



Orbix[®] 3.3

Installation Guide

Service Pack 9, July 2007

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Installing Orbix 3.3 SP9

This document provides instructions for installing Orbix 3.3 SP 9 on Windows, Solaris, and HP-UX.

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Introduction

Product sets

This document provides instructions for installing Orbix 3.3 SP 9 on Windows, Solaris, and HP-UX.

Orbix 3.3 SP 9 consists of three product sets, each enabled by separate license codes:

- Orbix 3.3 SP 9 Java Edition
- Orbix 3.3 SP 9 C++ Edition
- OrbixOTS 3.3 SP 9

You may purchase and license any valid combination of these sets.

Product components

Orbix 3.3 SP 9 comprises the following components:

| Components | Windows XP | Solaris 8/9/10 SPARC | HP-UX 11i (PA-RISC), 11.23 (IA64) |
|-------------------------------|------------|-------------------------|---|
| Development Platform for Java | Available | Available | Available |
| Development Platform for C++ | Available | Available | Available |
| Orbix Code Generation Toolkit | Available | Available | Available |
| OrbixCOMet | Available | Not Applicable | Not Applicable |
| OrbixEvents | Available | Available | Available |
| OrbixNames | Available | Available | Available |
| OrbixSSL | Available | Available | Available |
| Orbix Wonderwall | Available | Available | Available |

The Orbix 3.3 SP 9 CD-ROM includes install programs for Windows, Solaris, and HP-UX, which deliver development platforms for all the components above except OrbixSSL 3.3 SP 9.

The OrbixSSL 3.3 SP 9 CD-ROM includes install programs for Windows, Solaris, and HP-UX, which deliver OrbixSSL 3.3 SP 9 development platforms. See the *OrbixSSL 3.3 SP 9 Installation Guide* for details on how to install OrbixSSL.

JRE requirements

The Orbix 3.3 SP 9 installation was built with InstallAnywhere, which is a Java application. The installer requires a JRE (Java Runtime Environment). You should provide the JRE yourself (see Installation Prerequisites), or use a pre-installed JRE or JDK before launching the installer. The Windows Installer includes a JRE.

Installation steps

To install Orbix 3.3 SP 9 follow these steps:

- Determine your Installation Type.
- Check the Prerequisites to Installing Orbix 3.3 SP 9.
- Install Orbix 3.3 SP 9 on Your Host Machine.
- Verify Your Installation.

Note: Due to legal restrictions in some countries, OrbixSSL is not supplied on the same CD-ROM as Orbix 3.3 SP 9. OrbixSSL 3.3 SP 9 is enabled with Orbix 3.3 SP 9 Java Edition and Orbix 3.3 SP 9 C++ Edition license codes.

Before You Begin Your Installation

Before you install Orbix 3.3 SP 9, we recommend that you visit the Orbix 3.3 SP 9 Documentation Web Page at <http://www.iona.com/support/docs/orbix/gen3/orbix33.xml> to read the latest version of the Orbix 3.3 SP 9 Release Notes , and check for any updates to this Installation Guide.

Note: Orbix 3.3 SP 9 cannot be installed on machines that do not support 256 (8 bit) colors, because the Orbix installer is a Java application built on the Java platform which does not support 16 colors. For more information see <http://java.sun.com/products/jdk/1.2/changes.html#2D>.

Note: When installing Orbix 3.3 SP 9 using PCAnywhere (that is via a remote client) the following display information must be followed: "Display resolution of type VGA (640 x 480). For more information see ftp://ftp.symantec.com/public/english_us_canada/products/pcanywhere/pc_anywhere32/ver10.5/manuals/pca_105_user.pdf.

Orbix 3.3 SP 9 License Codes

You must have a valid license code from IONA to install Orbix 3.3 SP 9 Java edition, Orbix 3.3 SP 9 C++ edition, and OrbixOTS. All other components of Orbix 3.3 SP 9 are activated by these license codes. The code is a long numeric string taking the general form:

```
00000000-11111111-22222222-33333333-44444444
```

Your license code should be included in a loose sheet in your Orbix 3.3 SP 9 pack. Otherwise, as Orbix 3.3 SP 9 is a service pack release of Orbix 3.3, the license codes provided for Orbix 3.3 are valid for Orbix 3.3 SP 9. If you do not have any license codes, please contact IONA before proceeding any further.

