does not exist, create it by typing:

   ```
   mkdir /cdrom
   ```

   (ii) Mount the CD-ROM with the mount command. The following example assumes an IDE CD-ROM drive named /dev/hdc:

   ```
   mount -tiso9660 /dev/hdc /cdrom
   ```

   (iii) Type **cd /cdrom**.

   (iv) Run the following program:

   ```
   ./asp  [-i gui]
   ```

   (v) Follow the steps in "Installing with the GUI" on page 21. Use the default parameters when prompted. This should create an installation into the /opt/iona directory.

   (vi) When the installation finishes, unmount the CD-ROM by typing:

   ```
   cd /
   ```

   ```
   umount /cdrom
   ```

5. Export the IT_PRODUCT_DIR environment variable to point to this Orbix installation. If you have used the defaults, this is as follows:

   ```
   export IT_PRODUCT_DIR=/opt/iona
   ```

6. It is not recommended to perform any domain configuration using the root account. Therefore, it may be necessary to change the permissions of the installation to allow certain users or groups read/write access to the Orbix installation folder.

Tru64 UNIX

Complete the following steps:

1. Make sure the mount point `/cdrom` exists. If it does not exist, create it by typing:

   ```
   mkdir /cdrom
   ```

2. Mount the CD-ROM with the mount command. For example, type:

   ```
   mount -r /dev/disk/cdrom0c /cdrom
   ```

3. Type **`cd /cdrom`**
4. Run the following program from a shell:

   ```
   ./asp [-i gui]
   ```

5. Follow the steps in "Installing with the GUI" on page 21.
6. When the installation finishes, unmount the CD-ROM by typing:

   ```
   umount /cdrom
   ```

Installing with the GUI

Overview

This section guides you through the Orbix 6.2 GUI installation. To install Orbix 6.2 on your system, run through the following screens.

Introduction

When the installer starts, an introduction screen displays information about the product.

Click **Next** to proceed.

License Agreement

When you have read through the License Agreement, select the "**I accept the terms of the License Agreement**" radio button, and click **Next** to proceed.

Choose Install Folder

Choose an install folder for Orbix 6.2. The default install locations are:

Windows

```
C:\Program Files\IONA
```

UNIX

```
/opt/iona/
```

Note: You must have root privileges to install to the default location on UNIX.

Click **Next** to proceed.

Choose Shortcut Location (Windows Only)

Choose a location where you want to create the Orbix 6.2 product icons.

Click **Next** to proceed.

Choose Product Edition

Choose the product edition for which you have a license. The options are:

- Standard
- Enterprise

Click **Next** to proceed.

Environment Settings

With both Standard and Enterprise, you are given the following installation options:

- **Development and Runtime** installs all Orbix 6.2 development and runtime components.
- **Runtime Only** installs Orbix 6.2 runtime components only.
- **Customize Runtime** installs Orbix 6.2 runtime components that you select.

Choose one and click **Next** to proceed.

Custom Runtime Environment Options

If you select the Customize Runtime option:

- For Standard choose the runtime environment you want to install along with the standard services you want to run.
- For Enterprise choose the runtime environment you want to install along with the standard and enterprise services you want to run.

Click **Next** to proceed.

Choose Java virtual machine

Under Environment Settings you are also asked to choose a Java virtual machine for use by Orbix.

Choose one and click **Next** to proceed.

Set JAVA_HOME

In addition, if `JAVA_HOME` is not set, you are asked if you want to set it. `JAVA_HOME` is required for the Orbix configuration tool, `itconfigure`, to run.

If you choose not to set `JAVA_HOME`, you must set it manually later.

Click **Next** to proceed.

Environment Settings

The following option only applies to Standard and Enterprise on Windows.

You are asked to set environment variables and must choose one of the following options:

- Set the variables for all users.
- Set the variables only for the current user.

- I will set them manually later.

Note: You must have administrator privileges to set variables for all users on Windows.

Click **Next** to proceed.

Pre-Installation Summary

Review the Pre-Installation Summary

- If you are satisfied with the details, click **Install**.
- If you want to change any of the details, click **Previous**.

