



Orbix[®] 3.3

Core Services Installation Guide

Service Pack 9, July 2007

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Installing Orbix 3.3 SP9 Core Services

This release of Orbix 3.3 SP 9 Core Services is available for Red Hat Enterprise Linux 3 and 4, Windows XP, Windows 2003 Server, Windows Vista 64-bit, AIX 5.2 and AIX 5.3. It supports Orbix Java edition, Orbix C++ edition, and OrbixNames.

For details of installing Orbix 3.3 SP9 on other platforms see the Orbix 3.3 Service Pack 9 Installation Guide.

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Introduction

Product sets

This document provides instructions for installing Orbix 3.3 SP 9 on Red Hat Enterprise Linux, Microsoft Windows and AIX.

Note: For details of installing Orbix 3.3 SP 9 on other platforms see the *Orbix 3.3 Service Pack 9 Installation Guide*.

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

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

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

Product components

Orbix 3.3 SP 9 is comprised of the Development Platform for Java, the Development Platform for C++, and OrbixNames.

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.

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.

Before You Begin Your Installation

Before you install Orbix 3.3 SP 9, we recommend that you read the *Orbix 3.3 SP 9 Release Notes*.

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/pcanywhere32/ver10.5/manuals/pca_105_user.pdf.

Orbix 3.3 SP 8 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 OrbixNames. 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 two product sets: Orbix 3.3 SP 9 Java edition and Orbix 3.3 SP 9 C++ edition. You can purchase the Java edition and the C++ edition separately or together.

Component	Java Edition	C++ Edition
Development Platform for Java	Enabled	-
Development Platform for C++	-	Enabled

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>UNIX</p> <p>To install into the default location, UNIX users must have root privileges.</p>
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</p> <pre>imaginary.dublin.iona.ie: export DISPLAY=imaginary.dublin.iona.ie:0.0</pre> <p>Contact your system administrator if you require assistance with this.</p>

Prerequisite	Notes
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.</p> <p>The JRE is available from:</p> <p>Windows JRE</p> <p>The Windows Installer includes a JRE (version 1.5).</p> <p>Linux</p> <p>http://java.sun.com/downloads/index.html</p> <p>Be sure to install all required patches.</p> <p>AIX</p> <p>http://www-128.ibm.com/developerworks/java/jdk/aix/service.html</p> <p>Be sure to install all required patches.</p>
Domain Name	<p>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.</p>

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/NT51VC80/install1.exe	Windows Installer (with JRE) - Windows XP/Visual Studio 2005

Installation CD-ROM	Description
/cdrom/NT52VC71/install.exe	Windows Installer (with JRE) - Visual Studio .NET 2003
/cdrom/NT6452VC80/install.exe	Windows Installer (with JRE) - Visual Studio 2005 x64
/cdrom/RHLINUX3/install.bin	Red Hat Enterprise Linux 3 (without JRE)
/cdrom/RHLINUX4/install.bin	Red Hat Enterprise Linux 4 (without JRE)

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
Linux	<code>mount -t iso9660 /dev/cdrom /cdrom</code>

Operating Systems

In regard to the operating system patches listed in this installation 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
Red Hat Linux AS 3.0	<p>These patches can be displayed with the following commands:</p> <p>Linux kernel:</p> <p>Command: <code>rpm -q kernel</code></p> <p>Required version: <code>kernel-2.4.21-32.0.1.EL</code></p> <p>GCC 3.2.3 runtime and development environment:</p> <p>Command: <code>rpm -q gcc</code></p> <p>Required version: <code>gcc-3.2.3-52</code></p> <p>Command: <code>rpm -q gcc-c++</code></p> <p>Required version: <code>gcc-c++-3.2.3-52</code></p> <p>Command: <code>rpm -q libstdc++</code></p> <p>Required version: <code>libstdc++-3.2.3-52</code></p> <p>Command: <code>rpm -q libgcc</code></p> <p>Required version: <code>libgcc-3.2.3-52</code></p> <p>Command: <code>rpm -q binutils</code></p> <p>Required version: <code>binutils-2.14.90.0.4-37</code></p> <p>Note: It is recommended to update the system to the latest available packages through the Red Hat Update Agent, which can be executed by typing the command <code>up2date</code> from a shell prompt.</p>
Windows XP Professional	Service Pack 2
Windows 2003 R2 Server Standard Edition	Service Pack 1
Windows 2003 Server Standard Edition	Service Pack 1

