User Guide

bv-Control® for Windows®

BIND VIEW®
Insight at Work

bv-Control®
for Windows® v8.00

User Guide

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bv-Control for Windows User Guide

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About BindView Corporation

BindView Corporation is a leading provider of proactive business policy, IT security and directory management software worldwide. BindView solutions and services enable customers to centralize and automate policy compliance, vulnerability management, directory administration and migration across the entire organization. With BindView insight at work™, customers benefit from reduced risk and improved operational efficiencies with a verifiable return on investment. More than 20 million licenses have shipped to 5,000 companies worldwide, spanning all major business segments and the public sector.

Online Documents

Documentation is provided in the following electronic formats on the BindView product CD:

• Adobe® Acrobat® PDF files
• HTML Release Notes files
• Online help

Using PDF Files

With Adobe Acrobat PDF files, you can navigate through a document quickly and perform full-text searches. In addition, the PDF files can be viewed online, distributed to multiple users electronically, or printed.

You must have Adobe® Reader® installed to read the PDF files.

To view PDF files, double-click PDF files to open them, and then move through the document by clicking topic headings in the left pane or green hypertext links in the text. To print copies, click **Print** from the **File** menu.

Installing Adobe Reader

Adobe Reader installation programs for common operating systems are available for a free download from the Adobe Web site at *www.adobe.com*.

User Guides

The Docs directory on the BindView product CD contains copies of the user guides and other documentation in the PDF format.

The *bv-Control for Windows User Guide* contains information about bv-Control for Windows v8.00 and about the BindView RMS Console and Information Server v8.00. If you upgrade the BindView RMS Console and Information Server, the *BindView RMS Console and Information Server User Guide* included with the update will contain information about the new version of the Console.

Release Notes

If the autorun function is enabled, a Readme HTML file for your BindView product is accessible under the Documentation menu of the BindView setup menu when you insert your CD. You also can select to view this file after the installation is completed, or by browsing to the Release Notes directory in the root directory for your program:

```
C:\Program Files\BindView\RMS\Release Notes
```

Online Help

Comprehensive help is available from the Help menu on the BindView RMS Console and the BindView RMS Web Console. Additionally, you can access help by clicking the **Help** button in any dialog, by right-clicking an item and selecting **Help** from the action menu, or by pressing **F1** in any dialog.

Typestyle Conventions

The following conventions are observed throughout this guide:

- **Bold** text is used to designate file and folder names, dialog titles, names of buttons, icons, and menus, and terms that are objects of a user selection.
- *Italic* text is used for word emphasis, defined terms, and manual titles.
- Monospace text (Courier) is used to show literal text as you would enter it, or as it would appear onscreen.

Alert Statements

The alerting statements are Notes, Cautions, and Warnings. These statements are formatted in the following style:

Note: Information that is incidental to the main text flow, or to an important point or tip provided in addition to the previous statement or instruction.

Caution: Advises of machine or data error that could occur should the user fail to take or avoid a specified action.

Warning: Requires immediate action by the user to prevent actual loss of data or where an action is irreversible, or when physical damage to the machine or devices is possible.

Contacting BindView

BindView has sales and support offices around the world. For information on contacting BindView, please refer to the information below or to the BindView Web site: ***www.bindview.com***

For Technical Support: ***www.bindview.com/support***

Technical Support is available Monday through Friday from 7:00 a.m. to 7:00 p.m. Central Time. Normal working hours for all other departments are 9:00 a.m. to 6:00 p.m.

Phone		
Sales and Customer Service	U.S. and Canada	800-813-5869
	Outside N. America	713-561-4000
Technical Support	U.S. and Canada	800-813-5867
	Outside N. America	713-561-4000
Training/Professional Service	U.S. and Canada	800-749-8439
	Outside N. America	713-561-4000

Fax	All Areas	713-561-1000

E-mail	
Sales	sales@bindview.com
Training	edu@bindview.com
Documentation	docs@bindview.com

Other	
FTP Site	ftp://ftp.bindview.com
Internet	www.bindview.com
Postal Mail	BindView 5151 San Felipe, Suite 2500 Houston, TX 77056

1   Overview

In This Chapter

BindView RMS Console

The BindView RMS® Console installs as a Snap-In to the Microsoft Management Console (MMC). The MMC is a host application which provides a common user interface enabling you to navigate the BindView RMS Console application. The BindView RMS Console, along with bv-Control® for Windows®, is a powerful tool designed to help you manage your Windows environment. The BindView RMS Console serves as a host application to other BindView products, including bv-Control® for Active Directory® and bv-Control® for Microsoft® Exchange.

As you install the BindView RMS Console, you are requested to add the product you want to install with the Console. Although any of the products can be installed, only the product for which you have licenses will be operable. Refer to Chapter 2 on page 27 for more detailed information about product installation and licensing.

Fig. 1 provides a pictorial overview of the components that make up BindView RMS, including the bv-Control for Windows product.

Fig. 1   BindView RMS Components

The BindView RMS Console uses a query-based data retrieval mechanism to gather information from your Windows environment. When a query is launched, the BindView RMS Console issues a request through bv-Control for Windows to gather information about your environment. Once the data is collected, it is returned to the BindView RMS Console and displayed as either a grid, chart, or a report. You can find more complete instructions on how to use the BindView RMS Console in the *BindView RMS Console and Information Server User Guide*.

Understanding bv-Control for Windows

bv-Control® for Windows® is a product that extends the capabilities of the RMS Console. bv-Control for Windows enables you to collect information about your Windows domains and workstations.

Using bv-Control for Windows, you can capture a variety of information about hardware and software configuration for any Windows machine. You can also gather information on users and groups. With bv-Control for Windows, you can use the power of the Console to analyze aspects of your Windows servers, domains and workstations, including:

- Network-wide security audits of a single domain or entire network
- Comprehensive disk space analysis of workstations, servers, domain, or multiple domains
- Custom queries and reports from your Windows Event Logs
- Analysis of services loaded on a single Windows machine or across multiple machines and multiple domains

bv-Control for Windows Architecture

The bv-Control for Windows includes the following components:

- Console components
- Enterprise Configuration Service
- bv-Config utility
- Query Engine Service
- BindView Support Service

BindView RMS Console Components

The bv-Control for Windows Console components are installed during the installation. The Console components consist of the following elements:

- Information Server
- Configuration folder

Information Server

The Information Server component provides data collection facilities for the BindView RMS Console. It provides user interface components such as dialog pages that are specific to the data sources and fields of the bv-Control for Windows product. The Information Server is also responsible for combining information in a way that realizes requests from the BindView RMS Console.

Configuration Folder

The bv-Control for Windows Configuration folder is used to configure the product to manage your network enterprise. From this folder, you can define a Connection Database, launch the bv-Config utility, and configure general network reporting options.

Enterprise Configuration Service

After the Console and the bv-Control for Windows product have been installed, the Enterprise Configuration Service (ECS) must be installed. The ECS is a 32-bit service that maintains a list of Master Query Engines and Slave Query Engines located in your network.

The ECS keeps a record of the rules used for data collection by tracking which Slave Query Engines report to each Master Query Engine. You must install at least one ECS in at least one domain in your enterprise. And though it is not advised, you may install more than one ECS in your enterprise. For information on installing an ECS, see "Installing the Enterprise Configuration Service" on page 71.

For overview information about Master Query Engines, see "Master Query Engine" on page 23. For overview information about Slave Query Engines, see "Slave Query Engine" on page 23.

bv-Config Utility

The bv-Config utility is a powerful tool which enables you to view details and modify functions for all Windows machines in your enterprise from a single location. During the product installation, a copy of the bv-Config utility is installed on the machine where the ECS is installed.

You can use bv-Config to manage a variety of machine and user settings; however, this manual only discusses the bv-Config utility in the context of the bv-Control for Windows product. You may obtain information about additional uses for the bv-Config utility by using the online Help provided with the application.

For bv-Control for Windows, the bv-Config utility can be used to install Query Engine services on any Windows machine within your network, as well as promote a Slave Query Engine to a Master Query Engine and demote a Master Query Engine to a Slave Query Engine whenever necessary. You can also define multiple Query Engine settings, including:

• User, computer, and last logon cache storage directories and files
• The number of Data Collection Agents (DCA) a Query Engine uses when gathering data
• Error logging creation, storage, and/or reporting
• Domain reporting mode
• Password analysis
• Query error logging type and level
• Event Logging
• Query Engine security type

For more information about altering Query Engine settings using bv-Config, see "Configuring Query Engine Settings" on page 159.

Query Engine Service

The BindView Query Engine service is a 32-bit service which provides access to the Windows network for the Console and bv-Control for Windows product. The Query Engines process all requests for information from bv-Control for Windows. There are two types of Query Engine services:

• Master Query Engine
• Slave Query Engine

The Master Query Engine receives data requests in the form of a query from the Console. It then divides the query into smaller pieces (jobs) and gives those jobs to Slave Query Engines. The Master Query Engine may keep a certain number of jobs for its Slave Query Engine, depending on the number of slaves in the domain and the current distribution rules.

Both Master Query Engines and Slave Query Engines divide jobs into smaller pieces called atomic jobs. Slave Query Engines use Data Collection Agents (DCA) to process each atomic job. For additional overview information about DCAs, see "Data Collection Agents" on page 24.

Master Query Engine

You should install at least one Master Query Engine in each domain where you want to gather network data. When you install a Master Query Engine, a Slave Query Engine is automatically installed on the machine where you installed the Master Query Engine.

When the Console queries information from a Master Query Engine, it will automatically distribute the jobs among its Slave Query Engines, depending on the number of slaves in the domain and the current distribution rules. The Slave Query Engines collect data and notify the Master Query Engine that the data is ready for retrieval. While the Slave Query Engines and Master Query Engine are gathering data, the Console periodically polls each Master Query Engine for data. If the Master Query Engine has new data, it returns it to the console.

For information on installing a Master Query Engine, see "Installing a Master Query Engine" on page 80. For information regarding the Query Engine Settings dialog, see "Query Engine Settings Tabs" on page 162.

Slave Query Engine

A Slave Query Engine is automatically installed on every machine where a Master Query Engine is installed. You can, however, install additional Slave Query Engines to aid the Master Query Engine in data collection.

Slave Query Engines receive data requests in the form of jobs from a Master Query Engine. When a Slave Query Engine receives a job, it breaks the job into atomic jobs. Like Master Query Engines, Slave Query Engines use DCAs to collect data and fulfill the requirements of each atomic job.

For information on installing an additional Slave Query Engine, see "Installing a Slave Query Engine" on page 94. For information about

Query Engine settings, see "Query Engine Settings Tabs" on page 162.

Data Collection Agents

A Data Collection Agent (DCA) is a BindView program used by the Query Engine services to collect data from your Windows network. By default, each Master Query Engine and Slave Query Engine uses six DCAs to collect data. Using the DCA tab of the Query Engine Settings dialog accessed from bv-Config, this number can decrease to as few as one or increase to as many as thirty. Depending on the machine configuration where the Master Query Engine or Slave Query Engine is installed, you may need to decrease or increase the number of DCAs the Query Engine uses to optimize Query Engine performance. For information on changing DCA settings using the **Query Engine Settings** dialog, see "Agents Tab" on page 169.

BindView Support Service

The BindView Support Service is automatically installed on every machine where you install an Enterprise Configuration Service and a Query Engine service, as well as on any machine when you terminate a process using the bv-Config utility. You may also want to install the service on all domain controllers in order to set up the last logon cache. See "The BindView Support Service" on page 119 for information on installing additional copies of the Support Service.

Component Installation

The Console components are automatically installed when you install bv-Control for Windows. To install the service components— Enterprise Configuration Service, Query Engine services, and the BindView Support Service—you must follow specific procedures. To install an ECS, see "Installing the Enterprise Configuration Service" on page 71.

For information about installing Query Engine services, see "Installing Query Engine Services" on page 79.

You only need to install the BindView Support Service manually when you want to configure domain controllers for last logon caching. If you want to install a Support Service on a domain controller, use the bv-Config utility to install the service. For information about using bv-Config to install the BindView Support Service, see "The BindView Support Service" on page 119.

Query Engine Installation

You must install at least one Master Query Engine in each domain where you want to collect data. When you install a Master Query Engine service, a Slave Query Engine service is automatically installed. You can install additional Masters and Slaves to speed data collection. For information on installing a Master Query Engine service, see "Installing a Master Query Engine" on page 80. For information on installing a Slave Query Engine service, see

Configuring Query Engine Settings

After installing the bv-Control for Windows product, the ECS, and the Query Engine service(s), you may need to adjust certain Query Engine settings to enable the product to collect network data more efficiently.

The **Query Engine Settings** dialog is accessed through the bv-Config utility. Use this dialog to set Query Engine service options such as computer, user, and last logon cache, the number of data collection agents per query engine, disk space storage limitations, number of sessions and processes, as well as error and event log files, password analysis test files, and Query Engine security features.

The bv-Config utility provides another type of Query Engine setting: *distribution rules*. Distribution rules enable you to assign specific Slave Query Engines to process parts of queries (jobs) for a Master Query Engine. This can increase the speed at which a query is processed by creating logical machine groupings.

Using the bv-Config utility, you can also alter a Query Engine's type. The **Promote to a Master Query Engine** and **Demote to a Slave Query Engine** options allow you to change a Master to a Slave or a Slave to a Master.

For information on Query Engine settings, see "Configuring Query Engine Settings" on page 159. For specific instructions on accessing the **Query Engine Settings** dialog, see "Accessing the Query Engine Settings Dialog" on page 160.

Uninstalling the Components

To remove bv-Control for Windows components, you should use the bv-Config utility. If you are removing an Enterprise Configuration Service, the components the ECS database is tracking must be removed in a specific order.

All Query Engine services tracked by the ECS should be removed first. Then any Support Services that have been installed for last logon caching purposes should be removed. Finally, you can remove the ECS.

2   Installing the Product

In This Chapter

System Requirements

You must meet the minimum hardware and software requirements in order to use bv-Control for Windows. This section describes the system requirements for the BindView RMS Console and bv-Control for Windows.

BindView RMS Console System Requirements

Before you install the BindView RMS Console, you should ensure that the workstation and enterprise meet the following minimum requirements:

- Pentium® II 450 MHz
- 256 MB RAM
- 300 MB of free disk space
- SVGA monitor that supports 256 colors with the display set to 800 x 600 pixels
- Microsoft® Windows® 2000 SP3 (server or workstation), Windows XP® Professional SP1, or Windows Server™ 2003 or later
- Microsoft® Outlook® 2000, Novell® GroupWise® v5.5, Lotus Notes® v5.0 or Lotus Domino (only required for e-mailing export files)
- Microsoft® Excel (required for Excel (using OLE) export files)
- Microsoft Internet Explorer v5.5 SP1 or later
- Client for Microsoft® Networks

If you are also installing a local Information Server, your workstation and enterprise must meet the Information Server system requirements below.

Information Server System Requirements

Before you install a v8.00 Information Server, you should ensure that your workstation and enterprise meet the following minimum requirements:

- Pentium III 800 MHz
- 512 MB RAM
- 500 MB of free disk space
- Microsoft Windows 2000 SP3 (server or workstation), Windows XP Professional SP1, or Windows Server 2003 or later
- Microsoft SQL Server v7.0 or 2000, or Microsoft SQL Server Desktop Engine (MSDE) v1.0 or 2000
- Microsoft Internet Explorer v5.5 SP1 or later
- Microsoft Outlook 2000, Novell GroupWise v5.5, Lotus Notes v5.0 or Lotus Domino (only required for e-mailing export files)
- Microsoft Excel (required for Excel (using OLE) export files)
- Client for Microsoft Networks

If you install both a Console and Information Server on the same machine, the machine must meet all of the listed system require-ments.

Version 8.00 of the BindView RMS Console and Information Server requires v8.00 or later bv-Control snap-in modules. You cannot use bv-Control snap-in modules with versions earlier than 8.00 with v8.00 of the BindView RMS Console and Information Server. If you have an earlier version of a bv-Control product, please contact your BindView representative for information about upgrading to a later version.

bv-Control for Windows

There are several different requirements for running each of the bv-Control for Windows components.

bv-Control for Windows

- Pentium III 600 MHz
- 228 MB RAM
- 340 MB of free disk space
- Virtual Memory space three times the size of RAM
- SVGA monitor that supports 256 colors with the display set to 800 x 600 pixels
- Windows 2000 SP3 (Server or Workstation), Windows XP, or Windows Server 2003
- Client for Microsoft Networks

Enterprise Configuration Service

- Windows 2000 SP3 (server or workstation), Windows XP, Windows Server 2003
- Pentium III 600 MHz
- 128 MB RAM
- 300 MB of free disk space

BindView Support Services

- Windows NT 4.0, Windows 2000 (server or workstation), Windows XP, Windows Server 2003
- 32 MB RAM

Note: In large domains, the Support Service on Domain Controllers may require greater resources.

Master or Slave Query Engines**
- Windows 2000 SP3 (server or workstation), Windows XP, Windows Server 2003
- Pentium III 600 MHz
- 256 MB RAM
- 500 MB of free disk space

** These numbers are for the default configuration. Larger scale configurations may require more memory and hard disk space.

Before Installing bv-Control for Windows

bv-Control for Windows requires that the BindView RMS Console and Information Server be installed in order for it to function. Before you install bv-Control for Windows, you must use the BindView RMS Infrastructure CD to install the Console and Information Server. For information on installing the BindView RMS Console and Information Server, please see the *BindView RMS Console and Information Server User Guide*.

During the Console installation process, you must choose the Information Server for the Console you are installing. You can choose to install a local Information Server, or you can connect the Console to an existing Information Server. The Information Server you install or connect to is the default Information Server for the Console.

After you install the BindView RMS Console and Information Server, you use the bv-Control for Windows CD to install the product on the Console and Information Server machines.

Starting Installation

bv-Control for Windows is shipped on a CD. The CD must be available from either a local or remotely mounted CD-ROM drive. If you do not have access to a CD-ROM drive, contact BindView Technical Support for assistance (see "Contacting BindView" on page 18). When you install bv-Control for Windows, it will integrate with an existing BindView RMS Console.

If you are installing bv-Control for Windows for the first time, proceed to "Installing bv-Control for Windows" on page 31.

Note: If you are installing bv-Control for Windows on a secondary Windows 2000 DC that has Active Directory replicated to it, please refer to Appendix A, "Secondary Windows 2000 Installation," on page 333 before installing.

Upgrading bv-Control for Windows

If your machine has a previously installed version of bv-Control for Windows, you need to perform an upgrade installation. For complete information on upgrading, please see the separate guide *bv-Control for Windows Upgrade Guide.*

Installing bv-Control for Windows

After you have reviewed the requirements for bv-Control for Windows (see "System Requirements" on page 28), you can use the Install panel to install bv-Control for Windows.

Before you install, you should review the Readme files for the BindView RMS Console and bv-Control for Windows. The Documentation menu on the bv-Control for Windows CD Install panel provides access to the bv-Control for Windows Readme. The BindView RMS Console Readme is on the BindView RMS Infrastructure CD.

▶ **To install bv-Control for Windows**

1   Insert the bv-Control for Windows CD into the CD-ROM drive for your machine. The Install Panel should appear. If it does not, use the Windows Explorer to open the CD-ROM and double-click **Setup.exe**. The Install Panel will appear.

Fig. 2   bv-Control for Windows Install Panel

2   Click the **Install** button to initiate the installation wizard.

The **Preparing to Install** panel appears.

Fig. 3   Preparing to Install Panel

After the Windows Installer is configured, this panel disappears and the **Welcome** panel of the InstallShield Wizard for bv-Control for Windows appears.

Fig. 4   InstallShield Wizard - Welcome Panel

3   Click **Next** to begin the installation process.

The **License Agreement** panel appears.

Fig. 5   License Agreement

4   Read the license agreement and click **Yes** to accept the terms of the agreement.

The **Start Copying Files** panel appears.

Fig. 6   Start Copying Files

5   Review the information in the Current Settings area and click **Next**.

The BindView Setup Status screen appears while bv-Control for Windows is installed on your machine. Once installation is completed, The **BindView RMS Console Installation Completion** panel appears.

Fig. 7   BindView RMS Console Installation Complete Panel

If you selected **Launch BindView RMS Console** on the Setup Complete panel, the BindView RMS Console Configuration Wizard appears.

If you will be installing BindView Patch Deployment, you should clear the **Launch BindView RMS Console** box and the install BindView Patch Deployment Console before configuring the BindView RMS Console and bv-Control for Windows. For information on installing the BindView Patch Deployment Console, please see Chapter 3, "Installing the BindView Patch Deployment Console," on page 59.

If you selected **View Release Notes** on the Setup Complete panel, the Release Notes for the bv-Control for Windows appears.

6   Select the desired option or options and click **Finish**.

Configuring the Console

After bv-Control for Windows is installed on the Console machine, the BindView RMS Console Configuration Wizard appears. This wizard allows you to perform the minimum configuration required by the Console and Information Server.

You use the BindView RMS Console Configuration Wizard to configure the following items:

• Add/Remove Products
• Add Licenses
• Add Users

Note: You can also use the Console features to custom configure the Console and the Information Server you are currently using to

meet your specific needs. For detailed information, refer to the *BindView RMS Console and Information Server User Guide*.

▶ *To add bv-Control for Windows using the BindView RMS Console Configuration Wizard*

  1 When the BindView RMS Console Configuration Wizard appears, click **Next** on the Welcome panel.

  The **Add/Remove Products** panel appears.

Fig. 8   Add/Remove Products Panel

  2 Check **bv-Control for Windows** to add to the BindView RMS Console and click **Next**.

  The **Add Licenses** panel appears.

Fig. 9   Add Licenses Panel

Adding Product Licenses

In order to use the product, the Console and bv-Control for Windows require licenses to be assigned to the object you want to query. bv-Control for Windows will only report on the number of users that you have licenses for. When you add the necessary licenses, the license contains a limited number of unassigned object licenses. These object licenses are automatically assigned when you run a query. The results of the query will only return data for the amount of object licenses that are available. For example, if the license has 100 available user licenses, the Console will report on 110 users.

▶ *To add licenses*

1   In the **Add Licenses** panel, click your cursor in the text frame beside the **Add** button and enter the license code, then click **Add**. If you have multiple license codes, repeat this procedure for each code.

Note: If your license information is stored on a disk, click the **Have Disk** button. The license code you entered populates both the **License Properties** and **Description** fields with the information applicable to the license. You can also drag the license file into the **License Type** field.

2   After you have added all your licenses, click **Next** to proceed.

The **License Summary** panel appears.

Fig. 10   License Summary Panel

If the Information Server is still missing licenses required for specific features, a caution message appears.

3   Review the license summary information and click **Next**. The
Add Licenses Completed panel appears.

Fig. 11   Add Licenses Completed Panel

4   Review the information on the panel and click **Next** if the panel
does not contain a caution message about missing licenses.

If the panel contains a caution message for missing licenses,
click **Back** to return to the Add Licenses panel and add the
missing licenses.

The **Add/Remove Products in progress** panel appears.

Fig. 12   Add/Remove Products in Progress Panel

5   Observe the progress bars and click **Next** after bv-Control for
Windows is added to the Console.

The **Add Users** panel appears.

Fig. 13   Add Users Panel

Adding Users

You can add multiple users to the Information Server you just installed or are currently using, and select the properties for each added user.

1   To add a user, click in the **Users** below the last listed user, then type the fully qualified path (the domain and the user name), or click below the last defined user and then click the **browse...** button to display a network browser to select the desired user.

2   For each user, check the boxes in the right-hand portion of the panel to grant BindView RMS Console and bv-Control for Windows rights.

The **User can use ActiveAdmin** option is only active if an ActiveAdmin® license is stored on the Information Server.

Use the **Select folder where user can run programs** option to designate the folder location for the user's Run a Program executable choices. The Run a Program option is a post process command for query and baseline tasks added to a task list. For detailed information on task lists, refer to the *BindView RMS Console and Information Server User Guide*.

When you have finished adding users, click **Next** to proceed. For more details on these rights, please see the *BindView RMS Console and Information Server User Guide*.

The **Add Users Summary** panel appears.

Fig. 14   Add Users Summary Panel

3   Review the summary information for the added users and click **Next**.

The completion panel for the configuration wizard appears.

Fig. 15   BindView RMS Console Configuration Wizard - Completion Panel

4   Click **Finish** to close the Configuration Wizard and open the BindView RMS Console.

After you have completed the installation process, the MMC console will appear, as shown in Fig. 16. bv-Control for Windows will appear under the BindView RMS container.

Fig. 16   Console Interface

Notice that the bv-Control for Windows item is "Not Configured." Before you can use bv-Control for Windows, you must configure it using the bv-Control for Windows Configuration Wizard.

Configuring bv-Control for Windows

bv-Control for Windows must be configured properly before you can use it. Use the bv-Control for Windows Configuration Wizard to configure the product with the required items.

Configuration Wizard

Use the bv-Control for Windows Configuration Wizard to perform the following tasks:

• Install or Select an Enterprise Configuration Service

• Install one or more BindView Master Query Engines

• Create one or more Connection Databases

• Create one or more Credential Databases and Assign them to Users

▶ *To configure bv-Control for Windows using the bv-Control for Windows Configuration Wizard*

1   From the Console Tree, open the **bv-Control for Windows** container.

2   In the Details Pane, double-click **<Double click here to configure bv-Control for Windows product>** or open the bv-Control for Windows Configuration Wizard by choosing **Configuration Wizard** from the bv-Control for Windows container shortcut menu.

When the bv-Control for Windows Configuration Wizard starts, the **Welcome Panel** appears.

Fig. 17   bv-Control for Windows Configuration Wizard - Welcome Panel

3   Click **Next** on the Welcome Panel to proceed with the Configuration Wizard.

The **Install BindView Enterprise Configuration Service Panel** appears.

Fig. 18   Install BindView Enterprise Configuration Service Panel

If you have an existing ECS, choose **Select the computer where the ECS is already installed** and click **Next** and proceed with Step 4 below.

If you do not have an existing ECS, then click **Install an ECS for your enterprise** and click **Next** to continue. Skip to Step 6 below to continue.

4 If you chose **Select the computer where the ECS is already installed**, the **Enterprise Configuration Service Selection** panel appears.

Fig. 19 Enterprise Configuration Service Selection Panel

Use this dialog to set the location of the Enterprise Configuration Service (ECS).

5 Enter the ECS information and click **Next** to proceed. Skip to .

6 If you chose **Install an ECS for your enterprise**, the **Enterprise Configuration Service Setup Program** appears.

Fig. 20 Enterprise Configuration Service Setup Program - Welcome Panel

This program leads you through the steps needed to install an Enterprise Configuration Service on your network. To install an ECS, you must know the NetBIOS name of the computer on

which you wish to install and the directory on that computer where the ECS files should be installed.

For complete step-by-step instructions on using this Wizard, please see Chapter 4, "Installing the Enterprise Configuration Service," on page 71.

Once you have installed the ECS, continue with Step 7.

7   The **Install New BindView Query Engines Panel** appears.

Fig. 21   Install New BindView Query Engines Panel

If you used an existing ECS, your existing Master Query Engines (MQE), if any, will be listed here. Your network must have at least one Master Query Engine in *each* domain on which you wish to report. You may wish to install more Master Query Engines to balance Query data collection.

8   If you have no Master Query Engines, click **Install New QE**. The **BindView Query Engine Setup program** appears.

Fig. 22   Welcome Panel - BindView Query Engine Setup

This program leads you through the steps needed to install the Master Query Engine (MQE) on your network. To install a MQE, you must know the NetBIOS name of the computer hosting your ECS, the domain and machine on which you wish to install the MQE, the user name you wish to add as a Service Account for the Query Engine to use, and the directory on that computer where the ECS files should be installed.

For complete step-by-step instructions on using this Wizard, please see Chapter 5, "Installing Query Engine Services," on page 79.

To install more than one MQE, click **Install MQE** again, and repeat the wizard.

Once you have installed the MQE(s), click continue with Step 9.

9   Click **Next.**

The **Add/Remove Connection Databases** panel appears.

Fig. 23   Add/Remove Connection Databases Panel

Connection Databases are groupings of one or more Query Engines that allow the user to run a query. A user can only connect to (and collect information from) Connection Databases in the Connection Databases assigned to them.

10 To create a new Connection Database, click in the **Connection Database Name** field.

The **New Connection Database** dialog appears.

Fig. 24   New Connection Database

11 Type a name for the connection database you are creating, then give the Connection Database a password and verify the password. Click **OK** to create the Connection Database.

12 You can also create additional connection databases. When you have finished creating Connection Databases, click **Next** to continue.

The **Select Query Engines** panel appears.

Fig. 25 Select Query Engines Panel

The left side of the panel contains all the Master Query Engines connected to your ECS. The right side lists all your Connection Databases.

13 Select one or more Query Engines from the left side, then select a Connection Database on the right, then click the **>>** button or double-click the Query Engine to add the Query Engine to the Connection Database.

The Query Engine appears under the Connection Database on the right side of the panel.

Note: Any Query Engine can be part of more than one Connection Database.

---

14 Once you have configured your Connection Databases, click **Next** to proceed.

The **Query Engine Status** panel appears.

Fig. 26   Query Engine Status Panel

15 Verify the status of your Query Engines by selecting them one at a time and clicking **Verify** or click **Verify All**.

bv-Control for Windows will attempt to connect to each Query Engine. When it's finished, the **Status** column should say **Connected**.

16 Click **Next** to proceed.

The **Connection Database Assignment** panel appears.

Fig. 27   Connection Database Assignment Panel

This panel allows you to choose a default Connection Database, or assign Connection Databases to particular users.

17 To assign a default Connection Database, choose the Connection Database from the **Default** drop-down list. To assign a connection database to a particular user, choose the

Connection Database drop-down list beside the user's name and choose the Connection Database that should be assigned to the user. Once you have set up the Connection Database assignments, click **Next** to proceed.

The **Configure User Options** panel appears.

Fig. 28   Configure User Options Panel

This panel allows you to set user options for selected users. If the **Use credentials for query** option is selected, bv-Control for Windows will use the credentials from the user's credential database to run queries.

18 Click **Next** to continue.

19 The **Credential Check** panel appears.

Fig. 29   Credential Check Panel

This panel allows you to review the necessary credentials for your Connection Databases. If you set up any Query Engines with passwords, they will be listed here, and you will need to

add them to Credential Databases. In addition, in order to use ActiveAdmin, you may need to set up credentials for various domains.

20 After you have reviewed the information, click **Next** to modify the credentials.

The **Add Credential Databases** panel appears.

Fig. 30   Add Credential Databases Panel

Credentials Databases are sets of credentials—user name, domain, and password combinations—that allow access to password-protected Query Engines, and allow the Query Engine to perform acts as if they were a user. Credentials Databases are used to access password-protected Query Engines, and to perform ActiveAdmin tasks. A user can only perform tasks allowed by the set of credentials in the currently assigned Credentials Database.

21 To create a new Credentials Database, click in the **Database Name** field and type the new Database's name. When you press **Enter** or click outside the field, the **Create New Database** dialog appears.

Fig. 31   Create New Database Dialog

22 Type a password for the database you are creating, then verify the password. Click **OK** to create the Credentials Database.

If needed, click and type another name to create another Credentials Database. You can have as many credential databases as you need.

23 Click **Next** to proceed.

The **Select Credentials** panel appears.

Fig. 32 Select Credentials Panel

The list on the right-hand side lists the available Credential Databases.

24 Select a Credential Database from the list, then use the browser on the left to add items to the Credential Database.

There are two types of items you can add to the Credentials Database:

- Query Engine Credentials
- Query Credentials
- General Query Credentials

Query Engine Credentials need to be added to the Credentials Database only if they are password protected. To add them, open the Query Engines item, select the Query Engine, and enter its password when prompted.

Query Credentials need to be added to allow users to perform ActiveAdmin tasks. When a user performs an ActiveAdmin task such as making a change to a user, file, share, or other object, the credentials you supply will be used to do so. To add Query Credentials to the Credentials Database, open the **Query Credentials** item and browse to the user account you wish to add as an ActiveAdmin Account. Select the user and click **>>** to add the user, then enter the password when prompted.

The **General Query Credentials** item allows you to specify a user from any domain on your network as an ActiveAdmin Account. To add any user, select **General Query Credentials** and click **>>** to add the account. Enter the Domain, Account Name, and Password to use, and click **OK** to continue.

25 When you have finished adding credentials to the Credential Databases click **Next** to continue.

The **Assign a Credential Database to Each User** panel
appears.

