MICRO FOCUS

Orbix 6.3.11

Installation Guide

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Contents

Installation Prerequisites

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

Before You Begin

See the Release Notes

Before installing, visit the documentation web page at: https://supportline.microfocus.com/productdoc.aspx, and read the **Release Notes** to check for updates to this **Installation Guide**.

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 are 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 Orbix product.

Migration

For detailed information on migrating from Orbix Application Server Platform 6.0, 5.1, 5.0, Orbix 2000, and Orbix 3.3 to Orbix 6.3, please refer to the migration guides on the documentation web page at https://supportline.microfocus.com/productdoc.aspx.

For details on migrating from previous versions of Orbix 6.3, see the **Release Notes**.

Windows compiler names

Table 1 shows the translation between Microsoft Windows VC names and Visual Studio compiler editions used in this guide. It also shows the version output by Microsoft C/C++ Compiler Driver (`cl.exe`).

Table 1: *Microsoft VC and Visual Studio Names*

Visual Studio Edition	VC Name	Output by cl.exe
Visual Studio 2008	VC9	15.x.x
Visual Studio 2010	VC10	16.x.x
Visual Studio 2012	VC11	17.x.x
Visual Studio 2013	VC12	18.x.x
Visual Studio 2015	VC14	19.x.x
Visual Studio 2017	VC15	20.x.x

Operating Requirements

For the latest information on supported platforms, see:

http://supportline.microfocus.com/prodavail.aspx

Java

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

Windows

If you are installing on Windows and intending to develop systems in C++, you need Microsoft Visual Studio. You should install this before installing Orbix.

If you are deploying an Orbix application, you need the Visual C++ Redistributable Package. Install the version of the Redistributable that matches the version of Visual Studio used to develop the application. These Redistributable Packages are available for download from Microsoft.

Disk Space Requirements

Table 2 lists the approximate amount of disk space (in MB) required to install Orbix 6.3.11.

Table 2:   *Disk Space Requirements*

Orbix Installer	Orbix Standard Runtime (32-bit)	Orbix Standard Runtime (64-bit)	Orbix Standard Dev. & Runtime	Orbix Enterprise Runtime (32-bit)	Orbix Enterprise Runtime (64-bit)	Orbix Enterprise Dev. & Runtime
AIX (32-bit)	337	-	390	337	-	390
AIX (64-bit)	-	388	449	-	388	449
HP-UX (Itanium)	436	835	960	436	835	960
Linux	175	336	375	175	375	375
Solaris (SPARC)	208	417	462	208	417	462
Solaris 10, Solaris11 (x86, x64)	200	409	454	200	409	454
Windows 32-bit (VS 2008)	124	-	171	124	-	171
Windows 64-bit (VS 2008)	-	140	187	-	140	187
Windows 32-bit (VS 2010)	124	-	171	124	-	171
Windows 64-bit (VS 2010)	-	135	183	-	135	183
Windows 32-bit (VS 2012)	124	-	170	124	-	170
Windows 64-bit (VS 2012)	-	134	181	-	134	181
Windows 32-bit (VS 2013)	124	-	171	124	-	171
Windows 64-bit (VS 2013)	-	134	181	-	134	181

Table 2:   *Disk Space Requirements*

Orbix Installer	Orbix Standard Runtime (32-bit)	Orbix Standard Runtime (64-bit)	Orbix Standard Dev. & Runtime	Orbix Enterprise Runtime (32-bit)	Orbix Enterprise Runtime (64-bit)	Orbix Enterprise Dev. & Runtime
Windows 32-bit (VS 2015)	123	-	169	123	-	169
Windows 64-bit (VS 2015)	-	133	180	-	133	180
Windows 32-bit (VS 2017)	123	-	168	123	-	168
Windows 64-bit (VS 2017)	-	133	180	-	133	180

Note: You 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`.

Installing Orbix

Before you install Orbix 6.3, check the system requirements and familiarize yourself with the steps involved in installing the product.