Operating System	Required Operating System Patches
Windows 2003 R2 Server Enterprise X64 Edition	Service Pack 1
Windows Vista Ultimate X64 Edition	
Red Hat Linux ES 4.0	<p>These patches can be displayed with the following commands:</p> <p>Linux kernel:</p> <p>Command: <code>rpm -q kernel</code></p> <p>Required version: <code>kernel-2.6.9-42.0.10.EL</code></p> <p>GCC 3.4.6 runtime and development environment:</p> <p>Command: <code>rpm -q gcc</code></p> <p>Required version: <code>gcc-3.4.6-3.1</code></p> <p>Command: <code>rpm -q gcc-c++</code></p> <p>Required version: <code>gcc-c++-3.4.6-3.1</code></p> <p>Command: <code>rpm -q libstdc++</code></p> <p>Required version: <code>libstdc++-3.4.6-3.1</code></p> <p>Command: <code>rpm -q libgcc</code></p> <p>Required version: <code>libgcc-3.4.6-3.1</code></p> <p>Command: <code>rpm -q binutils</code></p> <p>Required version: <code>binutils-2.15.92.0.2-21</code></p> <p>Note: It is recommended to update the system to the latest available packages through the Red Hat Update Agent, which can be executed by typing the command <code>up2date</code> from a shell prompt.</p>

Operating System	Required Operating System Patches
AIX 5.2	<p>Maintenance Level 5200-07 for AIX operating system 5.2.</p> <p>Use the <code>oslevel -r</code> command to determine the current operating system level.</p> <p>February 2007 XL C/C++ Enterprise Edition V7.0 for AIX PTF.</p> <p>April 2007 IBM C++ Runtime Environment Components for AIX.</p> <p>64-bit libraries are only supported on AIX 64-bit kernels. Use the following command to determine the current operating system kernel type:</p> <pre>lsconf l grep kernel</pre>
AIX 5.3	<p>Maintenance Level 5300-03 for AIX operating system 5.3.</p> <p>Use the <code>oslevel -r</code> command to determine the current operating system level.</p> <p>February 2007 XL C/C++ Enterprise Edition V7.0 for AIX PTF.</p> <p>April 2007 IBM C++ Runtime Environment Components for AIX.</p> <p>64-bit libraries are only supported on AIX 64-bit kernels. Use the following command to determine the current operating system kernel type:</p> <pre>lsconf l grep kernel</pre>

Development Environment Prerequisites

For details of the JDK versions and C++ compilers with which Orbix 3.3 SP 9 was built and tested, see the following link:

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

Disk Space Requirements

The following table lists the approximate amount of disk space taken up by the Orbix 3.3 SP 9 files. The install program also requires approximately 50MB of temporary work space.

Component	Linux	Windows
Development Environment for Java & C++	125MB	140MB
Documentation	75MB	75MB