Fig. 33   Assign a Credential Database to Each User Panel

26 For each user you created, select a Credentials Database that
should be assigned to the user from the pop-up list in the
Credential Database column.

27 When you have assigned a Credential Database to each user,
click **Next** to proceed.

The **Configure User Options** panel of the configuration wizard
appears.

Fig. 34   Configure User Options Panel

The **Verifying Configuration Settings** panel appears.

Fig. 35   Verifying Configuration Settings Panel

28 Verify the configuration settings you chose earlier.

29 Click **Next** to continue.

The **Summary** panel appears.

Fig. 36   Summary Panel

30 Review the summary of your configuration.

31 Click **Finish** to close the wizard.

Removing bv-Control for Windows

Removing bv-Control for Windows consists of the following:

• Uninstalling bv-Control for Windows
  or

• Removing bv-Control for Windows from the Console

Uninstalling the Product

You can uninstall bv-Control for Windows from your machine by using the recommended process of removing programs through the **Add/Remove Program Properties** dialog.

▶ *To uninstall bv-Control for Windows*

1   Close all applications running under Windows.

2   Click **Start** from the task bar.

3   Select **Settings**, and click **Control Panel**.

4   From the **Control Panel**, double-click **Add/Remove Programs**.

Fig. 37   Control Panel

5   The **Add/Remove Programs Properties** dialog appears.

Fig. 38   Add/Remove Programs Properties dialog

6   Select **bv-Control for Windows** and click **Change/Remove**.

The **Welcome** panel of the **bv-Control for Windows - InstallShield Wizard** appears.

Fig. 39   Welcome Panel - bv-Control for Windows InstallShield Wizard

Use this panel to modify, repair, or remove the program. The Repair option is selected by default.

7   Select the **Remove** option and click **Next**.

The **Confirm Uninstall** message appears.

8   Click **OK** to completely remove bv-Control for Windows. The InstallShield Wizard will remove bv-Control for Windows from your machine.

The **Maintenance Complete** panel appears.

Fig. 40   Maintenance Complete Panel

9   Click **Finish** to successfully complete the uninstall.

Note: For information on how to uninstall the BindView RMS Console and local or remote Information Servers, please refer to the *BindView RMS Console and Information Server User Guide*.

Removing the Product   You can remove bv-Control for Windows from the Console by using the **Add/Remove Product** wizard.

▶ ***To remove bv-Control for Windows from the Console***

1 From the console tree, right-click on the BindView Risk Management Console container to display the shortcut menu, as shown in Fig. 41.

Fig. 41 BindView Risk Management Console – Shortcut Menu

2 Select the **Add/Remove Product** command.

The **Add/Remove Products Wizard** appears.

Fig. 42 Add/Remove Products Wizard

3 Click **Next**.

The **Add/Remove Products** panel appears.

Fig. 43   Add/Remove Products Panel

4   Uncheck **bv-Control for Windows** and click **Next**.

5   A message appears instructing you to restart the RMS Console.

6   Click **OK** to continue.

The **Add/Remove Products in Progress** panel appears.

Fig. 44   Add/Remove Products in Progress Panel

7   Click Next to continue.

The **Add/Remove Products Wizard** reappears.

Fig. 45   Add/Remove Products Completion Panel

8   Click **Finish** to close the Add/Remove Products wizard.

3   Installing the BindView Patch Deployment Console

In This Chapter

Introduction

BindView Patch Deployment is an optional feature of bv-Control for Windows. BindView Patch Deployment allows you to use bv-Control for Windows to scan Windows machines on your network for missing patches and report on the missing patches. After scanning, you can use the Patch Packaging wizard to create Patch Packages to deploy using a third-party tool, or you can use the BindView Patch Deployment Console to create and deploy packages.

The Patch Assessment Data Source, which is used to scan for missing patches, is installed when you install bv-Control for Windows. The Patch Packaging wizard, which packages patches for downloading to target machines, is also installed with bv-Control for Windows. This chapter discusses the requirements for and installation of the BindView Patch Deployment Console.

BindView Patch Deployment Console Requirements

Before you can install the BindView Patch Deployment Console, your computer must meet certain requirements. These requirements are for the BindView Patch Deployment Console only.

- Pentium® III 600 MHz Processor
- 324 MB RAM
- 235 MB of free disk space (Windows® 2000 SP3 or Windows® XP Professional)
- SVGA display that supports 256 colors with the resolution set to 1024 x 768 pixels or greater
- BindView RMS® Console and Information Server v7.30 SP1 or later
- bv-Control for Windows v7.35 or later
- Windows 2000 SP3 (server or workstation)
- Microsoft Internet Explorer 5.5
- Client for Microsoft Networks
- MDAC 2.7 or later
- MSJET 4.0 SP6 or later
- MSXML 4.0 or later
- Microsoft .NET Framework 1.0 or later

If any of the last four items are missing, you can install them using the BindView Patch Deployment installer.

Before Installing the Patch Deployment Console

The BindView Patch Deployment Console requires that both the BindView RMS Console and bv-Control for Windows be installed in order for it to function. Before you install the BindView Patch Deployment Console, you must use the BindView RMS Infrastructure CD to install the Console and Information Server. For information on installing the BindView RMS Console and Information Server, please see the *BindView RMS Console and Information Server User Guide*. In addition, you must install bv-Control for

Windows. For information on installing bv-Control for Windows, please see Chapter 2, "Installing the Product," on page 27.

Installing the BindView Patch Deployment Console

BindView Patch Deployment is shipped on the same CD as bv-Control for Windows. The CD must be available from either a local or remotely mounted CD-ROM drive. If you do not have access to a CD-ROM drive, contact BindView Technical Support for assistance (see "Contacting BindView" on page 18). When you install BindView Patch Deployment, it will integrate with an existing BindView RMS Console v7.30 SP 1 or later and bv-Control for Windows v7.35 or later installation.

If your machine has an earlier version of bv-Control for Windows, you must upgrade to the latest version of bv-Control for Windows to support BindView Patch Deployment. For more information on how to upgrade bv-Control for Windows, refer to "Upgrading bv-Control for Windows" on page 31.

After you have reviewed the requirements for the BindView Patch Deployment Console (see "BindView Patch Deployment Console Requirements" on page 60), you can use the Install panel to install the BindView Patch Deployment Console.

1   Insert the bv-Control for Windows CD into the CD-ROM drive for your machine. The Install Panel should appear. If it does not, use the Windows Explorer to open the CD-ROM and double-click **Setup.exe**. The Install Panel will appear.

2   If you are already installing bv-Control for Windows, the **Install** panel reappears after you have installed bv-Control for Windows.

Fig. 46   bv-Control for Windows Install Panel

3 Click **Install Products** and the **Install Products** panel appears.

Fig. 47 bv-Control for Windows Install Products Panel

4 Click **BindView Patch Deployment**. The BindView Patch Deployment installation panel appears.

Fig. 48 BindView Patch Deployment Installation Panel

5 The BindView Patch Deployment installer first checks your machine to see that it meets the prerequisites.

If all required components are present, an **OK** icon ⊙ appears next to all the prerequisites. Click **Install** to install BindView Patch Deployment. The **Welcome** panel will appear.

If any of the prerequisites are missing, a red X icon ⊗ appears beside the prerequisite. Click **Install** to install the missing items. You may be required to reboot after installing the missing components. If you are required to reboot, begin the installation again.

When all required components are installed, the Patch Deployment wizard starts and the **Welcome** panel (Fig. 49 on page 63) appears.

Fig. 49   Welcome Panel

6   Read the Welcome panel, and click **Next**. The **License Agreement** panel appears.

Fig. 50   License Agreement Panel

7   Read the license agreement and click **Yes** to accept the terms of the agreement. The **Customer Information** panel appears.

Fig. 51   Customer Information Panel

8   Enter a **User Name** and **Company Name**, then click **Next**. The **Choose Destination Location** panel appears.

Fig. 52   Choose Destination Location Panel

9 Click **Browse** to select a location and click **Next**, or click **Next** to use the default location. The **Select Program Folder** panel appears.

Fig. 53 Select Program Folder Panel

10 Enter a **Start** menu program folder or choose an existing folder for the program icons, click **Next** to use the default location. The **Start Copying Files** panel appears.

Fig. 54 Start Copying Files Panel

11 Click **Next** to copy the files to the computer. The **Setup Status** panel shows the progress of the installation.

Fig. 55 Setup Status Panel

12 When copying is complete, the **InstallShield Wizard Complete** panel appears.

Fig. 56 InstallShield Wizard Complete Panel

13 Click **Finish** to complete the installation.

14 Click **Close** in the **BindView Patch Deployment** installer dialog.

Removing the BindView Patch Deployment Console

To remove the Patch Assessment Data Source and Patch Packaging Wizard components of BindView Patch Deployment, you must remove bv-Control for Windows.

To remove the BindView Patch Deployment Console, you use the **Add/Remove Program Properties** dialog.

▶   *To uninstall BindView Patch Deployment Console*

1   Close all running BindView products.

2   Click **Start** in the Task Bar.

3   Choose **Settings** then **Control Panel**. The Control Panel appears.

Fig. 57   Control Panel

4 Double-click **Add/Remove Programs**. The **Add/Remove Programs** Control Panel appears.

Fig. 58 Add/Remove Programs Control Panel

5 Select **BindView Patch Deployment** and click **Remove**. The **Welcome** panel appears.

Fig. 59 Welcome Panel

6 Choose **Remove**, then click **Next**. The **Confirm Uninstall** confirmation message appears.

Fig. 60 Confirm Uninstall

7 Click **OK** to remove the BindView Patch Deployment Console. The **Setup Status** panel appears, showing the progress of the removal.

Fig. 61 Setup Status Panel

8 When the removal is complete, the **Maintenance Complete** dialog appears. Click **Finish** to complete the removal.

4   Installing the Enterprise Configuration Service

In This Chapter

Enterprise Configuration Service

The Enterprise Configuration Service (ECS) is a 32-bit service that maintains a list of Master and Slave Query Engines in your network. It also maintains the rules for Query Engine data collection.

After the BindView RMS Console and the bv-Control for Windows product have been installed, you must install an ECS. Normally, the ECS is installed when you run the bv-Control for Windows Configuration Wizard. If you currently have a previously installed ECS from an earlier version of bv-Control for Windows or NOSAdmin for Windows NT, please consult the *bv-Control for Windows Upgrade Guide*.

Launching the ECS Install

There are two methods you can use to install the ECS. You can install it from within the bv-Control for Windows Configuration Wizard, or you can install it manually. When installing an ECS, the bv-Config utility is automatically installed on the machine where the ECS is installed. The BindView Support Service is also installed and started.

If you wish to install the ECS manually, follow the procedures outlined in . Perform the following steps to install the ECS and the bv-Config utility (the BindView Configuration Manager) using the bv-Control for Windows Configuration Wizard.

▶ *To launch the ECS using the autorun program*

1 Insert the bv-Control for Windows CD-ROM and install bv-Control for Windows.

2 Run the BindView RMS Console. From the Console Tree, open the **bv-Control for Windows** container.

3 In the Details Pane, double-click the bv-Control for Windows Configuration Wizard by choosing **Configuration Wizard** from the bv-Control for Windows container shortcut menu.

When the bv-Control for Windows Configuration Wizard starts, the **Welcome Panel** appears.

1 Click **Next** on the Welcome panel to proceed with the Configuration Wizard.

Fig. 62 Welcome Panel

The **Install BindView Enterprise Configuration Service** panel appears.

Fig. 63 Install BindView Enterprise Configuration Service Panel

Click **Install an ECS for your enterprise** and click **Next** to continue.

The **Welcome** dialog for the ECS install appears. Proceed to "Installing the ECS" on page 74.

▶ *To launch the ECS manually*

1 Insert the product CD in the CD-ROM of a local or shared drive.

2 From the Windows **Start** menu, select **Run**.

3 Run the program SETUP.EXE from the \bv-Control for Windows\ECS directory.

Note: You can type the path directly into the **Open** box, but be sure to include the entire path in quotation marks, including the drive letter, as shown below.

"<CD-ROM Drive Letter>:\bv-Control for Windows\ECS\SETUP.EXE"

4 Click **OK** in the **Run** dialog. The **Welcome** dialog for the ECS install appears.

Installing the ECS

After the installation program starts, the **Welcome** dialog appears.

Fig. 64 Welcome Dialog

1 Read the information in the **Welcome** dialog, and click **Next**.

The **Select Computer To Install Service On** dialog appears.

Fig. 65   Select Computer To Install Service On Dialog

Destination Computer

By default, the **Destination Computer** box displays the machine name from which you launched the ECS setup program.

Optional: To choose a different computer, type the name of the computer or click **Browse** to select the computer.

TCP/IP Port

The **TCP/IP Port** box contains the port number that the ECS uses to listen for the RPC requests. If the **TCP/IP Port** box is set to **<Default>**, the RPC system will select a port number dynamically.

Optional: Enter the port number the ECS should use in the **TCP/IP Port** box.

2   Once you are satisfied with the computer and port the ECS will be installed on, click **Next**.

The **Choose Destination Location** dialog appears.

Fig. 66   Choose Destination Location Dialog

4: Installing the Enterprise Configuration Service   **75**

> By default the **Destination Directory** box displays C:\Program Files\BindView\ECS as the installation path for the ECS. If you prefer, you can type a different path or click **Browse** to select a different path.

3 To install the ECS to the selected path, click **Next**. The **Final Settings** dialog appears (Fig. 67). The **Final Settings** dialog displays the machine and path name where the ECS will be installed.

Fig. 67   Final Settings Dialog

4 When you are satisfied with the choices you made, click **Next** to continue; otherwise, click **Back** to return to the appropriate page of the wizard and make changes.

The **Installation Status** dialog appears and displays the actions being taken to install the ECS.

Fig. 68   Installation Status Dialog

When the installation is complete, the **Setup Complete** dialog appears.

Fig. 69 Setup Complete Dialog

5 Click **Finish** to close the dialog and exit the wizard.

Note: When installing the ECS and Query Engine on a Windows 2000 native domain DC that is not a PDC emulator, an error message may appear stating that "the service did not respond to the start or control request in a timely fashion." This is because Windows 2000 does not allow forcing synchronization of domains. If this occurs, you should manually start the service using Windows native tools or the bv-Config utility.

---

5   Installing Query Engine Services

In This Chapter

Query Engine Services

After you have installed the Enterprise Configuration Service (ECS), you must install one or more Query Engine services. If you currently have a previously installed Query Engine earlier versions of bv-Control for Windows or NOSadmin® for Windows NT®, please consult the *bv-Control for Windows Upgrade Guide* for information on upgrading. This chapter explains how to install a Master Query Engine (Master), Slave Query Engine (Slave), and how to upgrade the Query Engine.

For information on how to upgrade the Query Engine, refer to .

Installing a Master Query Engine

A Master Query Engine receives all data collected from the Slave Query Engines and the Data Collection Agents (DCA) used by those Slaves assigned to it. Use the bv-Config utility or the bv-Control for Windows Configuration Wizard to install a Master Query Engine.

To collect data from every domain in your network enterprise, you must install at least one Master Query Engine in every domain from which you want to collect data. When you install a Master Query Engine, a Slave Query Engine is also automatically installed. If you want to improve data collection performance, you can install additional Slave Query Engines within a Domain.

Generally speaking, you should install a single Master Query Engine within each Domain.

Note: Depending on your Domain configuration and network layout, installing a single Master Query Engine in a Domain may not be the optimal configuration for your environment. For further information regarding Query Engine setup for your specific environment, please contact BindView Technical Support (see).

When you install a Query Engine, you must be logged on either as a member of the Local Admins group on the machine where you are installing the Query Engine, or as a member of the Domain Admins group for that domain. When possible, you should be logged in as a Domain Admin when installing Query Engines.

At a minimum, you must supply the Query Engine with these Local Admin credentials. The resulting Query Engine will be able to collect complete information on the machine on which it is installed and other machines where its credentials are also a member of the Local Admins group, and a minimum of information on other machines in the domain. To collect information on other machines in the domain, you must install additional Slave Query Engines, supplying credentials that are in the Local Admins group on each host machine.

▶ *To start the bv-Config utility*

1 Choose **bv-Config** from the BindView RMS group in the Windows **Start** menu, or run the BindView RMS Console. In the Console tree, expand the bv-Control for Windows container.

2 Open the Configuration folder.

3 In the Details pane, double-click the bv-Config icon.

If this is your first time to run bv-Config, you will be prompted to choose filtering options on the **Computer Filtering Options** dialog.

Fig. 70 Computer Filtering Options dialog

4 Select the desired options and click **OK**.

The domain/machine view of the bv-Config utility window appears.

Fig. 71 bv-Config Utility Window – Domain/Machine View

To view the machines in a domain, click the plus sign (+) to the left of the domain name icon, or double-click the domain name. The machines that are members of the selected domain are indented beneath the domain.

▶ ***To select a host for the master query engine***

1   Select the computer where you want to install a Master Query Engine.

Fig. 72   bv-Config Utility Window – Machine View.

The right-hand component of the bv-Config utility displays various icons. These icons indicate the actions you can perform or the information you can view for the chosen machine. The **Comment** column to the right contains a description of the actions that occur when the icon is double-clicked.

One of the options for all machines is to install a new Query Engine.

2   Double-click the **Install Query Engine** icon, or right-click the machine on which you want to install the Query Engine service and select **Install Query Engine**.

▶ ***To set up the query engine on the selected computer(s)***

The **Select Computer(s) To Install On** dialog appears.

Fig. 75   Select Computer(s) To Install On Dialog

The computer(s) you chose from the bv-Config window, or the computer on which the **bv-Control for Windows Config Wizard** is running appears in the **Selected Computers** list. These selections cannot be changed from this dialog.

Caution: If installing to a file allocation table (FAT) file system, a warning dialog appears. Installing on a FAT file system can compromise file security. If this is acceptable, click **OK**.

---

5   Click **Next** to proceed.

The **Service Account Information** dialog appears.

Fig. 76   Service Account Information Dialog

This dialog enables you to create a service account that allows advanced security access to certain network data.

▶ *To set up the service account*

1   Select a domain, then enter a user name and password and confirm the password.

Note: A warning message will appear if fewer than 7 characters are used in the **Password** field. Click **OK** to proceed.

---

2   Click **Next**.

The **Query Engine Settings - Network Caching** dialog appears (Fig. 77).

Network Caching

The Master Query Engine maintains a cache of machine information which is periodically updated from the network at a time interval you specify. This cache includes basic machine information necessary to efficiently process a report, such as each machine's type (workstation, server, PDC, or BDC) and status (up or down). The cache update uses free CPU time to collect its data and yields resources to other processes as needed.

Fig. 77   Query Engine Settings – Network Caching

The number entered in the **Update Interval** box indicates the number of minutes between the beginning of an update and the beginning of the next update. Caching this information is especially beneficial for large networks, because information is updated on a regular basis. The default interval period is 240 minutes.

▶ *To set the update interval*

1   Accept the default time frequency or, in the **Update Interval** box, enter the number of minutes the Query Engine should wait between the beginning of each network update. You may also use the up and down arrows to set the desired time interval.

Note: The **Query Engine Settings - Network Caching** dialog provides basic caching options. Advanced update options are available using the **Cache** tab of the **Query Engine Settings** dialog accessed through the bv-Config utility. For information on setting advanced caching options, see "Cache Tab" on page 163.

User Caching

The Master Query Engine can optionally maintain a cache of user information that is periodically updated from the network. This information includes basic user properties, except passwords, that are stored in the NT Security Account Manager (SAM) database.

The number entered in the **Update Interval** box indicates the number of minutes between the beginning of an update and the beginning of the next update. If you have a site with a large number of users, you should use this option. Without using it, the amount of time required to gather user data may be substantially increased. The default interval period is 240 minutes.

Note: If you install the Query Engine service on a PDC or a BDC, the service (by default) collects user data from the PDC or BDC to which it is installed. This provides faster updates and less network traffic.

To change the domain controller from which a Query Engine service updates its user cache after the service is installed, use the **Advanced User Cache Options** dialog accessed through the bv-Config utility. For instructions on setting the domain controllers for user caching, see "To set advanced user cache options" on page 167.

▶ **To set user caching**

1 Click the **Enable** box.

2 Accept the default time interval, or enter the number of minutes you want the service to wait between the beginning of one update and the beginning of the next update in the **Update Interval** box. You may also use the up and down arrows to select the **Update Interval**.

Note: The **Query Engine Settings - User Caching** dialog provides basic caching options. Advanced update options are available using the **Cache** tab of the **Query Engine Settings** dialog accessed through the bv-Config utility. For information on setting advanced caching options, see "Cache Tab" on page 163.

Selecting a Machine Port

Optionally, the Query Engine allows communications over a specified communication port. This feature is useful when it is necessary to communicate with a Query Engine over a firewall.

Fig. 78 Query Engine Settings – Select Machine Port

▶ *To define the communications port*

1 Select one or more Query Engines from the **Computer** list.

2 Click **Assign**.

The **Assign IP Ports** dialog appears.

Fig. 79 Assign IP Ports Dialog

3 Enter the port number used to communicate with the Query Engine in the **Port Number** box.

Note: This number will be assigned to all selected Query Engines. If empty, the port number will be dynamically determined by the RPC subsystem. For more information on how to assign port settings, refer to "Port Settings" on page 150.

4 Click **OK**.

The **Query Engine Settings – Select Machine Port** dialog re-appears.

5 Click **Next**.

The **Select Destination Directories** dialog appears (Fig. 80).

Selecting a Destination Directory

The **Select Destination Directories** dialog enables you to choose the directory in which to install the Query Engine service files. The default directory is C:\Program Files\BindView\BVNTQE.

Fig. 80   Select Destination Directories Dialog

▶ *To select a destination directory*

6   If you choose to accept the default directory, Click **Next**. Proceed to .

Warning: If you choose to install the Query Engine on a volume that uses FAT formatting rather than NTFS, the **Machine Verify Report** dialog appears. This indicates that the Query Engine directories cannot be fully secured on a FAT partition. For security reasons, BindView recommends that you install the Query Engine on an NTFS volume.

▶ *To change the installation directory*

1   Select the directory from the **Destination Directory** column.

2   Click **Browse**. The **Browse** dialog appears.

Fig. 81   Browse Dialog – Destination Directory

3   Select a directory from the **Directories** list or type a path name in the **Path** box.

Note: Volume icons with a yellow key in the top indicate an NTFS volume. For security reasons, we strongly recommend that you install the Query Engine on an NTFS volume.

---

4   Click **OK**. If the path you entered does not exist, the program warns that the directory does not exist and prompts you to accept creation of the directory. Click **Yes** to create the directory.

The directory you selected appears in the **Destination Directory** column of the **Select Destination Directories** dialog.

5   Click **Next**.

> ***Warning:*** If you chose to install the Query Engine on a volume that uses FAT formatting rather than NTFS, the **Machine Verify Report** dialog appears. This indicates that the Query Engine directories cannot be fully secured on the FAT partition. For security reasons, BindView recommends that you install the Query Engine on an NTFS volume.

Fig. 82   Machine Verify Report Dialog

6   Click **OK**.

The **Select Master/Slave Configuration** dialog appears.

Fig. 83   Select Master/Slave Configuration Dialog

The **Select Master/Slave Configuration** dialog (Fig. 83) allows you to select which machines you wish to designate as Master Query Engines or Slave Query Engines. Initially, all machines are placed in the Slave Query Engine list. To install a Master Query Engine, you must move the machine from the Slave Query Engine list to the Master Query Engine list.

▶ ***To designate a query engine as a master during installation***

Perform the following steps to designate a selected machine as a Master Query Engine.

1 Select the machine from the **Slave Query Engines** list and click the right arrow button, or double-click the machine name.

The machine moves from the **Slave Query Engines** list to the **Master Query Engines** list.

2 Click **Next**.

The **Assign Slave Query Engines to Master Query Engines** dialog appears.

Fig. 84 Assign Slave Engines to Master Query Engines Dialog

When installing a Master Query Engine, the **Assign Slave Query Engines to Master Query Engines** dialog displays the name of the machine to which you are installing the Master in both the **Slave Query Engines** and **Master Query Engines** lists. This is because when you install a Master, you also install a Slave, and the Slave is automatically assigned to the Master on the same computer.

The **Master Query Engines** list displays all Masters already installed in the domain, as well as the machine name where you are installing the new Master. A box appears to the left of each machine. By default, all boxes are selected. A selected box indicates that the Slave will be configured to collect data for each of the Masters selected in the **Master Query Engines** list.

▶ ***To assign slave query engines to master query engines***

1 In the **Master Query Engines** list, click those boxes to the left of the Masters for which you do not want the Slave to collect data. The boxes that remain checked will be the Masters for which the Slave Query Engine will collect data.

From the left-hand component of the bv-Config window, click on the Slave Query Engine you are configuring. The **Master**

Query Engine list will display the Master Query Engines that are assigned to the Slave Query Engine you selected.

2 Click **Next**. The **Final Settings** dialog appears (Fig. 85).

After you supply all necessary information for the Query Engine installation program, the **Final Settings** dialog displays the choices you made during installation setup.

Fig. 85   Final Settings Dialog

3 Review the settings. If any corrections are necessary, use the **Back** button to return to the dialog that requires changes. Make the desired changes, and click **Next** until you return to the **Final Settings** dialog.

4 Click **Next**. The **Installation Status** dialog appears.

Fig. 86   Installation Status Dialog

You may be prompted to synchronize one or more Master Query Engines.

5 If the **Synchronizing Master Query Engines** dialog appears, select the Query Engines to synchronize and click **Synchronize**.

Fig. 87 Synchronizing Master Query Engine(s) Dialog

When the installation is finished, the **Setup Complete** dialog appears, indicating whether or not the installation was successful.

Fig. 88 Setup Complete Dialog

6 Read the information supplied in the **Results** column and the **Detail** box, and click **Finish**.

The bv-Config utility window or the bv-Control for Windows Configuration Wizard appears, depending on how you began installing the Master Query Engine.

After you install a Master Query Engine, you may want to change some of the default settings based on your network setup. For information about Query Engine Service settings and modifying them, see "Configuring Query Engine Settings" on page 159.

Installing a Slave Query Engine

A Master Query Engine receives data collected from the Slave Query Engines assigned to it, as well as from its own Data Collection Agents. To speed the data collection process, you may want to install additional Slave Query Engines. Use the bv-Config utility to install a Slave Query Engine.

Selecting a Host for the Slave

1 Select the computer where you want to install a Slave Query Engine.

Fig. 89 bv-Config Utility Window - Machine View

The right-hand component of the bv-Config utility window displays various icons. These icons indicate the actions you can perform or the information you can view for the chosen machine. The **Comment** column to the right of the icons contains a description of the actions that occur when the icon is double-clicked. One of the options for all machines is to install a new Query Engine.

2 Double-click the Install Query Engine icon, or right-click the machine on which you want to install the Query Engine service and select the **Install Query Engine** command.

The **Welcome** dialog for the Query Engine Service setup program is displayed.

3 Read the information provided on the **Welcome** dialog, and click **Next.** The **Select Domain/Workgroup To Install To** dialog appears.

Fig. 90   Select Domain/Workgroup To Install To Dialog

4 By default, the **Enterprise Configuration Service** box displays the ECS the bv-Config utility is using and the domain where the Query Engine is located. Use these default items, or click the browse (**...**) buttons to locate another ECS or Domain. When you're ready to proceed, click **Next**.

▶ *To set up the query engine on the selected computer(s)*

1 The **Select Computer(s) To Install On** dialog appears.

Fig. 91   Select Computer To Install On Dialog

2 The computer(s) you chose from the bv-Config utility window appears in the **Selected Computers** list. The selected computers cannot be changed from this location. Click **Next**.

> ***Caution:*** If installing to a FAT file system, a warning dialog appears. Installing on a FAT file system can compromise file security. If this is acceptable, click **OK**.

The **Service Account Information** dialog appears.

Fig. 92 Service Account Information Dialog

This dialog enables you to create a service account that allows advanced security access to certain network data.

▶ ***To set up the service account***

1 Enter a user name and password and confirm the password. If the user name you entered already exists, you will be prompted to verify that you want to use the existing account.

2 Click **Next**. The **Query Engine Settings - Network Caching** dialog appears ().

Network Caching The Master Query Engine maintains a cache of machine information which is periodically updated from the network at a time interval you specify. This cache includes basic machine information necessary to efficiently process a report, such as each machine's type (workstation, server, PDC, or BDC) and status (up or down).

The cache update uses free CPU time to collect its data and yields resources to other processes as needed.

Fig. 93   Query Engine Settings – Network Caching

Note: Slave Query Engines do not cache data; however, you may want to configure Slaves for caching in case you later want to promote them to be Masters. For information on promoting a Slave Query Engine to a Master Query Engine, see "Promoting a Slave Query Engine" on page 219.

The number entered in the **Update Interval** box indicates the number of minutes between the beginning of an update and the beginning of the next update. Caching this information is especially beneficial for large networks, because information is updated on a regular basis. The default interval period is 30 minutes.

▶   *To set the update interval*

1   Accept the default time interval or, in the **Update Interval** box, enter the number of minutes the Query Engine should wait between the beginning of each network update. You may also use the up and down arrows to set the desired time interval.

Note: The **Query Engine Settings - Network Caching** dialog provides basic caching options. Advanced update options are available using the **Cache** tab of the **Query Engine Settings** dialog accessed through the bv-Config utility. For information on setting advanced caching options, see "Cache Tab" on page 163.

User Caching   Master Query Engines can optionally maintain a cache of user information that is periodically updated from the network. This information includes basic user properties, except passwords, that are stored in the NT Security Account Manager (SAM) database. Slave Query Engines do not cache data; however, you may want to

configure Slaves for caching in case you later want to promote them to be Masters.

The number entered in the **Update Interval** box indicates the number of minutes between the beginning of an update and the beginning of the next update. If you have a site with a large number of users, you should use this option. Without using it, the amount of time required to gather user data may be substantially increased. The default interval period is 45 minutes.

If you install the Query Engine service on a PDC or a BDC, the service (by default) collects user data from the PDC or BDC to which it is installed. This provides faster updates and less network traffic.

Note: To change the domain controller from which a Query Engine service updates its user cache after the service is installed, use the **Advanced User Cache Options** dialog accessed through the bv-Config utility. For instructions on setting the domain controllers for user caching, see "To set advanced user cache options" on page 167.

▶ *To set user caching*

1 Click the **Enable User Caching** box.

2 Accept the default time interval, or in the **Update Interval** box, enter the number of minutes you want the service to wait between the beginning of one update and the beginning of the next update. You may also use the up and down arrows to select the **Update Interval**.

Note: The **Query Engine Settings - User Caching** dialog provides basic caching options. Advanced update options are available using the **Cache** tab of the **Query Engine Settings** dialog accessed through the bv-Config utility. For information on setting advanced caching options, see "Cache Tab" on page 163.

3 Click **Next**.

The **Query Engine Settings - Select Machine Port** dialog appears.

Fig. 94   Query Engine Settings – Select Machine Port

▶ *To define the communications port*

1   Select one or more Query Engines from the **Computer** list.

2   Click **Assign**.

The **Assign IP Ports** dialog appears.

Fig. 95   Assigning IP Ports Dialog

3   Enter the port number in the **Port Number** box.

Note: This number will be assigned to all selected Query Engines. If empty, the port number will be dynamically determined by the RPC subsystem. For more information on how to assign port settings, refer to "Port Settings" on page 150.

4   Click **OK**.

The **Query Engine Settings – Select Machine Port** dialog re-appears.

5   Click **Next**.

The **Select Destination Directories** dialog appears (Fig. 96 on page 100).

Selecting a Destination Directory

The **Select Destination Directories** dialog enables you to choose the directory in which to install the Query Engine service files. The default directory is C:\Program Files\BindView\BVNTQE.

Fig. 96   Select Destination Directories Dialog

1   If you choose to accept the default directory, click **Next**.

Warning: If you choose to install the Query Engine on a volume that uses FAT formatting rather than NTFS, the **Machine Verify Report** dialog appears. This indicates that the Query Engine directories cannot be fully secured on FAT partitions. BindView recommends that you install the Query Engine on NTFS.

The **Select Master/Slave Configuration** dialog appears.

Fig. 97   Select Master/Slave Configuration Dialog

▶ ***To designate a query engine as a slave during installation***

The **Select Master/Slave Configuration** dialog (Fig. 97) allows you to select which machines you wish to designate as Master Query Engines or Slave Query Engines. Initially, all machines are placed in the Slave Query Engine list. To install a Master Query Engine, you must move the machine from the Slave Query Engine list to the Master Query Engine list.

