

Orbix 3.3.16

Installation Guide

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Installing Orbix 3.3 SP 16

This document provides instructions for installing Orbix 3.3 SP 16 on all supported platforms.

Introduction

This document provides instructions for installing Orbix 3.3 SP 16 on a wide range of platforms.

For a full list of supported platforms, see <http://supportline.microfocus.com/prodavail.aspx>

Product sets

Orbix 3.3 SP 16 consists of three product sets, each enabled by a separate license code:

- Orbix 3.3 SP 16 Java Edition
- Orbix 3.3 SP 16 C++ Edition

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

Product components

Orbix 3.3 SP 16 comprises the following components:

- Development Platform for Java
- Development Platform for C++
- OrbixNames

In addition OrbixSSL 3.3 SP 16 is separately available. For details on how to install OrbixSSL, see the ***OrbixSSL 3.3 SP 16 Installation Guide***.

JRE requirements

The Orbix 3.3 SP 16 installation was built with InstallAnywhere, which is a Java application. The installer requires a JRE (Java Runtime Environment). Before launching the installer, you should provide the JRE yourself (see "[Installation prerequisites](#)"), or use a pre-installed JRE or JDK.

Installation steps

To install Orbix 3.3 SP 16, follow these steps:

- Determine your installation type.
- Check the prerequisites for installing Orbix 3.3 SP 16.
- Install Orbix 3.3 SP 16 on your host machine.

- Verify your installation.

Note: Due to legal restrictions in some countries, OrbixSSL is supplied in a separate installer. OrbixSSL 3.3 SP 16 can be enabled with Orbix 3.3 SP 16 Java Edition or Orbix 3.3 SP 15 C++ Edition license codes.

Before you begin your installation

Before installing Orbix 3.3 SP 16, see the latest version of the **Orbix 3.3 SP 16 Release Notes**, and check for any updates to this **Installation Guide** on the following web page:

<http://supportline.microfocus.com/productdoc.aspx>

Note: When installing Orbix 3.3 SP 16 using PCAnywhere (a remote client), use a display resolution of type VGA (640 x 480).

Orbix 3.3 SP 16 license codes

You must have a valid license code to install Orbix 3.3 SP 16 Java Edition or Orbix 3.3 15 C++ Edition. All other components of Orbix 3.3 SP 16 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 16 pack. Otherwise, because Orbix 3.3 SP 16 is a service pack release of Orbix 3.3, the license codes provided for Orbix 3.3 are valid for Orbix 3.3 SP 16. If you do not have any license codes, please contact Support before proceeding further.

Determine your installation type

Orbix 3.3 SP 16 comprises two product sets:

- Orbix 3.3 SP 16 Java Edition
- Orbix 3.3 SP 16 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
OrbixNames	Enabled	Enabled

Prerequisites to Installing Orbix 3.3 SP 16

Existing Orbix installations

If you install Orbix 3.3 SP 16 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 16 in a new location on your file system.

Installation prerequisites

The prerequisites for installing Orbix 3.3 SP 16 are as follows:

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>
UNIX DISPLAY	<p>The installer was built using InstallAnywhere, which is a GUI application. To install Orbix 3.3 SP 16 without the GUI, see "Installing Orbix 3.3 SP 16 without the GUI".</p> <p>For a GUI application to run on UNIX, you must install on a UNIX host with X and a windowing environment configured. 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>orbix-dev.microfocus.com</code>:</p> <pre>export DISPLAY=orbix-dev.microfocus.com:0.0</pre> <p>Contact your system administrator if you require assistance.</p>
JRE	<p>The installer was built using InstallAnywhere, which is a Java application, and requires a JRE. You must provide the location of the JRE for the installation to run.</p> <p>You need access on all platforms to an existing JRE (or JDK). Alternatively, you should obtain and install the JRE yourself on your system before running the installer. When installing a JRE, install all required patches on all platforms.</p>
Domain name	<p>The installer requires your domain name for Orbix 3.3 SP 16 configuration 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 16.</p>

Obtaining the installers

Ensure that you have the correct installers for your platform. The table below shows the installer file names for each platform.