Determine Your Installation Type

Orbix 3.3 SP 9 comprises three product sets each enabled by separate license codes. You may purchase and license any valid combination of these sets. The three product sets are Orbix 3.3 SP 9 Java Edition, Orbix 3.3 SP 9 C++ Edition, and OrbixOTS 3.3 SP 9. Each combination enables different groups of components as described below:

| Component | Java Edition | C++ Edition | OrbixOTS |
|-------------------------------|---------------------------|---------------------------|----------|
| Development Platform for Java | Enabled | - | - |
| Development Platform for C++ | - | Enabled | - |
| OrbixOTS | - | - | Enabled |
| Orbix Code Generation Toolkit | Enabled | Enabled | - |
| OrbixCOMet | Enabled (Windows XP only) | Enabled (Windows XP only) | - |

| Component | Java Edition | C++ Edition | OrbixOTS |
|------------------|--------------|-------------|----------|
| OrbixEvents | Enabled | Enabled | - |
| OrbixNames | Enabled | Enabled | - |
| OrbixSSL | Enabled | Enabled | - |
| Orbix Wonderwall | Enabled | Enabled | - |

All components are enabled if your purchased licenses for all three combinations.

Note: OrbixOTS 3.3 SP 9 is only available with Orbix 3.3 SP 9 Java Edition and/or Orbix 3.3 SP 9 C++ Edition. It is installed when you install Orbix 3.3 SP 9 Java Edition and/or Orbix 3.3 SP 9 C++ Edition. However, a separate license key is required to use OrbixOTS 3.3 SP 9.

Prerequisites to Installing Orbix 3.3 SP 9

Existing Orbix Installations

If you install Orbix 3.3 SP 9 in the same location as an existing Orbix installation, the existing installation is overwritten. If you have an older version of Orbix on your system and you do not want it overwritten, you should install Orbix 3.3 SP 9 in a new location on your file system.

Installation Prerequisites

| Prerequisite | Notes |
|--------------|--|
| Privileges | <p>General</p> <p>To install in a non-default location, you must have permission to create files and directories in that location.</p> <p>Windows</p> <p>To install in the default location, Windows users must have administrator privileges.</p> <p>UNIX</p> <p>To install into the default location, UNIX users must have root privileges.</p> |

| Prerequisite | Notes |
|--------------|---|
| UNIX DISPLAY | <p>The Installer was built using InstallAnywhere, which is a GUI application. To install Orbix 3.3 SP 9 without the GUI, follow the instructions in Installing Orbix 3.3 SP 9 Without the GUI.</p> <p>For a GUI application to run on UNIX you will need to install on a UNIX host with X and a windowing environment configured. You will need to ensure your display environment variable is set to the workstation you are logged into. For example, set the following environment variable, substituting the full Domain Name System (DNS) name of your workstation for <code>imaginary.dublin.iona.ie</code>:</p> <pre>export DISPLAY=imaginary.dublin.iona.ie:0.0</pre> <p>Contact your system administrator if you require assistance with this.</p> |
| JRE | <p>The Installer was built using InstallAnywhere, which is a Java application. For it to run it needs a JRE (Java Runtime Environment). You are also required to provide the location of the JRE in order for the installation to run. The versions mentioned here are those built and tested on the operating system. (Be sure to install all required patches for all UNIX-based platforms.)</p> <p>Windows JRE</p> <p>The Windows Installer includes a JRE (version 1.5).</p> <p>Solaris JRE</p> <p>Solaris users can obtain a JRE version from: http://java.sun.com/products/archive/</p> <p>HP-UX JRE</p> <p>HP-UX users can obtain a JRE version from: http://www.hp.com/products1/unix/java/</p> <p>HP-UX IA64</p> <p>HP-UX users can obtain a JRE version from: http://www.hp.com/products1/unix/java/</p> |

| Prerequisite | Notes |
|--------------|--|
| Domain Name | The installer requires your domain name for Orbix 3.3 SP 9 configuration. The Domain Name System (DNS) to resolve Internet or Unix computer names. Contact your network administrator to obtain the domain name for your TCP/IP internet prior to installing Orbix 3.3 SP 9. |

You need access on all platforms to an existing JRE (or JDK) version 1.4.2 or higher, or you should obtain and install the JRE yourself on your system prior to running the Installer. See the above table for details on obtaining the JRE.