Launching the Installer

This section explains how to launch the Orbix installer. It includes the following sections:

- Obtain the installer for your platform
- Before running the installer
- Running the installer
- Installing on UNIX
- Installation directory
- Screen resolution

Obtain the installer for your platform

Ensure that you have the appropriate Orbix installer for your platform. Table 3 shows the installer file names for each platform. (For Windows systems, see Table 1 for the equivalence between your Visual Studio edition and the VC number required.)

Table 3: *Orbix 6.3.11 Installer Files*

Platform	Orbix installer
Orbix 6.3.11 for Windows (Visual Studio 2008 32-bit)	`microfocus_orbix_6.3.11_win_32_vs2008.exe`
Orbix 6.3.11 for Windows (Visual Studio 2010 32-bit)	`microfocus_orbix_6.3.11_win_32_vs2010.exe`
Orbix 6.3.11 for Windows (Visual Studio 2012 32-bit)	`microfocus_orbix_6.3.11_win_32_vs2012.exe`
Orbix 6.3.11 for Windows (Visual Studio 2013 32-bit)	`microfocus_orbix_6.3.11_win_32_vs2013.exe`
Orbix 6.3.11 for Windows (Visual Studio 2015 32-bit)	`microfocus_orbix_6.3.11_win_32_vs2015.exe`
Orbix 6.3.11 for Windows (Visual Studio 2017 32-bit)	`microfocus_orbix_6.3.11_win_32_vs2017.exe`
Orbix 6.3.11 for Windows (Visual Studio 2008 64-bit)	`microfocus_orbix_6.3.11_win_64_vs2008.exe`
Orbix 6.3.11 for Windows (Visual Studio 2010 64-bit)	`microfocus_orbix_6.3.11_win_64_vs2010.exe`
Orbix 6.3.11 for Windows (Visual Studio 2012 64-bit)	`microfocus_orbix_6.3.11_win_64_vs2012.exe`

Table 3: *Orbix 6.3.11 Installer Files*

Platform	Orbix installer
Orbix 6.3.11 for Windows (Visual Studio 2013 64-bit)	`microfocus_orbix_6.3.11_win_64_vs2013.exe`
Orbix 6.3.11 for Windows (Visual Studio 2015 64-bit)	`microfocus_orbix_6.3.11_win_64_vs2015.exe`
Orbix 6.3.11 for Windows (Visual Studio 2017 64-bit)	`microfocus_orbix_6.3.11_win_64_vs2017.exe`
Orbix 6.3.11 for AIX (32-bit)	`microfocus_orbix_6.3.11_aix_32.bin`
Orbix 6.3.11 for AIX (64-bit)	`microfocus_orbix_6.3.11_aix_64.bin`
Orbix 6.3.11 for HP-UX Itanium	`microfocus_orbix_6.3.11_hpux_64_ia.bin`
Orbix 6.3.11 for Red Hat Enterprise Linux	`microfocus_orbix_6.3.11_lnx.bin`
Orbix 6.3.11 for Solaris SPARC	`microfocus_orbix_6.3.11_sol.bin`
Orbix 6.3.11 for Solaris x86	`microfocus_orbix_6.3.11_sol_x86.bin`

You can either download the Orbix installer, or install from a DVD. Contact Micro Focus technical support for details.

For full details of supported platforms and compilers, see

Before running the installer

Existing Orbix installations

For existing Orbix installations, please note the following:

- Existing installations should be backed up prior to upgrading in case of catastrophic failure (power, disk, and so on) during Orbix 6.3.11 installation.

- If you have a previous version of Orbix 6.3.x installed, point the 6.3.11 installer at your existing Orbix 6.3 directory and it will automatically overwrite the existing version.

For more details on upgrading from a previous Orbix 6.3 version, see

Setting the PATH variable on Windows

The installer is an executable that requires a Java Virtual Machine. On Windows, the PATH environment variable controls which Java virtual machine is used to install the product.

If during installation you select a mismatching Java virtual machine, the Orbix Configuration tool will flag this as an error and refuse to run. If you encounter this, set the JAVA_HOME environment variable to the location of the matching JDK.