After installing

A browser is required when the installation completes. If the installer cannot find one it times out eventually with an error. However, the installation has completed. When the installation completes and a browser is available, a Welcome Page is automatically launched. This page contains links to the Release Notes, Tutorials and Demos, and Documentation to help you get up and running quickly. To view the Welcome Page in future, open the `index.html` file located in the `<install-dir>\asp\6.2\doc` directory in a browser.

Documentation

Orbix 6.2 documentation is provided on a separate CD. Follow the instructions provided in the `welcome.html` file on the Documentation CD to install the documentation.

Orbix 6.2 documentation is also available on the Orbix documentation web page at:

http://www.iona.com/support/docs/orbix/6.2/

Tivoli Enterprise Management System

A copy of the Tivoli Enterprise Management System tar file, `tivoli_integration.tar` is included on the Orbix product CD. See the *IONA Tivoli Integration Guide* on the documentation web page at: http://www.iona.com/support/docs/orbix/6.2/admin.xml for details on Tivoli integration.

BMC Patrol Enterprise Management System

A copy of the BMC Patrol Enterprise Management System file is included on the Orbix product CD:

- `UNIX: IONA_km.tgz`
- `Windows: IONA_km.zip`

See the *IONA BMC Patrol Integration Guide* on the documentation web page at: http://www.iona.com/support/docs/orbix/6.2/admin.xml for details on BMC Patrol integration.

Installing Silently

Overview

Silent installations are installations that run without user interaction. The main advantage of this type of installation is that it allows you to automate the process of installing on more than one machine. In a normal (non-silent) installation, the installer receives necessary user input in the form of responses to questions posed in a GUI or on a console. In the case of a silent installation, you must provide this information in an `installer.properties` file. This section outlines how to install Orbix 6.2 silently and provides you with a sample `installer.properties` file. It is divided into the following subsections:

- Installing silently on UNIX
- Installing silently on Windows

Installing silently on UNIX

To install Orbix 6.2 silently on UNIX, complete the following steps:

1. Download `orbix_6.2_platform.tar`. For download details, contact support@iona.com.
2. Extract the tar file into a temporary directory; for example, `/tmp`.
3. Create an `installer.properties` file as follows:

```
USER_INSTALL_DIR=$/$opt$/$iona
SHORTCUT_NAME=IONA Orbix
CHOSEN_INSTALL_SET=Enterprise Edition
CHOSEN_ENV=Development and Runtime
JDK_HOME=$/$usr$/$bin$/$jdk1.3.1_10
SET_ENV_VARS=I will set them manually later
INSTALLER_UI=silent
```

Note: The values shown for `SHORTCUT_NAME`, `CHOSEN_INSTALL_SET`, `CHOSEN_ENV`, `SET_ENV_VARS`, and `INSTALLER_UI` must appear exactly as shown. You set the values of `USER_INSTALL_DIR` and `JDK_HOME`.

4. Save the `installer.properties` file in the same directory as the `asp` shell script.
5. Run the following command from that directory:

```
asp -i silent
```

Installing silently on Windows

To install Orbix 6.2 silently on Windows, complete the following steps:

1. Download `orbix_6.2_platform.zip`. For download details, contact support@iona.com.
2. Extract the zip file to a temporary directory; for example, `\temp`.
3. Create an `installer.properties` file as follows:

```
USER_INSTALL_DIR=c:$/$orbix6.2
SHORTCUT_NAME=IONA Orbix
CHOSEN_INSTALL_SET=Enterprise Edition
CHOSEN_ENV=Development and Runtime
JDK_HOME=c:$/$jdk1.3.1
SET_ENV_VARS=I will set them manually later
INSTALLER_UI=silent
```

Note: The values shown for `CHOSEN_INSTALL_SET`, `CHOSEN_ENV`, `SET_ENV_VARS`, and `INSTALLER_UI` must appear exactly as shown. You set the values of `USER_INSTALL_DIR`, `SHORTCUT_NAME`, and `JDK_HOME`.