CD-ROM Location of Installers

| Installation CD-ROM | Description |
|------------------------------|--|
| /cdrom/NT51VC60/install.htm | Windows Installers (with JRE) - Windows XP |
| /cdrom/SOLARIS/install.bin | Solaris Installers (without JRE) - Solaris 2.8, 2.9 & 2.10 |
| /cdrom/HPUX/install.bin | HP-UX Installer (without JRE) - HP-UX11i |
| /cdrom/HPUX_ITAN/install.bin | HP-UX Itanium Installer (without JRE) - HP-UX 11.23 |

Mounting the CD-ROM

Depending on your system configuration `/cdrom` might have to be replaced with a different mount point. Contact your system administrator if you require assistance with this.

The following commands can be used to mount the CD-ROM on the platforms indicated:

| Platform | Command |
|----------|---------------------------------|
| Windows | No command required for Windows |

| Platform | Command |
|----------|---|
| Solaris | <code>mount -F hsfs -o ro /dev/dsk/clt6d0s0 /cdrom</code> |
| HP-UX | <code>mount -t cdfs -o cdcase /dev/dsk/c3t2d0 /cdrom</code> |

The values shown for the UNIX device controller are examples only and will vary depending on your system.

Operating Systems

In regard to the operating system patches listed in this install guide, Orbix 3.3 SP 9 may work perfectly well without installing all the patches for a particular operating system, but IONA advises that they be installed to reduce the possibility of Orbix 3.3 SP 9 not operating properly because they were not installed.

Please consult specific vendor's websites for more information on patches.

Orbix 3.3 SP 9 runs on the following operating systems:

| Operating System | Required Operating System Patches |
|------------------|--|
| Windows XP | SP2 |
| Solaris 2.8 | All Y2K patch clusters and recommended operating system patches up to December 1999 should be applied. The following additional patches are also recommended. 108434-03 - Shared Library Patch for C++ 108435-03 - Shared Library Patch for C++ 109505-09 - Compiler Patch 109508-06 - C++ Compiler Patch |
| Solaris 2.9 | The following patches are recommended. 112963-03 : SunOS 5.9: linker patch 111711-01 : 32-bit Shared library patch for C++ 111712-01 : 64-bit Shared library patch for C++ 112661-02 : SunOS 5.9: IIM and X Input & Output Method patch 112785-09 : X11 6.6.1: Xsun patch |
| Solaris 2.10 | Base level patches |

| Operating System | Required Operating System Patches |
|------------------|--|
| HP-UX 11i | <p>All Y2K patch bundles and recommended operating system patches up to December 1999 should be applied.</p> <p>The following additional patches and patch bundles are also recommended.</p> <p>These patches can be displayed by using the following commands:</p> <pre>swlist -l product '*ava*' swlist -l product 'PH??_*' swlist grep PH swlist grep XS PHSS_22898 HP aC++ -AA runtime libraries</pre> |
| HP-UX IA64 | <p>All recommended operating system patches up to March 2004 should be applied.</p> <p>The following additional patches and patch bundles are also recommended.</p> <p>These patches can be displayed by using the following commands:</p> <pre>swlist -l product '*ava*' swlist -l product 'PH??_*' swlist grep PH swlist grep XS PHSS_29659 aC++ runtime (A.05.55)</pre> |
| Windows XP | x86/Windows XP Service Pack 2; Java (JRE or SDK) 1.4.2 or 5.0 |

Development Environment Prerequisites

For details of the JDK versions and C++ compilers with which Orbix 3.3 SP9 was built and tested, see the following link:

http://www.iona.com/products/orbix/orbix_platforms.htm

OrbixOTS Development

OrbixOTS requires access to a database installed on your system. OrbixOTS supports the following database products:

| Platform | Database |
|------------------|-----------------------------------|
| Solaris 2.8 | Oracle 8i (8.1.6) |
| Solaris 2.9 | Oracle 8i (8.1.6) |
| Solaris 2.10 | Oracle 8i (8.1.6) |
| HP-UX 11i | Oracle 8i (8.1.6) |
| HP-UX IA64 | Oracle 8i (8.1.6) |
| Windows XP (SP2) | Oracle 8i (8.1.5), & SQL Server 7 |

Disk Space Requirements

The following table lists the approximate amount of disk space taken up by the Orbix 3.3 files. The install program also requires approximately 50MB of temporary work space.

| Component | Windows | Solaris | HP-UX |
|--|---------|---------|--------|
| Development Environment for Java & C++ | 80 MB | 130 MB | 140 MB |
| Documentation | 50 MB | 50 MB | 50 MB |
| OrbixSSL | 15 MB | 30 MB | 40 MB |

Note: On Windows, please check that you have enough disk space before starting the installation.