Platform	Orbix installer
AIX	microfocus_orbix_3_3_16_aix.bin
Solaris (Sparc)	microfocus_orbix_3_3_16_solaris.bin
Solaris (x86)	microfocus_orbix_3_3_16_solaris_x86.bin
Solaris (x64)	microfocus_orbix_3_3_16_solaris_x64.bin
HP-UX ia64 11v31 (classic 32-bit)	microfocus_orbix_3_3_16_hpux_ia_classic.bin
HP-UX ia64 11v31 (classic 64-bit)	microfocus_orbix_3_3_16_hpux_ia_64_classic.bin
HP-UX ia64 11v31 (standard 32-bit)	microfocus_orbix_3_3_16_hpux_ia_standard.bin
HP-UX ia64 11v31 (standard 64-bit)	microfocus_orbix_3_3_16_hpux_ia_64_standard.bin
Linux (x86)	microfocus_orbix_3_3_16_linux.bin
Linux (x64)	microfocus_orbix_3_3_16_linux_x64.bin
Windows Visual Studio 2010 (32-bit)	microfocus_orbix_3_3_16_win_32_vs2010.exe
Windows Visual Studio 2010 (64-bit)	microfocus_orbix_3_3_16_win_64_vs2010.exe
Windows Visual Studio 2012 (32-bit)	microfocus_orbix_3_3_16_win_32_vs2012.exe
Windows Visual Studio 2012 (64-bit)	microfocus_orbix_3_3_16_win_64_vs2012.exe

Platform	Orbix installer
Windows Visual Studio 2013 (32-bit)	microfocus_orbix_3_3_16_win_32_vs2013.exe
Windows Visual Studio 2013 (64-bit)	microfocus_orbix_3_3_16_win_64_vs2013.exe
Windows Visual Studio 2015 (32-bit), Windows Visual Studio 2017 (32-bit), and Windows Visual Studio 2019 (32-bit)	microfocus_orbix_3_3_16_win_32_vs2015.exe
Windows Visual Studio 2015 (64-bit), Windows Visual Studio 2017 (64-bit), and Windows Visual Studio 2019 (64-bit)	microfocus_orbix_3_3_16_win_64_vs2015.exe

Operating systems and compilers

For the latest supported platform and compiler combinations, please refer to the following:

- 1 The [Product Availability page](#) for the latest information on platforms supported by Orbix 3.3 SP 16.
- 2 The "Platforms and Compilers" section of the **Orbix 3.3 SP 16 Release Notes**.

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 50 MB of temporary work space.

Component	Solaris	HP-UX
Development Environment for Java & C++	135 MB	140 MB
Documentation	75 MB	75 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/microfocus/orbix33

Platform	Default Location
Windows	C:\Program Files\Micro Focus\Orbix 3.3 SP16 for Windows
Windows (installing 32-bit kit on a 64-bit Windows)	C:\Program Files (x86)\Micro Focus\Orbix 3.3 SP16 for Windows

Note: Orbix 3.3 SP 16 installs in a fixed location relative to the path you specify.

Note: When installing Orbix 3.3 SP 16 on Windows in a folder protected by UAC (such as `Program Files` or `Program Files (x86)`), you must ensure that the following access permissions are set for the "Users" group on the installation folder:

- modify
- read + execute
- list folder contents
- read
- write

If these permissions are not set on the installation folder, you will need to ensure that the implementation repository, naming service and IFR run in elevated mode.

Installing Orbix 3.3 SP 16 without the GUI

Installing Orbix 3.3 SP 16 in 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.