4. Save the `installer.properties` file in the same directory as the `asp.exe` file.
5. Run the following command from that directory:

   ```
   asp.exe -i silent
   ```

Installing Service Packs

Overview

Orbix 6.2 service packs are released periodically. These service packs provide bug fixes and enhancements for existing installations. This section includes the following topics:

- "Installation instructions".
- "Rolling back a service pack installation".
- "Disabling rollback".

Installation instructions

To install an Orbix service pack you require, complete the following steps:

Step	Action
1	Download the service pack `.tar` file or `.zip` file that corresponds to your operating system from the IONA FTP site. The exact location and login details are available from your Customer Services representative.
2	Set the environment variable `IT_PRODUCT_DIR` to point to the location where you installed Orbix 6.2.
3	Unzip/untar the service pack `.zip/.tar` to a `temp` directory. **Note:** This `temp` directory should not be part of the existing Orbix 6.2 installation directory structure.
4	Run the `updater` command from the `temp` directory.

Rolling back a service pack installation

After installing a service pack, you can rollback the service pack installation without using installation CDs.

Note: You must first stop all services before rolling back an installation.

To rollback an installation, enter the following command:

```
<install-dir>\asp\6.2\bin\xt rollback
```

This rollbacks to your previous Orbix installation.

Disabling rollback

When applying the service pack, you can disable rollback by passing the `–nr` parameter to the service pack updater on the command line, for example:

```
temp\updater –nr
```

Disabling rollback reduces the amount of disk space required for installation (for example, about 100 MB on Windows). Rollback backs up the files affected by the updater. These backup files are stored in the installation registry. If rollback is disabled, it will not back up these files.

Configuring your Environment

Overview

To start using Orbix 6.2, you need to configure a domain and set up the environment for Orbix 6.2. This section provides a brief overview of how to use the Orbix Configuration (`itconfigure`) tool to do this. It includes the following:

- "Orbix 6.2 license".
- "Using the Orbix configuration tool".

For more detail on configuring your Orbix 6.2 environment, see the Orbix Deployment Guide.

Orbix 6.2 license

You need a valid license file to start using Orbix 6.2. An e-mail with a `licenses.txt` file attached is sent to you when you receive the product. You should copy this `licenses.txt` file to a desired location, and set the environment variable `IT_LICENSE_FILE` to point to the location of your `licenses.txt` file.

Alternatively, launch the Orbix Configuration tool and you will be prompted for the location of your license file. For more detail on licensing your Orbix 6.2 environment, see the Orbix Deployment Guide.

Using the Orbix configuration tool

To configure Orbix 6.2 using the Orbix Configuration tool, complete the following steps:

1. Set the environment variable `IT_PRODUCT_DIR` to point to the location where you installed the product.
2. Change directory to the following location:

   Windows

   <install-dir>\asp\6.2\bin

   UNIX

   <install-dir>/asp/6.2/bin
3. Run `itconfigure`. This launches the Orbix Configuration tool.
4. If you have not set the environment variable `IT_LICENSE_FILE` before running `itconfigure`, the Orbix Configuration tool prompts you for the location where you saved your `licenses.txt` file. Click the **Browse**

button and enter the location where you saved your `licenses.txt` file. Then click **OK**. The Orbix Configuration tool will install your `license.txt` file into the default license location; that is:

<install-dir>`/etc/licenses.txt`.

If you do not want to install the license file into the default license location, click **Cancel**, and set the environment variable `IT_LICENSE_FILE` to point to the location where your `licenses.txt` file is saved. Then run `itconfigure` again.

5. The Orbix Configuration tool prompts you for a unique domain name, a base port number to allocate the TCP/IP ports required by the services, the services you want to run, the communication protocol, as well as the number of replica servers (if any) you want to run.

   Note: When creating a new configuration domain, ensure that your base port number selection does not conflict with other users on your system.

6. When you have worked through all the screens, the Orbix Configuration tool creates a domain configuration file and domain environment scripts. Change directory to the location in which these scripts are created; that is:

   Windows

   <install-dir>`\etc\bin`

   UNIX

   Your domain configuration scripts are created in one of the following locations, in this order:

   i. `etc/opt/iona/bin` if it is writable.

   ii. *<install-dir>*`/etc/bin` if it is writable.

   iii. `$HOME/etc/bin`

7. Set the environment variables necessary for Orbix 6.2 as follows:

   Windows

   Run the following environment script:

   domain-name`_env.bat`

   UNIX

   Source the following environment script:

*domain-name*_env

8. Start the Orbix Services by running the `start_`*`domain-name`*`_services` command, which is located in `<`*`install-dir`*`>/etc/bin/`.