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 Developemnt 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
##-----
```

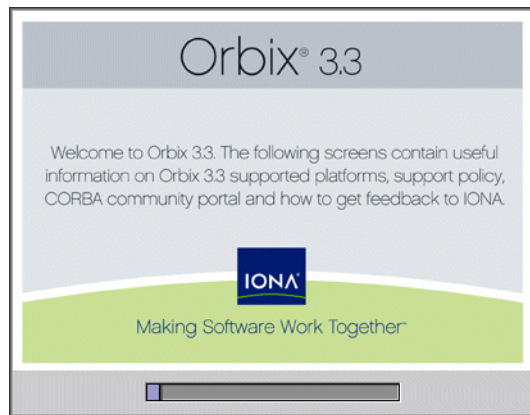
Installing Orbix 3.3 SP 9 With the GUI

Overview

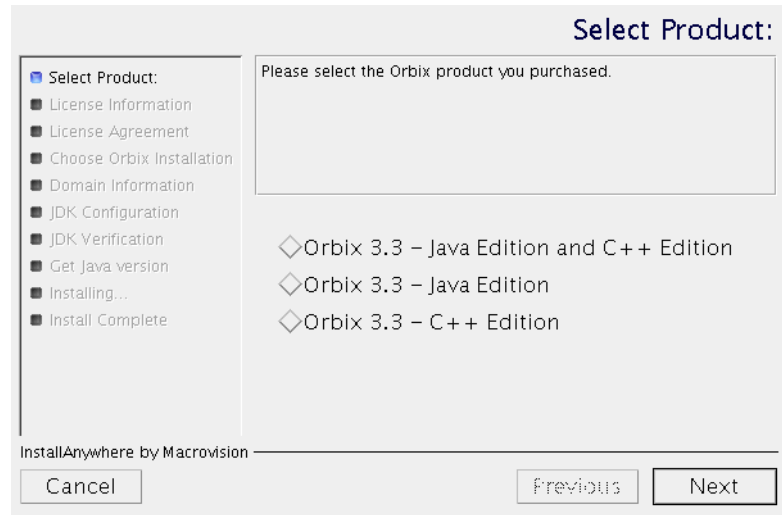
The screens shown in this section refer specifically to Red Hat Linux AS 3.0. However, the same install screen layout is provided for Windows 2003 Server.

Installation steps

1. After the JRE is installed,



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



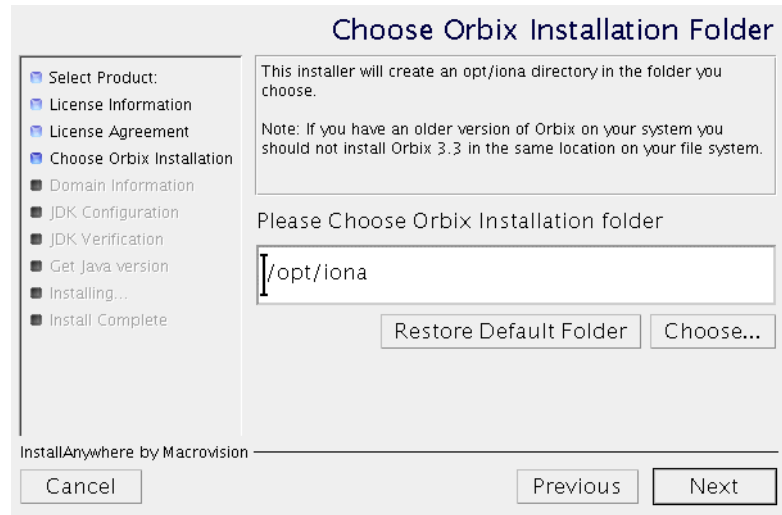
3. In the **License Information** screen, enter the IONA license code(s) you have purchased in the appropriate text field(s). Click **Next** to continue.

The screenshot shows the 'License Information' window. On the left is a vertical list of steps: 'Select Product:' (checked), 'License Information' (checked), 'License Agreement', 'Choose Orbix Installation', 'Domain Information', 'JDK Configuration', 'JDK Verification', 'Get Java version', 'Installing...', and 'Install Complete'. The main area contains the instruction 'Please enter your IONA license authorisation codes:' followed by two text input fields labeled 'C++ Edition' and 'Java Edition'. At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons. The text 'InstallAnywhere by Macrovision' is visible at the bottom left of the window.

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.

Domain Information

Select Product:
 License Information
 License Agreement
 Choose Orbix Installation
 Domain Information
 JDK Configuration
 JDK Verification
 Get Java version
 Installing...
 Install Complete

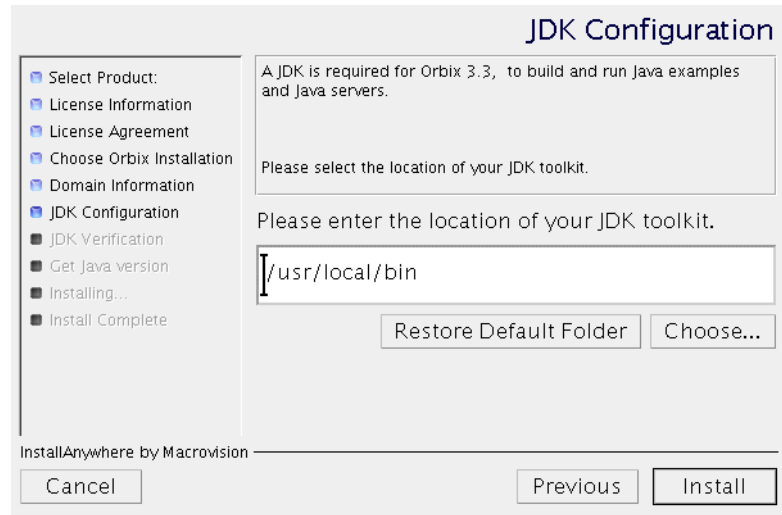
Please enter your domain name. e.g. dublin.iona.ie

Your computer uses 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.

InstallAnywhere by Macrovision

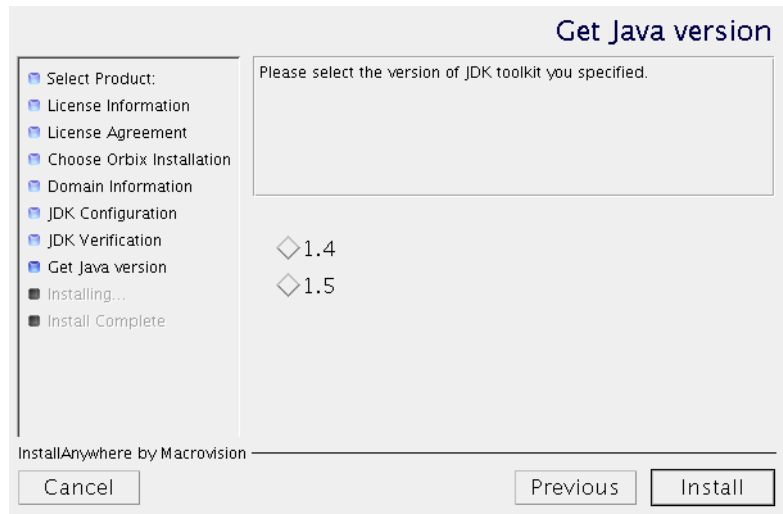
Cancel Previous Next