Installing in silent mode

- 1 To install in silent mode, use the following command:

```
./<installer> -f /path/to/template.file
```

For example, to run the Solaris (Sparc) installer silently, issue the following command:

```
./microfocus_orbix_3_3_16_solaris.bin -f  
/path/to/template.file
```

template.file should contain the following information:

```
##Specimen properties for Solaris 2.9 silent install with licence codes
##-----
##C++, Java, and OTS
##-----
##Specify the directory where you want Orbix 3.3 SP 16 installed
USER_INSTALL_DIR=/path/to/install/dir
##Specify the location of your Java Development Kit
JAVA_LOCATION=/path/to/jdk/dir
JAVA_VERSION=1.6
INSTALLER_UI=SILENT
##Specify the components of Orbix you want to install
PRODUCTS="Orbix 3.3 - Java Edition and C++ Edition"
##Specify your licence keys: c++ and java
LICENCE_KEY_1=<Licence Key1>
LICENCE_KEY_2=<Licence Key2>
##Specify the domain for the installation
DOMAIN=emea.microfocus.com
```

- 2 The `LICENCE_KEY_1` and `LICENCE_KEY_2` lines signify the C++ and Java licence keys respectively. If you want to install just one license set (that is, C++ or Java, but not both), then you can modify the silent installer file as follows:

- To license only the C++ runtime:

```
PRODUCTS="Orbix 3.3 - C++ Edition"
LICENCE_KEY_1=<c++-licence-key>
```

- To license only the Java runtime:

```
PRODUCTS="Orbix 3.3 - Java Edition"
LICENCE_KEY_1=<java-licence-key>
```

Installing Orbix 3.3 SP 16 with the GUI

This section describes how to install Orbix 3.3. SP 16 using the GUI installer, which is based on InstallAnywhere.

Installation steps

To install Orbix 3.3. SP 16 using the GUI, perform the following steps:

- 1 In the **Select Product** screen, select the Orbix 3.3 SP 16 product set that you have purchased (for example, Orbix 3.3 Java Edition). Click **Next** to continue.
- 2 In the **License Information** screen, enter the license code(s) that you have purchased in the appropriate text field(s). Click **Next** to continue. The license keys requested here depend on the product set you selected in the previous screen.
- 3 In the **License Agreement** screen, click **Yes** to agree to the terms of the License Agreement, and click **Next** to continue.

- 4 In the **Choose Orbix Installation Folder** screen, enter the file location that you wish to install Orbix 3.3 SP 16 into (for example, `C:\orbix3`). Click **Next** to continue.

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

- 5 In the **Domain Information** screen, enter your domain name, and click **Next** to continue.
- 6 In the **JDK Configuration** screen, enter the location of your Java Development Kit. This is not required for Orbix 3.3 SP 16 C++ Edition. Click **Install** to continue.
- 7 A progress bar is displayed while the files are installed.
- 8 After the installation is complete, the Orbix welcome page launches automatically.
- 9 In the **Reboot Computer** screen, choose whether to restart your computer now or later.
- 10 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	\$ORBIX_ROOT/config/iona.cfg \$ORBIX_ROOT/config/common.cfg \$ORBIX_ROOT/config/orbix3.cfg \$ORBIX_ROOT/config/orbixweb3.cfg \$ORBIX_ROOT/config/orbixnames3.cfg
Windows	%ORBIX_ROOT%\config\iona.cfg %ORBIX_ROOT%\config\common.cfg %ORBIX_ROOT%\orbix3.cfg %ORBIX_ROOT%\orbixweb3.cfg %ORBIX_ROOT%\orbixnames3.cfg

- 2 Read the **Orbix 3.3 SP 16 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 that set the following environment variables:

```
IT_CONFIG_PATH
ORBIX_ROOT
```

JAVAHOME
PATH.

To run these scripts, type the following commands in a terminal:

Platform	Command
UNIX	<code>\$ORBIX_ROOT/setenvs.sh</code>
UNIX (to source a 64-bit environment in a mixed-mode installer)	<code>\$ORBIX_ROOT/setenvs64.sh</code>
Windows	<code>%ORBIX_ROOT%\setenvs.bat</code>

Testing your Orbix 3.3 SP 16 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 16 installation, for example:

Platform	Location	Make command
UNIX	<code>\$ORBIX_ROOT/demos/common/jumpstart/basic/java</code>	<code>make</code>
Windows	<code>%ORBIX_ROOT%\demos\common\jumpstart\basic\java</code>	<code>nmake</code>

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

Testing your Orbix 3.3 SP 16 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 16 installation, for example:

Platform	Location	Make command
UNIX	<code>\$ORBIX_ROOT/demos/common/jumpstart/basic/cxx</code>	<code>make</code>
Windows	<code>%ORBIX_ROOT%\demos\common\jumpstart\basic\cxx</code>	<code>nmake</code>

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

Note: If you are building the demos on a Linux system with the `-std=c++11` flag, you should set the environment variable `ORBIXCPP_STD=-std=c++11` before you start building.