Verifying the Installation

Code examples

Orbix 6.2 is installed with a number of code examples that demonstrate the use of specific features of the product. Each code example comes with documentation that explains what the code example does and how to run it. This documentation can be accessed via the `index.html` file in the `demos` directory of your installation.

In this section

This section discusses the following topics:

Testing a CORBA Development Installation

Overview

To ensure that your Orbix 6.2 development installation is fully operational, run the Simple demo located in the *<install-dir>*/asp/6.2/demos/corba/orb directory. Further details on running the Simple demo can be found in the README_CXX.txt and README_JAVA.txt files in the *<install-dir>*/asp/6.2/demos/corba/orb directory.

Running the CORBA C++ Simple demo

To run the CORBA C++ Simple demo, complete the following steps:

1. In a command prompt (with the Orbix 6.2 environment set), change directory to the demos/corba/orb/simple directory as follows:

OS	Type this:
UNIX	cd *<install-dir>*/asp/6.2/demos/corba/orb/simple
Windows	cd *<install-dir>*\asp\6.2\demos\corba\orb\simple

2. Build the C++ programs:

OS	Type this:
UNIX	make -e
Windows	nmake -e

Note: The makefile assumes the default installation path. If you install the product elsewhere, you need to set the IT_PRODUCT_DIR environment variable to point to your installation, then use make -e (or its equivalent) to override make variables with the corresponding environment variables.

3. Start the server:

```
cd cxx_server
server
```

4. Open another command prompt and start the client:

```
cd cxx_client
client
```

5. The client should return Done and then stop. The server must be stopped manually.

Running the CORBA Java Simple demo

To run the CORBA Java Simple demo, complete the following steps:

1. Set `JAVA_HOME` to point to your JDK and set `JAVA_HOME/bin` in your `PATH`.
2. In a command prompt (with the Orbix 6.2 environment set), change directory to the `demos\corba\orb\simple` directory as follows:

OS	Type this:
UNIX	`cd <install-dir>/asp/6.2/demos/corba/orb/simple`
Windows	`cd <install-dir>\asp\6.2\demos\corba\orb\simple`

3. Build the Java programs as follows:

   ```
   itant
   ```

   Note: If running Java SDK 1.4 add the following to your Java command line:

   ```
   -Djava.endorsed.dirs="<IT_PRODUCT_DIR>\lib\art\omg\1.2"
   ```

4. Start the server as follows:

   Windows

   ```
   java -classpath .\java\classes;"%CLASSPATH%" simple.Server
   ```

   UNIX

   ```
   java -classpath ./java/classes:"$CLASSPATH" simple.Server
   ```

5. Open another command prompt and start the client as follows:

   Windows

   ```
   java -classpath .\java\classes;"%CLASSPATH%" simple.Client
   ```

   UNIX

   ```
   java -classpath ./java/classes:"$CLASSPATH" simple.Client
   ```

6. The client should return `Done` and then stop. The server must be stopped manually.

The Orbix 6.2 ORB classes are used instead of the Sun classes, by setting the following properties in the demo code:

```
org.omg.CORBA.ORBClass=com.iona.corba.art.artimpl.ORBImpl
org.omg.CORBA.ORBSingletonClass=com.iona.corba.art.artimpl.ORBSi
   ngleton
```

Troubleshooting

Debug window

To view debug output from an installer:

Windows

Hold down the CTRL key immediately after launching the installer until a console window appears.