1 Click **Next** to install a Slave Query Engine to the machine that appears in the **Slave Query Engines** list.

The **Assign Slave Query Engines to Master Query Engines** dialog appears.

Fig. 98 Assign Slave Engines to Master Query Engines Dialog

The **Assign Slave Query Engines to Master Query Engines** dialog displays the name of the machine where you are installing the Slave Query Engine in the **Slave Query Engines** list. The **Master Query Engines** list displays all Masters already installed in the domain. A box appears to the left of each Master Query Engine. By default, all boxes are selected, indicating that the Slave(s) you are installing will be available to each of those Masters for data collection.

2 In the **Master Query Engines** list, click those boxes to the left of the Master Query Engines for which you do not want the Slave(s) to collect data. The boxes that remain checked will be the Masters for which the Slave Query Engine(s) will collect data.

From the left-hand component of the bv-Config utility window, click on the Slave Query Engine you are configuring. The **Master Query Engine** list will display the Master Query Engines that are assigned to the Slave Query Engine you selected.

3 Click **Next**. The **Final Settings** dialog appears (Fig. 99).

After you supply all necessary information for the Query Engine installation program, the **Final Settings** dialog displays the choices you made during installation setup.

Fig. 99   Final Settings Dialog

1   Review the settings in the dialog. If any corrections are necessary, use the **Back** button to return to the dialog that requires changes.

2   Make the necessary changes, then click **Next** to return to the **Final Settings** dialog.

3   Click **Next**. The **Installation Status** dialog appears.

Fig. 100 Installation Status Dialog

You may be prompted to synchronize one or more Master Query Engines.

4 If the **Synchronizing Master Query Engines** dialog appears, select the Query Engines to synchronize and click **Synchronize**.

Fig. 101 Synchronizing Master Query Engine(s) dialog

5 Click **Close** when the Synchronization is complete.

When the installation is finished, the **Setup Complete** dialog appears, indicating whether or not the installation was successful.

Fig. 102 Setup Complete Dialog

6 Read the information supplied in the **Results** column and the **Detail** box, and click **Finish**. The bv-Config utility window is displayed.

After you install a Slave Query Engine, you may want to change some of the default settings based on your network setup. For information about modifying Query Engine Service settings, see "Configuring Query Engine Settings" on page 159.

Silently Installing a Query Engine

bv-Control for Windows allows you to install a query engine silently. To use the silent install feature, you have to apply the install package onto the target computer and start the silent installation process. This can be done via a third party product such as Microsoft SMS. In order for the silent install to work, you will need to specify a setup configuration file for the silent install. This file will contain all the information necessary for the installation. The setup configuration file must use the .ini format and can have any name.

Preparing for the silent installation

Before you begin the silent install, you must first create the setup file. This file will include information such as the ECS settings, reporting domain, and service account. In the **bv-Control for Windows/Query Engine** folder is an example .ini file for you to pattern your setup file after. This file is named **SilentInstall.ini.Example**. The following information is what you will find in the example file.

Note: The Service Account you specify must be an existing or new account, as the Service Account is not created during the silent installation. The Service Account will be specified in the CMD file, as explained in the following section.

[Upgrade]

KeepSetting=0

The KeepSetting value can be either 0 or 1. If the value is 0, the install uses the settings specified in the .INI file. Otherwise, the upgrade takes place without changing the settings. If no previous installation is detected, the setting is ignored.

[ECS]

HostName=mymachinex1

NBName=MYMACHINEX1

IPAddr:00.000.00.000

Port=

[Report Domain]

RptDomain=mydomain

Specify the reporting domain or workgroup name in Windows NT4 format.

[Groups]

AdminLocalGroup=Bindview Administrators

QEUserLocalGroup=Bindview QE Users

[Service Account]

AddToDomainAdmin=1

The value entered here can be either 1 or 0. If a value of 1 is specified, the Service Account will be added into the domain admin group of the reporting domain.

[Cache Settings]

MachineInterval=240

UserEnabed=0

UserInterval=240

Specify the value in minutes.

[TCP Port]

PortNumber=

[Firewall Settings]

EnableRegistration=1

ScopeType=2

ScopeList=192.168.0.0/255.255.0.0,10.20.20.20/255.0.0.0

These settings will enable firewall registration in the Windows Firewall that is included with Windows XP Service Pack 2.

EnableRegistration = When set to 0, firewall registration will not be enabled; 1 will enable it.

ScopeType = When set to 0, scope type is set to Any Computer; when set to 1, scope type is set to My Network; when set to 2, will be set to the custom scope list specified in the last value.

[Target Directory]

DestDir="c:\bindview\bvntqe"

[Role]

IsMQE=1

The value entered here can be either 1 or 0. A value of 1 means that that Query Engine to be installed will be a Master.

[Used By MQEs]

MQEList="mymachinex1", "mymachinex2", "mymachinex3"

Specify the list of Master Query Engines that the installed Query Engine will be used by.

Once all of the information is added to the file, save the information as an .ini file. This file will be needed for the silent installation.

Performing the silent installation

In the **bv-Control for Windows/Query Engine** folder, there is an example silent installation file for you to follow. This file is named **SilentInstall.cmd.Example**. The information in this file tells you the commands needed to start the silent installation with a specified service account, username, and password, as well as how to start a silent installation using the LocalSystem as the service account.

During the silent installation, an install log is created for you to view successful and failed installations. On machines running Windows 2000, Windows XP, and Windows Server 2003, the install log can be found under the Temp directory of the profile of the logged on user. The log file will be named according to the date and time of the installation.

To start silent installation with a specified service account, username, and password

1 From the command line, enter the following:

Setup -VI -INI: <IniFileFullName> -USR: <username> -PWD: <password> -S -R

This initiates and completes the silent installation for a service account, with a username and password.

▶ *To start silent installation using LocalSystem as the service account*

1 From the command line, enter the following:

Setup -VI -INI: <IniFileFullName> -S -R

Running this command, initiates and completes the silent installation using LocalSystem as the service account.

In certain cases, you may have to perform these additional steps to finish the silent install.

- If the account the Query Engine was installed under does not have rights to the ECS database, the Query Engine must be manually added to it.

- In all cases, the installation of a Master Query Engine will not initiate a synchronization and therefore, will not be usable until synchronization occurs. This has to be manually initiated from the ECS menu from within bv-Config.

Silently Upgrading Query Engines

You can also use this method to perform a silent upgrade of your query engines.

▶ *To perform a silent upgrade*

1 From the command line, enter the following:

Upgrading a Query Engine

Setup -VU -S -R

This initiates and completes the silent upgrade for a query engine. All previously configured settings will be kept during the upgrade.

Upgrading a Query Engine

If you currently have a previously installed Query Engine from the BindView RMS Console, you must upgrade the Query Engine before the BindView RMS Console will be able to communicate with the Query Engine. You must use the bv-Config utility to upgrade Query Engine services.

▶ **To upgrade a BindView Query Engine**

1 Open the bv-Config utility and select the machine that contains the Query Engine you want to upgrade.

Fig. 103 Selecting a Query Engine to Upgrade

2 Double-click the ![icon] Upgrade BindView Query icon, or right-click the machine on which you want to upgrade the Query Engine service and select the **Upgrade Query Engine** command.

5: Installing Query Engine Services 107

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The **Welcome** dialog for the Query Engine service setup program appears.

Fig. 104 Welcome Dialog

3 Read the information provided on the **Welcome** dialog, and click **Next**.

The **Select Domain/Workgroup To Install To** dialog appears.

Fig. 105 Select Domain/Workgroup To Install To Dialog

Since you are upgrading an existing Query Engine, the values in this dialog box are for your information only. You cannot change them.

4 Click **Next**.

▶ ***To select query engines to upgrade***

1 Click **Next**. The **Select Computer(s) To Install On** dialog appears.

Fig. 106 Select Computer(s) To Install On Dialog

The computer(s) you chose from the bv-Config window displays in the **Selected Computers** list.

2 Click **Next**.

The **Upgrade** dialog appears.

Fig. 107 Upgrade Dialog

The **Upgrade** dialog allows you to choose whether to retain all current settings and install the newer version of the BindView Query Engine or be prompted to set new settings.

To keep all current settings while upgrading the Query Engine, proceed to .

To be prompted for all new settings while upgrading the Query Engine, proceed to .

▶   ***To keep all current settings***

3   From the **Upgrade** dialog, select the **keep all current settings and upgrade now!** option.

4   Click **Next**.

The **Final Settings** dialog appears.

Fig. 108 Final Settings Dialog

5   Review the settings and click **Next**.

The **Installation Status** dialog appears.

Fig. 109 Installation Status Dialog

When the upgrade is finished, the **Setup Complete** dialog appears, indicating whether or not the upgrade was successful.

Fig. 110 Setup Complete Dialog

6 Read the information supplied in the **Results** column and the **Detail** box, and click **Finish**. The bv-Config utility window is displayed.

▶ *To be prompted for new settings when upgrading the Query Engine*

The following steps allow you to upgrade the Query Engine without retaining any settings. The upgrade utility will prompt you to select all new settings.

1 From the **Upgrade** dialog, click **Next**.

2 Ensure that the **keep all current settings and upgrade now!** option is *not* selected.

The **Service Account Information** dialog appears.

Fig. 111 Service Account Information Dialog

> This dialog enables you to create a service account that allows advanced security access to certain network data.

▶ ***To set up the service account***

1 Enter a user name and password and confirm the password.

2 Click **Next**.

The **Query Engine Settings - Network Caching** dialog appears.

Fig. 112 Setting Network Caching

▶ ***To set the update interval***

3 Accept the default time interval or, in the **Update Interval** box, enter the number of minutes the Query Engine should wait between the beginning of each network update. You may also use the up and down arrows to select the **Update Interval**.

▶ ***To set user caching***

4 Click the **Enable User Caching** box.

5 Accept the default time interval, or in the **Update Interval** box, enter the number of minutes you want the service to wait between the beginning of one update and the beginning of the next update. You may also use the up and down arrows to select the **Update Interval**.

6 Click **Next**.

The **Query Engine Settings - Select Machine Port** dialog appears.

Fig. 113 Query Engine Settings – Select Machine Port

▶ *To define the communications port*

7 Select one or more Query Engines from the **Computer** list.

8 Click **Assign**.

The **Assign IP Ports** dialog appears.

Fig. 114 Assigning IP Ports Dialog

9 Enter the port number in the **Port Number** box.

10 Click **OK**.

The **Query Engine Settings – Select Machine Port** dialog re-appears.

11 Click **Next**.

The **Select Destination Directories** dialog appears.

Fig. 115 Select Destination Directories Dialog

12 Click **Next**.

The **Select Master/Slave Configuration** dialog appears.

Fig. 116 Select Master/Slave Configuration Dialog

13 If you only want to upgrade a Slave Query Engine and not assign it to be the Master Query Engine, click **Next**.

Note: The product will automatically detect the Master Query Engine.

Optional: Select the machine from the **Slave Query Engines** list and click the right arrow button, or double-click the machine name.

The machine moves from the **Slave Query Engines** list to the **Master Query Engines** list.

The **Assign Slave Query Engines to Master Query Engines** dialog appears.

Fig. 117 Assign Slave Engines to Master Query Engines Dialog

14 Click **Next**.

The **Final Settings** dialog appears.

Fig. 118 Final Settings Dialog

15 Click **Next**.

16 The **Installation Status** dialog appears.

Fig. 119 Installation Status Dialog

The **Synchronizing Master Query Engine(s)** dialog appears.

Fig. 120 Synchronizing Master Query Engine(s) Dialog

17 Click **Synchronize**.

Anytime you make changes to the Query Engine, you must synchronize the Master Query Engine.

18 After synchronization, click **Close**.

When the upgrade is finished, the **Setup Complete** dialog appears, indicating whether or not the upgrade was successful.

Fig. 121 Setup Complete Dialog

19 Click **Finish**.

6   The BindView Support Service
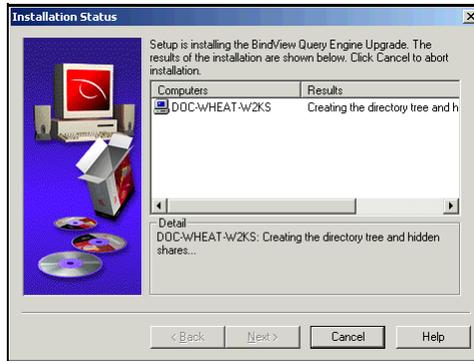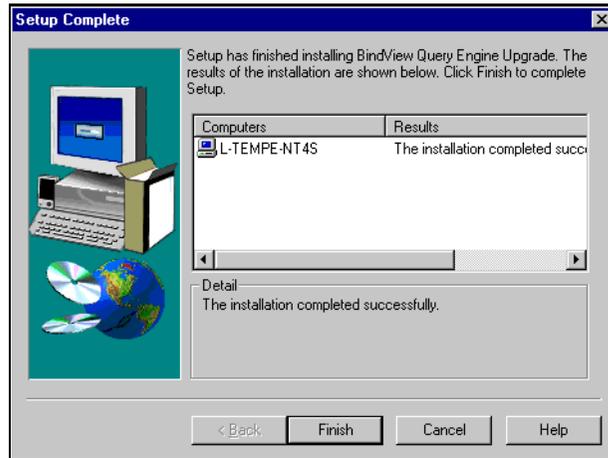
In This Chapter

Managing BindView Support Service

The BindView Support Service is automatically installed on every machine where you install an Enterprise Configuration Service and a Query Engine service, as well as on any machine where you stop a process using the bv-Config utility.

Domain Controllers (BDCs and PDCs) authenticate user logons. Domain Controllers do not report logon attempts to each other, therefore the Domain Controllers do not maintain a record of all user logon attempts. The BindView Query Engine does not have a primary source in each domain from which to gather last logon information.

If you have last logon caching turned on and you run a last logon report, Query Engines retain previous last logon data, and only report changes from the previous Master Query Engine update. This can significantly decrease the time it takes to report last logon information. Therefore, it is best to install a Support Service on every BDC and PDC that authenticates users.

If you intend to run last logon reporting, you should manually install the BindView Support Service on every BDC and PDC that will authenticate user logons. This chapter explains how to install the BindView Support Service using the bv-Config utility. For information on setting domain controllers from which to collect last logon data and the last logon update cache schedule, see "To set advanced user cache options" on page 167.

Installing the Service Using bv-Config

The BindView Support Service can be installed from the ECS or Query Engine directory by launching the Support Service executable, **BVQESUPPORTSVC.EXE**, or from the bv-Config utility.

▶ ***To install the service using bv-Config utility***

1 From any machine running bv-Config, select the machine on which you want to install the Support Service.

Fig. 122 Installing Support Services

2 From the bv-Config **Action** menu, select **Install Support Service** (Fig. 122).

The BindView Support Service setup program displays the **Welcome** dialog.

Fig. 123 Welcome Dialog – BindView Support Service Setup

3 Read the information provided in the **Welcome** dialog, then click **Next**. The **Select Domain/Workgroup To Install To** dialog appears.

Fig. 124 Select Domain/Workgroup To Install To Dialog

4 By default, the **Enterprise Configuration Service** box displays the ECS the bv-Config utility is using. Use the default items, or click the browse (**...**) buttons to locate another ECS or Domain. When you're ready to proceed, click **Next**. The **Select Computer(s) To Install On** dialog appears.

Fig. 125 Select Computer(s) To Install On Dialog

The machine you selected in the bv-Config utility is displayed in the **Selected Computers** list.

Note: You can select multiple machines and install the BindView Support Service simultaneously. To add a machine to the list of Selected Computers, click its name in the left-hand list, then click the right arrow (**->)** or double-click the computer's name.

The **Computer Verification Results** dialog appears.

Fig. 126 Computer Verification Results Dialog

5 Click **Next** to continue the installation.

The **Support Services Settings - Last Logon Caching** dialog appears.

Fig. 127 Support Services Settings - Last Logon Caching Dialog

You use this dialog to specify the last logon cache frequency. The Enable check box is selected by default. The update interval indicates periods of time in minutes between updates. The default is 240 minutes. If you do not want to collect last logon information, clear the check box.

Note: BindView recommends enabling user last logon information for sites with large user databases.

6 Make the last logon selections and click **Next**.

The **Final Settings** dialog appears.

Fig. 128 Final Settings Dialog

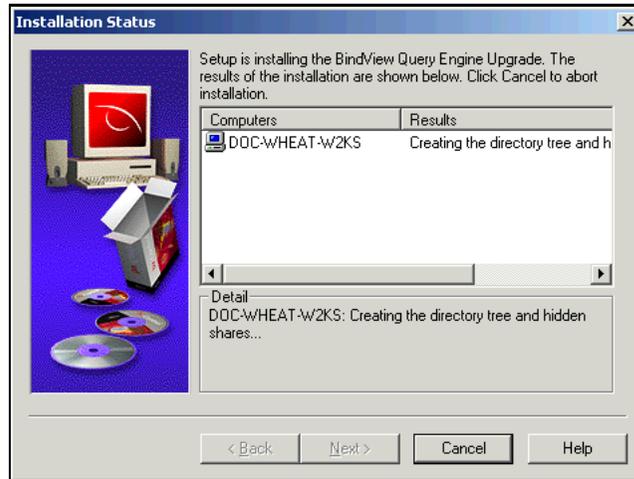**7** Click **Next**. The **Installation Status** dialog displays the actions being taken to install the Support Service.

Fig. 129 Installation Status Dialog

After the installation is complete, the **Setup Complete** dialog appears.

Fig. 130 Setup Complete Dialog

8 Click **Finish**. The **Setup Complete** dialog closes.

Installing Using the Support Service Executable

Another method of installing the Support Service is to use the BindView Support Service executable program. You may wish to do this in cases where the Support Service has been removed.

▶ *To install the service using the executable program*

1 From any machine running an ECS, a Query Engine, or the bv-Config utility, access the directory where the BVQESUPPORTSVC.EXE program is located. The default location is C:\Program Files\BindView\BVNTQE.

2 Double-click the **BVQESUPPORTSVC.EXE** program. An MS-DOS prompt window appears.

Fig. 131 MS-DOS Support Service Install and Startup Dialog

The program installs and starts the BindView Support Service.

7   Configuring the Product

In This Chapter

Configuring bv-Control for Windows

When you wish to configure bv-Control for Windows, you can use the bv-Control for Windows Configuration Wizard, or you can use tools to manually alter parts of the configuration. This chapter describes how to make changes to an existing Configuration.

Running the Configuration Wizard

If you wish to change your configuration of bv-Control for Windows, the simplest way of doing so is to run the bv-Control for Windows Configuration Wizard again.

▶ *To Run the bv-Control for Windows Configuration Wizard*

1 Open the BindView RMS Console.

2 Open the **bv-Control for Windows** container, then open the **Configuration** folder.

3 Double-click the **Configuration Wizard** item on the right side of the window.

4 The bv-Control for Windows Configuration Wizard starts. Please turn to for information on using the bv-Control for Windows Configuration Wizard.

Manually Changing the Configuration

If you choose, you can manually make changes to the ECS selection, to Connection Databases, or to the ECS Port Settings. This section describes how to make these changes manually.

▶ *To select the ECS*

If you wish, you can manually select the ECS that your copy of bv-Control for Windows is using.

1   From the Console tree, expand the bv-Control for Windows container and select [icon]**Configuration**.

2   In the right details pane, double-click the [icon]ECS Selection icon.

The **Enterprise Configuration Service** dialog appears.

Fig. 132 Enterprise Configuration Service Dialog

The **Enterprise Configuration Service** dialog allows you to enter the required information for the machine where the ECS from which you want to select Query Engines is installed. To set the location of the ECS, the **NetBIOS Name**, **TCP/IP Host Name**, and the **TCP/IP Address** field must be completed. You can specify either the **NetBIOS Name** or the **TCP/IP Host Name** and click the **Resolve** button. The **Resolve** button automatically determines the IP address for the TCP/IP Host Name.

The **ECS in AD** field allows you to search the Active Directory for any ECS service that the BindView Information Server (BVIS) has privileges to see if the BVIS machine is located in an Active Directory environment.

3   Click the **Find** button and select an ECS from the drop-down list. This field only applies if you have an Active Directory setup with a Windows 2000 DNS.

4   In the **NetBIOS Name** box, type the name of the network computer where the ECS is installed.

5   Enter the TCP/IP Host Name and the TCP/IP Address in the **TCP/IP Host Name** and **TCP/IP Address** box, respectively. Or, click the **Resolve** button.

The **Resolve** button automatically detects the IP address for the Host Name.

Note: If name resolution is unavailable, you can enter the TCP/IP Address in the **TCP/IP Host Name** box.

6   In the **Port** box, enter the port number. This number configures bv-config and bv-Control for Windows to communicate with the ECS on a specific port that has been set

for the ECS. If the ECS is set to communicate on a specific port, the setting tells the local bv-config on what port to locate the ECS. If empty, the port number will be dynamically determined by the RPC subsystem.

7 Click **OK** to set the ECS.

Managing Connection Databases

To run a query, you must define a Connection Database. Connection Databases are useful to narrow the search area for a query. If you only want to collect data from one domain or a small collection of domains in your network, you can create a Connection Database that includes only Master Query Engines from a selected domain or domains. The bv-Control for Windows Configuration Wizard allows you to set up Connection Databases and assign them to users. This process allows you to set up and manage connection databases manually.

Using the Connection Database Dialog

The Connection Databases dialog has two fields: **Current Connection Database** and **List of Available Connection Databases**.

You can use the **List of Available Connection Databases** field to perform several actions. You can use it to set the location of the ECS and to set the Current Connection Database. You can also use it to clone, modify, rename, and remove a database, as well as change the password for a database.

The **Current Connection Database** box allows you to select a Connection Database from the **List of Available Connection Databases** box. If the Connection Database you select uses a password, you need to enter the password for it.

▶ *To change the ECS location*

Perform the following steps if you want to change the ECS before you add or configure a Connection Database. If you do not want to modify the ECS settings, proceed to .

1 From the Console tree, expand the bv-Control for Windows container and select **Configuration**.

2 From the right details pane, double-click the **Connection Databases** icon.

The **Connection Databases** dialog appears.

Fig. 133 Connection Databases Dialog

3 From the **Connection Databases** dialog, click the **ECS** button.

The **Enterprise Configuration Service** dialog appears.

Fig. 134 Enterprise Configuration Service Dialog

The **ECS in AD** field allows you to search the Active Directory for any ECS service that the BindView Information Server (BVIS) has privileges to see if the BVIS machine is located in an Active Directory environment.

4 Click the **Find** button and select an ECS from the dropdown list.

5 In the **NetBIOS Name** box, type the name of the network computer where the ECS is installed.

6 Enter the TCP/IP Host Name and the TCP/IP Address in the **TCP/IP Host Name** and **TCP/IP Address** box, respectively. Or, click the **Resolve** button.

The **Resolve** button automatically detects the IP address for the Host Name.

> ***Note:*** If name resolution is unavailable, you can enter the TCP/IP Address in the **TCP/IP Host Name** box.

7 In the **Port** box, enter the port number. This number configures bv-config and bv-Control for Windows to communicate with the ECS on a specific port that has been set for the ECS. If the ECS is set to communicate on a specific port, the setting tells the local bv-config on what port to locate the ECS. If empty, the port number will be dynamically determined by the RPC subsystem.

8 Click **OK**. The **Connection Databases** dialog reappears.

9 Click OK to close the dialog.

▶ *To add a connection database*

1 From the **Connection Databases** dialog, click the **Add** button.

The **New Connection Database** dialog appears.

Fig. 135 New Connection Database Dialog

2 Type the new database name in the **Database Name** field. Enter a password for the database and repeat to verify.

3 Click **OK**.

The **Modifying** Connection Database dialog appears.

Fig. 136 Modifying Connection Database Dialog

4 From the **Available Query Engines** list, select the Query Engine you want to add to the Connection Database.

5 Click **Add**.

The Connection Database manager attempts to verify a connection to the selected Query Engine. You may be asked to enter a password for the Query Engine. The selected Query Engine moves from the **Available Query Engines** list to the **Query Engines In Connection Database** list.

6 After you have added all the Query Engines you want to use for this Connection Database, click **OK**. The **Connection Databases** dialog reappears, as shown in .

▶ *To set the current connection database*

1 From the **List of Available Connection Databases** box, select the database you want to use. If the Connection Database requires a password, you will be prompted to enter it.

2 Click the **Set as Current** button.

If you are finished making changes to the connection Database, click **OK** to save the changes and close the dialog.

▶ *To rename a connection database*

1 From the **List of Available Connection Databases**, select the database you want to rename.

2   Click **Rename**. If the database you chose requires a password, the **Password** dialog appears.

Fig. 137 Password Dialog

3   Enter the password and click **OK.**

The **Renaming** dialog appears.

Fig. 138 Renaming Dialog

4   Enter the new name for the database in the **New Name** box.

5   Click **OK**.

The **Connection Databases** dialog displays the new database name in the **List of Available Connection Databases** list.

▶   *To modify a connection database*

1   From the **List of Available Connection Databases**, select the database you want to modify.

2   Click **Modify**.

If the database you chose requires a password, the **Password** dialog appears. Enter the password and click **OK**.

The **Modifying** dialog appears. See the section "Using the Modifying Dialog" on page 135 for information about the various operations you can perform using the **Connection Databases** dialog.

3   After you make all desired changes to the Query Engines in the **Modifying** dialog, click **OK**.

The **Connection Databases** dialog appears (Fig. 133 on page 131).

▶   *To remove a connection database*

1   From the **List of Available Connection Databases** list, select the database you want to remove.

2   Click **Remove**.

A dialog box appears asking if you are sure you want to remove the Connection Database.

3   Click **Yes**.

If the database you chose requires a password, the **Password** dialog appears. Enter the password and click **OK**.

▶ *To clone a connection database*

1 From the **List of Available Connection Databases**, select the database you want to clone.

2 Click **Clone**.

If the database you chose requires a password, the **Password** dialog appears. Enter the password and click **OK**.

The **Cloning** dialog appears.

Fig. 139 Cloning Dialog

3 Enter the name of the new Connection Database in the **New Name** box. You should also enter a password for the new database and verify it.

4 Click **OK**.

The new Connection Database appears in the **List of Available Connection Databases** on the **Connection Databases** dialog.

Using the Modifying Dialog

The **Modifying** dialog contains two group boxes: **Query Engines In Connection Database** and **Available Query Engines**. Using this dialog, you can add and remove Query Engines from a Connection Database and verify the connection to the Query

Engines the Connection Database uses. This dialog can be accessed by adding or modifying a Connection Database.

Fig. 140 Modifying Dialog

The **Query Engines In Connection Database** box displays those Query Engines already added to the Connection Database. It also includes three buttons: **Remove**, **Verify**, and **Verify All**. If there is a password is associated with the selected Query Engine, you must enter the correct password before access to remove or view the properties will be granted for the Query Engine service.

The **Remove** button enables you to delete the Query Engine selected in the **Query Engines In Connection Database** from the Connection Database.

▶ *To remove a query engine*

1 From the **Query Engines In Connection Database** list, select the Query Engine you want to remove.

2 Click **Remove**. The Query Engine is moved from the **Query Engines In Connection Database** list to the **Available Query Engines** list.

3 Click **OK**.

▶ *To verify the query engine connection*

The **Verify** button checks the connection between the selected Query Engine and the database. If a Query Engine displays **NOT VERIFIED** or **NOT CONNECTED** in the **Status** column of the **Query Engines In Connection Database** dialog, you can use the **Verify** button to try to reestablish the connection to the Query Engine.

▶ 1 From the **Query Engine In Connection Database**, select the Query Engine you need to verify the connection for.

2 Click **Verify**. The Connection Database manager attempts to establish connection to the Query Engine.

If the connection is successfully made, the **Status** column displays **Connected**.

3 Click **OK**.

▶ ***To verify the connection to all query engines in the connection database***

The **Verify All** button checks the connections with all the Query Engines in the **Query Engines In Connection Database** list. You can use this to update the status of all the Query Engines at once if several of the Query Engines display **NOT VERIFIED** or **NOT CONNECTED**.

1 From the **Query Engine In Connection Database**, click the **Verify All** button.

For those Query Engines where a connection is successfully made, the **Status** column displays **Connected**.

2 Click **OK**.

The **Available Query Engines** list displays the Query Engines that are available to the Connection Database. Available Query Engines are dependent upon the domain(s) tracked by the ECS you entered in the **Enterprise Configuration Service** dialog.

The **Available Query Engines** list also contains an **Add** button which enables you to add a Query Engine from the list to the **Query Engines In Connection Database** list. For information on adding a Connection Database, see "To add a connection database" on page 132.

Credential Database

Credential Databases are sets of credentials—user name, domain, and password combinations—that allow access to password-protected Query Engines, and allow the Query Engine to perform actions as if they were a user. Credentials Databases are used to access password-protected Query Engines, and to perform ActiveAdmin tasks. A user can only perform tasks allowed by the set of credentials in the currently assigned Credentials Database.

If you select the **Enable password security** option for any Query Engine, a Console user must be supplied with the correct credentials for those Query Engines to use them.

You can use the bv-Control for Windows Configuration Wizard to create Credentials for users, or you can manage Credentials Databases manually.

▶ ***To create a credential database***

1 In the BindView RMS Console, open the **BindView RMS Configuration** item. In the details pane, click the **Add Credentials** item. The **Add Credentials Wizard** appears.

Fig. 141 Add Credentials Wizard

2 Click **Next** to continue.

The **Add Credential Databases** panel appears.

Fig. 142 Add Credential Databases Panel

3 To create a new Credentials Database, click in the **Database Name** field and type the new Database name.

When you press **Enter** or click outside the field, the **Create New Database** dialog appears.

Fig. 143 Create New Database dialog

4   Type a password for the database you are creating, then verify the password. Click **OK** to create the Credentials Database.

If needed, click and type another name to create another Credentials Database. You can have as many credentials databases as you need.

The **Select Credentials** panel appears.

Fig. 144 Select Credentials Panel

5   The pop-up list on the right-hand side lists the available Credentials Databases. Select a Credentials Database from the list, then use the browser on the left to add items to the credentials database. There are three types of items you can add to the credentials database.

Query Engine Credentials need to be added to the Credentials Database only if they are password protected. To add them, open the Query Engines item, select the Query Engine, and enter its password when prompted.

Query Credentials need to be added to allow users to perform ActiveAdmin tasks. When a user performs an ActiveAdmin task such as making a change to a user, file, share, or other object, the credentials you supply will be used to do so. To add Query Credentials to the Credentials Database, open the **Query Credentials** item and browse to the user account you wish to

add as an ActiveAdmin Account. Select the user and click **>>** to add the user, then enter the password when prompted.

The **General Query Credentials** item allows you to specify a user from any domain on your network as an ActiveAdmin Account. To add any user, select **General Query Credentials** and click **>>** to add the account. Enter the Domain, Account Name, and Password to use, and click **OK** to continue.

6   When you have finished adding credentials to the credential databases click **Next** to continue.

The **Assign a Credential Database to Each User** panel appears.

Fig. 145 Assign a Credential Database to Each User Panel

7   For each user you have created, select a Credentials Database that should be assigned to the user from the pop-up list in the **Credential Database** column.

8   Click **Next**.

The **Credentials Summary** panel of the configuration wizard appears.

Fig. 146 Credentials Summary Panel

9   Review the summary of the configuration settings you chose and click **Next** to complete the configuration.

The **Completing the Add Credentials Wizard** panel appears.

Fig. 147 Completing the Add Credentials Wizard Panel

10 Click **Finish** to close the wizard.

Managing Credentials Without Using the Wizard

You can also manage the Credentials Databases without using the Credentials Manager Wizard. Both the manual controls and the wizard provide full control over your Credentials Databases.

▶ ***To manage credentials databases manually***

1 From the console tree, click the **BindView RMS Configuration** folder.

2 In the **Details** pane, ensure that the **Normal** tab is selected.

3 Double-click the 🐾**Credentials Manager** icon in the details pane.

The **Credentials Manager** dialog appears.

Fig. 148 Credentials Manager Dialog

▶ ***To add a database***

4 From the **Database Operations** box, click **Add**.

The **Create New Database** dialog appears.

Fig. 149 Create New Database Dialog

5 Enter a **Database Name**.

6 Create a password and verify this password for this database.

7 Click **OK**.

The **Credentials Manager** dialog reappears (Fig. 148).

▶ ***To add credentials***

8 Select the database you want to add credentials to.

9 From the **Credential Operations** box, click **Add**.

If the database is password protected, you must enter the password.

The **Add Credentials** dialog appears.

