



# Micro Focus VisiBroker 8.5.4

Overview

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2017-01-25

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# Introduction to VisiBroker

For the CORBA developer, Micro Focus provides *VisiBroker for Java*, *VisiBroker for C++*, and *VisiBroker for .NET* to leverage the industry-leading VisiBroker Object Request Broker (ORB). These three facets of VisiBroker are implementations of the CORBA 3.0 specification. See [“VisiBroker CORBA Compliance”](#) for further details.

## VisiBroker Overview

VisiBroker is for distributed deployments that require CORBA to communicate between both Java and non-Java objects. It is available on a wide range of platforms including different hardware, operating systems, compilers and Java Development Kit (JDK) versions. VisiBroker solves all the problems normally associated with distributed systems in a heterogeneous environment.

VisiBroker includes:

- VisiBroker for Java, VisiBroker for C++, and VisiBroker for .NET, three implementations of the industry-leading Object Request Broker.
- VisiNaming Service, a complete implementation of the Interoperable Naming Specification in version 1.3.
- GateKeeper, a proxy server for managing connections to CORBA Servers behind firewalls.
- VisiBroker Console, a GUI tool for easily managing a CORBA environment.
- Common Object Services such as VisiNotify (implementation of Notification Service specification), VisiTransact (implementation of Transaction Service specification), VisiTelcoLog (implementation of Telecom Logging Service specification), VisiTime (implementation of Time Service specification), and VisiSecure (security service).

## VisiBroker Features

VisiBroker offers the following features:

- “Out-of-the-box” security and web connectivity.
- Seamless integration to the J2EE Platform, allowing CORBA clients direct access to EJBs.
- A robust Naming Service (VisiNaming), with caching, persistent storage, and replication for high availability.
- Automatic client failover to backup servers if primary server is unreachable.
- Load distribution across a cluster of CORBA servers.
- Full compliance with the OMG's CORBA 3.0 Specification.
- Integration with the JBuilder integrated development environment.
- Enhanced integration with other Micro Focus products including AppServer.

## VisiBroker CORBA Compliance

VisiBroker 8.5 is compliant with version 3.0 of the CORBA specification from the Object Management Group (OMG). All changes between the earlier version 2.6 and version 3.0 are implemented. Note that VisiBroker:

- Supports General Inter-ORB Protocol (GIOP) to standard 1.2; GIOP 1.3-related features are not implemented.
- Does not support the CORBA Component Model (CCM) or Fixed types.

For more details, refer to the CORBA specification located at <http://www.omg.org/>.

## VisiBroker Documentation

The VisiBroker documentation set includes the following:

- *VisiBroker Installation Guide*—describes how to install VisiBroker on your network. It is written for system administrators who are familiar with Windows or UNIX operating systems.
- *Security Guide*—describes Micro Focus's framework for securing VisiBroker, including VisiSecure for VisiBroker for Java and VisiBroker for C++.
- *VisiBroker for Java Developer's Guide*—describes how to develop VisiBroker applications in Java. It familiarizes you with configuration and management of the VisiBroker ORB and how to use the programming tools. It also describes the IDL compiler, the Smart Agent, the Location, Naming and Event Services, the Object Activation Daemon (OAD), the Quality of Service (QoS), the Interface Repository, the Interface Repository, and Web Service Support.
- *VisiBroker for C++ Developer's Guide*—describes how to develop VisiBroker applications in C++. It familiarizes you with configuration and management of the VisiBroker ORB and how to use the programming tools. It also describes the IDL compiler, the Smart Agent, the Location, Naming and Event Services, the OAD, the QoS, Pluggable Transport Interface, RT CORBA Extensions, and Web Service Support.