Default Location

The default location of your Orbix 3.3 installation is as follows:

| Platform | Default Location |
|------------------------|------------------|
| UNIX main installation | /opt/iona |
| UNIX variable files | /var/opt/iona |
| Windows | c:\iona |

Note: Orbix 3.3 SP 9 installs in a fixed location relative to the path you specify. Also we do not recommend installation into locations with spaces in their directory names.

Installing Orbix 3.3 SP 9 Without the GUI

Overview

Installing Orbix 3.3 SP 9 without a GUI (silent install mode) allows you to run the installer without using the GUI. The silent mode installer looks to a template file that provides the required information.

For more detailed information on using silent install mode, see Knowledge Base article 4087.633 on the IONA Web site.

Installing in Silent Mode

1. To install in silent mode

```
$ ./install.bin -f /path/to/template.file
```

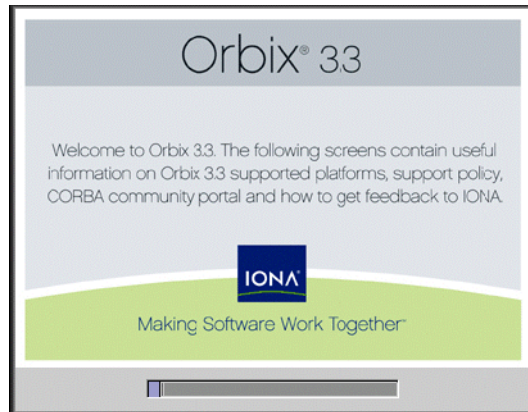
Where `template.file` contains the following information.

```
##Specimen properties with operating system Licence codes.
##Use on one combination as per requirement. The first section is in effect now.
##It will install Orbix 3.3 SP 9 Java and C++ edition with OTS
##-----
##C++, Java with OTS
##-----
##Choose the directory where you want Orbix 3.3 SP 9 installed
USER_INSTALL_DIR=/local1/install_dir
##Choose the location of your Java Development Platform
JAVA_LOCATION=/usr/java
JAVA_VERSION=1.3
JAVA_VERSION_1=1.3
ISVALIDJDKPATH=TRUE
INSTALLER_UI=SILENT
##Choose the components of Orbix you want to install
PRODUCTS="Orbix 3.3 - Java Edition and C++ Edition with OrbixOTS 3.3"
## Licence key: c++, java , ots
LICENCE_KEY= "<c++ license key1>", "<java license key2>", "<ots license_key3>"
LICENCE_KEY_1=<Licence Key1>
LICENCE_KEY_2=<License Key2>
LICENCE_KEY_3=<License Key3>
DOMAIN=dublin.iona.ie ##Choose the domain for the installation
DOMAIN_1=dublin.iona.ie
##-----
```