Fig. 150 Add Credentials Dialog

10 If you use Query Engines that are password-protected, expand the list of Query Engines by clicking the plus (+) sign to the left of the **Query Engine Credentials** item. In the list of available Query Engines, highlight the Query Engine you want to add to the database. Only password-protected Query Engines appear in this list.

11 Click **Add**.

The **Credentials Manager** dialog reappears.

12 Click **Close** to save the changes to the new database.

Assigning a Credential Database to a User   Once a credential database is created, an authorized user can create queries that use the credential records in that credential database. Only an administrator can assign credentials to a user. To authorize a user to use the credential database, you must add the credential database to the user's account.

▶   *To assign a user to use the credential database*

1   Double-click the User Manager icon to bring up the **User Manager** dialog.

Fig. 151 User Manager Dialog

2   Highlight the desired user name and click **Modify**.

The User Manager **Properties** dialog appears.

Fig. 152 User Manager Properties Dialog – General Tab

3 Select the **Credential Databases** tab.

Fig. 153 User Manager Properties Dialog – Credential
Databases Tab

4 Select the database name from the **Credential Database**
drop-down list.

5 Enter the password that is assigned to the database.

6 Click **OK** to close the User Manager **Properties** dialog.

7 From the **User Manager** dialog, click **Close**.

▶ *To add a new user to the credential database*

You can add or modify users by selecting the appropriate buttons.

Assigning a Credential Database to a User

1   Double-click the User Manager icon to bring up the **User Manager** dialog.

Fig. 154 User Manager Dialog

2   Click **Add**.

The **Select Users** dialog appears.

Fig. 155 Select Users Dialog

3   From the **Look in** drop-down list, select the domain the user is a member of.

4   From the **Name** box, select the user you want to add.

5   Click **OK**.

The User Administrator **Properties** dialog appears.

Fig. 156 User Manager Properties Dialog – General Tab

General tab

The **General** tab allows you to define the Display Name and the admin equivalency of the user.

6 Enter the Display Name for the user in the **Display Name** box.

7 Select the **Is BindView Administrator** option if you want the user to have full admin equivalency within the BindView RMS Console. If this option is not selected, the user may be restricted from running some queries.

8   Select the **Task List** tab.

Fig. 157 User Manager Properties Dialog –
Task List Tab

Task List tab

The **Task List** tab allows you to define a user's rights to create and modify task lists, and to define the summary options that determine how the files produced by a task list are saved or distributed.

Note: The default controls defined in the **Task List** tab will be used for every task list you execute. Only an administrator can modify the controls.

9 Select the **Query Info** tab.

Fig. 158 User Manager Properties Dialog –
Query Info Tab

Query Info tab

The **Query Info** tab allows you to define the query-related
properties of the user, including the user's right to perform
ActiveAdmin changes to the network. You can assign rights to
create or modify a query, or select an option to **Display Advisories
When Browsing**. If the user should be allowed to use
ActiveAdmin, make sure that **User Can Use ActiveAdmin** is
selected.

For more information on query-related settings, refer to the
BindView RMS Console and Information Server User Guide.

10 Select the **Credential Databases** tab.

Fig. 159 User Manager Properties Dialog – Credential
Databases Tab

Credential Databases tab

The **Credential Databases** tab allows you to assign a
credential database to a user.

11 Select the database name from the **Credential Database**
drop-down list.

12 Enter the password that is assigned to the database.

13 Click **OK**.

The **User Manager** dialog reappears (Fig. 151).

14 Click **Close**.

Note: Changing the credentials in a database requires restarting
the BindView RMS Console. For more information on credential
databases, refer to "Credential Database" on page 137.

Port Settings

The port settings allow you to set the port number. The port
number is used by the Query Engine when communicating with the
ECS. This is useful when communication must be performed
through a firewall. If the port is not specified, the port number will
be dynamically determined by the RPC subsystem. You can specify
the port number during or after the Query Engine installation

process. This section will discuss how to modify port settings for both the ECS and the Query Engines post-install.

To set the port number during the installation process, refer to .

Modifying the ECS Communication Port Settings

▶ *To set the ECS communication port after install*

1 On the ECS host, enter the port number in the following registry value:

HKLM\Software\Bindview\Enterprise Configuration Service\ProtocolSequences\ncacn_ip_tcp\Endpoint

2 Restart the **ECS**.

3 Open the **bv-Config** utility.

Note: An error message will appear indicating that bv-Config could not find the ECS.

4 From the **Object** menu, select the **Options** command.

The **Options** dialog appears.

Fig. 160 Options Dialog – ECS Settings

5 On the **ECS Settings** tab, enter the port settings for both the **ECS Current Settings** and the **ECS Saved Settings** box.

6 Repeat the steps mentioned above until all Query Engines have been modified.

7 Open the BindView RMS Console and browse to the bv-Control for Windows Configuration folder.

8 Open the **Connection Databases** item.

9 In the **Connection Databases** dialog, click **ECS**.

10 From the **Enterprise Configuration Service** dialog, enter the port number in the **Port** field.

11 Click **OK**.

12 In the **Connection Databases** dialog, click **OK**.

Modifying the Query Engine Communication Port Settings

▶ ***To set the Query Engine communication port after install***

1 Open the bv-Config utility.

2 From the Action menu, select the **Edit ECS Database** command.

3 A warning message appears.
"*Modifying the Enterprise Configuration Service Database is a powerful feature and should only be done by advanced users.*"

4 Click **Yes** to modify the database.

5 In the **ECS Database Viewer** dialog, select the host machine name.

Fig. 161 ECS Database Viewer Dialog

6 Click **Edit**.

The **Edit Query Engine Entry** dialog appears.

Fig. 162 Edit Query Engine Entry Dialog

7 In the **Protocol Sequences** box, select **TCP/IP**. All other protocol sequences ignore the port setting.

8 Click **Edit**.

The **Edit Protocol Sequence** dialog appears.

Fig. 163 Edit Protocol Sequence Dialog

9 Enter the port number in the **Port** field.

10 Click **OK**.

Note: A warning message appears indicating that the Query Engine will have to be restarted for the change to take effect.

The **Edit Query Engine Entry** dialog reappears.

11 Click OK in the **Edit Query Engine Entry** dialog.

12 Repeat Step 2 through Step 11 until all Query Engines have been modified.

13 In the bv-Config utility, select the Query Engine host machine for the Query Engine that was modified in the steps indicated above.

14 From the right-hand component, select **Query Engine Settings**.

15 Select the **Options** tab.

Fig. 164 Query Engine Settings - Options Tab

16 Enter the communications port number in the **Port** field.

17 Click **OK** and choose to restart the Query Engine.

18 Repeat Step 13 through Step 17 until all Query Engine settings have been modified.

Modifying both the ECS and Query Engine Communication Ports

▶ *To modify the ECS and Query Engine communication ports after install*

1 On the ECS host, enter the port number in the following registry value:

HKLM\Software\Bindview\Enterprise Configuration Service\ECSRPCServer\ProtocolSequences\ ncacn_ip_tcp\Endpoint

2 Restart the **ECS**.

3 Open the **bv-Config** utility.

Note: An advisory message is displayed indicating that bv-Config could not find the ECS.

---

4 From the **Object** menu, select the **Options** command.

The **Options** dialog appears.

Fig. 165 Options Dialog – ECS Settings

5 On the **ECS Settings** tab, enter the port settings for both the **ECS Current Settings** and the **ECS Saved Settings** box.

6 Click **OK**.

7 On the bv-Config **Action** menu select the **Edit ECS Database** command.

8   A warning message appears. Click **Yes**.

9   From the **ECS Database Viewer** dialog, select the host machine name.

Fig. 166 ECS Database Viewer Dialog

10 Click **Edit**.

The **Edit Query Engine Entry** dialog appears.

Fig. 167 Edit Query Engine Entry Dialog

11 From the **Protocol Sequences** box, select **TCP/IP**. All other protocol sequences ignore the port setting.

12 Click **Edit**.

The **Edit Protocol Sequence** dialog appears.

Fig. 168 Edit Protocol Sequence Dialog

13 Enter the port number in the **Port** field.

14 Click **OK**.

Note: A warning message appears indicating that the Query Engine will have to be restarted for the change to take effect.

---

15 From the **Edit Query Engine Entry** dialog, click **OK**.

16 Repeat Step 5 through Step 15 until all Query Engines have been modified.

17 From the bv-Config utility, select the Query Engine host machine for the Query Engine that was modified in the steps mentioned above.

18 From the right-hand component, select **Query Engine Settings**.

19 Select the **Options** tab.

Fig. 169 Query Engine Settings–Options Tab

20 Enter the communications port number in the **Port** field.

21 Select the **ECS** tab.

Fig. 170 Query Engine Settings–ECS Tab

22 Enter the communication port number in the **Port** field.

23 Click **OK** and choose to restart the Query Engine.

24 Repeat Step 17 through Step 23 until all Query Engine settings have been modified.

25 Open the BindView RMS Console and browse to the bv-Control for Windows Configuration container.

26 Select the **Connection Databases** item.

27 From the **Connection Databases** dialog, click **ECS**.

28 From the **Enterprise Configuration Service** dialog, enter the port number in the **Port** field.

29 Click **OK**.

30 From the **Connection Databases** dialog, click **OK**.

8   Configuring Query Engine Settings

In This Chapter

Configuring the Query Engine

After installing bv-Control for Windows, the ECS, and the Query Engine service(s), you may need to adjust certain Query Engine settings to enable the snap-in module to collect network data more efficiently.

The **Query Engine Settings** dialog allows you to set the following Query Engine service options:

- Computer, User, and Last Logon Cache
- Number of Data Collection Agents per Query Engine
- Disk Space Storage Limitations
- Maximum Number of Sessions and Processes

It also allows you to set error and event log files, password analysis test files, and Query Engine security features. The **Query Engine Settings** dialog is accessed through the bv-Config utility.

The bv-Config utility provides another type of Query Engine setting: *distribution rules*. Distribution rules enable you to assign specific Slave Query Engines to process parts of queries (jobs) for a Master Query Engine. This can increase the speed at which a query is processed by creating logical machine groupings.

Using the bv-Config utility, you can also alter a Query Engine's type. The **Promote to a Master Query Engine** and **Demote to a Slave Query Engine** options allow you to change a Master to a Slave or a Slave to a Master.

Accessing the Query Engine Settings Dialog

Run the bv-Config utility by clicking on the bv-Config item in the details pane of the BindView RMS Console. The domain/machine view of the bv-Config utility window opens.

Fig. 171 bv-Config Utility Window - Domain View

▶ ***To access the query engine settings dialog***

1 Click the plus sign (+) to the left of the ![icon] domain name icon, or double-click the domain name to view the machines that are members of the selected domain.

Those machines appear in the right-hand component of the bv-Config window, as well as indented beneath the domain in the left-hand component of the window.

▶ ***To select the query engine machine***

2 Select the machine where the Query Engine is installed to alter its settings. You may either single-click the machine displayed in the left component, or double-click the machine in the right-hand component.

The right-hand component of the bv-Config utility displays various icons. These icons indicate the actions you can perform or the information you can view for the chosen machine. One of the options for all machines with a Query Engine installed is **Query Engine Settings**.

3 Double-click the **Query Engine Settings** option.

Fig. 172 bv-Config Window - Query Engine Settings Option

The **Query Engine Settings** dialog appears.

Fig. 173 Query Engine Settings Dialog

Query Engine Settings Tabs

The **Query Engine Settings** dialog for Master Query Engines contains the following tabs:

• Cache
• Agents
• Event Logging
• Options
• Password Analysis
• Error Logging
• Jobs
• Advanced
• Security
• Advanced Security
• ECS
• Sessions
• IP Cache
• SQE Usage
• Bandwidth Schedule

The **Query Engine Settings** dialog for Slave Query Engines contains some but not all of the same tabs as the dialog for Masters. The **Query Engine Settings** dialog for Slave Query Engines contains the following tabs:

• DCA
• Event Logging
• Options

- Password Analysis
- Error Logging
- Jobs
- ECS

Cache Tab

The **Cache** tab is available only on machines where a Master Query Engine is installed. When you select a Master from the bv-Config utility window and click the **Query Engine Settings** option, the **Cache** tab of the **Query Engine Settings** dialog appears.

Fig. 174 Query Engine Settings - Cache Tab

The BindView Query Engine can optionally maintain a cache of machine and user information that is periodically updated from the network. This user cache information includes basic user properties, except for user passwords stored in the NT Security Account Manager (SAM) database. The machine cache information includes basic machine information necessary to efficiently process a report, such as each machine's type (workstation, server, or domain controller) and status (up or down). The cache update uses free CPU time to collect its data and will yield resources to other processes as needed.

▶ *To set the computer cache*

1 Click the **Enabled** option in the **Computer Cache** box.

The **Refresh on Startup** option, **Schedule** button, **Target Computer** field, and the **Browse** button become enabled.

Optional: Click the **Refresh on Startup** option to set the computer cache to update when the Query Engine service starts.

Scheduling the Computer Cache Update   You can set the computer cache to update at fixed intervals or at specified times throughout the day. To do this, you must use the **Schedule** dialog, accessed by clicking the **Schedule** button. The default update interval is 30 minutes.

If you do not want to alter the computer cache update schedule, proceed to "To set the target computer" on page 165.

▶   ***To set the cache update schedule***

1   Click the **Schedule** button to set cache update times.

Fig. 175 Schedule Dialog - Computer Cache

2   Leave the **Fixed Interval** option checked, or click the **Specified Times** option. If you selected the **Specified Times** option, proceed to Step 4.

3   If you chose the **Fixed Interval** update option, but you want to change the number of hours and/or minutes between the beginning of each cache update, you can change the number of hours in the **hrs** field and/or change the number of minutes in the **mins** field.

The **hrs** field accepts the number of hours from 0 to 168. The **mins** field accepts numbers between 00 and 59. Proceed to Step 7.

4   If you chose the **Specified Times** interval update option, use the fields to the right of the option to enter the clock time in hours (01 to 12) and minutes (00 to 59) when you want the update to occur.

The hour field accepts numbers from 01 to 12, and the minutes field accepts numbers between 00 and 59.

5   Select the **PM** option to indicate that the time entered in Step 4 represents a time from noon until 11:59 p.m.

6   Click **Add** to add the time entered in the fields to the right of the **Specified Time** option to the **Time** list on the **Schedule** dialog. You can add multiple times to begin the cache update.

Repeat Step 4 through Step 6 until you have selected all the desired update times.

7   Click **OK** to set the computer cache update schedule and close the **Schedule** dialog. This will return you to the **Cache** tab.

The **Target Computer** field displays the name of the computer to use to update the cache. By default, this field displays the name of the domain's PDC, unless a Query Engine installed on the BDC. If you want to use the default computer to update the cache, proceed to "To set the user cache" on page 165.

▶ ***To set the target computer***

1 Click the **browse...** button.

The **Select Computer** dialog appears.

Fig. 176 Select Computer Dialog

2 Use the **Select Computer** list to search for and select the domain controller to use to update the cache.

3 Click **OK**.

The **Cache** tab displays the computer you selected in the **Target Computer** field.

▶ ***To set the user cache***

The Master Query Engine can also optionally maintain a cache of user information that is periodically updated from the network. This user cache information includes basic user properties stored in the Windows NT SAM database, except for user passwords.

1 Click the **Enabled** option in the **User Cache** box.

The **Refresh on Startup** option, **Schedule** button, **Target Computer** field, **browse...** button, and **Advanced** button become available.

Optional: Click the **Refresh on Startup** option to set the user cache to update when the Query Engine service is started.

Scheduling the User Cache Update

You can set the user cache to update at fixed intervals or at specific times throughout the day. To do this, you must use the **Schedule** dialog, accessed by clicking the **Schedule** button. The default update interval is 45 minutes.

If you do not want to alter the user cache update schedule, proceed to "To set the target computer" on page 167.

▶ ***To set the user cache update schedule***

1   Click the **Schedule** button to set cache update times. The **Schedule** dialog appears.

Fig. 177 Schedule Dialog – User Cache

2   Leave the **Fixed Interval** option checked, or click the **Specified Times** option. If you selected the **Specified Times** option, proceed to Step 4.

3   If you chose the **Fixed Interval** update option, but you want to change the number of hours and/or minutes between the beginning of each cache update, you can change the number of hours in the **hrs** field and/or change the number of minutes in the **mins** field.

The **hrs** field accepts numbers between 0 and 168.
The **mins** field accepts numbers between 00 and 59. Proceed to Step 7.

4   If you chose the **Specified Times** interval update option, use the fields to the right of the option to enter the clock time in hours (01 to 12) and minutes (00 to 59) when you want the update to occur.

5   Select the **PM** option to indicate that the time entered in Step 4 represents a time from noon until 11:59 p.m.

6   Click **Add** to add the time entered in the fields to the right of the **Specified Times** option to the **Time** list on the **Schedule** dialog. You can add multiple times to begin the cache update.

Repeat Step 4 through Step 6 until you have selected all the desired update times.

7   Click **OK** to set the user cache update schedule and close the **Schedule** dialog. This will return you to the **Cache** tab.

The **Target Computer** field displays the name of the computer to use to update the cache. By default, this field displays the name of the domain's PDC, unless a Query Engine is installed on the BDC. If you want to use the default computer to update the cache, proceed to "To set advanced user cache options" on page 167.

▶ ***To set the target computer***

1 Click the **browse...** button.

The **Select Computer** dialog appears.

Fig. 178 Select Computer Dialog

2 Use the **Select Computer** list to search for and select the domain controller to use to update the cache.

3 Click **OK**.

The **Cache** tab displays the computer you selected in the **Target Computer** field.

Advanced User Cache Options
Using the **Cache** tab, you can also set the last logon cache collection schedule and the domain controllers from which the Query Engine will collect last logon data. To set these options, use the following steps:

▶ ***To set advanced user cache options***

1 Click the **Advanced** button in the **User Cache** box of the **Cache** tab.

The **Advanced User Cache Options** dialog appears.

Fig. 179 Advanced User Cache Options Dialog

The **Advanced User Cache Options** dialog allows you to decrease the number of controllers queried when collecting last logon information. You can configure the Query Engine to gather last logon information from only those domain controllers likely to be responsible for logon authentication for the domain you want to query. This can significantly increase the speed at which you obtain last logon data.

2   Enable the cache options by checking the **Enabled** box.

The **Schedule** dialog appears.

Fig. 180 Schedule dialog

3   Leave the **Fixed Interval** option checked, or click the **Specified Times** option. If you selected the **Specified Time** option, proceed to Step 5.

4   If you chose the **Fixed Interval** update option, but you want to change the number of hours and/or minutes between the beginning of each cache update, change the number of hours in the **hrs** field and/or change the number of minutes in the **mins** field.

The **hrs** field accepts numbers from 0 to 168.
The **mins** field accepts numbers between 00 and 59. Proceed to Step 7.

5   If you chose the **Specified Times** interval update option, use the fields to the right of the option to enter the time in hours and minutes when you want the update to occur.

The first field (hours) accepts numbers from 01 to 12, and the second field (minutes) accepts numbers between 00 and 59.

6   Select the **PM** option to indicate that the time entered in Step 4 represents a time from noon until 11:59 p.m.

7   Click **Add** to add the time entered in the fields to the right of the **Specified Times** option to the **Time** list on the **Schedule** dialog. You can add multiple times to begin the cache update.

Repeat Step 5 through Step 7 until you have selected all the desired update times.

8   Click **OK** to set the user cache update schedule and close the **Schedule** dialog. This will return you to the **Cache** tab.

The **Search All Domain Controllers** and **Search Selected Domain Controllers** options, the **Domain Controllers** list, and the **Add** and **Remove** buttons become available.

9   By default, the **Search All Domain Controllers** option is selected. Accept this option, or click the **Search Selected Domain Controllers** option.

The **Search All Domain Controllers** option tells the Master Query Engine to search all controllers within the domain on which it reports for last logon information. The **Search Selected Domain Controllers** option allows you to select which controllers the Master Query Engine uses to collect last logon data. When selected, you can add or remove machines for the Master to use for collecting last logon data. Machines you select appear in the Domain Controllers list.

The **Support Services collect Last Logon data** option allows you to collect Last Logon data for the Support Services. The **MQE collects Last Logon data** option allows for the collection of last logon caching on the MQE.

10 Click **OK** to close the dialog and return to the **Cache** tab.

Note: For optimum performance, you should turn off caching at the support services. You can do this by disabling the BindView Support Service on each DC you have it running on. This is for performance purposes only. If you choose not to turn off caching at your support services, everything will still function correctly.

Agents Tab

The **Agents** tab is available for both Slave and Master Query Engines, and the options available are the same. It controls the number of Data Collection Agents (DCAs) used by the selected Query Engine (Master or Slave) to collect network data. A DCA is a program used by a Query Engine to collect network data. When a Query Engine receives a data request, the Query Engine divides the request into smaller units called atomic jobs. Each job is given to a DCA. Depending on the machine, the more DCAs you assign to a Query Engine, the faster the query processes.

The **Agents** tab also contains a button to restore default settings and an **Advanced** button to set the directories where the Slave and

Master Query Engine store collected data. Click the **Agents** tab to access it.

Fig. 181 Query Engine Settings – Agents Tab – Master Query Engine

Note: The Slave Query Engine creates the number of DCAs you specify, plus an additional DCA that is reserved for special "quick queries."

▶ *To set the DCA options*

1 From the **Agents** tab, double-click on a data collection agent.

The Agents processes dialog appears.

Fig. 182 Agents Processes Dialog

2 In the **Shutdown Agent** field, select the **Never Shutdown** option or enter the number of seconds the Query Engine waits for this agent to respond to a request.

3 In the **Maximum Number of Concurrent Agents** field, enter the number of DCAs you want this Query Engine to use to collect data.

4 In the **Priority** field, the value can be set to **Normal** or **Idle**. If the Agent displays **Normal**, it is currently processing a query request. If it is **Idle**, the Agent is waiting for a job request.

5 In the **Registration Time Out** field, enter the number of seconds you want the Query Engine to wait for a response from a DCA before it reassigns the work to a different DCA.

Disk Space Box

The **Disk Space** box contains the **Minimum Free** and the **Free Threshold** fields. The **Minimum Free** field sets the minimum disk space required to process an atomic job. It prevents a query or atomic job from running the disk space below the specified figure. The default is 50 MB.

The **Free Threshold** field specifies the additional amount of disk space above the disk space **Minimum Free** required for a DCA or Slave Query Engine to accept a job.

If the **Minimum Free** is set to 50 MB, and the **Free Threshold** is set to 10 MB, there must be at least 60 MB of free disk space on the machine for the job to be accepted.

▶ **To set disk space options**

1 In the **Minimum Free** field, enter the number of megabytes that must be available for a query to run, or accept the default.

2 In the **Free Threshold** field, enter the number of megabytes acceptable to allow the query to process, or accept the default.

Advanced Button

When clicked, the **Advanced** button displays the **Agent Advanced Settings** dialog.

Fig. 183 Agent Advanced Settings Dialog

This dialog allows you to set the directory where the Master and Slave Query Engines store the collected data. It contains two boxes: **Data Directory** and **Master Data Directory**.

The **Data Directory** box contains the **Directory** field and the **Share Name** field. The **Directory** field contains the name of the directory where the DCAs store the data collected. The **Share Name** field displays the name of the share where the Query Engine retrieves the data the DCAs collect.

The **Master Data Directory** box is only accessible on machines with a Master Query Engine installed. It contains the **Directory** and **Share Name** fields. The **Directory** field contains the name of the directory where the Master can store data received from all DCAs (Master and Slave) while waiting for the Console to collect the information. The **Share Name** field contains the name of the share.

▶ ***To set the data directory***

1   In the **Directory** field in the **Data Directory** box, enter the directory where the DCA should store the collected data and proceed to Step 4 on page 172, or click the browse button to the right of the **Directory** field.

The **Browse** dialog appears.

Fig. 184 Browse Dialog – Data Directory Selection

2   From the **Directories** list, select the directory where the DCA should store the collected data. The directory path appears in the **Path** field.

3   Click **OK**. The **Directory** field displays the directory path you chose from the **Browse** dialog.

4   In the **Share Name** field, enter the name of the share.

▶ ***To set the master data directory***

The **Master Data Directory** box is only available on machines running a Master Query Engine, so if you are not setting options for DCAs on a machine running a Master, proceed to "Event Logging Tab" on page 173.

1   In the **Directory** field in the **Data Directory** box, enter the directory where the DCA should store the collected data and proceed to Step 4, or click the browse button to the right of the

Directory field. In the **Share Name** field, enter the name of the share.

Event Logging Tab

The **Event Logging** tab (Fig. 185), allows you to select specific events from a list that a Query Engine (Master or Slave) may encounter. This enables you to keep a record of events and notify a specific machine when selected events occur.

Query Engine Events List

The **Query Engine Events** list displays a list of events with boxes to the left of each event. The list includes events related to DCA creation and termination; cache start, finish, and failure; query start and finish; RPC initialization; disk space; and Console connection. The boxes to the left of the events enable you to select those events to record and/or report those events.

▶ *To set event logging options*

1 Click the **Event Logging** tab.

Query Engine Settings

ECS | Sessions | IP Cache | SQE Usage | Bandwidth Schedule
Error Logging | Jobs | Advanced | Security | Advanced Security
Cache | Agents | Event Logging | Options | Password Analysis

*Query Engine Events

☑ Start/Stop Query Engine
☑ Agent Creation Failure
☑ Abnormal Termination
☑ RPC Initialization Failure
☑ Slave Query Unavailable
☑ Session Connection
☑ Session Connection Failure
☑ Disk Space Low
☑ Session Disconnect
☑ Query Start
☑ Query Finished
☑ ECS Connection Failure
☑ Agent Terminated Abnormally
☐ Agent Created
☑ Cache Update Failure
☑ Cache Update Started

Configure

Select All...

Clear All...

OK | Cancel | Help

Fig. 185 Query Engine Settings – Event Logging Tab

2 From the **Query Engine Events** list, select the box to the left of the event that you want to report on or record.

Configure Button

When one or more events in the **Query Engine Events** list is selected, and the **Configure** button is clicked, the **Event Configuration** dialog appears.

Fig. 186 Event Configuration Dialog

Using this dialog, you can set bv-Config to perform a variety of tasks when the selected events occur. The **Event Configuration** dialog contains one large **Options** box that contains four options: **NT Application Log**, **File**, **Execute Program**, and **Send Message**. These options are not mutually exclusive. You may choose any or all of these options.

The **NT Application Log** option allows you to set bv-Config to create or append the NT application log file when the selected event occurs.

If the **File** option is selected, bv-Config creates or appends the file entered in the field to the right of the **File** option when the selected event occurs.

The **Execute Program** box contains the **Enable** option and the **Command Line** field. When this option is enabled, the command entered in the **Command Line** field is executed when the selected event occurs. "Command Line Parameters" on page 175 displays the valid command line parameters and a description of the information each provides when an error log is created.

Note: The **Execute Program** option is only enabled when the Query Engine is installed on an NTFS volume.

Table 1 Command Line Parameters

Variable	Variable Name	Description
%C	Computer Name	Name of the computer running the Query Engine that generated the event.
%D	Date	Date on which the event occurred.
%T	Time	Time at which the event occurred.
%M	Message	Event log message that was created when this event occurred.

The **Send Message** box contains the **Computer Name** list, and the **Add** and **Remove** buttons. When Send Message is selected, the machines displaying in the **Computer Name** list receive a message each time the selected event occurs.

▶ *To set advanced event configuration*

1   Select the event to configure from the **Query Engine Events** list.

2   Click **Configure**. The **Event Configuration** dialog appears.

    Step 3 through Step 6 are optional.

3   The default option is **NT Application Log**. You may turn off this option by clicking it, or you may leave it selected and select additional options.

4   Select **File**, and enter the name of the file where you want to log the event in the box to the right of the **File** option.

5   Select **Enable** in the **Execute Program** box, and enter the commands to execute if the selected event occurs.

Note: For security reasons, the program you set to run must be located in the directory where the Query Engine is located.

---

6 Select **Send Message**, and click the **Add** button to display the **Select Computer** dialog.

Fig. 187 Select Computer Dialog

▶ *To add a reporting computer*

1 From the **Select Computer** list, select the name of the computer where you want the selected event reported. The **Computer** field displays the computer chosen from the list.

2 Click **OK**. The **Event Configuration** dialog displays the machine selected from the **Select Computer** dialog.

3 Repeat steps 1 and 2 until you have selected all computers where you want the selected event reported.

4 Click **OK** to close the **Event Configuration** dialog.

5 Click **OK** to close the **Query Engine Settings** dialog, or select another tab to alter Query Engine settings.

▶ *To remove a reporting computer*

1 To remove a computer from the **Computer Name** list, select the computer name and click the **Remove** button.

2 Click **OK** to close the **Event Configuration** dialog.

3 Click **OK** to close the **Query Engine Settings** dialog, or select another tab to alter Query Engine settings.

Options Tab

The **Options** tab is available for both Master and Slave Query Engines. It allows you to set the reporting domain for the Query Engine and to set the cache file directory name, file name, and share name where the BindView RMS Console can collect the data gathered by the Master Query Engine and all Slave Query Engines in its charge. It contains three boxes: **Reporting Mode**, **Cache**,

and **TCP/IP settings**. The **Cache** box is only accessible on machines where a Master is installed.

Fig. 188 Query Engine Settings – Options Tab

The **Reporting Mode** box displays the **Domain** name or **Workgroup** machine name. This is the domain/workgroup on which the selected Query Engine will report. Normally, a Query Engine will report on its own domain; however, you can set it to report on a different domain.

Note: If you set a Query Engine to report on a domain other than the one in which it is installed, the Query Engine account must have administrative rights on all machines on which it will report. This means that the account must be manually placed in each machine's Local Administrator group or granted access through the Domain Administrators group.

▶ *To set the reporting mode*

1   From the **Query Engine Settings** dialog, click the **Options** tab. The **Options** tab is displayed, as shown in Fig. 188.

2   Use the arrow to the right of the **Domain** box to display a list of available domains.

3   Select the domain on which this Query Engine will report. Click **OK**. If you are setting Slave Query Engine options or do not want to alter the cache options for a Master Query Engine, proceed to Step 4 on page 178.

    Optional: If you are setting options for a Master Query Engine, accept the default directory path, file name and share name for the Master Query Engine, or enter the directory path in the **Directory** field, the file name in the **File Name** field, and the

share name in the **Share Name** field, and proceed to Step 4 on page 178.

If you do not know the directory path, follow the steps outlined in the section "To select the directory path" that follows.

Note: You can change the default file name and share name; however, you must restart the Query Engine after changing the default in order for your changes to take effect.

▶ *To select the directory path*

1 Click the browse button to the right of the **Directory** field.

The **Browse** dialog appears.

Fig. 189 Browse Dialog – Cache Path on Options Tab

2 Use the **Directories** list to locate and select the directory path. The selected path appears in the **Path** field.

3 Click **OK**. The directory path appears in the **Directory** field in the **Cache** box on the **Options** tab.

4 Click **OK** to close the **Query Engine Settings** dialog, or click another tab to alter Query Engine settings.

Optional: The **TCP/IP Port** setting allows you to specify the port number that the Query Engine is listening on for the RPC request. If you do not specify a port number, the Query Engine will allow the RPC system to dynamically select a port to listen on.

Password Analysis Tab

The **Password Analysis** tab contains the **ASCII Password File** and the **Internal Password File** boxes. This tab is available for both Master and Slave Query Engines.

Fig. 190 Query Engine Settings – Password Analysis Tab

The **ASCII Password File** field contains the path where the pure 8-bit ASCII file you maintain for password analysis resides. This is a simple one-word-per-line file. The **Internal Password File** field contains the path where the converted ASCII file resides.

When running password analysis, the Internal password file, which has been converted from ASCII to Unicode, is checked against the ASCII password file. If changes have been made since the last Unicode update, the Query Engine calls for the ASCII file and updates it to Unicode. Password Analysis then runs from the file path specified in the Unicode **Internal Password File**.

▶ *To set the ASCII password file*

1 Enter the path where the ASCII password file resides, and proceed to Step 4 on page 180 of the "To Set the ASCII Password File" section.

If you do not know the path where the ASCII password file is located or where you want to place it, click the browse button to the right of the **ASCII Password File** field to display the **Browse** dialog, which you can use to locate and select the path.

The **Browse** dialog appears.

Fig. 191 Browse Dialog – Password Analysis Tab

2   From the **Directories** list, search for and select the directory path where the converted ASCII password file resides. After selecting the path, it appears in the **Path** field.

3   Click **OK**. The path you selected from the **Browse** dialog appears in the **ASCII Password File** field on the **Password Analysis** tab.