Running the installer

To run the Orbix installer file, complete the following steps:

1. Download the installer file into a temporary directory (for example, \temp on Windows, or /tmp on UNIX).
2. Run the installation executable to launch InstallAnywhere:
   - On UNIX, `microfocus_orbix_6.3.11_<platform>.bin`
   - On Windows, `microfocus_orbix_6.3.11_<version>.exe`
3. Follow the instructions in "Installing with the GUI" on page 8.

Installing on UNIX

The following 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 GUI mode. To run the installer in console mode, run it as follows:

  `microfocus_orbix_6.3.11_<platform>.bin -i console`

- If during the installation a warning message is issued, indicating there is not enough space on the file system to install Orbix:
  - Check that the file system does indeed have enough space.
  - If it does, set the following environment variable and re-run the installer:

    `export CHECK_DISK_SPACE=OFF`

Installation directory

When entering the pathname for your Orbix 6.3 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 6.3 GUI, you should set your screen color depth to at least 256 colors.

Installing with the GUI

To install Orbix 6.3 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 6.3 as follows:

Windows

The default install path is:

```
C:\Program Files\MicroFocus\Orbix
```

> **Note:** If you are installing a 32-bit version of Orbix on Windows 64-bit, you must change the install path to `C:\Program Files (x86)\....` On Windows 64-bit, all 32-bit applications must use this path. 64-bit versions of Orbix can use `C:\Program Files\....`

The following table shows the recommended install paths:

	Orbix 32-bit	Orbix 64-bit
Install Path on Win64	`C:\Program Files (x86)\...`	`C:\Program Files\...`
Install Path on Win32	`C:\Program Files\...`	Not supported

UNIX

The default install path is:

```
/opt/microfocus/orbix
```

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

Click **Next** to proceed.

Choose Install Set to Install

Choose the product edition for which you have a license. If you are installing on a platform with both 32-bit and 64-bit versions, the options are:

* Enterprise Edition with Development and Runtime
* Enterprise Edition with Runtime (32-bit)
* Enterprise Edition with Runtime (32-bit and 64-bit)
* Standard Edition with Development and Runtime
* Standard Edition with Runtime (32-bit)
* Standard Edition with Runtime (32-bit and 64-bit)

> **Note:**
> * If you are installing a 32-bit only edition, make sure you are using a 32-bit JDK.
> * If you are planning to use Java 8 on Solaris or Java 11 on any platform, make sure to install an edition with 64-bit support, as these Java versions are 64-bit only.

If you are installing on a platform that is only 32-bit or only 64-bit, the options are:

* Enterprise Edition with Development and Runtime
* Enterprise Edition with Runtime
* Standard Edition with Development and Runtime
* Standard Edition with Runtime

In these options:

* **Development and Runtime** installs all Orbix 6.3 development and runtime components.
* **Runtime Only** installs Orbix 6.3 runtime components only.

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 from the command line or from the Start menu shortcut.

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 prompted 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:**
>
> - If you plan to launch any Orbix domain service on machine startup (you can configure such services later during deployment with `itconfigure`; see the ***Orbix Deployment Guide*** for details), select **Set the variables for all users**, as the system path needs to be set for the Windows services.
> - 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

If you have installed a Development and Runtime edition of Orbix 6.3, 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, to help you get up and running quickly. To view the Welcome Page in the future, open the `index.html` file located in the `OrbixInstallDir`\asp\6.3\doc directory in a browser.

Documentation

Orbix 6.3 documentation is available on the Orbix documentation web page at:
https://supportline.microfocus.com/productdoc.aspx.

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

Installing Silently

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 6.3 silently and provides you with a sample `installer.properties` file. It is divided into the following subsections:

- Sample installer.properties file
- Installing silently on UNIX
- Installing silently on Windows

Sample installer.properties file

To install silently on either UNIX or Windows, you must create an `installer.properties` file as follows:

```
USER_INSTALL_DIR=$/$opt$/$microfocus
SHORTCUT_NAME=MicroFocus Orbix
CHOSEN_INSTALL_SET=Enterprise Edition
CHOSEN_ENV=Development and Runtime
JDK_HOME=$/$usr$/$bin$/$jdk1.8
SET_ENV_VARS=I will set them manually later
INSTALLER_UI=silent
```