- *VisiBroker for .NET Developer's Guide*—describes how to develop VisiBroker applications in a .NET environment.
- *VisiBroker for C++ API Reference*—provides a description of the classes and interfaces supplied with VisiBroker for C++.
- *VisiBroker VisiTime Guide*—describes Micro Focus's implementation of the OMG Time Service specification.
- *VisiBroker VisiNotify Guide*—describes Micro Focus's implementation of the OMG Notification Service specification and how to use the major features of the notification messaging framework, in particular, the Quality of Service (QoS) properties, Filtering, and Publish/Subscribe Adapter (PSA).
- *VisiBroker VisiTransact Guide*—describes Micro Focus's implementation of the OMG Object Transaction Service specification and the Micro Focus Integrated Transaction Service components.
- *VisiBroker VisiTelcoLog Guide*—describes Micro Focus' implementation of the OMG Telecom Log Service specification.
- *VisiBroker GateKeeper Guide*—describes how to use the VisiBroker GateKeeper to enable VisiBroker clients to communicate with servers across networks, while still conforming to the security restrictions imposed by web browsers and firewalls.

The documentation is typically accessed through the Help Viewer installed with VisiBroker. You can choose to view help from the standalone Help Viewer or from within a VisiBroker Console. Both methods launch the Help Viewer in a separate window and give you access to the main Help Viewer toolbar for navigation and printing, as well as access to a navigation pane. The Help Viewer navigation pane includes a table of contents for all VisiBroker books and reference documentation, a thorough index, and a comprehensive search page.

### Important

Updates to the product documentation are available on the web at <https://supportline.microfocus.com/productdoc.aspx>.

## Accessing VisiBroker Online Help Topics in the Standalone Help Viewer

To access the online help through the standalone Help Viewer on a machine where the product is installed, use one of the following methods:

### Windows

- Click Start > Programs > VisiBroker > Help Topics
- or
- Open the Command Prompt and go to the product installation `\bin` directory, then type the following command:
- ```
help
```

### UNIX

Open a command shell and go to the product installation `/bin` directory, then enter the command:

```
help
```

**Tip**

During installation on UNIX systems, the default is to not include an entry for `bin` in your `PATH`. If you did not choose the custom install option and modify the default for `PATH` entry, and you do not have an entry for current directory in your `PATH`, use `./help` to start the help viewer.

## Accessing VisiBroker online help topics from within the VisiBroker Console

To access the online help from within the VisiBroker Console, choose Help > Help Topics.

The Help menu also contains shortcuts to specific documents within the online help. When you select one of these shortcuts, the Help Topics viewer is launched and the item selected from the Help menu is displayed.

## Documentation conventions

The documentation for VisiBroker uses the typefaces and symbols described below to indicate special text:

| Convention           | Used for                                                                                                      |
|----------------------|---------------------------------------------------------------------------------------------------------------|
| <i>italics</i>       | Used for new terms and book titles.                                                                           |
| computer             | Information that the user or application provides, sample command lines and code.                             |
| <b>bold computer</b> | In text, bold indicates information the user types in. In code samples, bold highlights important statements. |
| [ ]                  | Optional items.                                                                                               |
| ...                  | Previous argument that can be repeated.                                                                       |
| >                    | Two mutually exclusive choices.                                                                               |

## Platform conventions

The VisiBroker documentation uses the following symbols to indicate platform-specific information:

| Symbol         | Indicates                       |
|----------------|---------------------------------|
| <b>Windows</b> | All supported Windows platforms |
| <b>UNIX</b>    | UNIX platforms                  |
| <b>Solaris</b> | Solaris only                    |
| <b>Linux</b>   | Linux only                      |

## Contacting Micro Focus

Our Web site gives up-to-date details of contact numbers and addresses.

## Further Information and Product Support

Additional technical information or advice is available from several sources.

The product support pages contain a considerable amount of additional information, such as:

- The *Product Updates* section of the Micro Focus SupportLine Web site, where you can download fixes and documentation updates.

- The *Examples and Utilities* section of the Micro Focus SupportLine Web site, including demos and additional product documentation.

To connect, enter <http://www.microfocus.com> in your browser to go to the Micro Focus home page, then click *Support*.

**Note:**

Some information may be available only to customers who have maintenance agreements.

If you obtained this product directly from Micro Focus, contact us as described on the Micro Focus Web site, <http://www.microfocus.com>. If you obtained the product from another source, such as an authorized distributor, contact them for help first. If they are unable to help, contact us.