Reinstalling the license code

If the licensed applications fail to run (for example, `orbixd`, `idl`, `idlj`), you may have made an error in entering your license authorization code.

You can reinstall the license by changing to the `bin` directory of your Orbix 3.3 SP 16 installation, and typing the following line, using your authorization code as shown in the following example:

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

You should replace `orbixd` with the filename of the application that fails to run, and replace `licence_code` with your licence authorization code.

The following Orbix 3.3 SP 16 application files are enabled by the corresponding Orbix 3.3 SP 16 product license authorization codes:

Application	Java Edition code	C++ Edition code
<code>orbixd</code> - Orbix C++ Daemon	Code enables	Code enables
<code>idl</code> - Orbix C++ IDL compiler	-	Code enables
<code>idlj</code> - Orbix Java IDL compiler	Code enables	-

Structure of installed directories

A complete installation of Orbix 3.3 SP 16 has the following directory structure in the installation 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 Orbix engineers and partners
<code>\demos</code>	Demonstrations for all components
<code>\docs</code>	Links to the latest information on Orbix 3.3 SP 16
<code>\idl</code>	IDL files
<code>\include</code>	Header files
<code>\lib</code>	Development libraries

Directory	Description
\OrbixSSL	OrbixSSL files, utilities and examples (OrbixSSL installation required)
\tools	GUI Tools
\UninstallOrbix	Files for uninstalling Orbix 3.3 SP 16

Changing Java version after installation

After you have installed Orbix 3.3.16, it is possible to alter the version of Java that is used. This may be useful in circumstances where there is a demand to move to another version of Java for improved security features.

- 1 Ensure that all Orbix servers and the Orbix daemon are stopped.
- 2 Open the `common.cfg` configuration file located at: `<orbix-installation>/config/common.cfg`
- 3 Change the line:

```
IT_JAVA_INTERPRETER = "c:\java\java8\bin\java.exe";
```

to

```
IT_JAVA_INTERPRETER =
"c:\java\updated_java8\bin\java.exe";
```
- 4 Open up the environment script (this may be `setenvs.bat` file on Windows or a `setenvs(64).sh` file on Unix systems) located at the root of the installation tree.

Change the value that the `JAVA_HOME` environment variable is set to.

- 5 If the JDK being updated is Java 11, then switch to the [Changing to Java 11](#) section before step 6.
- 6 This completes migrating to the new version of Java. Re-run the updated environment scripts.
- 7 Restart the Orbix daemon.

Changing to Java 11

Changing to Java 11 will require some more changes. These extra changes are in the same environment script in which you already updated the `JAVA_HOME` environment variable.

Change the following environment variables:

- Change `IT_JAVA_MODERN` to `"true"`.
- Change `JAVA_P_FLAG` to `"/a"`.

Note: Any Java servers that were registered in the IMR (implementation repository) may need to be recreated.

Uninstalling Orbix 3.3 SP 16

Uninstalling Orbix

To uninstall Orbix 3.3 SP 16, run the `UninstallOrbix` file in the `UninstallOrbix` directory of your Orbix 3.3 SP 16 installation. For examples:

Platform	Uninstall script
UNIX	<code>\$(ORBIX_ROOT)/UninstallOrbix/UninstallOrbix</code>
Windows	<code>%ORBIX_ROOT%\UninstallOrbix\UninstallOrbix</code>

Note: The uninstaller removes the complete installation of Orbix 3.3 SP 16, but does not remove any files 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

Technical support

If you require further technical assistance with using this product, please see the following web page:

<https://supportline.microfocus.com/>