The contents of the `installer.properties` file can be explained as follows:

USER_INSTALL_DIR	Specifies the directory into which you want to install Orbix. The directory separator must be escaped and should be specified by using `$` and `/`. This is a prerequisite of InstallAnywhere.
SHORTCUT_NAME	Specifies the shortcut name that will be used for Orbix. This must be set to: `MicroFocus Orbix`.
CHOSEN_INSTALL_SET	Specifies either: • `Standard Edition`; or • `Enterprise Edition`.
CHOSEN_ENV	Specifies either: • `Development and Runtime`; or • `Runtime Only`.
JDK_HOME	Specifies the JDK that you want to use with Orbix.
SET_ENV_VARS	Specifies that environment variables will be set later. This must be set to: `I will set them manually later`

INSTALLER_UI	Specifies a silent installation. This must be set to: silent

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

Installing silently on UNIX

To install Orbix 6.3 silently on UNIX, complete the following steps:

1. Obtain the Orbix installer file (see "Obtain the installer for your platform" on page 5).
2. Create an installer.properties file as described in "Sample installer.properties file" on page 11.
3. If you save the installer.properties file in the same directory as the installation executable, run the following command from that directory:

   microfocus_orbix_6.3.11_<platform>.bin –i silent
4. If you save the installer.properties file in a different location to the installation executable, run the following command from that directory:

   microfocus_orbix_6.3.11_<platform>.bin -i silent –f "LocationOfFile"installer.properties

If you experience any problems during the installation you can view the log files located in the *OrbixInstallDir*/registry/logs directory of your installation or see "Troubleshooting" on page 18.

Installing silently on Windows

To install Orbix 6.3.11 silently on Windows, complete the following steps:

1. Obtain the Orbix installer file (see "Obtain the installer for your platform" on page 5).
2. Create an installer.properties file as described in "Sample installer.properties file" on page 11.
3. If you save the installer.properties file in the same directory as the installation executable, run the following command from that directory:

   microfocus_orbix_6.3.11_<platform>.exe -i silent
4. If you save the installer.properties file in a different location to the installation executable, run the following command from that directory:

   microfocus_orbix_6.3.11_<platform>.exe -i silent –f "locationOfFile"installer.properties

If you experience any problems during the installation you can view the log files located in the *OrbixInstallDir*\registry\logs directory of your installation or see "Troubleshooting" on page 18.

Upgrading from Previous Versions of Orbix

This section includes instructions on:

- Upgrading from Orbix 6.3.6 or lower
- Upgrading from Orbix 6.3.7 or later
- Rolling back an Orbix installation

Upgrading from Orbix 6.3.6 or lower

To upgrade an existing Orbix installation at Orbix 6.3.6, or older, to the latest version, complete the following steps:

Step	Action
1	Download the service pack `.bin` file or `.exe` file that corresponds to your operating system from the Micro Focus support site.
2	When updating an existing installation, the installer first backs up your existing Orbix installation into a rollback directory before installing Orbix 6.3.11. The rollback directory is placed within the registry subdirectory: *OrbixInstallDir\registry\rollback<NUMERIC_ID>* To update an existing installation, run the installation executable to launch the Orbix installer and follow the instructions in "Installing with the GUI" on page 8 or "Installing Silently" on page 11.

Upgrading from Orbix 6.3.7 or later

To upgrade an existing Orbix installation at Orbix 6.3.7 or later to the latest version, complete the following steps:

Step	Action
1	Download the service pack `.bin` file or `.exe` file that corresponds to your operating system from the Micro Focus support site.
2	The installer will automatically try to perform an update when the new installation is pointed at the location of the previous version of Orbix. The installer will recognize the older version of Orbix and perform an update.

Rolling back an Orbix installation

To roll back to the Orbix installation that existed on your machine prior to installing the latest version of Orbix, do the following steps:

> **Note:** This section is only relevant when an installation was upgraded from Orbix version 6.3.6 or lower.