4   Click **OK** to close the **Query Engine Settings** dialog, proceed to "To set the internal password file", or click another tab to alter Query Engine settings.

▶   *To set the internal password file*

1   Enter the directory path where the Unicode password file resides in the **Internal Password File** field, and proceed to Step 4.

If you do not know the path where the Internal password file is located or where you want to place it, use the browse button to the right of the **Internal Password File** field to locate and select the path.

2   From the **Directories** list, search for and select the directory path where the ASCII password file resides. After selecting the path, it appears in the **Path** field.

3   Click **OK**. The path you selected from the Browse dialog appears in the **Internal Password File** field on the **Password Analysis** tab.

4   Click **OK** to close the **Query Engine Settings** dialog, or click another tab to alter Query Engine settings.

Error Logging Tab   The **Error Logging** tab is available on machines where both Slave and Master Query Engines are installed. It contains the **Enable Error Logging** option and two boxes: **Output logging information to** and **Reporting Level**.

> *Warning:* The Error Logging tab and its options should only be changed at the request of BindView Technical Support or a BindView programmer.

▶ ***To enable error logging***

1 Click the **Error Logging** tab.

2 Click the **Enable Error Logging** option. The **Output logging information to** and **Reporting Level** boxes and the options located in each become available.

Fig. 192 Query Engine Settings – Error Logging Tab

Output logging information to

When you select **Enable Error Logging**, this option enables the **Log File**, **Console**, and **Output to Debug Window** options. These options allow you to log errors in data collection to your choice of a specific log file, a debug console, or an output window.

Using the **Log File** option, you can specify a file and path where the log will reside. You can also set log file size limit to help maintain machine resources. This error log must be manually cleaned after reviewing. You can either delete parts of the log, or delete the entire file. If you choose to delete the entire file, the Query Engine will re-create it the next time an error is encountered during query processing.

When enabled, the **Console** option writes errors to the console. The **Maximum Wrap Size** option becomes available. Use this option to set the maximum number of lines that can be written to the console.

The **Output to Debug Window** option writes log file information to a file using the debugging tool. BindView programmers and Technical Support staff use this setting to determine the location of and the reason for data collection errors.

▶ ***To log errors to a log file***

1   Choose **Log File**. By default, the error log file is BVNTError.log. To accept this directory, proceed to .

2   Change the file and path where the log file is stored by clicking the browse button to the right of the **Log File** option.

The **Browse** dialog appears.

Fig. 193 Browse Dialog

3   From the **Directories** list, select the path where you want the log file to reside. The chosen path displays in the **Path** box.

4   You can choose an existing file to log the error events to, or create a new file. To create a new file, in the **Path** field, enter the file name followed by .LOG at the end of the chosen path.

Optional: By default, the **Limit File Size** option is set to 512 KB. You can decrease the size to as little as 500 KB or increase it to as much as 10,000 KB. Enter the number of kilobytes for the file size limit.

Warning: If you deselect the Limit File Size check box, the error log can potentially fill the machine's entire hard drive. This can potentially lead to a server lockup.

▶ ***To set error logging to Output to Debug Window***

1   Click the **Output to Debug Window** option.

2   Proceed to "Reporting Level", click **OK** to close the **Query Engine Settings** dialog, or click another tab to alter other Query Engine settings.

Reporting Level   The **Reporting Level** box provides options to report on multiple levels. You can report on errors that occur in all aspects of a query,

or report only on specific query segments (i.e. BVNTLastLogon, BVNTRPC, Remote Scheduler Dispatcher). This box includes a **Sections** button, and **Sections** and **Level** boxes.

▶ ***To select only one reporting type***

1   Use the **Sections** list to the right of the **Sections** button to select the reporting type.

2   Click **OK** to close the **Query Engine Settings** dialog, click another tab to alter other Query Engine settings, or proceed to "To set the reporting level".

▶ ***To set the reporting level to multiple selections***

1   Click the **Sections** button.

The **Select Logging Sections** dialog appears.

Fig. 194 Select Logging Sections Dialog

Optional: Click the **Select All** button to report on all options that display in the **Logging Sections** list, or click **Clear All** to choose to report on none of the options in the list.

If you plan to report on only a few of the options displayed on the **Select Logging Sections** dialog, click the **Clear All** button, and select only those options on which you want to report.

2   After selecting the log sections, click **OK**. The **Error Logging** tab reappears.

3   Click **OK** to close the Query Engine Settings tab, select another tab to alter other Query Engine settings, or proceed to "To set the reporting level", next.

▶ ***To set the reporting level***

1   Use the **Level** box to select the reporting level. Select either **Normal**, **Diagnostic**, or **Verbose**.

• **Normal** - provides minimal error detail

• **Diagnostic** - provides very detailed error logging that can be used by BindView Technical Support and programmers to determine possible source code errors.

- **Verbose** - provides detailed error logging that can help you
  determine the source of a reporting problem.

2   Click **OK** to close the **Query Engine Settings** dialog, or select
another tab to alter Query Engine settings.

Jobs Tab

The **Jobs** tab contains settings that define how the selected Query
Engine (Slave or Master) handles each part of a query (atomic job).
Each atomic job is handled by a Data Collection Agent (DCA). Three
boxes are displayed on the **Jobs** tab: **Atomic Job**, **Status Update
Job**, and **Distribution Job** (Fig. 195).

Fig. 195 Query Engine Settings - Jobs Tab

Atomic Job

The **Atomic Job** box contains three settings: **Agent Max Retry**,
Update Max Retry, and **Retry Interval (sec)**. The **Agent Max
Retry** option sets the maximum number of times a Query Engine
attempts to give a DCA a job before it fails and reports the failure to
the Console. The **Update Max Retry** options sets the number of
times the Slave Query Engine tries to tell the Master Query Engine
that the atomic job files are ready for collection. The **Retry
Interval** is the number of seconds the Query Engine waits between
attempts to notify the Master Query Engine that atomic job files are
ready.

Status Update Job

A Master Query Engine periodically requests status updates from all
Slaves to which it has distributed active jobs. The **Status Update
Job** box contains a single field, **Interval**. This is the time interval in
minutes between status updates.

Distribution Job

When a Master Query Engine attempts to distribute a Multi Job to a
Slave Query Engine and fails (e.g network failure), it will retry the
job distribution up to the number of times specified in the **Execute**

Max Retry field before reassigning the Multi Job to another Slave. The **Retry Interval** for executing retries is the time in seconds between retry attempts to distribute the Multi Job to that Slave.

When a query is aborted, the Master Query Engine issues job removal instructions to every Slave Query Engine that is processing jobs for that query. If the Master cannot communicate with a Slave (e.g. network failure), it will retry the job up to the number of times specified in the **Remove Max Retry** field. The **Retry Interval** for removal of retries is the time in seconds between retry attempts to remove the Multi Job from that Slave Query Engine.

When a Master Query Engine reaches the Execute Max Retry count while attempting to distribute the Multi Job to a Slave Query Engine, it will then attempt to distribute the Multi Job to other Slaves. The **Distribute Max Retry** field specifies how many different Slave Query Engines the Master will attempt before quitting the distribution and returning an exception to the BindView Console.

Restore Defaults Button Each field in the three boxes contains a default setting. If you have changed certain DCA settings and want to revert back to the defaults, you can do so by clicking the **Restore Defaults** button.

Advanced Tab The **Advanced** tab contains Master Query Engine (MQE) settings and Slave Query Engine (SQE) settings. It is only available on machines where a Master Query Engine is installed.
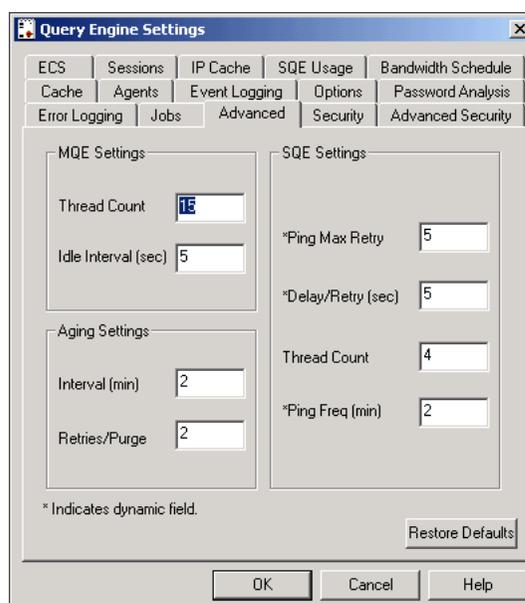

Fig. 196 Query Engine Settings – Advanced Tab

There are three boxes on this dialog: **MQE Settings**, **Aging Settings**, and **SQE Settings**.

MQE Settings The **MQE Settings** box contains two fields: **Thread Count** and **Idle Interval**. The **Thread Count** field sets the number of threads

the Master Query Engine can use to distribute multi-jobs and collect atomic job files.

The **Idle Interval** field sets the number of seconds the Master Query Engine should wait for query requests from a Console, or information back from Slaves, before beginning idle processing. Idle processing includes purging files, checking queue integrity, re-reading the registry queue.

Aging Settings

The **Aging Settings** box contains two fields: **Interval (min)** and **Retries/Purge**. Aging settings are the fault tolerance settings that control how a Slave Query Engine handles query data that has never been collected by a Master. After a Slave completes a job and until the Master collects that job, the Slave will periodically check with the Master to make sure the query is still valid. The **Interval** field sets the number of minutes between these checks. If a query is no longer valid the Slave Query Engine will purge all collected data for that query. If for some reason (e.g. network failure) the Slave cannot communicate with the Master, it will retry up to the number of times specified in the **Retries/Purge** field before purging all data for a query.

SQE Settings

The **SQE Settings** box contains four fields: **Ping Max Retry**, **Delay/Retry**, **Thread Count**, and **Ping Freq**. The **Ping Max Retry** field sets the number of times the Master Query Engine attempts to contact a Slave Query Engine to make sure the Slave is active and available. The **Delay/Retry** field sets the number of seconds between intervals of attempting to contact the Slave Query Engine. The **Thread Count** field sets the number of threads the Master can use to ping Slave Query Engines. The **Ping Freq** field sets how often the Master Query Engine contacts the Slave Query Engines to make sure they are still responding. If the first attempt fails, the **Ping Max Retry** field determines the number of subsequent attempts that are made, and the **Delay/Retry** field determines the number of seconds the Master will wait between each attempt to contact the Slave.

Advanced Security Tab

The **Advanced Security** Tab is available only on machines running a Master Query Engine. This tab contains the advanced security settings for the Master and each of its Slave Query Engines.
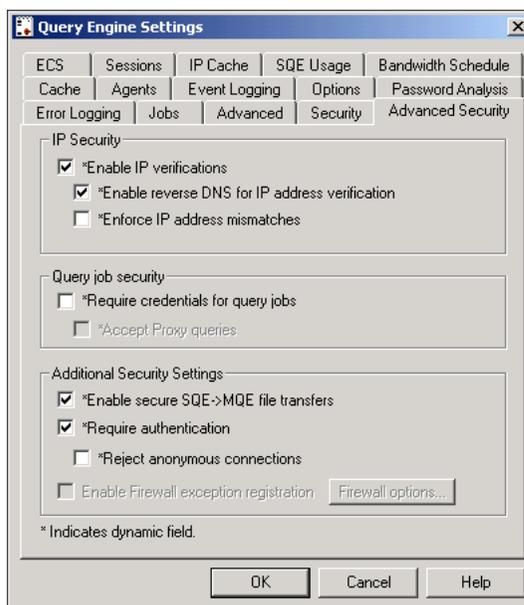
Fig. 197 Query Engine Settings - Advanced Security Tab

This tab contains three boxes: **IP Security**, **Query job security**, and **Additional Security Settings**.

IP Security

The **IP Security** box contains all of the IP security options. You can choose to enable IP verifications, enable reverse DNS IP address verification, and enforce IP address mismatches. When you choose to enable reverse DNS IP address verification, the verification takes place when the atomic job data is transferred from the SQE to the MQE. When you choose the enforce IP address mismatches option, the MQE will maintain a cache of IP address for each client session. When the session is established, the client's IP address is added to the cache as a valid address and marked as the primary address.

Query Job Security

The **Query Job Security** box contains the **Require credentials for query jobs** and **Accept Proxy queries** options. The **Require credentials for query jobs** option allows you to choose whether you want to require user credentials for all query jobs that run. The **Accept Proxy queries** option allows you to enable proxy queries into your query jobs. Proxy queries are queries that are generated in one domain to a QE in another domain to retrieve the data. For example, if one of the users with permissions to an object resides in a different domain, the system will generate a query to that other domain to get the data.

Additional Security Settings

The **Additional Security Settings** tab contains the advanced security options. These options allow you to: **Enable secure SQE->MQE file transfers**, **Require authentication,** and **Reject anonymous connections**.

The **Enable SQE->MQE file transfers** option allows the Remote Procedure Call (RPC) to authenticate each call and encrypt the data

sent over the wire. This applies to all data that goes between the Slave and Master Query Engines. The **Require authentication** option allows for rejection of any incoming RPC call if it cannot impersonate the RPC client. This enforces tighter security for all incoming calls. The **Reject anonymous connections** option allows for rejection of an incoming call passed with empty credentials, even if it is able to be authenticated. Therefore, an authenticated call using an empty username and password will be rejected.

Master Query Engine/ Information Server Communication Protocol

The standard method of communication that is used between Master and Slave Query Engines and the Information Server is Remote Procedure Call (RPC) via TCP/IP. Once you install bv-Control for Windows, this communication is automatically encrypted for security purposes. The RPC subsystem negotiates the highest level of encryption protocols that it can. You can choose to not encrypt the data by disabling the **Require authentication** setting.

Firewall Options

For machines running Microsoft® Windows XP® Service Pack 2 with the Windows firewall, enabling the **Firewall exception registration** option will ensure that the query engine is registered with the application exception list so that it will work with the firewall. You set the Firewall options by clicking the **Firewall options** button.

The **Query Engine Firewall Scope Settings** dialog appears.

Fig. 198 Query Engine Firewall Scope Settings dialog

Use this dialog to define the set of computers for which the program will accept connections.

Any computer (including those on the internet) - may connect to the Query Engine service. The connection may be rejected, but the Windows Firewall will let it in.

My network (subnet) only - any computer on my subnet (defined by Microsoft) may connect to the Query Engine service. It's possible that the connection may still be rejected.

Custom list - Only computers with IP addresses in the list will be allowed to connect to the Query Engine service. This is a comma delimited list and can be individual IP addresses or an

IP address and subnet mask. Example: 198.162.114.201, 198.162.114.201/255.255.255.0

Security Tab The **Security** tab is available only on machines running a Master Query Engine (MQE). This tab controls the type of security an MQE and each of its Slave Query Engines (SQE) will use.
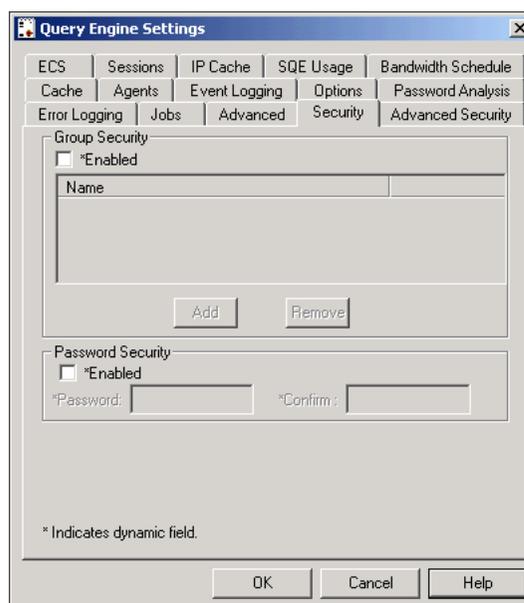

Fig. 199 Query Engine Settings – Security Tab

The Legacy Security tab contains two boxes: **Group Security** and **Password Security**.

Group Security The **Group Security** box contains an **Enable** box, a **Name** list, and an **Add** and **Remove** button. When **Enable** is selected, the **Name** list and **Add** and **Remove** buttons become available. The **Name** list contains the names of those user and group accounts who are members of the BindView Administrators group, and therefore have access to network data for the selected Query Engine. Only user members of the local group, BindView Administrators, on the machine running the Query Engine service can use the Query Engine to collect data.

Note: When Group Security is enabled, each domain containing a Query Engine must trust the Console user's domain.

▶ *To set group security*

1 Select the **Security** tab from the **Query Engine Settings** dialog.

2 In the **Group Security** box, click **Enable**.

3 Click **Add**. The **Add** button displays the **Add User and Group** dialog.
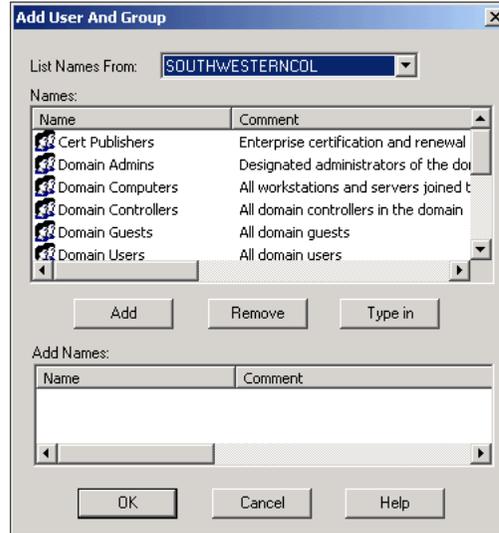

Fig. 200 Add User and Group Dialog

Note: If you have a large number of users and groups in a domain, the Names list will take a few seconds to populate.

---

4 From the **Names** list, select the user and/or group accounts to which you want to grant network data access. Multi-select capabilities are available.

5 After selecting all the user and group accounts, click the **Add** button to add them to the **Add Names** box.

6 Click **OK**.

The **Add User and Group** dialog closes and the user and group accounts you selected appear in the **Names** list in the **Group Security** box. Proceed to "Password Security", next, if you want to use both Password and Group Security.

Optional: If you need to alter the list of user and group accounts (remove a user or group account) that can access network data, select the user or group account(s) from the **Names** list, and click **Remove.** You can also type in the name of the group or user account you wish to set security to. To do this, click the **Type in** button. The **Type In Names** dialog appears. Type in the names separated by commas and click **OK**.

7 Click **OK** to set Group Security and close the **Query Engine Settings** dialog, or click another tab to alter other Query Engine settings.

If you want to use both Group and Password Security to secure the data collected by the Query Engine, proceed to "Password Security", next.

Password Security   The **Password Security** box contains an **Enabled** box, the
                           Password field, and the **Confirm Password** field. When **Enabled**
                           is selected, the **Password** and **Confirm Password** fields become
                           available.

                           The **Password** field establishes the password for the Query Engine
                           Service. The **Confirm Password** field allows you to verify the
                           password you selected. Password Security supplies a secure
                           connection to a Query Engine Service. Once enabled, whenever
                           Console users attempt to add or remove a Query Engine to or from
                           a Connection Database, they must supply the correct password in
                           order to gain access to the Query Engine.

▶   *To set up password security*

         1   In the **Password Security** box, select **Enabled**.

         2   Enter and confirm the password for the Query Engine in the
                 Password and **Confirm Password** fields.

         3   Click **OK** to set Password Security and close the **Query Engine
                 Settings** dialog, or click another tab to alter other Query
                 Engine settings.

ECS Tab   The **ECS** tab is available for both Master and Slave Query Engines.
                           It defines the ECS Database that tracks the selected Query Engine.
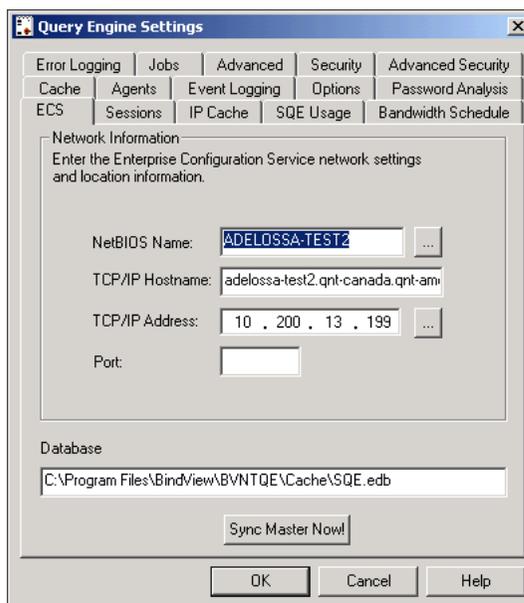

Fig. 201 Query Engine Settings – ECS Tab

Using this tab, you can set the ECS and the database path where
the ECS database resides. This tab contains the following fields.

- **NetBIOS Name** - The Windows computer name for the machine
  where the ECS is installed.
- **TCP/IP Hostname** - The TCP/IP Hostname of the machine
  where the ECS is installed.

- **TCP/IP Address** - The physical address that identifies the machine to TCP/IP. It is the TCP/IP address of the machine where the ECS is installed.
- **Port** - Allows you to specify the TCP/IP port number.
- **Database Path** - The first time a Master Query Engine receives a request for information, it asks the ECS database for a list of Slave Query Engines it can use for data collection, their protocol sequences, and any distribution rules that apply to the Master. Once it receives this information, it stores it in the file specified in this field.

▶ *To change ECS location settings*

1 In the **NetBIOS Name** field, type the computer name where the ECS is installed and proceed to , or click the browse button to the right of the field to select a computer.
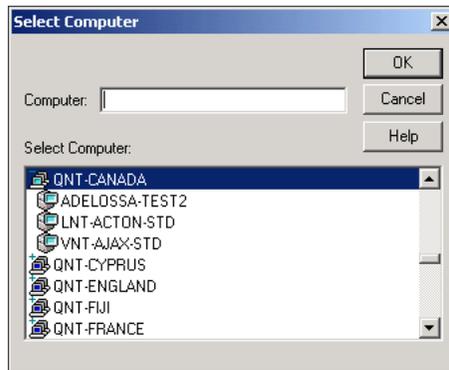
The **Select Computer** dialog appears.

Fig. 202 Select Computer Dialog

2 Use the **Select Computer** list to locate and select the computer running the ECS. The computer you select will appear in the **Computer** field.

3 Click **OK**. The computer you selected from the **Select Computer** dialog displays in the **NetBIOS Name** field on the **ECS** tab.

4 Enter the TCP/IP host name and the TCP/IP Address in the **TCP/IP Hostname** and **TCP/IP Address** fields, respectively. Or, click the update button to the right of the **TCP/IP Address** field to update the TCP/IP host name and TCP/IP address to those applicable to the computer you selected in the **NetBIOS Name** field.

Optional: The **Port** box allows you to specify the port number that the Query Engine is listening on for the RPC request. If you do not specify a port number, the Query Engine will allow the RPC system to dynamically select a port to listen on.

Note: When you change the ECS computer, you should update the database. To do this, you may need to update the ECS database. See "Sync Master Now" on page 193 for information about updating the database.

Database Path The first time a Master Query Engine receives a request for information, it asks the ECS for a list of Slave Query Engines (SQE), their protocol sequences, and any distribution rules that may apply. Once it receives this information, it stores it in the file specified in this field.

▶ ***To set the database path***

1 Enter the name of path and database where you want the list stored.

2 Click **OK** to close the **Query Engine Settings** dialog, or click another tab to alter other Query Engine settings.

▶ ***To sync the master***

Sync Master Now

If changes are made to the ECS or distribution rules, it may be necessary to use the **Sync Master Now** button to update the file listed in the **Database Path** field with a current list of Slave Query Engines, protocol sequences, and distribution rules.

1 Click the **Sync Master Now** button.

2 Click **OK** to close the **Query Engine Settings** dialog, or click another tab to alter other Query Engine settings.

Sessions Tab The **Sessions** tab is only available on machines running a Master Query Engine. It contains two fields and an **IP Address Restrictions** box. The **Max Concurrent Sessions** field specifies the maximum number of queries this Master Query Engine has been configured to handle requests from, at any given time.

If a Console has requested data from a Master Query Engine and the Master begins processing the query, the **Max Idle Time before Disconnect** field dictates how long the Master will wait for an indication that the Console is still running before it quits the RPC connection to that Console.

▶ *To alter sessions settings*

1 Click the **Sessions** tab on the **Query Engine Settings** dialog.
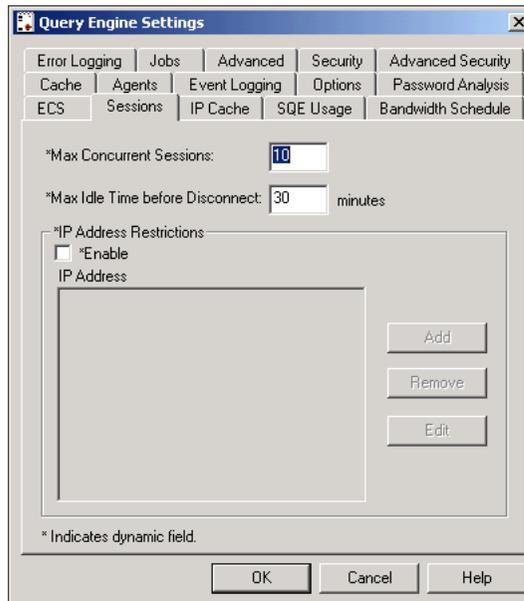The **Sessions** tab is displayed.

Fig. 203 Query Engine Settings – Sessions Tab

2 In the **Max Concurrent Sessions** field, type the maximum
number of queries you want this Master Query Engine to be
able to accept requests from at any given time.

3 In the **Max Idle Time Before Disconnect** field, enter the
number of minutes you want the Master to wait for a response
from the Console before quitting the RPC connection.

4 After you have made all changes to the **Sessions** tab, click **OK**
to close the **Query Engine Settings** dialog, or click a different
tab to alter other Query Engine settings.

IP Address Restrictions This box contains the **Enable** box, and the **Add**, **Remove**, and **Edit**
buttons. These options enable you to set a Master Query Engine to
service only users who are using Consoles on machines with specific
IP addresses.

▶ *To set IP Address Restrictions*

1 In the **IP Address Restrictions** box, click the **Enable** button.
The **IP Address** list, and the **Add**, **Remove**, and **Edit** buttons
become available.

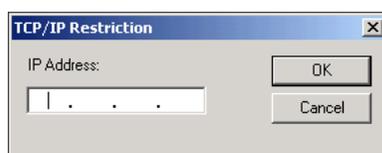**2** Click the **Add** button. The **TCP/IP Restriction** dialog appears.

Fig. 204 TCP/IP Restriction Dialog

3 In the **IP Address** field, type the IP address of the computer from which you want the Query Engine to collect data.

4 Click **OK**. The address you entered in the **TCP/IP Restriction** dialog appears in the **IP Address** list on the **Sessions** tab.

5 After you have made all changes to the **Sessions** tab, click **OK** to close the **Query Engine Settings** dialog, or click a different tab to alter other Query Engine settings.

▶ *To edit a TCP/IP address*

1 Select the address you want to edit, and click the **Edit** button. The **TCP/IP Restriction** dialog appears, as shown in Fig. 204.

2 Use the **IP Address** field to change the TCP/IP address.

3 Click **OK**. The changed address appears in the **IP Address** list on the **Sessions** tab.

▶ *To remove a TCP/IP address*

1 From the **IP Address** list, select the address you want to remove.

2 Click the **Remove** button. The address is deleted from the **IP Address** list.

IP Cache Tab   The IP Cache tab allows you to schedule the cache update interval
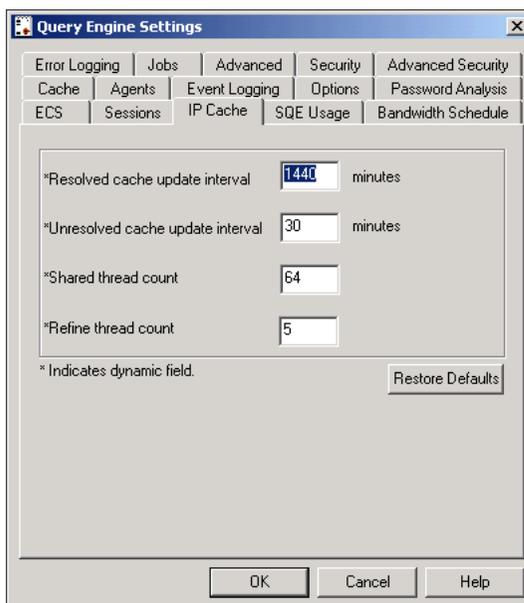in minutes as well as specify the thread count for each IP cache.

Fig. 205 IP Cache Tab - Query Engine Settings dialog

• **Resolved cache update interval** - This field indicates the
period of time in minutes from the beginning of one resolved
cache update to the beginning of the next update.

• **Unresolved cache update interval** - This field indicates the
period of time in minutes from the beginning of one unresolved
cache update to the beginning of the next update.

• **Shared thread count** - This field allows you to indicate the
amount of thread pools that the MQE uses when resolving the list
of NetBIOS names into the scope. The shared thread pool can
cause a backup of jobs when more than one job submits its
targets into the shared thread pool. Therefore, the refined thread
pool is created by each job to resolve its own targets.

• **Refine thread count** - This field allows you to refine the thread
count of the refine threads pool. The refine thread count
maximum is 30. If there are too many threads, you will be
warned that the maximum number of threads that can be used
for IP resolution has been exceeded.

SQE Usage Tab   The SQE Usage tab is displayed for Master Query Engines and shows all of the Slave Query Engines that have been selected for use.
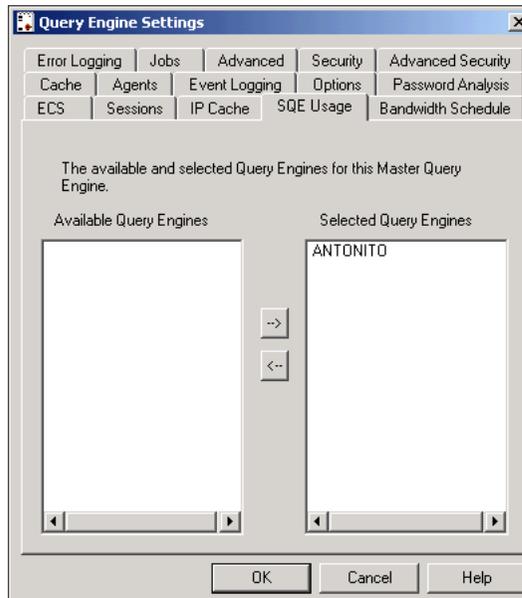

Fig. 206 Query Engine Settings dialog - SQE Usage Tab

Bandwidth Schedule Tab   The Bandwidth Schedule Tab allows you to specify limits on how much bandwidth large data packets will use. You can specify a start time and a limiting amount. If the limiting amount is -1, that indicates that no limit will be used starting at that time. For more information on bandwidth usage, please see below.
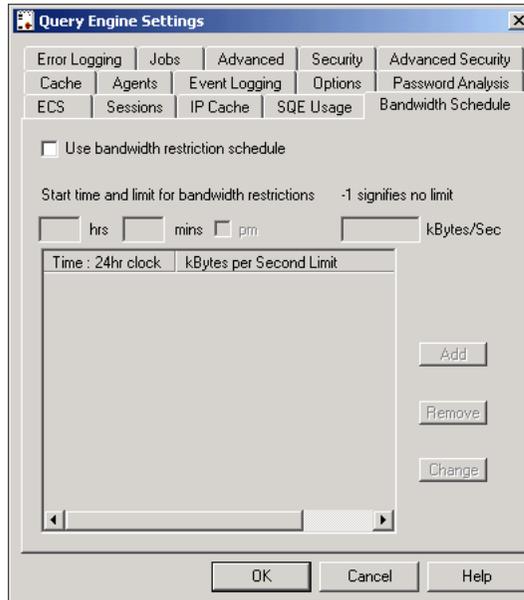
Fig. 207 Query Engine Settings dialog - Bandwidth Schedule Tab

Bandwidth Restrictions Bandwidth restrictions limit the amount of traffic between the Master Query Engine and Slave Query Engine. However, not all network traffic is "throttled."

- **Throttled Traffic** - Communication between the BindView Information Server and Query Engines, such as submitting queries and polling query data, as well as communication between the MQE and SQE. When communication is done through a Remote Procedure Call (RPC), the data throughput rate is throttled.