Also, visit:

- The Micro Focus Community Web site, where you can browse the Knowledge Base, read articles and blogs, find demonstration programs and examples, and discuss this product with other users and Micro Focus specialists.
- The Micro Focus YouTube channel for videos related to your product.

## Information We Need

However you contact us, please try to include the information below, if you have it. The more information you can give, the better Micro Focus SupportLine can help you. But if you don't know all the answers, or you think some are irrelevant to your problem, please give whatever information you have.

- The name and version number of all products that you think might be causing a problem.
- Your computer make and model.
- Your operating system version number and details of any networking software you are using.
- The amount of memory in your computer.
- The relevant page reference or section in the documentation.
- Your serial number. To find out these numbers, look in the subject line and body of your Electronic Product Delivery Notice email that you received from Micro Focus.

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If you are a Micro Focus SupportLine customer, please see your SupportLine Handbook for contact information. You can download it from our Web site or order it in printed form from your sales representative. Support from Micro

Focus may be available only to customers who have maintenance agreements.

You may want to check these URLs in particular:

- <https://www.microfocus.com/product-trials/corba/index.aspx?productname=VisiBroker> (VisiBroker trial software)
- <http://supportline.microfocus.com/xmlloader.asp?type=home&redirectpage=temporary.asp?aspneturl=/websync/productupdatesearch.aspx> (updated VisiBroker files and other software)
- <https://supportline.microfocus.com/productdoc.aspx> (documentation updates and PDFs)

To subscribe to Micro Focus electronic newsletters, use the online form at:

<http://www.microfocus.com/Resources/Newsletters/infocus/newsletter-subscription.asp>

# Using the License Manager

You can use the License Manager to add, register, and remove your Micro Focus product licenses. This section describes how to use the License Manager GUI features.

## Starting the License Manager

The License Manager can be started from the VisiBroker Console:

- 1 Start the VisiBroker Console.
- 2 From the Tools menu, select License Manager.

The License Manager can also be started by running an executable:

### Windows

- Run the `lmadmw` executable found in the `<install_dir>\bin` directory.

### UNIX

- Run the `lmadm` executable found in the `<install_dir>/bin` directory.

## Viewing license information

The License Manager displays the licenses you have applied to products on the local machine. To see more detailed information about each license, click the license node in the left-hand navigation tree. The content pane on the right displays product details and operations that you can perform on the selected node.

## Adding licenses

In some cases, you will need to apply multiple licenses to one installation. This will happen if you purchase optional products that can be added onto a base product. Applying a second or subsequent license to the same product installation is similar to the first.

Before you can add a new node-locked product license you will need:

- **The Serial Number and Key, or the activation file for each license.** These will arrive in an email from Micro Focus.
- **A username and password**

This is needed for product registration. Note that the main **bdn.borland.com** address is no longer in use. However:

- If you have an existing Borland Developer Network account, you can use the credentials for that account.
- If you have a Borland Developer Network login, but have forgotten your password, go to <https://members.borland.com/login.aspx> and select the **Reset my password** link.
- If you do not have an account, for example because you are a new VisiBroker user, you can create one at [http://visireg.microfocus.com/srs5/new\\_user.jsp](http://visireg.microfocus.com/srs5/new_user.jsp).

- You can alternatively create an account using the VisiBroker Product Registration Wizard, during the registration/activation process described in “Product Registration” in the *VisiBroker Installation Guide*.
- **Internet access.** This is required if you want to use the Direct or Web page methods for activating your license. This can be from any system—not necessarily the system on which your product is installed.

To add a product license, follow these steps:

- 1 Click Serial > Add. The Add Serial Number dialog opens.
- 2 Enter the Serial Number and license Key, and click OK. The new serial number will appear in red letters in a list of Unregistered serial numbers in the License Manager navigation tree.
- 3 Select the New serial number, and select Register from the Serial menu. The Product Registration Wizard steps you through the registration process. For more information about using the wizard see “Product Registration” in the *VisiBroker Installation Guide*.

