

Overview

# Borland VisiBroker<sup>®</sup> 7.0

**Borland<sup>®</sup>**

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# Introduction to Borland VisiBroker

For the CORBA developer, Borland 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 2.6 specification.

## VisiBroker Overview

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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 (hardware, operating systems, compilers and JDKs). 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.

## VisiBroker features

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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 2.6 Specification.
- Integration with the Borland JBuilder integrated development environment.
- Enhanced integration with other Borland products including Borland AppServer.

## VisiBroker Documentation

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The VisiBroker documentation set includes the following:

- Borland *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.
- Borland *Security Guide*—describes Borland's framework for securing VisiBroker, including VisiSecure for VisiBroker for Java and VisiBroker for C++.
- Borland *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. Also described is 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, and the Interface Repository, and Web Service Support.
- Borland *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. Also described is 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.
- Borland *VisiBroker for .NET Developer's Guide*—describes how to develop VisiBroker applications in a .NET environment.
- Borland *VisiBroker for C++ API Reference*—provides a description of the classes and interfaces supplied with VisiBroker for C++.
- Borland *VisiBroker VisiTime Guide*—describes Borland's implementation of the OMG Time Service specification.
- Borland *VisiBroker VisiNotify Guide*—describes Borland'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).
- Borland *VisiBroker VisiTransact Guide*—describes Borland's implementation of the OMG Object Transaction Service specification and the Borland Integrated Transaction Service components.

- Borland *VisiBroker VisiTelcoLog Guide*—describes Borland's implementation of the OMG Telecom Log Service specification.
- Borland *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, as well as PDF versions, are available on the web at <http://www.borland.com/techpubs>.

## Accessing VisiBroker online help topics in the standalone Help Viewer

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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**
- Choose Start|Programs|Borland Deployment Platform|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

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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

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

**Table 1.1** Documentation conventions

Convention	Used for
<i>italics</i>	Used for new terms and book titles.
<code>computer</code>	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

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

**Table 1.2** Platform conventions

Symbol	Indicates
<b>Windows</b>	All supported Windows platforms.
<b>Win2003</b>	Windows 2003 only
<b>WinXP</b>	Windows XP only
<b>Win2000</b>	Windows 2000 only
<b>UNIX</b>	UNIX platforms
<b>Solaris</b>	Solaris only
<b>Linux</b>	Linux only

## Contacting Borland support

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Borland offers a variety of support options. These include free services on the Internet where you can search our extensive information base and connect with other users of Borland products. In addition, you can choose from several categories of telephone support, ranging from support on installation of Borland products to fee-based, consultant-level support and detailed assistance.

For more information about Borland's support services or contacting Borland Technical Support, please see our web site at: <http://support.borland.com> and select your geographic region.

When contacting Borland's support, be prepared to provide the following information:

- Name
- Company and site ID
- Telephone number
- Your Access ID number (U.S.A. only)
- Operating system and version
- Borland product name and version
- Any patches or service packs applied

- Client language and version (if applicable)
- Database and version (if applicable)
- Detailed description and history of the problem
- Any log files which indicate the problem
- Details of any error messages or exceptions raised

## Online resources

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You can get information from any of these online sources:

<b>World Wide Web</b>	<a href="http://www.borland.com">http://www.borland.com</a>
<b>Online Support</b>	<a href="http://support.borland.com">http://support.borland.com</a> (access ID required)
<b>Listserv</b>	To subscribe to electronic newsletters, use the online form at: <a href="http://www.borland.com/products/newsletters">http://www.borland.com/products/newsletters</a>

## World Wide Web

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Check <http://www.borland.com/bes> regularly. The VisiBroker Product Team posts white papers, competitive analyses, answers to FAQs, sample applications, updated software, updated documentation, and information about new and existing products.

You may want to check these URLs in particular:

- [http://www.borland.com/products/downloads/download\\_visibroker.html](http://www.borland.com/products/downloads/download_visibroker.html) (updated VisiBroker software and other files)
- <http://www.borland.com/techpubs> (documentation updates and PDFs)
- <http://info.borland.com/devsupport/bdp/faq/> (VisiBroker FAQs)
- <http://community.borland.com> (contains our web-based news magazine for developers)

## Borland newsgroups

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You can participate in many threaded discussion groups devoted to the Borland VisiBroker. Visit <http://www.borland.com/newsgroups> for information about joining user-supported newsgroups for VisiBroker and other Borland products.

**Note** These newsgroups are maintained by users and are not official Borland sites.



# Using the License Manager

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

There are two types of Borland VisiBroker licenses:

- **Node-locked licenses.** These licenses are locked to the system on which they are applied and activated. You cannot copy these licenses to another system, and they cannot be accessed from a VisiBroker product running on another system. If you reinstall the software on the same system, you will need to reactivate the license.
- **Network licenses.** These licenses require the use of a license server. VisiBroker supports the use of Belise (Borland's license server). Refer to the instructions in the email you receive from Borland for activating and using your network licenses.

## Starting the License Manager

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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** ▪ To launch the License Manager on Windows, run the `lmadmw` executable found in the `<install_dir>\bin` directory.
- UNIX** ▪ To launch the License Manager on UNIX, run the `lmadm` executable found in the `<install_dir>/bin` directory.

## Viewing license information

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The License Manager displays the licenses you have applied to products on the local machine. To see more detailed information about each license, click on 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

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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, third, etc 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 following:

- **The Serial Number and Key, or the activation file for each license.** These will arrive in an email from Borland.
- **A Borland Developer Network (BDN) account.** If you don't have an account, you will be able to create it during the registration/activation process.
- **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, complete the following steps:

- 1 Select Add from the Serial menu. 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 Borland Product Registration Wizard steps you through the registration process. For more information about using the wizard see “Borland product registration wizard” in the *Borland VisiBroker Installation Guide*.

## Importing licenses

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In some cases, you will need to import a license from a file. To import a product license, do the following steps:

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

## Removing licenses

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To remove a product license, do one of the following operations:

- Right-click on 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 onto the VisiBroker Console

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To start the VisiBroker Console:

- 1 Launch the VisiBroker Console using one of the following methods:

- Windows**
- From the Start menu choose Programs\VisiBroker\VisiBroker Console or open a Command Prompt, and type the following command:

```
console
```

- Note** To recognize the `console` 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 enter the following command:

```
console
```

- 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.

- 2 Enter your User identity, Password, and Realm.  
To use the Borland default credential settings, enter the password:

```
admin
```

- 3 Click OK.  
The VisiBroker Console appears.

## VisiBroker Console menus

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The VisiBroker Console provides the following main menus:

- Console menu
- View menu
- Tools menu
- Help menu

### Console menu

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The following table describes the commands in the Console menu.

**Table 3.1** Console menu commands

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 VisiBroker Console and configuration settings. See <a href="#">“Setting VisiBroker Console preferences” on page 11</a> for information about setting preferences in this dialog.
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

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The following table describes the commands on the View menu.

**Table 3.2** View menu commands

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

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The following table describes the commands on the Tools menu.

**Table 3.3** Tools menu commands

Tools menu command	Description
VisiBroker Properties File Editor	Opens an editor allowing you to edit the VisiBroker properties file.

## Help menu

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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 Borland 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

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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 When you have finished making your selections, click OK.

The following sections provide details on each set of preferences.

## General preferences

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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

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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.
- **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 regardless if 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, username, and password) to that agent for authentication before the VisiBroker Console can access services on that agent.
  - When this box is not checked, the VisiBroker Console will communicate only with agents that do not have security enabled.

## VisiBroker preferences

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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.



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