UNIX

1. Change directory to the directory where you copied the `asp` installer.
2. Run the following command:

```
touch ia_debug
```

Disk space

On UNIX, InstallAnywhere might incorrectly calculate the amount of free space on a shared NFS drive, indicating that there is not enough free space. To work around this problem, install on a local drive. Alternatively, you can disable InstallAnywhere from checking for the amount of free space available by setting the environmental variable: `CHECK_DISK_SPACE` to `OFF`, for example:

```
CHECK_DISK_SPACE=OFF;export CHECK_DISK_SPACE
```

Installing the Orbix Visual Studio Wizards

Overview

In some cases, the Orbix Visual Studio wizards will not be automatically installed by the installer (for example, if you do not have the relevant version of Visual Studio installed on your machine when running the installer). To manually install the various Orbix Visual Studio wizards, follow the instructions outlined below.

Orbix Client/Server Wizard for Visual C++ 6.0

1. Open a command prompt.
2. Change directory to `%IT_PRODUCT_DIR%\asp\6.2\etc\wizard`.
3. Run `setup.exe`.

Orbix Client/Server Wizard for Visual Studio .NET 2003 7.1

1. Open a command prompt.
2. Change directory to `%IT_PRODUCT_DIR%\asp\6.2\etc\wizard\vc71`
3. Run `installvc7wiz.bat` supplying the current directory "." as the first parameter, and the location of your Visual Studio .NET 2003 7.1 installation as the second parameter; for example:

```
>installvc7wiz . "C:\Program Files\Microsoft Visual Studio .NET
   2003\Vc7"
```

Further Information

Documentation CD-ROM

Orbix 6.2 documentation is provided on a separate Documentation CD-ROM. If you want to install a local copy of the documentation, follow the instructions provided in the `welcome.html` file on the Documentation CD-ROM.

Documentation web

Orbix 6.2 documentation is available to browse and to download on the IONA documentation web page at:

`http://www.iona.com/support/docs/orbix/6.2/`

This documentation is frequently updated, so check here for the latest version of the documentation.

Release Notes

See the Release Notes at:

`http://www.iona.com/support/docs/orbix/6.2/`

Internationalization

If you plan to deploy a CORBA ORB in C or C++ to handle characters other than Latin-1 (English, French, German, and other Western European languages), then some further configuration is required. Please refer to the *Orbix Internationalization Guide* for more information.

IONA Knowledge Base

Review IONA Knowledge Base entries for Orbix 6.2 at:

`http://www.iona.com/support/knowledge_base`

Support

E-mail technical support with questions and suggestions at:

`support@iona.com.`

CHAPTER 3

Uninstalling Orbix

Orbix comes with an automatic uninstaller tool. Before uninstalling Orbix 6.2, you should remove any domains created.

In this chapter

This chapter contains the following sections:

Uninstalling on Windows

Overview

To uninstall Orbix 6.2 on Windows:

1. Go to Select **Start** | **Settings** | **Control Panel** | **Add/Remove Programs**
2. Select Orbix 6.2.

Alternatively, from a command prompt, run the following:

```
<install-dir>\asp\6.2\etc\installer\uninstaller\Orbix 6.2.exe
```

This will usually leave some files behind in the IONA directory. These must be removed manually.

3. Remove any environment variables that might still be set, such as `IT_LICENSE_FILE`, `IT_PRODUCT_DIR`, `IT_CONFIG_DIR`, and any CORBA entries in your `PATH`.

   For details of all CORBA environment variables, see the *Orbix Administrator's Guide*.

Uninstalling on UNIX

Overview

To uninstall the Orbix 6.2 on UNIX:

1. Run the uninstall script:

```
<install-dir>/asp/6.2/etc/installer/uninstaller/uninstall
```

   You must manually remove the directory:

   `<install-dir>/asp/6.2/etc/installer/uninstaller/`

   The uninstaller will also usually leave some files behind in the IONA directory. These must be removed manually.

2. Remove:
   - Any environment variables that you set, such as `IT_LICENSE_FILE`, `IT_PRODUCT_DIR`, `IT_CONFIG_DIR`,
   - Any CORBA entries in your `PATH` and `CLASSPATH` and associated library variables (`SHLIB_PATH`, `LD_LIBRARY_PATH`, and so on).
   - Any configuration domains, especially those with “start on boot” services.

   For details of all CORBA environment variables, see the *Orbix Administrator’s Guide*.