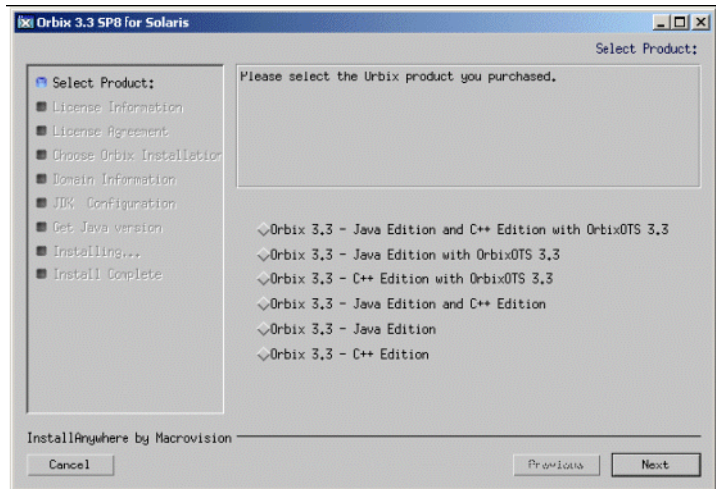
Installing Orbix 3.3 SP 9 With the GUI

Installation steps

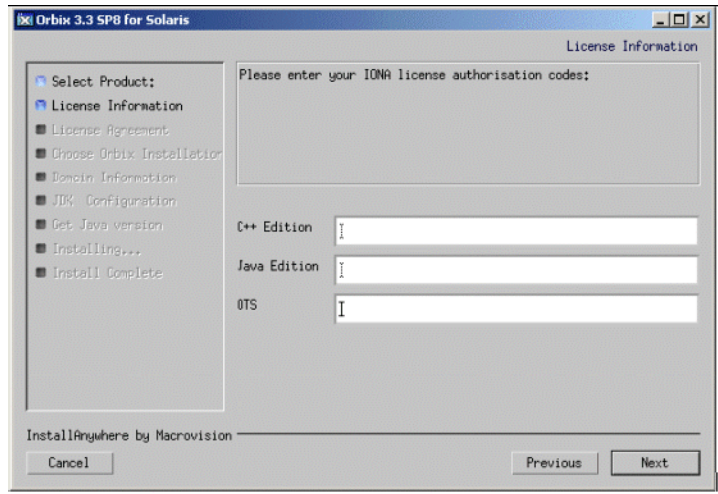
1. After the JRE is initialized, a progress bar is displayed as the installer prepares to begin the installation process.



2. In the **Select Product** screen, select the Orbix 3.3 SP 9 product set that you purchased and click **Next** to continue.



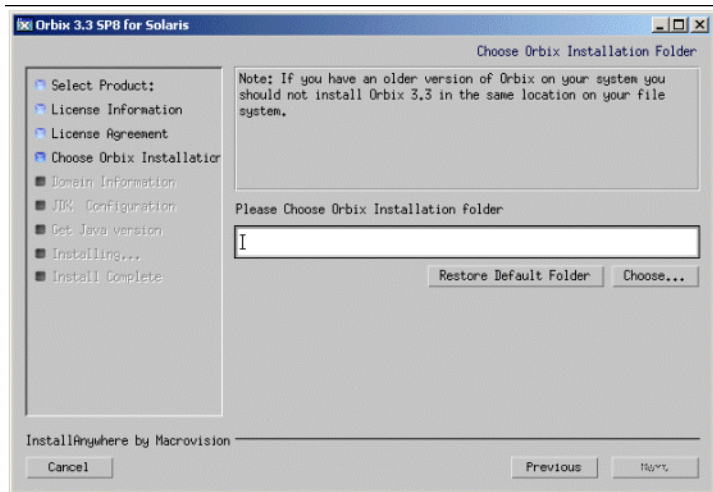
3. In the **License Information** screen, enter the IONA license code(s) you have purchased in the appropriate text field(s). Click **Next** to continue.



The license keys requested here will depend on the product set you selected in the previous screen.

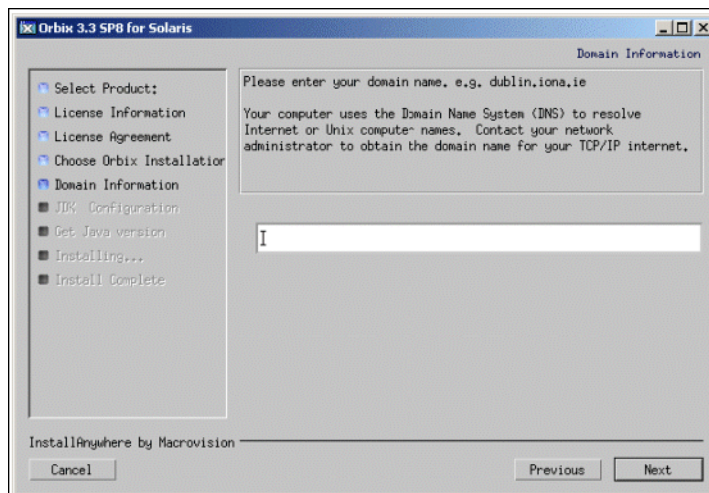
4. In the **License Agreement** screen, click **Yes** to agree to the terms of the License Agreement then click **Next** to continue.

5. In the **Orbix Installation Folder** screen, enter the file location that you wish to install Orbix 3.3 SP 9 into, and click **Next** to continue.