## Importing licenses

In some cases, you will need to import a license from a file. To import a product license, follow these steps:

- 1 Click License > Import. The Import License dialog opens.
- 2 Locate the license file using the Import License navigation tool, and click OK.

## Removing licenses

To remove a product license, do one of these operations:

- Right-click the license node in the navigation tree, and select Delete.
- Select the license node in the navigation tree, and select Delete from the License menu.

# VisiBroker Console

The VisiBroker Console provides a graphical user interface that lets you examine the VisiBroker infrastructure that is running on your network. The VisiBroker Console can run on any machine from which users want to view or modify the distributed system.

## Starting and logging on to the VisiBroker Console

To start the VisiBroker Console:

- 1 Launch the VisiBroker Console:

### Windows

Click Start > Programs > VisiBroker > VisiBroker Console or open a Command Prompt, and type:

```
vbconsole
```

#### Note

To recognize the `vbconsole` command, your path system variable must include the `<install_dir>\bin` directory, or you can enter the path explicitly.

### UNIX

Open a command shell and type:

```
vbconsole
```

#### Note

To recognize the `console` command, your path system variable must include the `<install_dir>/bin` directory, or you can enter the path explicitly.

The Administration Security Credentials screen appears.

**Figure 1** Administration Security Credentials screen with default credential settings



- 2 Enter your User identity, Password, and Realm.

To use the Micro Focus default credential settings, enter the password:

admin

3 Click OK.

The VisiBroker Console appears.

## VisiBroker Console menus

The VisiBroker Console provides these main menus:

- **Console**
- **View**
- **Tools**
- **Help**

### Console menu

The following table describes the commands on the Console menu.

| Console menu command                         | Description                                                                                                                                                                                                          |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Refresh                                      | Manually causes state information shown in the VisiBroker Console to be updated.                                                                                                                                     |
| Preferences                                  | Opens the Preferences dialog box which you can use to set Console and configuration settings. See <a href="#">"Setting VisiBroker Console preferences"</a> for information about setting preferences in this dialog. |
| Import Preference...<br>Export Preference... | You can import Preferences from, or export them to, a file (by default, <code>ui.properties</code> ). See <a href="#">"Importing and exporting Console preferences"</a> for how to do this.                          |
| Set Identity                                 | Sets the credentials (User identity, Password, and Realm) used for authentication during hub and agent discovery.                                                                                                    |
| Exit                                         | Dismisses the VisiBroker Console.                                                                                                                                                                                    |

### View menu

The following table describes the commands on the View menu.

| View menu command | Description                                                                   |
|-------------------|-------------------------------------------------------------------------------|
| Messages          | Shows or hides the errors window.                                             |
| Tool Bar          | Shows or hides the tool bar at the top of the VisiBroker Console window.      |
| Status Bar        | Shows or hides the status bar at the bottom of the VisiBroker Console window. |

## Tools menu

The following table describes the commands on the Tools menu.

| Tools menu command                    | Description                                                                                                                      |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| License Manager                       | Launches the License Manager. See <a href="#">“Using the License Manager”</a> for details.                                       |
| VisiBroker Properties File Editor     | Opens an editor allowing you to edit the VisiBroker properties file.                                                             |
| VisiBroker Web Service Stub Generator | Opens a wizard that helps you to configure and generate the necessary Web Service artifacts and stub code from a CORBA IDL file. |

## Help menu

This menu provides you with access to each of the online Help documents and the About screen for the VisiBroker Console.

The About screen contains tabs that display some important information about your Micro Focus software.

| About screen tab           | Description                                                                                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| About                      | Displays the VisiBroker Console version number and copyright information.                                                                                         |
| General System Information | Displays various system configuration settings that VisiBroker has detected such as the operating system, Java version, Java vendor, Java Compiler, and so forth. |
| Java Properties            | Shows the Java virtual machine property settings in use by VisiBroker.                                                                                            |

## Setting VisiBroker Console preferences

VisiBroker Console preferences enable you to specify configuration, operation, and appearance settings used by the VisiBroker Console.