- **Non-Throttled Traffic** - ECS communication such as retrieving a list of MQE and SQEs for a domain, query engine diagnostics, configuration-related traffic such as distribution rules and adding or removing Query Engines are not throttled.
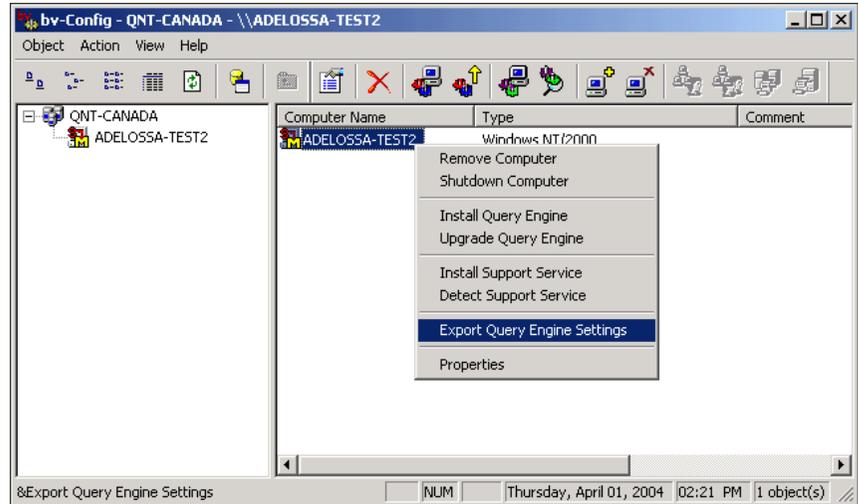
For example, if bandwidth is restricted to 1 Kilobyte (KB) per second, the throttled network traffic between components is limited to 1 KB per second. The restricted traffic is sent to a staging container. The default size of the container is 15 KB. Once the container is full, the entire contents of the container will be sent over the network.
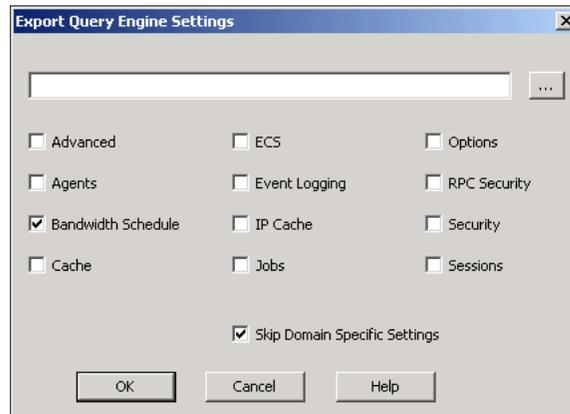
Exporting Query Engine Settings

You can use bv-Control for Windows to export the settings on a Query Engine and apply them to other Query Engines in your environment. To do this, you use the **Export Query Engine Settings** dialog.

▶   ***To export query engine settings***

1   Right-click on the computer that you want to export settings from.

2   Select the **Export Query Engine Settings** option from the drop-down menu.

The **Export Query Engine Settings** dialog appears.

This dialog allows you to export the settings into a standard Windows Registry file (.REG). The .REG file can then be pushed to any Query Engines you have. You can also have multiple .REG files for various configurations and then push them to other groups of Query Engines. The **Skip Domain Specific Settings** option will not allow the export to export values that are specific to a domain such as Target Computers. If you plan to move settings across domains, keep this option checked.

Select from the following options of Query Engine settings to be exported:

• Advanced - Advanced tab of Query Engine Settings

• Agents - Agents tab of Query Engine Settings

- Bandwidth Schedule - Bandwidth Schedule tab of Query Engine Settings
- Cache - Cache tab of Query Engine Settings (if Skip Domain Specific Settings is checked, the Target Computer is not taken.)
- ECS - ECS tab of Query Engine Settings (database path is not taken)
- Event Logging - Event Logging tab of Query Engine Settings
- IP Cache - IP Cache tab of Query Engine Settings
- Jobs - Jobs tab of Query Engine Settings
- Options - Options tab of Query Engine Settings (only takes the TCP/IP port settings)
- RPC Security - Takes the Registry hive and its subfolders (takes the settings necessary for RPC security)
- Security - Advanced Security tab and Security tab of Query Engine Settings
- Sessions - Sessions tab of Query Engine Settings

Distribution Rules

Distribution Rules enable you to control the distribution of queries or data collection from a Master Query Engine to a Slave Query Engine. A Master has a set of Slaves that it normally assigns its work. In absence of distribution rules, the work is evenly divided among the Slaves in a round-robin order.

The **Add Distribution Rule** dialog allows you to enter the following information for distribution rules: Rule Type, Expression Type, an option to failover to the next rule should the selected query engine to which the rule applies is down, and to specify the distribution rule you want the Query Engine to adhere to.
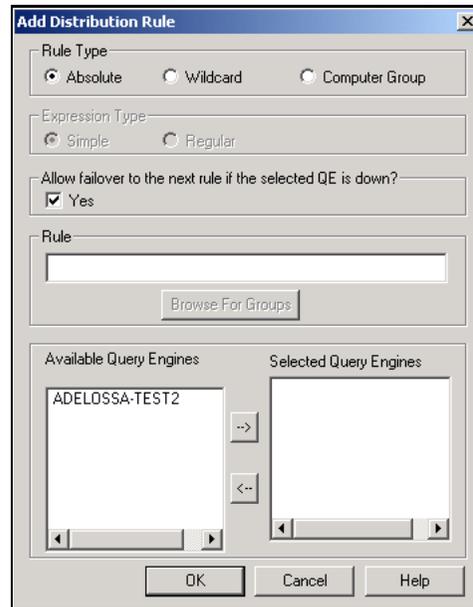

Fig. 208 Add Distribution Rule Dialog

You can manually add an absolute, wildcard (simple or regular), or computer group rule or add a rule using the Distribution Rule Wizard.

Rule Type

There are three types of distribution rules:

- **Absolute** - assigns a single reporting computer to a single Slave Query Engine.
- **Wildcard** - uses pattern matching by assigning a group of computers (whose computer names match a pattern) to a group of Slave Query Engines.
- **Computer Group** - assigns all computers defined in a Computer Group to a single or multiple Slave Query Engines.

Associated with each set of distribution rules is a **default group**. The default group is a collection of Slave Query Engines that service queried computers not covered by any of the absolute or wildcard rules. If the default group is empty, the remaining work is divided evenly among all the Slaves assigned to the Master Query Engine in a round-robin fashion.

The rules are evaluated by the Master Query Engine using the following precedence in a top-down manner:

- Absolute Rules
- Wildcard Rules (pattern matching)
- Computer Group

Note: Unicode characters from a character set above 256 are not supported.

Expression Type

There are two expression types when using the Wildcard distribution rule: Simple and Regular. Simple expressions simply include an asterisk (*) or a question mark (?) in the expression.

Examples of a simple expression are as follows:

- **Q*1** - This expression directs a Slave to query all machine names starting with a Q and ending in 1 with any number of characters in between.
- **S???1** - This expression directs a Slave to query all machine names that start with an S, have any three characters between, and end in 1.

With conventions, this type of expression allows you to define a rule using wildcards equivalent to DOS.

Regular Expressions

Regular expressions enable you to use regular expression language for pattern matching purposes.

Note: Distribution rules are not case-sensitive. Uppercase and lowercase letters are evaluated equally.

The following tables cover syntax considerations.

Table 2 Syntax Considerations

Syntax	Results
A	Matches "A", and "a". Does not match "B", or "Adef", etc.
[abc]def	Matches "adef", "bdef" and "cdef". Does not match anything else.
[a-c]def	Matches "adef", "bdef" and "cdef". Does not match anything else.
[^a-c]def	Does NOT match "adef", "bdef", or "cdef". It does match "ddef", "edef", etc. (^ represents the NOT character)

Syntax	Results
[:alpha:]	Matches all cases for all alphabetic characters
[:alnum:]	Matches all alphanumeric characters
[:Ntspecialchar:]	Matches all valid Windows NT/2000 special characters
[:Ntchar:]	Matches all valid characters for a Window NT/2000 machine name
.	Matches any single character one time.
\	This is an escape-sequence character. Any character following "\" will be evaluated literally, not according to its special function within distribution rules. don\.art will result in a match with "don.art" only, and will not match "donxart".

Table 3 Syntax Considerations With Repetition

Syntax	Matches
[a-c]def	Matches "adef", "bdef" and "cdef". Does not match anything else.
a?def	matches "adef" or "def".
+	matches the preceding character one or more times
a{2,3}	Matches 2 a's or 3 a's, "aa" or "aaa".
a{3,}	Matches "a" three or more times.
a|b	Matches "a" or "b". ("|" means "or").
a|b?def	Matches "adef" or "bdef" or "def".

Table 4 Syntax Considerations with String Concatenation

Syntax	Matches
abc?	Matches "abc" or "ab".
(cat)?95	Matches "95" or "*cat*95".

-

Other Rule Considerations

- Any character equivalency class must be bracketed. (Example: [[:alpha:]])
- The distribution rule set strongly parallels the UNIX grep command.
- Slave Query Engines always report on themselves.
- An absolute rule represents a single machine assigned to a Slave Query Engine.
- Absolute rules apply before pattern matching rules.
- Distribution rules may only be set on the Master Query Engine. Multiple Slave Query Engine rule designations are made from the Distribution Rules options.
- Case sensitivity is not an issue under Windows NT/2000 for machine names; therefore, rule assignment follows this convention as well.

Rule Precedence

Distribution Rules are performed in the following order of precedence.

1. Any part of a rule in parentheses
2. Repetition
3. Concatenation
4. Alternation (or)

Manually Adding an Absolute Rule

This section describes how to add an absolute rule manually.

▶ ***To add an absolute rule***

1 Click the **Add Distribution Rule** button.

The **Add Distribution Rule** dialog appears.

Fig. 209 Add Distribution Rule Dialog – Absolute Rule

Note: By default, the **Absolute** option is already selected.

---

2 Enter the machine name in the **Rule** field.

3 From the **Available Query Engines** list, double-click the Slave Query Engine to which the rule will apply. The selected Slave engine moves from the **Available Query Engines** list to the **Selected Query Engines** list.

You can also select the Slave Query Engine and click the right arrow to move the Slave engine from the **Available Query Engines** list to the **Selected Query Engines** list.

4 Click **OK** to save the distribution rule. The distribution rule appears in the right-hand component of the bv-Config window.

5 When you are finished adding distribution rule(s), you will be prompted to save the distribution rule(s). Click **Yes** to save the rule(s).

Note: Once you have added or altered a distribution rule, you must save the rule and synchronize it with the ECS for the rule changes to take effect. See "Saving Distribution Rule Changes" on page 214.

Manually Adding a Wildcard Rule

You can add an absolute or wildcard (simple or regular) rule or add one using the Distribution Rule Wizard. When adding a wildcard rule, you can add a simple or a regular expression. The following two procedures describe how to add a simple and a regular expression wildcard rule manually.

▶ ***To add a simple expression***

This procedure describes how to manually add a simple wildcard expression rule.

1 From the **Rule Type** box, select the **Wildcard** option. The **Expression Type** box becomes available.
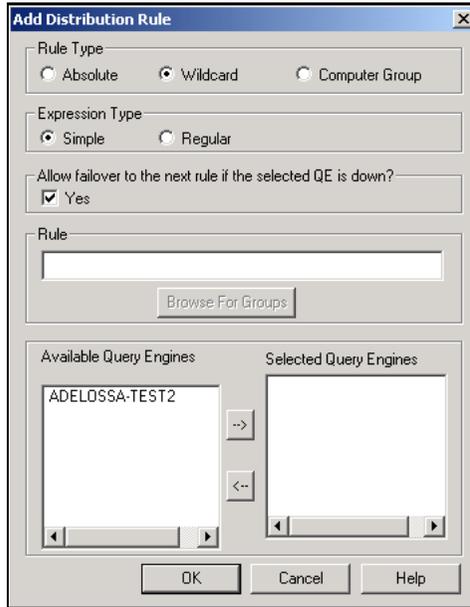
2 Select the **Simple** option.

Fig. 210 Add Distribution Rule Dialog –
Wildcard Rule/Simple Expression

3 Enter the simple expression in the **Rule** field. See "Expression Type" on page 202 for information about simple expressions.

4 From the **Available Query Engines** list, double-click the Slave Query Engine(s) to which the rule will apply. The selected Slave engine moves from the **Available Query Engines** list to the **Selected Query Engines** list.

You can also select the Slave Query Engine(s) and click the right arrow to move the Slave engine from the **Available Query Engines** list to the **Selected Query Engines** list.

5 Click **OK** to set the distribution rule. The distribution rule appears in the right-hand component of the bv-Config window.

6 After you have added or altered a distribution rule, you must save the rule and synchronize it with the ECS for the rule changes to take effect. See "Saving Distribution Rule Changes" on page 214.

▶ ***To add a regular expression***

This procedure describes how to manually add a regular wildcard expression rule.

1   Click the **Add Distribution Rule** button. The **Add Distribution Rule** dialog appears.

Fig. 211 Add Distribution Rule Dialog –
Wilcard Rule/Regular Expression

2   Click **Wildcard** from the **Rule Type** box.

3   Click the **Regular** option in the **Expression Type** box.

4   Enter the regular expression in the **Rule** field. See "Regular Expressions" on page 202 for information about regular expressions.

5   From the **Available Query Engines** list, double-click the Slave Query Engine(s) to which the rule will apply. The selected Slave engine moves from the **Available Query Engines** list to the **Selected Query Engines** list.

You can also select the Slave Query Engine(s) and click the right arrow to move the Slave engine from the **Available Query Engines** list to the **Selected Query Engines** list.

6   Click **OK** to set the distribution rule. The distribution rule appears in the right-hand component of the bv-Config window.

7   After you have added or altered a distribution rule, you must save the rule and synchronize it with the ECS for the rule changes to take effect. See "Saving Distribution Rule Changes" on page 214.

Manually Adding a Computer Group Rule

To add a computer group rule

1   Click the **Add Distribution Rule** button

The **Add Distribution Rule** dialog appears

Fig. 212 Add Distribution Rule Dialog – Computer Group Rule

2 Enter the machine name in the **Rule** field.

3 From the **Available Query Engines** list, double-click the Slave Query Engine to which the rule will apply. The selected Slave engine moves from the **Available Query Engines** list to the **Selected Query Engines** list.

You can also select the Slave Query Engine and click the right arrow to move the Slave engine from the **Available Query Engines** list to the **Selected Query Engines** list.

4 Click **OK** to save the computer group distribution rule. The distribution rule appears in the right-hand component of the bv-Config window.

5 When you are finished adding distribution rule(s), you will be prompted to save the distribution rule(s). Click **Yes** to save the rule(s).

Once you have added or altered a distribution rule, you must save the rule and synchronize it with the ECS for the rule changes to take effect. See "Saving Distribution Rule Changes" on page 214.

Adding a Rule Using the Wizard

This section describes how to add an absolute rule, a simple and a regular expression wildcard rule, as well as a computer group rule using the distribution rule wizard.

▶ *To add an absolute rule*

1 Click the **Distribution Rule Wizard** button.

The **Distribution Rule Assistant - Step 1 of 3** dialog appears.

Fig. 213 Distribution Rule Assistant –
Step 1 of 3 (Absolute rule)

2   Select **Absolute** and click **Next**.

The **Distribution Rule Assistant - Step 2 of 3** dialog appears.

Fig. 214 Distribution Rules Assistant –
Step 2 of 3 (Absolute rule)

3   Enter the computer name in the **Enter the distribution rule** field.

4   Click **Next**. The **Distribution Rule Assistant - Step 3 of 3** dialog appears.

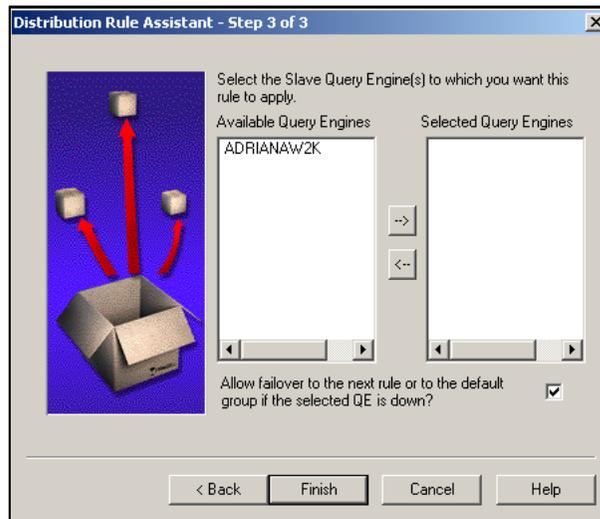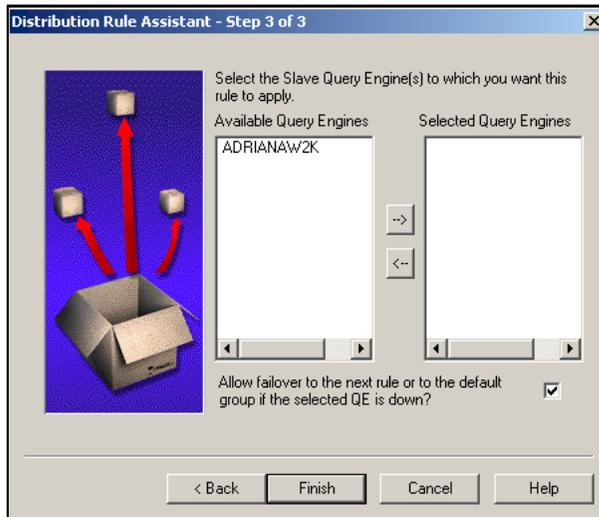**Fig. 215** Distribution Rule Assistant – Step 3 of 3 (Absolute rule)

5   From the **Available Query Engines** list, double-click the Slave Query Engine to which you want to apply this distribution rule, or click the right arrow.

The selected Query Engine(s) move from the **Available Query Engines** list to the **Selected Query Engines** list.

6   After you have selected all the Slave Query Engines to which you want the rule to apply, click **Finish**.

The new distribution rule appears in the right-hand component of the bv-Config window.

7   After you have added or altered a distribution rule, you must save the rule and synchronize it with the ECS for the rule changes to take effect. See "Saving Distribution Rule Changes" on page 214.

▶   *To add a simple expression rule*

1   Click the **Distribution Rule Wizard** button.

The **Distribution Rule Assistant - Step 1 of 3** dialog appears.

Fig. 216 Distribution Rule Assistant Dialog–
Step 1 of 3 (Simple expression)

2 Select **Wildcard** and click **Next**.

The **Distribution Rules Assistant - Step 2 of 3** dialog appears.

Fig. 217 Distribution Rule Assistant Dialog–
Step 2 of 3 (Simple expression)

3 Enter the simple expression rule in the **Enter the distribution rule** field. By default, the **Simple** option is selected.

4   Click **Next**. The **Distribution Rules Assistant - Step 3 of 3** dialog appears.

Fig. 218 Distribution Rule Assistant Dialog–
               Step 3 of 3 (Simple expression)

5   From the **Available Query Engines** list, double-click the Slave Query Engine(s) to which you want to apply this distribution rule, or click the right arrow.

The selected Query Engine move from the **Available Query Engines** list to the **Selected Query Engines** list.

6   After you have selected all the Slave Query Engines to which you want the rule to apply, click **Finish**.

The new distribution rule appears in the right-hand component of the bv-Config window.

7   After you have added or altered a distribution rule, you must save the rule and synchronize it with the ECS. See "Saving Distribution Rule Changes" on page 214.

▶   *To add a regular expression rule*

1   Click the **Distribution Rule Wizard** button.

The **Distribution Rules Assistant - Step 1 of 3** dialog appears.

Fig. 219 Distribution Rule Assistant Dialog–
Step 1 of 3 (Simple expression)

2 Select **Wildcard** and click **Next**.

The **Distribution Rule Assistant - Step 2 of 3** dialog appears.

Fig. 220 Distribution Rule Assistant Dialog–
Step 2 of 3 (Regular expression)

3 Click the **Regular** option, and enter the regular expression in the **Enter the distribution rule** field.

4 Click **Next**.

The **Distribution Rule Assistant - Step 3 of 3** dialog appears.

Fig. 221 Distribution Rule Assistant Dialog–
Step 3 of 3 (Regular expression)

5 From the **Available Query Engines** list, double-click the Slave Query Engine(s) to which you want to apply this distribution rule, or click the right arrow.

The selected Query Engine move from the **Available Query Engines** list to the **Selected Query Engines** list.

6 After you have selected all the Slave Query Engines to which you want the rule to apply, click **Finish**.

The new distribution rule appears in the right-hand component of the bv-Config window.

7 After you have added or altered a distribution rule, you must save the rule and synchronize it with the ECS for the rule changes to take effect. See the following section, "Saving Distribution Rule Changes".

Saving Distribution Rule Changes

No matter which method you used to add a distribution rule, the rule(s) you added (or altered) are not saved until you exit the right-hand component of the bv-Config utility. This section describes how to save your distribution rule changes.

▶ *To save a distribution rule*

1 Exit the right-hand component of the bv-Config utility by clicking the **Up One Level** toolbar button on the bv-Config utility toolbar.

2 The **bv-Config** message prompts you to save any distribution rule(s) added or altered. Click **Yes**.

The **Synchronizing Master Query Engine(s**) dialog appears.

Fig. 222 Synchronizing Master Query Engines Dialog

3 Click **Synchronize** to update the Master Query Engine with the distribution rule change(s).

If synchronization is successful, the **Synchronizing Master Query Engine(s)** dialog appears "synchronized" to the right of the Master Query Engine(s).

4 Click **Close**.

The right-hand component of the bv-Config utility displays the options for the Query Engine for which you added or altered the distribution rule(s).

Removing a Rule

You may decide that you no longer want to apply an existing distribution rule. Once a rule is removed, the machines to which the rule applied will be distributed to the default Query Engines in a round-robin order.

▶ *To remove a distribution rule*

1 From the bv-Config window, select the machine running the Master Query Engine that contains the distribution rule you want to remove.

2 Double-click the **Distribution Rules** option. The list of distribution rules currently set for the Query Engine appears in the right-hand component of the bv-Config window.

3 Select the distribution rule you want to remove, and click the delete button.

The distribution rule is removed from the list.

4   After you have deleted a distribution rule, you must save the changes and synchronize them with the ECS for the rule changes to take effect. See "Saving Distribution Rule Changes" on page 214.

Setting the Default Group

If you have set up specific distribution rules to include or exclude machines on which a Slave Query Engine reports, you may also want to set up default Slave Query Engines to report on those machines that have not been specifically set to be reported on by a distribution rule.

▶ *To set the default group*

1   Click the **Default Group** button on the toolbar.

The **Default Group** dialog appears.

Fig. 223 Default Group Dialog

2   From the **Available Query Engines** list, select the Slave Query Engine you want to include in the default group, and click the right arrow button, or double-click the Slave.

The selected Slave moves from the **Available Query Engines** list to the **Select Query Engines** list.

3   Click **OK** to close the **Default Group** dialog.

4   After you have set the default Slave Query Engine(s), you must save the Default Group and synchronize it with the ECS for the rule changes to take effect. See "Saving Distribution Rule Changes" on page 214.

Viewing Rule Results

After you have defined distribution rules and set the default group, you can view the results of the rules and your default group selection. These results will show you which Query Engine will collect network data from which machine in its domain. The distribution rule results may be viewed at any time.

▶ *To view distribution rule results*

1   From the bv-Config utility, select the machine running the Query Engine for which you want to view distribution rule results.

2 Double-click the **Distribution Rules** option. The list of distribution rules displays in the right-hand component of the bv-Config window.

3 Click the **View Distribution Rules Results** button on the toolbar.

The **Distribution Rules Results** dialog appears.

Fig. 224 Distribution Rules Results Dialog

4 Use the horizontal and vertical scroll bars to view the Query Engines and machines assigned to them.

The machine names appearing in the header are the machines where Slave Query Engines are installed. The Machines that appear beneath them are the machines on which those Query Engines report.

Note: A Slave Query Engine will always report on itself, regardless of any distribution rule.

---

5 After viewing the results, click **OK** to close the dialog.

Site Based Distribution Rules

The Site Based Distribution Rule feature allows you to generate IP Computer Groups based on Active Directory sites. Once that information is attained, you can generate the site based Distribution Rules. Using the Computer Groups generated from Active Directory, you can generate Distribution Rules and assign Query Engines based on their IP address into the correct rule. By using Active Directory, you can quickly generate Computer Groups and Distribution Rules to accurately fit your specific network topology.

▶ *To generate IP Groups based on Active Directory sites*

1 From bv-Config, right-click the domain that you want to apply the rule to.

2 From the drop-down menu, select **Manage Computer Groups**. The **Query Computer Groups** dialog appears.

3 Click the **Generate IP Group(s)...** button.

4 The **Generate Groups from Sites** dialog appears.

Fig. 225 Generate Groups From Sites dialog

5   Identify the Target Domain Controller and click **Generate**.

Once you have generated the IP groups based on the Active Directory site, use the **Generate Site Based Distribution Rules** dialog to generate a computer group or distribution rule based on the Active Directory site(s).

Fig. 226 Generate Site Based Distribution Rules dialog

Promoting and Demoting Query Engines

You can promote a Slave Query Engine to a Master Query Engine or demote a Master Query Engine to a Slave Query Engine.

Promoting a Slave Query Engine

If you prefer, you can make a Slave Query Engine a Master Query Engine without going through the Query Engine installation. Perform the following steps:

▶ *To promote a slave to a master*

1 From the bv-Config utility, select the machine running the Slave Query Engine you want to promote to a Master.

2 From the right-hand component of the bv-Config window, select **Promote to a Master Query Engine**.

The bv-Config utility will prompt you to make sure you want to promote the Slave with the bv-Config message.

3 Click **Yes**. The bv-Config utility will promote the Slave Query Engine to a Master Query Engine.

Demoting a Master Query Engine

If you prefer, you can make a Master Query Engine a Slave Query Engine without going through the Query Engine installation. Perform the following steps.

▶ *To demote a master to a slave*

1 From the bv-Config utility, select the machine running the Master Query Engine you want to demote to a Slave Query Engine.

2 From the right-hand component of the bv-Config window, select **Demote to a Slave Query Engine**.

The bv-Config utility will prompt you to verify that you want to demote the Master by displaying the bv-Config message.

3 Click **Yes**. The bv-Config utility will demote the Master Query Engine to a Slave Query Engine.

9   Using Query-Related Features

In This Chapter

Understanding Queries

A query is a question that you define based on a specific set of criteria, and submit to the Information Server to receive specific information about resource objects in your environment.

By querying your environment using bv-Control for Windows, administrators can use the Query Builder process to create reports that are specific to the data sources and fields of the query. The query can be customized to report on specific information in your organization. The query results can then be saved for analysis and planning of your environment at a later time.

You must have processing rights to create and modify queries. Only BindView Administrators can assign user rights for query processing.

For information on assigning query rights, see the *BindView RMS Console and Information Server User Guide*, or online Help.

You must also have at least one credential database assigned to you to be able to successfully query resource objects. You can only query the resource objects whose credentials are valid in the credential database that is assigned to you.

Query Components

The following components allow you to create a query:

- **Data Source** - Fields that represent a resource object or a collection of resource objects that are specific to bv-Control for Windows.
- **Field Specification** - Allows you to select the fields to be reported on by the query.
- **Filter Specification** - Allows you to define values for certain fields in the query results. These fields are used to select specific records, and to more narrowly define the information that the query gathers.

    Filters are not required in query definitions.

- **Sort Specification** - Allows you to determine the order in which fields and values appear in the query results.

    Sorts are not required in query definitions.

- **Scope Specification** - Allows you to define which resource objects are examined during query processing.

Creating a Query

The first step in defining a query is to determine the information about your environment that you want to gather. When defining a query, use the **Select Data Source** dialog and the **Query Builder** dialog to specify the information that you want and the manner in which you want it collected. These dialogs can be accessed from the **New Query** icon on the BindView product toolbar.

For additional information about the **Select Data Source** and **Query Builder** dialogs, see the *BindView RMS Console and Information Server User Guide*.

Selecting a Data Source

You must select a data source for the query definition. A data source contains fields that represent a resource object, or a collection of resource objects.

▶ *To select a data source*

1 Click the **New Query** ☐ icon on the product toolbar.

The **Select Data Source** dialog appears.

Fig. 227 Select Data Source Dialog

2 Select a data source and click **OK**.

The **Query Builder** dialog appears ().

Adding Fields

To add fields to the query definition, use the **Field Specification** tab on the **Query Builder** dialog. A query definition must contain at least one field.

The added fields define the type of information received about the resource objects when the query is run.

▶ *To add a field*

1 Select a field in the **Available Fields** list.

You can view a description of the selected field by clicking the **Field Info** button.

Fig. 228 Query Builder Dialog - Field Specification Tab

2 Click **Add**.

Fields can also be added by double-clicking them, or by dragging them to the **Selected Fields** list.

The field appears in the **Selected Fields** list.

Fields appear in the dataset in the order they appear in the **Selected Fields** list. The field order can be rearranged by dragging fields.

Some fields, such as ranges, require a descriptor value. A dialog (Fig. 229) for that field appears after you click **Add**.

Fig. 229 Descriptor Field Dialog - Prompt Value

After you enter the value and click **OK**, the field with its value appears in the **Selected Fields** area.

Filtering the Available Fields List

You can quickly search for a specific field in the selected data source by creating a filter for the **Available Fields** list.

▶ *To filter the Available Fields list*

1   Enter the string in the **Filter Field Names** text box (Fig. 228 on page 224).

2   Click **Apply**.

    The fields that contain the string appear in the **Available Fields** list (Fig. 228).

Clearing the **Filter Field Names** box and clicking **Apply** repopulates the **Available Fields** list with all the fields contained in the data source.

Adding Filters

You can add filters to the query definition to reduce the number of resource object records returned in the dataset. Filters consist of one or more filter terms. A filter term is a value, or group of values, selected by the user that defines the record types that are returned in the dataset.

Users must supply all filter term values before the Information Server can process a query that contains a filter. Users supply filter term values either immediately after adding a filter term to a query definition, or each time the query is run. If the user who creates the query definition includes a prompt user command, the filter term value must be defined by the user who runs the query.

When the Information Server processes a query, it applies the filter to each record that is gathered for the selected resource objects. Only the records that match the filter are included in the dataset.

▶ *To add a filter term*

1   Select the **Filter Specification** tab on the **Query Builder** dialog.

2

Fig. 230 Query Builder Dialog - Filter Specification Tab

3 Select a field for which you want to define a filter term and click **Add**.

The **Filter Term Definition** dialog appears.

Fig. 231 Specific Value Filter Term Definition

The **Filter Term Definition** dialog allows you to further filter the selected field.

4 Select a filter option.

5 Select an operator from the drop-down list.

6 Enter a specific value for the operator in the **Specify a value** box.

7 Click **OK**.

The filter term appears in the **Expression** list on the **Filter Specification** tab (Fig. 230 on page 226).

Grouping Filter Terms   You can group two or more filter terms that you want to function as a single unit by using the **Add** parentheses buttons on the **Filter Specification** tab to group filter terms. The **Remove** parentheses buttons ungroup the filter terms.

Modifying and Removing Filter Term Definitions   To modify the filter term, select the filter term and click **Modify**. The **Modify** button invokes the **Filter Term Definition** dialog (Fig. 231 on page 226). To remove a filter term, select the filter term and click **Remove**.

Filtering Field Names   As on the **Field Specification** tab, you can quickly search for a specific field in the selected data source by creating a filter for the Filter Field Names. See "Filtering the Available Fields List" on page 225.

Adding Sorts   Sorts determine the order in which sort fields and sort field values appear in the dataset. You can only apply sorts to fields that you added to the query definition.

▶ *To add a sort*

1   Select the **Sort Specification** tab on the **Query Builder** dialog.

Fig. 232 Query Builder Dialog - Sort Specification Tab

2   Select a field and click **Add**.

The selected sort fields appear in the **Selected Fields** list (Fig. 232 on page 227).

The fields and field values appear in the dataset according to the sort specification.

3 Select a duplicate key option.

- **Allow Records with Duplicate Key** - Includes all records regardless of key duplication.

- **Only Allow Records with Duplicate Key** - Includes only those records that have duplicate keys.

- **Suppress Records with Duplicate Key** - Includes only the first record of a key.

Modifying and Removing Sort Fields

To modify the sort direction of the fields, select a field and click **Toggle Sort** to toggle between an A to Z or Z to A sort for the values returned for the sort field. You also can change the sort direction by double-clicking the sort field.

To modify the sort order of the fields, select a field and drag it to the desired position.

To remove a field, select a field and click **Remove**. The field is removed from the **Selected Fields** list.

