VisiBroker Overview

V8.5.9

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Introduction to VisiBroker

For the CORBA developer, Rocket Software provides *VisiBroker for Java* and *VisiBroker for C++* to leverage the industry-leading VisiBroker Object Request Broker (ORB). These two 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* and *VisiBroker for C++*, two 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 Rocket Software 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 Rocket Software'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 C++ API Reference*—provides a description of the classes and interfaces supplied with VisiBroker for C++.

- *VisiBroker VisiTime Guide*—describes Rocket Software's implementation of the OMG Time Service specification.

- *VisiBroker VisiNotify Guide*—describes Rocket Software'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 Rocket Software's implementation of the OMG Object Transaction Service specification and the Rocket Software Integrated Transaction Service components.

- *VisiBroker VisiTelcoLog Guide*—describes Rocket Software' 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 here.

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 a 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:

Platform conventions

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

Symbol	Indicates
Windows	All supported Windows platforms
UNIX	UNIX platforms
Solaris	Solaris only
Linux	Linux only

Using the License Manager

You can use the License Manager to add, register, and remove your Rocket Software 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 Rocket Software.

- **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.

- 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.

> 💡 **Note**
>
> VisiBroker Console is no longer automatically installed. It is available as an optional component. To install, please download and extract the `<PRODUCT_VERSION>_opt_GUI_<PLATFORM>.tar.gz` archive or `<PRODUCT_VERSION>_opt_GUI_<PLATFORM>.zip` archive onto your product installation.

The GUI components archive can be downloaded from the Rocket Customer Community.

The GUI components have been separated from the product as they do not fully comply with the Section 508 and WCAG accessibility requirements and guidelines. It is intended that future product releases will include updated GUI components that comply with the relevant accessibility guidelines.

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 Rocket Software 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 Setting VisiBroker Console preferences for information about setting preferences in this dialog.
Import Preference...	You can import Preferences from, or export them to, a file (by default, `ui.properties`). See Importing and exporting Console preferences for how to do this.
Export Preference...	
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.

View menu command	Description
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 Using the License Manager 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 Rocket Software 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.

About screen tab	Description
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:

   General: controls user interface options and settings.

   Security: provides properties relating to the administration and management of the security environment.

   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
```

Notices

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This information might contain examples of data and reports. The examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

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Note: This product may contain encryption technology. Many countries prohibit or restrict the use, import, or export of encryption technologies, and current use, import, and export regulations should be followed when exporting this product.

Corporate information

Rocket Software, Inc. develops enterprise infrastructure products in four key areas: storage, networks, and compliance; database servers and tools; business information and analytics; and application development, integration, and modernization.

Website: www.rocketsoftware.com

Contacting Technical Support

The Rocket Community is the primary method of obtaining support. If you have current support and maintenance agreements with Rocket Software, you can access the Rocket Community and report a problem, download an update, or read answers to FAQs. To log in to the Rocket Community or to request a Rocket Community account, go to www.rocketsoftware.com/support. In addition to using the Rocket Community to obtain support, you can use one of the telephone numbers that are listed above or send an email to support@rocketsoftware.com.

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Waltham, MA 02451-1468
USA

Country and Toll-free telephone number

To contact Rocket Software by telephone for any reason, including obtaining pre-sales information and technical support, use one of the following telephone numbers.

- United States: 1-855-577-4323
- Australia: 1-800-823-405
- Belgium: 0800-266-65
- Canada: 1-855-577-4323
- China: 400-120-9242
- France: 08-05-08-05-62
- Germany: 0800-180-0882
- Italy: 800-878-295
- Japan: 0800-170-5464
- Netherlands: 0-800-022-2961
- New Zealand: 0800-003210
- South Africa: 0-800-980-818
- United Kingdom: 0800-520-0439