To set VisiBroker Console preferences:

- 1 Start the VisiBroker Console and choose Preferences from the Console menu. The Preferences dialog box appears with a list of preferences grouped into the following categories:
  - a General: controls user interface options and settings.
  - b Security: provides properties relating to the administration and management of the security environment.
  - c VisiBroker: controls user interface options for the VisiBroker Console.
- 2 Navigate through the tabs and select the preferences as desired.
- 3 Click OK.

You can alternatively set your preferences by importing a set of predefined preference values from a properties file; and you can export the preferences you have set to a properties file. See [“Importing and exporting Console preferences”](#) for how to do this.

The following sections provide details on each set of preferences.

## General preferences

The General preferences provide settings to control various VisiBroker Console user interface elements. This tab provides the following options:

- **Look and feel:** Sets the display format and behavior of the VisiBroker Console windows. The available options are: Metal, CDE/Motif, Windows (Microsoft Windows platforms only), or Borland.
- **Tab memory:** Specifies the view state information the VisiBroker Console uses. The following options are available:
  - **Don't remember last visited tab pane:** Tells the VisiBroker Console to open each node in the tree with the General tab displayed on the right.
  - **Remember last visited tab pane by type:** Tells the VisiBroker Console to open a node on the same type of tab (on a similar node) that was most recently viewed. For example, if the Properties tab is currently in view and you click on another node that has a Properties tab, the VisiBroker Console first displays the Properties tab for that node.
  - **Remember last visited tab pane by type and name:** Tells the VisiBroker Console to open a node that had been expanded earlier in the VisiBroker Console session to the tab that was last in view when that node was selected.
- **Sound beep on errors:** If checked, the VisiBroker Console sounds an alarm when an error occurs.
- **Enable debug output:** Tells the VisiBroker Console to report debugging information in the Errors pane at the bottom of the VisiBroker Console.
- **HTML Browser Setup:** Specifies the path to the Web browser you wish to use with the VisiBroker Console. Use the Browse button to locate an installed Web browser.

## Security preferences

The Security preferences provide settings relating to the administration and management of the security environment. This tab provides the following options:

- **Default realm:** Specifies the name of the authentication realm used by the VisiBroker Console to interact with each AppServer.
- **Default user:** Specifies the user name used by the VisiBroker Console.
- **Enable Security:** Determines how the VisiBroker Console handles security:
  - When checked, enables the VisiBroker Console to communicate with an agent, whether it has security enabled or not. When the VisiBroker Console receives a request from an agent with security enabled, however, the VisiBroker Console must first pass the user's login credentials (realm, user name, and password) to that agent for authentication before the VisiBroker Console can access services on that agent.
  - When not checked, the VisiBroker Console will communicate only with agents that do not have security enabled.

## VisiBroker preferences

The VisiBroker tab is used to specify user interface options for the VisiBroker Console. This tab provides the following options:

- **Remove Stale Service Reference:** Enable this option to remove all stale VisiBroker services references that were configured in the My Services folder of the VisiBroker Console main view.
- **Enable DNS Lookup:** Enable this option to have the VisiBroker Console resolve any related DNS information to display in the Console. For example, the Console would display an IP address as its registered host name.

### Note

Because any DNS lookup is an expensive resource operation, the VisiBroker Console provides this option to enable or disable DNS lookup.

## Importing and exporting Console preferences

To import a defined set of preference values:

- 1 Choose Import Preference from the Console menu.
- 2 Browse to the location of the properties file containing your predefined preferences. By default, this is `<install_dir>\ui.properties`.
- 3 Select the file and press OK.

To export your defined preference values to a file:

- 1 Choose Export Preference from the Console menu.
- 2 Browse to where you want to save the properties file, and enter a name for it if you do not want to use the default. The default name and location is `<install_dir>\ui.properties`.
- 3 Select the file and press OK.

The properties file has one property per line, in the format `<preference_name>;<preference_value>`. For example:

```
osagent.port;osagent.port.list=14000
user.interface;console.location=491,92
user.interface;debug=1
```



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