Adding Scopes

A scope narrows the range of resource objects that are queried. A scope consists of user-selected scope items. A scope item is a single resource object or a container that holds several resource objects.

Since the Information Server only queries the resource objects indicated by the scope, you can use scopes to significantly reduce the time it takes to retrieve a dataset.

▶ *To add a Scope*

1 Select the **Scope** tab on the **Query Builder** dialog (Fig. 233).

2 Select a scope in the **Available Items** list.

Fig. 233 Query Builder Dialog - Scope Tab

3 Click **Add Scope**.

The scope appears in the **Selected Item(s)** list.

If the selected data source allows you to specify advanced scope filters, the **Additional Settings** dialog appears.

Using Dynamic Indexing Dynamic indexing reduces the display time of scope items on the **Scope** tab of the **Query Builder** dialog. Dynamic indexing alphabetically categorizes large numbers of nodes, or scope items, into several folders.

Dynamic index folders have a unique icon and are labeled with the name of the first and last scope item in the folder. By default, dynamic indexing is enabled for all users. Each user has their own default dynamic indexing settings.

▶ *To disable or modify your default dynamic index settings*

1 Click **Configure Dynamic Indexing** on the **Scope** tab.

The **Configure Dynamic Indexing** dialog appears.

Fig. 234 Configure Dynamic Indexing Dialog

2 Select to enable or disable dynamic indexing. If you disable dynamic indexing, proceed to step 4.

3 Enter the number of folders and nodes that you want to be displayed in the **Available Items** list.

4 Click **OK**.

Saving Named Scopes   A named scope is a group of saved scope items stored on the Information Server. All users of the Information Server can access any named scope saved on it.

1 Select the **Scope** tab on the **Query Builder** dialog (Fig. 233 on page 229).

2 Select the item in the **Selected Item(s)** list.

3 Click **Save as Named Scope**.

The **Named Scope** dialog appears.

Fig. 235 Named Scope Dialog

4 Enter the name for the scope.

5 Click **OK**.

The named scope is saved on the Information Server that you are currently using and can be reused for other queries based on the data source.

Adding Named Scopes to Query Definitions   You can add a named scope to any query definition that contains the same data source as the one associated with the named scope. When you add a named scope, you link the named scope to the query definition.

▶ ***To add a named scope to a query definition***

1   Expand the **Named Scopes** folder on the **Scope** tab on the **Query Builder** dialog (Fig. 233 on page 229).

All named scopes stored on the Information Server for the selected data source appear.

2   Select the named scope.

3   Click **Add Scope**.

The scope is now listed in the **Selected Item(s)** field.

4   Click **OK**.

The named scope is linked to the query definition.

Note: If you save a query definition that contains a link to a named scope, any modifications made to the named scope are automatically applied to query definitions that use the named scope.

Removing a Scope   To remove a scope, select the scope and click **Remove**. The scope is removed from the **Selected Fields** list.

Saving a Query Definition   A query definition is referred to as the Query Binder by the BindView RMS Console. By default, the Query Binder file is saved in the **My Items** folder, a subfolder found in the **Risk Assessment and Control** subfolder of the **BindView Risk Management** container. If you want to save your Query Binder in a different location, you can browse for the location and select it. The **Query Options** dialog is used to save the Query Binder.

▶ ***To save a Query Binder***

1   Click **OK** on the **Query Builder** dialog.

The **Query Options** dialog appears.

Fig. 236 Query Options Dialog

2   Click **Save**.

The **Save Query** dialog appears.

Fig. 237 Save Query Dialog

3 Enter the name of the Query Binder in the **Selection Name** field.

4 Click **OK**.

The **Query Options** dialog reappears (Fig. 238), and you are now ready to run the query.

Running Queries

You can run a query from the **Query Options** dialog or the **Query Binder** shortcut menu. When you run a query, the Information Server polls the resource objects you selected in the query definition and returns this information in a dataset.

Datasets can be displayed in the following view types:

- **Grid** - Displays the dataset in a spreadsheet-style interface. Grid columns represent the fields included in the query definition, the grid rows represent the resource object records, and grid cells contain the gathered resource object attributes.

  If a record length exceeds the displayed column width, a red arrow appears in the record cell. Red arrows invoke pop-up windows when you place the cursor on them.

  After running a query, always check for messages that have been returned with the query results. Click the **Messages** button at the lower right-side of the report to view messages.

- **Chart** - Displays the results of a query in a graphic format. Charts are created and modified using the Chart Builder Wizard. The wizard guides you through the process of building a custom chart for your query. During the building process, you select the type of chart (column, pie, or histogram) you want to build, and how you want the chart to be labeled.

- **Report** - Allows you to create a variety of customized reports for your query results, and to print a report of the data results from your query. The Console is installed with default settings. However, you can customize the default settings by using the

Global Report Style Settings item in the **BindView RMS Configuration** folder.

For more information about query results settings, see the *BindView RMS Console and Information Server User Guide*.

▶ *To run a query from the Query Options dialog*

1   Click **OK** on the **Query Builder** dialog.

The **Query Options** dialog appears.

Fig. 238 Query Options Dialog

2   Select the view type in the **View As** area.

3   Click **Run**.

The dataset appears.

Fig. 239 Query Results in Grid View Type

▶   ***To run a query from an existing query binder***

1   Double-click **Risk Assessment and Control** in the **BindView RMS** container.

2   Click **My Items** to view the existing saved queries.

3   Select the query you want to run.

Fig. 240 Accessing the Query Binder

4   Select **Run>And View As Grid** from the shortcut menus to run the query.

The query results appear in a grid (Fig. 239).

Rerunning Queries from the Grid Toolbar

The **Rerun Query** ![icon] icon on the grid toolbar allows you to rerun the query that was used to create the dataset displayed on the grid. The resulting dataset is automatically displayed as a grid.

Saving datasets in a query binder using either the **Save** or **Save As** command removes the query task from the **Task Status** dialog because the corresponding dataset has been moved into a query binder.

Monitoring the Status of Processed Queries

Using the **Task Status** dialog, you can quickly monitor and manage your query tasks that are processed by the Information Server.

You can access the **Task Status** dialog by clicking the **Task Status** icon ![icon] on the product toolbar, or the **View Task Status** option on a taskpad.

Fig. 241 Task Status Dialog

You can monitor query tasks by observing their associated status icons. You can manage query tasks using the **Query Task** shortcut menu commands:

• **View** – Displays the dataset gathered for the query as a grid.

• **Halt** – Stops query processing and displays the gathered dataset as a grid.

• **Delete** – Stops query processing and deletes the gathered dataset.

• **Save** or **Save As** – Links the dataset to the query binder containing the query definition for the processed query.

Dialog Book

A Dialog Book provides an alternative view of the data available from certain data sources. You can access the Dialog Book using one of the following methods:

• Double-click a record in a grid

• Right-click an object in the Details pane

• Right-click an object in the Console tree

The Dialog Book obtained from a dataset may contain some of the available fields in the data source even if the fields were not included in the query. The fields are organized by tabs in the Dialog Book.

The data in the grid is displayed one row at a time. You use the arrow buttons at the bottom of the dialog to move from one record to another.

▶ ***To access the Dialog Book from a dataset grid***

1 Run a query.

2 On the query results grid, double-click a record.

The **Dialog Book** dialog appears.

Fig. 242 Dialog Book Dialog

3 Select the appropriate tab to access information about the record you selected.

Note: Because data is regenerated when you double-click on a record, the information in the Dialog Book may be different than the data in the grid.

Using ActiveAdmin

The ActiveAdmin® feature is used to manage the following items from the Console:

- Resource objects
- Historical datasets
- Session logs

Users with access rights can manage resource objects by deleting them, or by changing their attributes. When you use ActiveAdmin to manage resource objects, the actual resource objects in your enterprise are deleted or changed. ActiveAdmin does not change resource object records in historical datasets.

BindView Administrators can manage historical datasets and session logs by deleting them from the Information Server.

You must have an ActiveAdmin license and processing rights to use ActiveAdmin. For additional information on ActiveAdmin user rights, see the *BindView RMS Console and Information Server User Guide*.

Deleting Resource Objects

You can delete any resource object that is represented by a data source that supports the ActiveAdmin delete feature. You access the ActiveAdmin delete feature from the **Delete** command on the shortcut menu of a grid row. When you use the **Delete** command, the Information Server deletes the resource object represented in the grid row.

Warning: The ActiveAdmin **Delete** feature permanently deletes resource objects from your enterprise.

▶ *To delete a resource object*

1 Run a query created from a data source that supports the ActiveAdmin delete feature and view the dataset as a grid.

Make sure that the data source selected for the query represents the resource objects you want to delete.

For information on running a query, see "Running Queries" on page 232.

The query results appear in a grid (Fig. 243).

Fig. 243 Grid with ActiveAdmin Delete Feature

2   Select the record to be deleted.

3   Right-click the associated row number and select **Delete** from the shortcut menu.

The **Delete Action** confirmation dialog appears.

4   Click **OK**.

The session log appears after the Information Server processes the ActiveAdmin task.

Changing Resource Object Attributes

You can change any resource object attribute collected for a field that supports the ActiveAdmin change feature. Fields that support the ActiveAdmin change feature are editable fields and are

identified by the **ActiveAdmin** icon on the **Query Builder** dialog.

You can access the ActiveAdmin change feature from the **Edit** command on the shortcut menu of a grid cell. The **Edit** command is only available on the cells in an editable field column.

The **Edit** command invokes an ActiveAdmin change dialog. When you use this dialog to change the value appearing in the grid cell, the Information Server changes the associated resource object attribute. You can change several values in a grid column at once, or change the values individually.

Warning: The ActiveAdmin **Edit** feature permanently changes resource objects in your Enterprise.

▶ ***To change resource object attributes***

1   Run a query created from a data source containing the editable fields that represent the resource objects you want to modify and view the dataset as a grid.

For detailed information on running queries, see "Running Queries" on page 232.

The grid automatically appears after the query has run.

Fig. 244 Grid with ActiveAdmin Edit

2   Select the resource object you want to modify.

3   Right-click the value and select **Edit** from the shortcut menu.

The **ActiveAdmin Change** dialog appears.

4   Edit the value and click **OK**.

The **Change Action** confirmation message appears.

5   Click **OK**.

If you have access rights, the session log appears after the Information Server processes the ActiveAdmin task.

Deleting Historical Datasets and Session Logs

BindView Administrators can delete any historical dataset or session log stored on the Information Server, even those created by other users. BindView Administrators use grids created from **Historical Dataset** queries to delete historical datasets or session logs.

▶ *To delete a historical dataset or session log*

1 Run a **Historical Dataset** query and select to view the dataset as a grid.

All the historical datasets and session logs stored on the Information Server appear in a grid.

Fig. 245 Historical Dataset Delete

2 Select the historical dataset or session log to be deleted.

3 Right-click the row number and select **Delete** from the shortcut menu.

The **Delete Action confirmation** dialog appears.

4 Click **OK**.

If you have access rights, a session log appears after the Information Server processes the ActiveAdmin task.

Baselining

Baselining compares the records of two historical datasets linked to a query binder and produces a delta dataset that you can export or display as a grid or report. Delta datasets are used to view exceptions and monitor changes in your resource objects over time.

Baselining can help you perform risk management by allowing you to view exceptions and monitor changes in your environment. You can then analyze the differences to determine how your environment has changed between query executions.

You must have at least two historical datasets linked to a query binder to use the baseline feature. These historical datasets must be created from a query definition that contains a data source that supports baselining.

When you baseline two historical datasets, the records in the newer dataset are compared against the records in the older dataset. The older dataset is called the baselined dataset, and the newer dataset is called the compared dataset.

When you run a baseline, the Information Server creates a delta dataset that contains all baselined and compared dataset records that match the user-selected record status options.

Each record status has an associated icon.

Table 5 Baseline Record Status Types

	Added
	Deleted
	Changed
	Unchanged

Creating a Delta Dataset

When you create a delta dataset, it is automatically displayed as a grid. Although you cannot save delta datasets, you can use the grid functionality to print a report or export the delta dataset.

▶ *To create a delta dataset*

1 Right-click the query binder file in the **BindView RMS>My Items** folder and select **Manage>Historical Data** from the shortcut menu.

The **Manage Historical Data** dialog appears.

Fig. 246 Manage Historical Data Dialog

2 Select the two historical datasets that you want to baseline. Hold the **Control** key down as you make your selections.

Note: The **Run Baseline** button appears dimmed if the data source in the query definition does not support baselining.

3 Click **Run Baseline**.

The **Baseline Options** dialog appears, configured with the default settings.

Fig. 247 Baseline Options Dialog

4   Select a **Record Status** option.

5   Select a **List Field Display** option.

6   Click **OK**.

The delta dataset results appear on a baseline grid.

Fig. 248 Delta Dataset Results on a Baseline Grid

The baseline grid displays all records from the two historical datasets that match the selected record status options.The baseline grid is used to create a report of the delta dataset, or to create a delta dataset export file.

Exporting

The Exporting feature allows you to format and send data so that it can be used by another application. You can export the following types of BindView data:

- Datasets
- Historical datasets
- Delta datasets
- Session logs
- Charts

The **Export Setup** dialog is used to export datasets and session logs. The data is exported by either the Console or the Information Server machine, depending on how you open the **Export Setup** dialog.

Table 6 Invoking the Export Setup Dialog

Items that invoke the Export Setup Dialog	Machine to Export From
Export button on the **Grid** toolbar	Console
Export command on the **Grid** menu of a grid	Console
Export button and command on the **Grid** menu of a baseline grid	Information Server
Run>And Export command on the **Query Binder** shortcut menu	Information Server
Export button on the **Manage Historical Data** dialog	Information Server
Query or **Baseline Post Process Commands** dialog	Console or Information Server

Exporting from the Information Server machine is more secure because BindView Administrators can restrict the directories that users can send export files to.

You can also use the **Export Settings** dialog to save export settings so that you can apply them to multiple datasets or session logs.

Exporting Prerequisites

Before you export a dataset or session log, you must configure the report settings and the export mail server.

Report Settings

Report settings determine the appearance of the report.

▶ *To configure the report settings*

1 Click the **Grid** menu on the dataset and select **Report Settings**.

2 Select the **Fields** tab and select the **Print** check boxes for each field you want to export.

3 If you are creating a text-based export file, you should select **Auto** in the **Column Width** area on the **Spreadsheet** tab.

For additional information on report settings, see the *BindView RMS Console and Information Server User Guide*.

Exporting to a Disk File

You can export a dataset or session log to a disk file by specifying a path in the **File Name** box on the **Export Settings** dialog.

▶ *To export to a disk file*

1 Open the **Export Setup** dialog using one of the methods listed in Table 6 on page 244.

Fig. 249 Export Setup Dialog

2 Click **Choose**.

The **Choose Export** dialog appears.

Fig. 250 Choose Export Dialog

3 Select a format for the export file from the **Format** drop-down list.

4 Select **Disk file** from the **Destination** drop-down list.

5 Click **OK**.

The **Export Setup** dialog reappears with the format and destination settings that you defined (Fig. 249 on page 245).

Note: If you selected **Character-separated values**, **Paginated Text** or **MS SQL Server** for your format, a secondary dialog appears. Access the context-sensitive Help on the dialog for detailed information on defining the required format settings.

---

6 Enter the path and file name in the **Folder Name** and **File** boxes. You can use the browse (**...**) button to select a different folder.

7 If you want to add the exported data to an existing file or table, select **Append to file/table if it already exists**.

If the selected export format does not support the append feature, this option will be dimmed.

8 Click **Export now**.

The dataset or session log is exported in the defined format to the disk file destination indicated in the **Folder Name** box.

Saving Export Settings

The three types of default export settings are automatically applied to the **Export Settings** dialog according to the following hierarchy:

• Export Settings Item

• User (My Setup)

• Global (Everyone's Setup)

All default export settings are stored on the Information Server. The export settings item and user default export settings are specific to the user who created them. However, all users can access export settings items that reside in the Shared folder, and the global default export settings that are saved by the BindView Administrator.

▶ ***To save export settings***

1   Open the **Export Setup** dialog (Fig. 249 on page 245).

2   Click **To Export Settings Item**.

The **Save Report Item** dialog appears.

Fig. 251 Save Report Item Dialog

3   Enter the name of the export settings item in the **Selection Name** box.

4   Click **OK**.

The **Export Setup** dialog reappears (Fig. 249 on page 245).

5   Click **OK**.

The settings are saved as the default for the query binder.

As My Setup Export Settings

If you want to save the settings defined in the **Export Setup** dialog as your user default export settings, click **As My Setup** in the **Save** area.

Global Default Export Settings

Only BindView Administrators can save global default export settings for bv-Control for Windows users of the Information Server.

An Information Server can store only one group of global default export style settings at a time. When a BindView Administrator saves new global default export style settings, the old settings are automatically deleted.

Information Servers cannot share global default export style settings.

BindView Administrators use the **As Everyone's Setup** button in the **Save** area of the **Export Setup** dialog to save the settings defined on the dialog as the global default export settings.

Note: The **As Everyone's Setup** option appears dimmed if you are not a BindView Administrator.

▶ ***To apply export settings***

1 Open the **Export Setup** dialog (Fig. 249 on page 245).

2 Click **From Export Settings Item** in the **Load** area.

The **Select Report Item/Folder/Shortcut** dialog appears.

Fig. 252 Select Report Item/Folder/Shortcut Dialog

3 Select the export settings item and click **OK**.

The **Export Setup** dialog is now configured with the settings saved in the export settings items.

For detailed information on exporting, see the *BindView RMS Console and Information Server User Guide*.

Creating Task Lists

The Task Lists feature allows you to group several tasks and manage them as one task file. A task list file can contain the following items:

• Query tasks
• Baseline tasks
• Post-process commands for added tasks
• Summary file commands

When you run a task list, the Information Server processes all tasks and post process commands added to the task list in a sequence. If a baseline task is dependent on a query task, the Information Server processes the query task before the baseline task.

When you create a task list, you can perform the following activities:

• Add query tasks from query binders
• Define post process commands for added query tasks
• Apply a scope for added query tasks
• Add baseline tasks from query binders
• Define post process commands for added baseline tasks
• Import query or baseline tasks from saved task lists
• Define summary file properties

▶ *To create a new task list*

1   Click the **New Task List** 📋 icon on the product toolbar.

The **Task List** dialog appears.

Fig. 253 Task List Dialog

2   Click **Add**.

The **Select a Task Type** dialog appears.

Fig. 254 Select a Task Type Dialog

3   Select the task type and click **Add**.

The **Select Query Binder** dialog appears.

Fig. 255 Select Query Binder Dialog

4   Select the Query Binder from the **Available Items** list and click **>** or click in the **Selected Items** list and enter the full path of the item. To add all items from the **Available Items** list, click **>>**.

You can browse to other folders using the [folder] button.

5   Click **OK** to close the **Select Query Binder** dialog.

The following dialogs that appear are based on the user selecting a Query task type. The dialogs and steps are similar for a Baseline task type.

The **Query Task Item** dialog appears configured with the selected query binder and default post process commands.

Fig. 256 Query Task Item Dialog

6   If you want to add additional query binders to the task item, click the browse (**...**) button and select the items.

7   If you want the Information Server machine to execute the added post process commands when the task list is run, select the **Run Post Process Commands Unattended** check box.

If this check box is cleared, the Console machine executes the commands.

8   Click **Add**.

The **Query Post Process Commands** dialog appears.

Fig. 257 Query Post Process Commands Dialog

A query task post process command tells the Console or Information Server machine what to do with the dataset gathered for the query task. You must have at least one post process command defined.

9   Select the post process command.

10 Click **OK**.

If the post process command requires additional user selections, a secondary dialog appears.

If additional user selections are not required, the **Query Task Item** dialog reappears. The post process command you added appears in the **Post Process Commands** list.

If you want to add another post process command, click **Add** and repeat Step 9 and Step 10.

11 Continue to add post process commands, if needed.

12 Click **OK**.

The **Task List** dialog reappears. The query task you added appears in the list of added tasks.

After you have saved the task list, you can run it at any time.

Running Task Lists

You run task lists from the following locations:

• Task List dialog
• Shortcut menu of a saved task list
• Schedules
• Command line

Use the **Run** button on the **Task List** dialog to run the task list. After you run the task list, the **Run** button changes to **Run Again**.

Saved task lists have shortcut menus that you can use to run the task list.

To start a task list at a specified time, you can use the Console Create Schedule Wizard. As long as the BindView RMS Information Server is running, the task will be processed at the time you specify.

Note: If you create the Scheduled Task on a machine hosting the BindView RMS Console, rather than a machine hosting the Information Server, and the machine is off, the Task List may not be processed on schedule. To ensure that it is processed at the desired time, you should consider creating the Scheduled Task on the machine hosting the Information Server.

You can also use the command-line task list launcher or a third-party scheduling application. For additional information on scheduling task lists, see "Creating Schedules" on page 253.

For information on using the command-line task list launcher or a third-party scheduling application, see the *BindView RMS Console and Information Server User Guide*.

Creating Schedules

You can schedule existing task lists and queries for automatic processing by the BindView Information Server using the **Create Schedule Wizard**. As long as the machine that hosts the BindView Information Server is on and the BindView Information Server Service is running, the scheduled item will be processed at the specified time.

You can schedule tasks lists or queries and have them processed one time only, or on a daily, weekly, or monthly basis. When a task list is scheduled, the task list is processed using the user name and password combination you supply exactly as if that user executed the task list. Any post processing the task list performs will also be executed.

If the tasks in the task list are not set up to run post process commands unattended, all non-interactive post process commands (such as exporting) will be performed. Post process commands that require user interaction (such as displaying a grid or chart) will be performed when the user who created the schedule starts the Console.

To view existing schedules, click the **Schedules** container in the Console tree.

Note: If the current user is a BindView User, only the schedules they create appear. If the current user is a BindView Administrator, all existing schedules appear.

For complete information on Schedules, see the *BindView RMS Console and Information Server User Guide*.

▶ *To schedule task lists*

1 Click the **New Schedule** icon on the product toolbar, or click **Schedules** in the Console tree and double-click **<double-click to add new schedule>** in the Details pane.

The **Welcome to the Create Schedules Wizard** appears .

Fig. 258 Welcome to the Create Schedules Wizard

2 Click **Next**.

The **Choose a schedule type** panel appears.

Fig. 259 Choose a Schedule Type Panel

3 Select **Task List Schedule** and click **Next**.

The **Add Items** panel appears.

Fig. 260 Add Items Panel

4   Enter the full path and name of the folder or item to be added to the schedule. You can also use the browse (**...**) button that appears when you click in the text box to select the item. You can add one or more task lists, shortcuts to task lists, or folders.

If you add a folder, all the items in that folder will be added to the schedule, including subfolder contents, shortcuts, and linked folders.

If you click the browse (**...**) button, the **Select file** dialog appears.

Fig. 261 Select File Dialog

5   Select the item from the **Available Items** list and click **>**. To add all items from the **Available Items** list, click **>>**.

> To remove an item in the **Selected Items** list, select it and click **<**. To remove all items, click **<<**.

6   Click **OK**.

The **Add Items** panel reappears (Fig. 260 on page 255).

7   Click **Next**.

The **Name the schedule** panel appears.

Fig. 262 Name the Schedule Panel

8   Enter a name for the schedule in the **Type a name for this schedule** field and select how often the task should be run.

9   Click **Next**.

The **Specify Schedule** panel appears.

Fig. 263 Specify Schedule Panel - Weekly Options

The contents of the **Specify Schedule** panel vary depending on how often you chose to run the task on the **Name the schedule** panel.

10 Select the time the task should run in the **Start time** box.

11 Select the options specific to the schedule and click **Next**.

The **Specify Account Information** panel appears.

Fig. 264 Specify Account Information Panel

12 Enter the **User Name** and **Password** that the BindView Information Server uses when processing the task lists in the schedule, and confirm the password.

Caution: Use caution when using another user's credentials. The other user could make changes to their account, including changing the password, at any time. If changes are made to the account and you do not update the credentials in the schedule, the schedule will not be processed at the specified time.

---

13 Click **Next**.

The **Summary** panel appears.

Fig. 265 Summary Panel

14 Verify that the settings are correct and enter a description of the schedule in the **Type a brief description for this schedule** field.

If you want to change any of the settings, click **Back**.

15 Click **Next**.

The **Create Schedules Wizard c**ompletion panel appears.

Fig. 266 Create Schedules Wizard Completion Panel

16 Click **Finish** to close the Wizard.

17 The new schedule item appears in the Details pane of the **Schedules** container.

Charting

The chart feature is used to display datasets in a graphic format. Using the Chart Builder Wizard, you can create the following types of charts:

• **Series** – Displays the relative values of one or more fields for each record in a dataset.

• **Histogram** – Displays the value frequencies for the records associated with a single field in a dataset. For information on creating a Histogram Chart, see the *BindView RMS Console and Information Server User Guide*.

You can open the **Chart Builder Wizard** from the following locations:

• **Chart options** in the **Query Options** dialog
• Chart-related Post Process Commands dialogs
• Grid toolbar and **View** menu
• Chart toolbar and **View** menu
• **Query Binder** shortcut menu

Creating a Series Chart

You should only use the series chart type if the dataset you are charting contains a limited number of fields and records.

▶ *To create a series chart*

1 Open the **Chart Builder Wizard** and click **Next**.

Fig. 267 Chart Builder Wizard Welcome Panel

The **Chart Type** panel appears.

Fig. 268 Chart Type Panel

2 Ensure that the **Histogram** check box is cleared and click **Next**.

The **Chart Data Source** panel appears.

Fig. 269 Chart Data Source Panel

3 Designate a field for each **Series** position by selecting the field from the **Source field** list.

4 Click **Add**. You must designate a field for each series position in the **Series** list.

5 Select the desired label from the **Category (X) axis labels** list and click **Next**.

The **Chart Titles** panel appears.

Fig. 270 Chart Titles Panel

6 Enter the titles for the chart and click **Next**.

The **Chart Legends** panel appears.

Fig. 271 Chart Legends Panel

7 Select the legend check boxes and the position.

Even if you do not select legends now, you can use the chart legend shortcut menu of the completed chart to add them later.

8 Add a scroll bar, if needed, and enter the number of series displayed on the chart at one time.

A scroll bar is automatically added to charts that have 20 or more series positions.

9 Click **Finish**.

A series chart appears.

Fig. 272 Column Series Chart

10   Using the Product

In This Chapter

Understanding Queries

bv-Control for Windows provides a full-featured, query-based interface allowing administrators to easily build custom queries. Results from the queries can be saved for analysis and planning of your environment at a later time.

A query is a series of structured questions posed to obtain specific information about a particular resource or group of resources. Resources are components in your enterprise such as file servers, workstations, and operating systems. The query results are returned in the form of a Grid, Chart, or a Report.

By querying the Windows environment using bv-Control for Windows, administrators can centrally view events without having to manually scan through hundreds of events across multiple servers. Using the Query Builder process, administrators can create a report that is specific to the data sources and fields of the query.

Scoping

Scoping allows you to scan data for a particular subset of your network. This capability enables you to narrow the search parameters of a query. For example, if a domain represents too large a search area, you can narrow the focus by choosing a more definitive network resource, such as a particular server within your network.

Default Scope

The Default scope definition is the same for all data sources with the exceptions of the Group and User data sources. The Default scope is interpreted as follows:

- Look in the user's current Connection Database and get a list of all the domains and workgroups that the user can report on.
- From this list, create a list of scopes. For each domain, create a domain scope. For each workgroup machine, create a machine scope.

A domain scope means include all of the objects for each machine in this domain. For example, in the Services data source, a domain scope includes all of the services installed on each machine in the domain.

A machine scope means to include all of the objects on the machine. Again with the Services data source example, the machine scope includes all of the services on the machine.

The exceptions to the default scope definition listed are the User and Group data sources. For both data sources, a domain scope includes all of the users or groups from the primary domain controller.

Note: If you want to override and modify the Default scope, refer to the *BindView Console and Information Server User Guide* for instructions.

Advanced Scopes bv-Control for Windows allows you to use Advanced Scopes to specify which items on your network are included in a query. The normal scope builder allows you to browse your network for items to include in a query's scope. Advanced Scopes allow you to type the names of domains, machines, directories, and so on to specify a scope. In addition, Advanced Scopes allow you to use variables and Scope Files to specify a query's scope. These abilities are especially useful in very large domains, since it can take time to enumerate all the items in the domain when browsing for objects.

▶   *To define an Advanced Scope*

1   Open the Query Builder and select the **Scope** tab.

2   Click the plus (+) symbol next to the **Advanced Scopes** container.

The Advanced Scopes container opens and displays the available Advanced Scopes for the selected data source.

Fig. 273 Advanced Scopes Container on Scope Tab

3   Select the type of Advanced Scope you wish to add to the Query Scope and click **Add**.

The **Additional Settings** dialog for that scope appears. The contents of the dialog will differ, depending on which Advanced Scope type you choose.

Fig. 274 Additional Settings dialog

4 Enter the relevant information for the Advanced Scope and click **OK**.

The Advanced Scope item you add will be added to the current scope.

Searching for machines to include in a Scope

You can use variables, IP Addresses, Simple and Regular Expressions, and Scope Files to create an Advanced Scope. To search for machines to include in a scope, simply create an Advanced Scope, then use items from this table to specify what to search for. (variables, IP addresses, GREP, scope files)

Table 7

To Search Using...	Use	Comments
Simple Expressions	?	Begin the search string with a "?". Use standard command-prompt wildcards.
Regular Expressions	/	Begin the search with a "/". Use any Regular Expressions to search.
Machine-Name Variable	%	Begin the search with a "%" symbol. Use any Windows machine-name variables. *The complete list can be found in the bv-Control for Windows Online Help.*

Table 7

To Search Using...	Use	Comments
TCP/IP Address	:	Begin with a ":" symbol, followed by the pattern to search for. Enter the address you wish to search from, a dash, and the address you wish to search to. You may also enter a single address. All addresses must be groups of 4 32-bit numbers, and you can use hex numbers if you precede them with `x` or `0x`.
A List of Machines in a File	%file=	Begin with "%file=" and the filename. See below for instructions on creating a scope file.

Search Examples

Here are some samples of valid searches using each search method:

?DOC*

?ACCOUNT*

?HOUSTON-W@K?

/DOC-SERVER[^a-f]W2K[SPsp]

%ALL

%SERVERS

%WORKSTATIONS

%MQES

%SQES

%QES

:192.168.127.5

:0xC6.xA8.xAA.x56

:172.5.128.97-172.5.128.205

> IP Addresses must be in following form:
>
> A.B.C.D
>
> where A, B, C, D are "One Value," decimal, octal, or hex numbers. All values in the Octal grouping need to be preceded with a O. Hex numbers start with prefix "x" or "0x". The following addresses are equivalent and valid:

(Decimal) 192.168.1.1

("One Value") 3232235777

(Octal) 0300.0250.01.01

(Hex) 0xC0.0xA8.0x1.0x1

An IP address that has more than four numbers is invalid.

%file=DocMachines.txt

Scope Files

bv-Control for Windows allows you to predetermine **Scope Files**. These are text files with lists of domains and machines in those domains which are usable as the scope for queries. These scope files can even be generated by creating a bv-Control for Windows Query and exporting the resulting Grid report to a comma-separated value (.csv) file. You can create Scope Files by using the **CreateScopeFile.exe** application located in the **\BindView\RMS\bin** directory.

You can use the % feature to report on a list of machines, servers, workstations, and domain controllers in the enterprise. For example:

Entire enterprise: domain=%all

%ALL

domain=mycompany

- computer1
- computer2
- computer3
- computer4

List of machines in the mycompany domain

domain=mycompany

- computer10
- computer11
- computer12
- computer13

All servers in enterprise: domain=%all

%SERVERS

All workstations in enterprise: domain=%all

%WORKSTATIONS

All domain controllers in enterprise: domain=%all

%DCS

You can also use Scope Files to specify groups and users. When you specify a group, use the name of the domain followed by the group type. For example,

domain=MYDOMAIN, grouptype=domainglobal

- Domain Admins
- Domain Users
- Domain Guests

domain=MYDOMAIN, grouptype=domainlocal

- Administrators
- Guests

List of groups in the mycompany domain

domain=mycompany, grouptype=domainglobal

- ggroup1
- ggroup2
- ggroup3
- ggroup4
- Domain Admins
- Domain Users
- Domain Guests

domain=mycompany, grouptype=domainlocal

- Administrators
- guests
- lgroup1
- lgroup2
- lgroup3
- lgroup4

When using Scope Files to specify domain users, use the following format:

domain=MYDOMAIN

- Administrator
- guest
- Power User

List of users from the mycompany domain:

domain=mycompany

- Administrator
- guest
- Power User
- user 1
- user 2
- user 3
- user 4

In addition, bv-Control for Windows still supports scope files in the format where domain and machine pairs are listed with one pair per line, separated by commas. Thus,

MyDomain, Machine1

MyDomain, Machine2

The domain/workgroup name and machine names can be enclosed in quotes, as when you export from bv-Control for Windows. If you export a query created in the Machines data source, with the default fields, with filters and scoping you add, the exported .csv file will be in the correct format. Any line beginning with "Exported default column headings" will be ignored.