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.

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



- A progress bar will be displayed while the files are installed.
- After the installation is complete the Orbix Welcome Page launches automatically.
- 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	<code>/opt/iona/config/iona.cfg</code> <code>/opt/iona/config/common.cfg</code> <code>/opt/iona/config/orbix3.cfg</code> <code>/opt/iona/config/orbixweb3.cfg</code> <code>/opt/iona/config/orbixnames3.cfg</code>
Windows	<code>C:\iona\config\iona.cfg</code> <code>C:\iona\config\common.cfg</code> <code>C:\iona\config\orbix3.cfg</code> <code>C:\iona\config\orbixweb3.cfg</code> <code>C:\iona\config\orbixnames3.cfg</code>

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

3. 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>make</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>make</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) 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 product license authorization codes:

Application	Java Edition code	C++ Edition code
orbixd - Orbix C++ Daemon	Code enables	Code enables
idl - Orbix C++ IDL compiler	-	Code enables
idlj - Orbix Java IDL compiler	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
<code>\bin</code>	Binary images for all components
<code>\config</code>	Repositories and configuration files for all components
<code>\contrib</code>	Utilities contributed by IONA engineers and partners

Directory	Description
\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
\tools	GUI Tools
\UninstallOrbix	Files for uninstalling Orbix 3.3 SP 9

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	/opt/iona/UninstallOrbix/UninstallOrbix
Windows	C:\iona\UninstallOrbix\UninstallOrbix

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).

Further Information

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