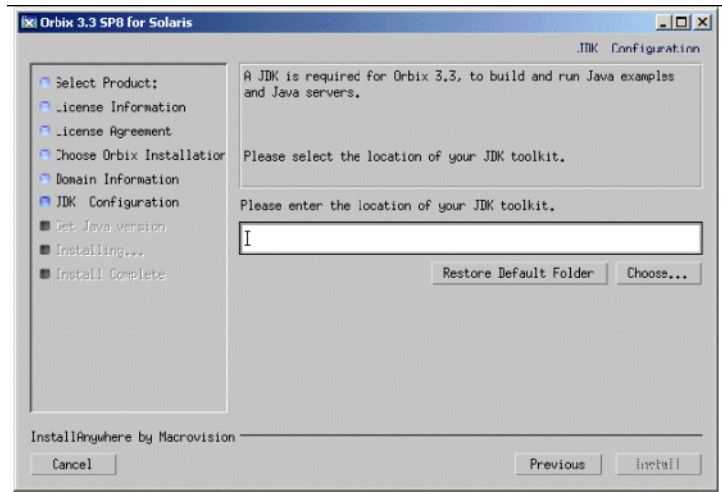


Note: You must have permission to create files and directories in this location.

6. In the **Domain Information** screen, enter your domain information, and click **Next** to continue.

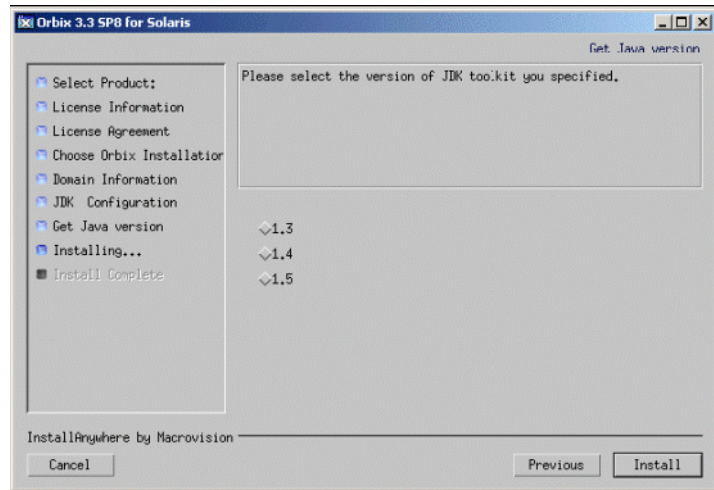


7. In the **JDK Configuration** screen, enter the location of your Java Development Kit. This is not required for Orbix 3.3 SP 9 C++ edition.



Click **Next** to continue.

8. In the **Get Java Version** screen, select the version of your Java Development Kit, and click **Next** to continue.



9. A progress bar will be displayed while the files are installed.
10. After the installation is complete the Orbix Welcome Page launches automatically.
11. The **Install Complete** screen is displayed to confirm that the installation is finished. Click **Done** to finish the installation.

Verifying Your Installation

Configuration Checks

When the installation is complete, follow these steps to ensure correct operation:

1. Check the contents of the Orbix configuration files, to ensure that the specified directory paths and domain name match those for your site.

| Platform | Location |
|----------|---|
| UNIX | /opt/iona/config/iona.cfg /opt/iona/config/common.cfg /opt/iona/config/idlgen.cfg /opt/iona/config/orbix3.cfg /opt/iona/config/orbixweb3.cfg /opt/iona/config/orbixnames3.cfg /opt/iona/config/orbixevents.cfg /opt/iona/config/orbixots.cfg |
| Windows | C:\iona\config\iona.cfg C:\iona\config\common.cfg C:\iona\config\idlgen.cfg C:\iona\config\orbix3.cfg C:\iona\config\orbixweb3.cfg C:\iona\config\orbixnames3.cfg C:\iona\config\orbixevents.cfg C:\iona\config\orbixots.cfg |

2. Read the *Orbix 3.3 SP 9 Release Notes*.

- Before attempting to run the orbix daemon or the orbix java activator from a terminal or command shell, run the supplied scripts which set the following environment variables `IT_CONFIG_PATH`, `IONA_ROOT`, `JAVAHOME` and `PATH`. The scripts are run by typing the following commands in a terminal:

| Platform | Command |
|----------|--|
| UNIX | <code>/opt/iona/setenvs.sh (or setenvs.csh)</code> |
| Windows | <code>C:\iona\setenvs.bat</code> |