Step	Action
1	Remove the following directories from the *OrbixInstallDir* directory: • On Windows, remove the asp, bin, and lib directories. • On UNIX, remove the asp, shlib, and lib directories.
2	Move the contents of the `OrbixInstallDir\registry\rollback<NUMERIC_ID>` to the `OrbixInstallDir\` directory.

Configuring your Environment

To start using Orbix 6.3, you need to configure a domain and set up the environment for Orbix 6.3. This section provides a brief overview of how to use the **Orbix Configuration** tool, `itconfigure`, to do this. It includes the following:

- Orbix 6.3 license
- Using the Orbix Configuration tool

For more detail on configuring your Orbix 6.3 environment, see the ***Orbix Deployment Guide***.

Orbix 6.3 license

You need a valid license file to start using Orbix 6.3. 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 6.3 environment, see the ***Orbix Deployment Guide***.

Using the Orbix Configuration tool

To configure Orbix 6.3 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
   OrbixInstallDir\asp\6.3\bin
   UNIX
   OrbixInstallDir/asp/6.3/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:
   OrbixInstallDir/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

   `OrbixInstallDir\etc\bin`

   UNIX

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

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

   ii. `OrbixInstallDir/etc/bin` if it is writable.

   iii. `$HOME/etc/bin`

7. Set the environment variables necessary for Orbix 6.3 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 `OrbixInstallDir/etc/bin/`.

Verifying the Installation

Code examples

Orbix 6.3 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 in the `index.html` file in the `demos` directory of your installation.

Testing a CORBA development installation

If you have installed a Development and Runtime edition of Orbix 6.3, you can ensure that your Orbix installation is fully operational by running the simple demo located in the `OrbixInstallDir`/asp/6.3/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 `OrbixInstallDir`/asp/6.3/demos/corba/orb directory.

Note: If you have installed a runtime only edition, the `demos/` directory is not present.

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 6.3 environment set), change directory to the `demos/corba/orb/simple` directory as follows:

OS	Type this:
UNIX	`cd OrbixInstallDir/asp/6.3/demos/corba/orb/simple`
Windows	`cd OrbixInstallDir\asp\6.3\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 6.3 environment set), change directory to the `demos\corba\orb\simple` directory as follows:

OS	Type this:
UNIX	`cd OrbixInstallDir/asp/6.3/demos/corba/orb/simple`
Windows	`cd OrbixInstallDir\asp\6.3\demos\corba\orb\simple`

3. Build the Java programs as follows:

   `itant`

   > **Note:** If you are running with a version of JDK up to and including Java 8, add the following to your Java command line:
   >
   > `-Djava.endorsed.dirs="<IT_PRODUCT_DIR>\lib\art\omg\1.3"`
   >
   > (The property `java.endorsed.dirs` is unsupported on Java 11.)

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 6.3 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.
   ORBSingleton
```

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. To enable debug output on UNIX, run the installer as follows:

```
LAX_DEBUG=true <installer_path>/microfocus_<platform>.bin
```

2. This will generate debug output to the console.

Further Information

Documentation web site

Orbix 6.3 documentation is available to browse and to download on the documentation web page at:

 https://supportline.microfocus.com/productdoc.aspx

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

Release Notes

See the Release Notes at:

https://supportline.microfocus.com/productdoc.aspx

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.

Uninstalling Orbix

Orbix comes with an automatic uninstaller tool. Before uninstalling Orbix 6.3, you should remove any domains created.

Uninstalling on Windows

To uninstall Orbix 6.3 on Windows:

1. Select **Start > Settings > Control Panel > Add/Remove Programs**
2. Select Orbix 6.3.
   Alternatively, from a command prompt, run the following:

```
OrbixInstallDir\asp\6.3\etc\installer\uninstaller\uninstall.exe
```

   This may leave some files behind, which 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

To uninstall Orbix 6.3 on UNIX:

1. Run the uninstall script:

```
OrbixInstallDir/asp/6.3/etc/installer/uninstaller/uninstall
```

2. Remove the directory manually:
   `OrbixInstallDir/asp/6.3/etc/installer/uninstaller/`
   The uninstaller may leave some files behind, which must be removed manually.
3. 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***.