Testing Your Orbix 3.3 SP 9 Java Edition Installation

To ensure that your installation is fully operational, you should change directory to the demos directory of your Orbix 3.3 SP 9 installation, for example:

| Platform | Location | Make command |
|----------|--|--------------------------|
| UNIX | <code>/opt/iona/demos/common/jumpstart/basic/java</code> | <code>make</code> |
| Windows | <code>C:\iona\demos\common\jumpstart\basic\java</code> | <code>compile.bat</code> |

Read the `index.html` file for instructions to run the demonstration program.

Testing Your Orbix 3.3 SP 9 C++ Edition Installation

To ensure that your installation is fully operational, you should change directory to the demos directory of your Orbix 3.3 SP 9 installation, for example:

| Platform | Location | Make command |
|----------|---|--------------------------|
| UNIX | <code>/opt/iona/demos/common/jumpstart/basic/cxx</code> | <code>make</code> |
| Windows | <code>C:\iona\demos\common\jumpstart\basic\cxx</code> | <code>compile.bat</code> |

Read the `index.html` file for instructions to run the demonstration program.

Reinstalling the License Code

If the licensed applications fail to run (e.g. orbixd, idl, idlj, libEncinaServerOrbix, libEncinaClientOrbix) you may have made an error in entering your license authorization code. You can reinstall the licence by changing to the bin directory of your Orbix 3.3 SP 9 installation and typing in the following line, using your authorization code as indicated in the example below (replace "orbixd" with the filename of the application that fails to run, and replace licence_code with your licence authorization code).

| Platform | Command |
|----------|--|
| UNIX | <code>install_license orbixd licence_code</code> |
| Windows | <code>license.exe orbixd licence_code</code> |

The following Orbix 3.3 SP 9 application files are enabled by the corresponding Orbix 3.3 SP 9 product license authorization codes:

| Application | Java Edition code | C++ Edition code | OrbixOTS code |
|------------------------------------|-------------------|------------------|---------------|
| orbixd - Orbix C++ Daemon | Code enables | Code enables | - |
| idl - Orbix C++ IDL compiler | - | Code enables | - |
| idlj - Orbix Java IDL compiler | Code enables | - | - |
| libEncinaServerOrbix - OTS library | - | - | Code enables |
| libEncinaClientOrbix - OTS library | - | - | Code enables |
| update - SSL update utility* | Code enables | Code enables | - |

Structure of Installed Directories

A complete installation of Orbix 3.3 SP 9 will have the following directory structure in the install location:

| Directory | Description |
|--------------------|---|
| \bin | Binary images for all components |
| \COMet | OrbixCOMet SDK and utilities (Windows 2000 only) |
| \config | Repositories and configuration files for all components |
| \contrib | Utilities contributed by IONA engineers and partners |
| \demos | Demonstrations for all components |
| \docs | Links to the latest information on Orbix 3.3 SP 9 |
| \idl | IDL files |
| \include | Header files |
| \lib | Development libraries |
| \OrbixSSL | OrbixSSL files, utilities and examples (OrbixSSL installation required) |
| \tools | GUI Tools |
| \UninstallOrbix | Files for uninstalling Orbix 3.3 SP 9 |
| \UninstallOrbixSSL | Files for uninstalling OrbixSSL 3.3 SP 9 (OrbixSSL installation required) |
| \Wonderwall | Orbix Wonderwall files, utilities and examples |

Uninstalling Orbix 3.3 SP 9

To uninstall Orbix 3.3 SP 9 run the UninstallOrbix file in the UninstallOrbix directory of your Orbix 3.3 SP 9 installation, examples are given below:

| Platform | Uninstall script |
|----------|--|
| UNIX | <code>/opt/iona/UninstallOrbix/UninstallOrbix</code> |
| Windows | <code>C:\iona\UninstallOrbix\UninstallOrbix</code> |

Note: The Uninstaller will remove the complete installation of Orbix 3.3 SP 9, but it will not remove any files that were added or generated after installation (for example, log files, executables generated in demo runs, implementation repositories, and so on). If OrbixSSL has been installed, it should be uninstalled first.

Further Information

If you require further technical assistance in using this product, please contact support@iona.com.