You can also use Scope Files to specify machines in workgroups. When you specify a machine in a workgroup, do not use the name of the workgroup. Instead, use the name of the machine twice, separated by commas. Thus,

Machine1, Machine1

Machine2, Machine 2

Scope Files are stored in the **\BindView\RMS\Control\Windows\ScopeFiles** directory at the BindView Information Server. The contents of these files can be viewed from the Advanced Scopes folder in the Query Builder. If you create a scope file, it should contain nothing but the domain and computer pairs and comments delimited by # signs.

To use a Scope File in a query, simply add it to your scope list by selecting it from the Scope Files folder under Advanced Scopes in the Query Builder.

▶ ***To use bv-Control for Windows to Create a Scope File***

The Machines data source within bv-Control for Windows can be used to create a scope file that can be used for another bv-Control for Windows query. The advantages of using bv-Control for Windows to create a Scope File are that you can use the tools in bv-Control for Windows to locate only those machine that you want to include and that you can reproduce the Scope File automatically, even if your network's contents change.

1 Create a query in the **Machines** data source that includes only the Domain/Workgroup Name and Machine Name fields. Use the Filter Specification and Scope tabs to limit the report to the machines you wish to include.

2 Run the query as a Grid.

3 Choose **Export** from the **Grid** menu in the result window.

The **Export Setup** dialog appears.

Fig. 275 Export Setup dialog

4   Click the **Choose** button.

The **Choose Export** dialog appears.

Fig. 276 Choose Export dialog

5   Choose **Comma-separated values (CSV)** from the **Format** dropdown list and **Disk file** from the **Destination** dropdown list.

6   Click **OK**. The **Export Setup** dialog reappears.

7   In the **Folder Name** field, enter **C:\Program Files\BindView\RMS\Control\Windows\ScopeFiles** or click the browse (**...)** button and browse to the directory.

Note: You must export to the **Program Files\BindView\RMS\Control\ Windows\ScopeFiles** directory for the BindView RMS Console to properly recognize the Scope File.

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8   Change the file name to something descriptive of the scope and make its extension .txt. The file name you enter will be the one you will use searching using the scope file.

9   Click **OK** to save the settings if you will be exporting later, or click **Export Now** to export the file to the Scope Files directory now.

Once you create the scope file using a text editor or bv-Control for Windows, it is ready for use.

▶   ***To use a Scope file***

You can use a Scope file to search for machines in an advanced scope or directly, as a scope. Before you can use Scope Files, you must create the Scope Files you wish to use and place them in the **Program Files\BindView\RMS\Control\Windows\ScopeFiles** directory. Once your Scope Files exist, they are ready for use.

1   Create a query in any bv-Control for Windows data source.

2   To specify the scope, open the Advanced Scopes item in the **Available Items** panel.

The first item in the list of Advanced Scopes is the **Scope Files** folder. Open it and you will see that all the Scope Files you have created are listed.

Fig. 277 Scope Tab - Scope Files folder

The Scope Files themselves have plus signs (+) by their names. You can click the plus sign to browse the contents of the Scope File. You can include the entire Scope File or any individual machine in the scope file in the Scope of the Query you are creating by selecting it and clicking **Add Scope**.

You can also use a Scope File in a query by selecting any Advanced Scope item.

Fig. 278 Additional Settings dialog

3 In the **Machine Name** field in the Advanced Scope dialog, enter %file= and the name of the scope you wish to use.

The Scope File will act like a variable, and every machine in the Scope File will be included in the Scope.

Scope File Generator   You can also create scope files by using the Scope File Generator application. This application enables you to generate new scope files from an exported comma separated value (.csv) file. The application is named **CreateScopeFile.exe** and is located in the **\BindView\RMS\bin** directory. You can use this application to create scope files for users, groups, and computers. This tool can be run from the command line or from the BindView RMS task list (currently the task list does not support the GUI mode on this application).

When creating **user** scope files, the .csv file must be exported from a user query that contains the following fields:

• Domain/Workgroup Name and/or Domain Name
• User Name (pre-Windows 2000)

When creating **group** scope files, the .csv file must be exported from a group query that contains these fields:

• Domain/Workgroup Name and/or Domain Name
• Group Name (pre-Windows 2000)
• Group Type

When creating **machine** scope files, the .csv file must be exported from a group query that contains these fields:

• Domain/Workgroup Name
• Machine Name (pre-Windows 2000)

> *Note:* To create a Machine scope file for workgroup machines, the comma separated values file must contain the 'Member of Workgroup' field. Machines that are members of the workgroup will be listed under the [Workgroup] section. If the file does not contain the 'Member of Workgroup' field, the machines are treated as domain machines.

The scope files you create that include file name and path will be saved to a location that you specify. If you do not specify the path, the CreateScopeFile.exe utility will automatically save your scope files into the **BindView\RMS\Control\Windows\ScopeFiles** directory.

▶ *To run the CreateScopeFile utility from the command line*

1 Enter **CreateScopeFile** into the command line.

2 Specify the type of scope file you want to create by using -c, -g, or -u.

- -c = machine scope file
- -g = group scope file
- -u = user scope file

3 Provide the input file name in a comma separated values (.csv) file format.

4 Provide the output file name. The scope file will be saved to a location that you specify. If you do not specify the path, the scope file will automatically save your scope files to the **BindView\RMS\Control\Windows\ScopeFiles** directory.

Excluding Scopes

This version of bv-Control for Windows gives you the ability to exclude scopes from within each data source. You can use this functionality to create scope files which contain computers, groups or users that you want to exclude from any scope you have defined.

For example,

To mark a scope file scope as an exclusion, preface the '%file=' with '[-]'.

Example: Scope('machine', 'ad', '[-]%file=machine.txt')

> *Note:* The arithmetic operator for this behavior (-) is evaluated across the entire set of scopes, not just the current line.

Named Scopes

The **Scope** tab also allows you to select a Named Scope. Named Scopes allow you to save groups of Scope items for reuse. A Named Scope determines which files, folders, or servers the Query Builder will use to obtain its information. You can either define and save a

Named Scope, or select from a previously saved Named Scope to query. You can also use the

To select from a previously saved Named Scope, refer "To select an existing Named Scope" on page 277.

▶ *To define a Named Scope*

1 On the **Scope** tab of the **Query Builder** dialog, drill down to the area where you want the query to begin its search and select the appropriate items.

Fig. 279 is an example of a **Users** data source Scope tab.

Fig. 279 Query Builder - Scope Tab

2 Click **Add Scope**.

Depending on which data source you selected, the **Additional Settings** dialog may appear to give you additional advanced

scope filter options. The **Additional Settings** dialog allows you to perform more filtering on the object(s) you selected.

Fig. 280 Additional Settings Dialog – User Scoping Options

3   Make any needed changes to the Additional Settings options, then click **OK**.

The **Query Builder** dialog reappears. The Named Scope you added appears in the **Selected Item(s)** box.

Note: Remember to remove the default scope definition if you do not want to include it in your results.

4   Click the **Save as Named Scope** button.

The **Named Scope** dialog appears.

Fig. 281 Named Scope Dialog

5   Enter a name for the Named Scope and click **OK** to save the Named Scope. You can now use the Named Scope in Queries.

You can define and save multiple Named Scopes. You can then use those saved Named Scopes and set them as the default scope. For more information on how to set a default scope, refer to the *BindView Console and Information Server User Guide*.

The Named Scope is saved in the **Named Scopes** folder.

Fig. 282 Named Scopes Folder

6 Click **OK**.

Note: Remember to remove the default scope definition if you do not want to include it in your results.

▶ *To select an existing Named Scope*

1 Open the **Name Scopes** folder (Fig. 282) and select the Named Scope you want to query.

2 Click the **Add Scope** button.

The Named Scope you selected appears in the **Selected Item(s)** box.

3 Click **OK**.

For additional information on creating and managing Named Scopes, please see the *BindView RMS Console and Information Server User Guide*.

ActiveAdmin

ActiveAdmin® is a bv-Control for Windows feature that allows you to make changes to the contents of certain fields. When a user with ActiveAdmin privileges makes changes to these fields, bv-Control for Windows makes those changes on your Windows network, using the ActiveAdmin credentials in the Credential Database assigned to

the user. For all practical purposes, the effect produced is as if the user whose credentials are in the Credential Database made the changes with Windows native tools.

In addition to being powerful, ActiveAdmin is easy to use, since it builds on the bv-Control for Windows interface. ActiveAdmin fields can be included in any Query. When you view the results of a Query containing ActiveAdmin Fields in a grid, the ActiveAdmin fields appear in blue text in the resulting grid.

▶ *To edit ActiveAdmin fields*

1 Ensure that the current user of the BindView RMS Console has permission to use ActiveAdmin and that the user has a Credential Database assigned with credentials to make ActiveAdmin changes.

2 Create a Query which uses one or more ActiveAdmin fields and view its results as a grid.

Fig. 283 Quick List of Users dataset

3 Right-click on the value in one of the ActiveAdmin fields. The context dropdown menu appears.

Fig. 284 ActiveAdmin drop down menu

4 Choose **Edit** from the menu to display the ActiveAdmin Editor for the selected field.

Fig. 285 ActiveAdmin Editor - User Name dialog

There are a large number of ActiveAdmin editors. Some editors are shared between fields, others are unique to the field. For assistance with each editor, click the **Help** button in the editor dialog.

5 Make changes in the editor, then click **OK** to close the editor and then make the changes.

In some cases, all the information required for the editor is not present in the grid. In these cases, you will be prompted to allow bv-Control for Windows to collect the needed additional information from the network.

ActiveAdmin Record Operations

For certain fields, you can also make changes to the item without using an ActiveAdmin editor. These changes affect entire classes of items, rather than properties of those items. In terms of the grid, they affect a *row* rather than a *column*. For example, you can start and stop, pause, resume, and restart services. Service state does not appear in any field, but you can make the change. These

changes are called **ActiveAdmin Record Operations**. To make ActiveAdmin record operation changes, right-click on any ActiveAdmin field, or on any row containing an ActiveAdmin field, and choose the **Row** item that appears on the context menu. A submenu appears.

Fig. 286 Active Admin Record Operation grid

This submenu contains the ActiveAdmin record operations relevant to the current record. Choose the action you wish to take from the menu and the action happens immediately.

Moving Active Directory Objects

In addition to editing records, you can use ActiveAdmin to enable another useful feature, moving Active Directory objects. You can choose to move a user or machine account in Active Directory from one Organizational Unit (OU) to another OU by changing the Container Canonical Name field value to the canonical name of the destination OU. Changing the Container Canonical Name field to the canonical name of the destination container where the OU is located, moves the Active Directory object to the specified location within the same domain.

▶ *To move an Active Directory object*

1 Run a machine or user query.

2 Edit the **Container Canonical Name** field by right-clicking on the field and selecting **Edit** from the dropdown menu.

The **Move Active Directory Object** dialog appears.

Fig. 287 Move Active Directory Object dialog

3 Enter or click the **Browse...** button to select the location of where you want to move the machine or user account to.

The **ActiveAdmin - Change Action** message appears.

4 Click **Yes** to confirm that you want to proceed with the change.

The computer or user account will then be moved to the specified location.

Effective Permissions Analysis

bv-Control for Windows allows you to report on Effective Permissions for users and groups and receive an analysis of how the membership was granted. For example, by using the Effective Permissions fields, you can verify whether a specific user right has been granted to an account or not. You can also specify analysis options using the **Analysis Options** dialog. Use this dialog to target specific analysis options for reporting user and group effective permissions.

▶ *To set analysis options*

1 Run a query using the **Security File System (Effective)** data source.

2   On the Query Builder, click the **Scope** Tab.

Fig. 288 Query Builder - Scope Tab

3   Double-click the **Analysis Options** icon.

The **Analysis Options** dialog appears.

Fig. 289 Analysis Options dialog

Use this dialog to target specific analysis options for reporting on effective permissions. Choose from the following types of analysis options:

- Local analysis

- Network analysis

- Report groups

- Report users

- Skip logon workstations

- Skip child objects with like permissions

- Report or not report members of all groups

4   Select the option you want to report on, and click **OK**.

The analysis options you selected are added to the scope. For more information about this dialog, see the bv-Control for Windows Online Help.

Administrative Shares

The Administrative Shares Selection feature allows you to specify the administrative-equivalent share name when running queries that require remote disk access. By default, bv-Control for Windows uses the default administrative shares of target computers to gather data. In certain secure environments, it may be desirable to disable the default administrative shares. For these environments, there is the **Administrative Shares Selection** configuration. This feature allows the use of manually created, root-level shares that follow a pre-defined naming convention. You can also choose the option to auto-discover administrative shares, or use a combination of all methods. The rules you select will be applied to all queries.

When you select the option to use a rule for naming the administrative shares, you must create the share at the root level with the names that follow these rules:

Note: The Query Engine user account must have an administrator-equivalent right to the share.

- **Use Machine Name Prefix** - If this option is selected, you can use the machine name prefix as the rule for naming administrative shares. For example, if your computer is named TEST COMPUTER1, the share name for the C: drive should be 'TEST COMPUTER1C$. This option is only available if you select to use a rule for naming administrative shares.

- **Use Constant Prefix** - You should select this option if you want to provide a constant prefix for the rule. This option is only available if you choose to use a rule for naming administrative shares. The share name for the volume will be the constant appended by the drive letter on which the share located (e.g., constantC$). There are some invalid characters that cannot be used in the constant box. They are: *+:;[]\\|/?<>,= In addition, the constant cannot be all periods (i.e., it can be a.b, but it cannot be ..).

   • **Auto Discover Administrative Shares** - Select this option to allow bv-Control for Windows to auto discover by enumerating the root level shares on the volume and sorting the shares alphabetically, then selecting the first administrative share listed.

Communication Settings

Communication Settings are settings that you configure for the Query Engine. These settings communicate to the Console how much requested data it will receive and at what intervals it will get the information.

▶   *To set communication settings*

1   Double-click the Communication Settings icon in the Console details pane.

The **Communication Settings** dialog appears.

Use this dialog to set the communication settings for the query engine.

Comm Buffer Size - This field limits the number of bytes the Console grants to a Query Engine during data collection. This settings prevents the Master Query Engine (MQE) from giving the Console more data than it can process.

Query Poll Interval - This field sets the time interval (in seconds) between each Console request from an MQE for data.

2   Set the desired settings and click **OK** to close the dialog.

Disk Space Settings

You can use bv-Control for Windows to set the amount of free disk space you want to be left over after you run queries. By using the Disk Space Settings dialog, you can set the minimum free disk space and specify the amount of time you want the disk space to recover before stopping the query.

▶   *To set the disk space settings*

1   Double-click the Disk Space Settings icon in the Console details pane.

The **Disk Space Settings** dialog appears.

Fig. 290 Disk Space Settings dialog

In the **Minimum Free Disk Space** box, set the minimum free disk space to prevent the disk from running out of space when running queries with large result sets.

In **Time Out Query After** box, specify the amount of time you want the free disk space to recover before stopping the query.

Use the **Restore Defaults** button to restore the default settings.

2 Click **OK** to close the dialog.

Health & Status Check

The Health & Status Check is a report that provides you with a status of the deployment of the bv-Control for Windows product. The Health & Status check queries the system by collecting configuration settings and gathering data on the status of the query engines. This report can be saved and emailed to Technical Support as needed.

The following information is provided in the Heath & Status report:

- Client Version Summary
- Server Version Summary
- General Information Server Settings
- Enterprise Configuration Service
- Master Query Engines
- Slave Query Engines
- Slave Query Engine Assignments
- Query Engine Communication Settings
- Distribution Rules
- Support Services
- Administrative Share Selection
- Connection Database(s)
- Default Connection Database
- User Connection Database Assignments
- User Options

• Domain/Workgroup Credential Configuration Summary

▶ ***To run a Health & Status report***

1 Double-click the Health & Status check icon in the details pane of the Console to query your system for the data.

Once data retrieval is finished, the report appears.

Fig. 291 bv-Control for Windows Health & Status report

11   Using BindView Patch Deployment

In This Chapter

Introduction

This chapter describes the three BindView Patch Deployment components. First, it discusses the Patch Assessment Data Source and its unique scoping features. Next, it describes how to use Patch Packaging to create a Patch Package to deploy. Finally, it describes the separate Patch Deployment Console.

Patch Assessment

BindView Patch Deployment works as a feature of the bv-Control for Windows snap-in module. In order to perform a package or deploy a patch, you first perform a specialized bv-Control for Windows query in the Patch Assessment data source. The results of the Patch Assessment query are used to create the patch package or to deploy the needed patch or patches.

> *Caution:* You must perform at least one Patch Assessment query before you can use the Patch Packaging wizard or the Patch Deployment Console. If you have not performed a Patch Assessment query, you will not be able to select any patches to package using the Patch Packaging wizard, and an error will appear if you start the Patch Deployment Console.

Before you can perform a Patch Assessment query, you must first configure bv-Control for Windows. If you have not yet done so, please see "Configuring bv-Control for Windows" on page 40

Patch Assessment Data Source

When you install a version of bv-Control for Windows that includes BindView Patch Deployment, the Patch Assessment Data Source appears in the **Select Data Source** dialog grouped with the bv-Control for Windows and Web Services data sources. You create a query in the Patch Assessment data source in the same way you create any other bv-Control for Windows query.

Queries in the Patch Assessment Data Source have a unique Advanced Scope Option dialog. When you perform a query in the Patch Assessment Data Source, you have the option to store the results with the query normally. In addition, the query results are automatically stored in a separate database for the Patch Packaging wizard and the Patch Deployment Console to use. You use the Patch Deployment Configuration Options to control the behavior of this database and to set your preference for when the BindView Patch Deployment Console will check for new patch description files.

Patch Assessment Scoping

Queries in the Patch Assessment data source are identical to other queries in the bv-Control for Windows module, with the exception of the Advanced Scope options. When you create a query, click the **Scope** tab to view the Scope page.

Fig. 292 Query Build with Scope Tab Selected

When you add an item from the **Microsoft Windows Network**, **Active Directory**, or **Advanced Scopes** containers to the scope,

the **Default Scope** is removed and the **Additional Settings** dialog appears.

Fig. 293 Additional Settings Dialog

The **Additional Settings** dialog allows you to specify exactly what information the query should collect. The content of this dialog can vary slightly, depending on what type of object you selected from the **Microsoft Windows Network**, **Active Directory**, or **Advanced Scopes** containers.

The top of the dialog allows you to specify the object to add to the scope. Use the **Domain**, **Workgroup**, **Machine**, and **Container** fields to specify the object to add. Which of these options appears depends on the type of object you selected.

The **Record Status Filtering** group allows you to filter the results of a query based on the content of the **Status** field in the Patch Assessment data source. The Status field may be one of the fields in the Field Specification for the query, but it is not required to filter on the Record Status. Only records that match one of the status types selected will appear in the query results.

Use **Record Status Filtering** in the Scope tab instead of using the Filter Specification tab to greatly enhance the speed of processing queries. Records which do not match the Scope will be discarded by the bv-Control for Windows Query Engine, and will not be transferred to the BindView Information Server.

Table 8 lists the record types and the information each displays in the Query Results

Table 8 Record Status Filtering Options

Status Type	When selected, the results will include...
Show Missing Patches	Patches that are not found on target machines.
Show Missing Service Packs	Service packs that are not found on target machines.
Show Warnings	Warnings generated during the scanning process.
Show Informational Messages	Informational messages generated during the scanning process.
Show Notes	Notes generated during the scanning process.
Show Installed Patches	Installed patches found on target machines.
Show Effectively Installed Patches	Patches which are effectively installed (because a patch or service pack which supersedes them has been installed).

When **Calculate Checksums** is selected, BindView Patch Deployment compares both the checksum and version number of files on a target machine with the checksum and version number of the same file in the patch distributed by the manufacturer. Patches will be marked as found on a machine only if both the version number and checksum of the files match the version number and checksum of the files in the patch package distributed by Microsoft. Because the checksum is calculated on the bv-Control for Windows Query Engine, every byte in a file on which a checksum is being performed must be read across the network. Using checksums is much slower than using version numbers only, especially when the Query Engine must communicate via slow links to a remote machine.

The Patch Filtering Options allow you to choose whether all patches for all products should be scanned, or only specific patches.

When **Check for all Patches for all Products** is selected, all patches for all products will be included in the query.

When **Check for Patches for a Product or Service Pack** is selected, only patches for the product you select when you click **Select Product** will be included

When **Check for Patches for One or More Bulletins** is selected, only the patches contained in the bulletins you select when you click Select Bulletins will be included.

When you scope to a bulletin for a product or service pack, some bulletins may apply to more than one product. All products mentioned in multi-product bulletins will appear in query results, even if some of the products were not in the query scope.

When you click **OK** the scope is added to the query with the options you have selected.

Patch Deployment Configuration

The Patch Deployment Configuration Options dialog is used to set options for the database of Patch Assessment query results. The results in this database are used by the Patch Packaging wizard and the BindView Patch Deployment Console. In addition, the dialog lets you control how often the BindView Patch Deployment Console checks for new patch description files.

The Patch Deployment Configuration Options are set by each user and affect only that user. No user or administrator can set preferences for another user, and no user can view or use another user's Patch Assessment query results database.

▶ *To set patch deployment configuration options*

1 If it is not open already, open the BindView RMS Console and select the **Patch Deployment** item in the Console Tree. The Patch Deployment details pane appears.
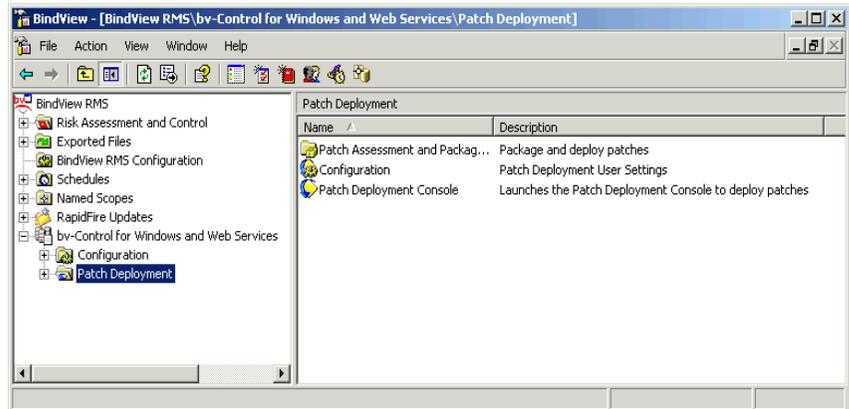

Fig. 294 Patch Deployment Details Pane

2 Double-click **Configuration** in the details pane. The **Patch Deployment Configuration** dialog appears.

Fig. 295 Patch Deployment Configuration Dialog

3 Make any needed changes to the settings.

Only Display Patch Assessment results for queries from the past… days controls the age of Patch Assessment results in the Patch Assessment folder. Only Patch Assessment queries performed more recently than this age appear in the Patch Assessment folder.

When **Enable BindView Patch Deployment results storage** is selected, results from queries in the Patch Assessment data source will be stored in a Jet database for the BindView Patch Deployment Console and the Patch Packaging wizard to use.

Archive historical system patch data files greater than … MB (Max 2000) Specifies the maximum amount of system patch data to store in the Jet database. When the Jet database reaches this maximum size, all older data will be archived and a new database will be started. The initial size of the new database will be 0 MB. The database will grow over time to the limit you set. Each time the limit is reached, the database will be archived and another new database will be started.

When **Archive Now** is clicked, all existing data in the Jet database will be immediately archived and a new database will be started. The initial size of the database will be 0 MB, but the database size will grow to the limit you set.

When **Always check for new patch descriptions when starting the BindView Patch Deployment Console** is checked, the BindView Patch Deployment Console will check for new versions of the files that describe patches whenever it starts.

Click **Update Now** to immediately update the patch description files used by the Patch Assessment data source. To use this update feature, the machine you are running the BindView RMS Console on must be able to connect to the BindView web site.

4   When you have made changes to the settings, click **OK** to close the dialog and save the changes you have made.

Patch Packaging

After you have performed one or more Patch Assessment Queries, you can view the results and choose to create a "package" with one or more patches to distribute to target machines using a third-party tool. You must run at least one query in the Patch Assessment datasource to use the Patch packaging wizard.

Viewing Patch Assessment Results

The BindView RMS Console has the ability to store query results with the query if you choose. In addition to this, BindView Patch Deployment stores query results from every Patch Assessment query you perform in its own database. The Patch Packaging wizard uses this database to create patch packages.

If you choose, you can view the results of these queries.

▶ *To view patch assessment query results*

1   If you have not done so before, create and run a query in the Patch Assessment data source. The Field Specification is not important for the Patch Packaging wizard, but you should use the Filter Specification and Scope to ensure that the query collects the information you choose.

2   When the query is complete, close the query's result set grid. If you choose, you may save the query's results along with the query, but this is not necessary.

3   Select the **Patch Deployment** item in the BindView RMS Console Tree. The Patch Deployment details pane appears.

Fig. 296 Patch Deployment Details Pane

4 Double-click the **Patch Assessment and Packaging** item. The **Patch Assessment Results** item appears in the details pane.

Fig. 297 Patch Packaging Details Pane

5 Double-click the **Patch Assessment Results** item. The details pane displays a record for each day you have performed a Patch Assessment query.

Fig. 298 Patch Assessment Results Details

6 Double-click any day to display the queries you performed that day.

Fig. 299 Patch Assessment Query Details

7   Double-click any result set to display it. A summary of the patches found listed by patch appears. Patches are listed in the upper right section of the details pane. A summary of the results of the Patch Assessment query is in the lower details pane.

Fig. 300 Patch Assessment Results Details

8   For information on a particular patch, select it. The details pane displays information about the patch, including the severity assigned to it by Microsoft, its ID and Microsoft Q-number, and the Microsoft Bulletin ID that refers to it.

Fig. 301 Patch Details Pane

9   Select a machine name in the tree to display a summary of the machine's patch status, which appears in the lower details pane. The patches found on the machine or missing from the machine are listed in the top right frame of the details pane.

Fig. 302 Machine Patch Summary

10 For information on a particular patch, select it and the Patch Details pane appears (Fig. 301 on page 296).

11 For a list of the machines scanned as part of the Patch Assessment query, select the query results (labeled with the date and time of the query) in the top left pane. A list of all the

machines that were scanned as part of the patch assessment query appears.

Fig. 303 List of Machines in a Query

12 Select one of the machines to display the Machine Patch Summary (Fig. 302 on page 297).

Once you have viewed the results of a Patch Assessment query, you can use the results to create a Patch Package or to deploy patches using the Patch Deployment Console.

Patch Packages

A Patch Package is a collection of one or more executable patch files downloaded by the Patch Packaging wizard together with a batch file that automatically installs the patches. The BindView Patch Packaging wizard automatically downloads the files from the Microsoft Web site or from a location you specify on your intranet, and creates the package. The accompanying batch file specifies the correct order for the patches to execute and the options to use when installing the patches.

Once the wizard has created the package, you use a third-party tool to transfer each Patch Package to the correct target machine and run the package batch file. When the patches have been installed, the patch package on the target machine can be deleted.

Creating a Patch Package

You use the Patch Packaging wizard to specify package options and create a patch package.

▶ **To create a Patch Package**

1 If it is not open already, open the BindView RMS Console and select the **Patch Deployment** item in the Console Tree. The Patch Deployment details pane appears.

Fig. 304 Patch Deployment Details Pane

2 Locate and view the results of any Patch Assessment query you have performed. For more information on viewing the results of a query, please see "To view patch assessment query results" on page 294.

3 There are several ways to select the patches to package.

Select One or More Machines

To select one or more machines and create a unique package for each machine with all missing patches, click the query results (labeled with the date and time of the query) in the top left pane. A list of all the machines that were scanned as part of the patch assessment query appears (Fig. 302 on page 297). Select one or more machines and right-click. The **Patch Machines** menu appears.

Choose **Create Patch Packages for Selected Machines**, then choose **All Missing Patches** or **Based on Microsoft Severity** and choose a severity level. The **Select a Deployment Template** panel of the Patch Packaging wizard appears (Fig. 305 on page 300).

Select One or More Patches

To select one or more patches and create a unique package for each machine missing the patch or patches, select one or more patches in the Patch Assessment Results Details and right-click. The **Patch** menu appears.

Choose **Create Package**, then **Selected Patch(es)**. The **Select a Deployment Template** panel of the Patch Packaging wizard appears (Fig. 305 on page 300).

Select a Single Patch

To select a single patch and create a single package usable on every machine missing the patch, select that single patch in the Patch Assessment Results Details and right-click. The **Patch** menu appears.

Choose **Create Package**, then **Selected Patch(es)**. The **Select a Deployment Template** panel of the Patch Packaging wizard appears (Fig. 305).

Create a Set of Packages

To create a set of packages that update every missing patch on all machines, click **Summary by Patch**. A list of all patches detected and all missing patches appears. Select any patch and right-click. The **Patch** menu appears.

Choose **Create Package**, then **All Missing Patches** or **Based on Microsoft Severity** and choose a severity level. The **Select a Deployment Template** panel of the Patch Packaging wizard appears (Fig. 305).

Fig. 305 Select a Deployment Template Panel

4   The **Select a Deployment Template** panel allows you to control the options used when deploying the patch or patches. A deployment template is a set of options stored for later reuse. One template, called "Standard" is included. To create your own template, click **Create New**. The **Create New Template** dialog appears.

Fig. 306 Create New Template Dialog

5 Enter a name for the template and click **OK**. The **Select a Deployment Template** panel reappears with the new template selected.

Fig. 307 Select a Deployment Template Panel with New Template

6 Set the deployment template options you wish to use from the **Deployment Options**, **Reboot Options**, and **Office Options** tabs. Make any needed changes to the settings.

Deployment Options When you select **Shut down SQL**, the Microsoft SQL Server will be shut down before deployment.

When you select **Shut down IIS**, the Microsoft Internet Information Server will be shut down before deployment.

When you select **Back up files for uninstall**, files the patch replaces will be backed up so the patch can be uninstalled.

When **Quiet mode** is selected, the patch will happen "silently," with no user interaction.

When you select **Remove temp files**, any temporary files the patch creates while it is being deployed will be deleted when the deployment is complete.

Reboot Options When **No reboot** is selected, the target computer will not reboot when the deployment is complete. The patch may not be completely installed until the next time the computer is rebooted manually.

When **Reboot immediately after deployment** is selected, the target computer will be rebooted immediately when the installation is complete. If a user is logged in, they will be given a chance to save their work in progress.

Office Options Microsoft Office patches are handled differently from other patches. Microsoft Office patches require the original CD media,

because the patches are not complete files. Instead, the patch represents only the differences required to modify the original file with the patched code.

Administrative Installation Point - Administrators can create an Office Administrative Install Point (AIP) and then install Office on client machines from this location. Hotfixes can then be installed to the AIP, and the remote client machines can then be told to "update" their installations from the AIP. The update process really means re-installing all of Office on each machine - everything on the AIP will then get copied down to the remote machine.

The install point is technically nothing more than a network share of the requisite files, with special setup commands.

In the Administrative Installation Point field, enter the full UNC path to the Office AIP MSI file. For example, `\\officeserver\office\proplus.msi`. Press the Set Credentials button to provide credentials for the remote machine to access the UNC location.

If you specify an AIP for Office patches, then when you choose to install any Office patches using this deployment template the machine being patched will synchronize with the specified Office AIP.

Push patches to each machine - Patches will be deployed directly to remote Office clients.

Push full-file patches when possible - When possible, you should elect to push full-file patches to the remote machines and specify a static location for Office media. Otherwise, not all Office patches will be successfully deployed.

Path to original installation media - Specify a UNC path to the original installation media used to install a specific version of Office. For example, `\\corpserver\office`. Press the **Set Credentials** button to provide credentials for the remote machine to access the UNC location. Office installations may fail unless the remote machine has access to the original installation media.

7 To continue, click **Next**. The **Package Generation Options** panel appears.

Fig. 308 Package Generation Options Panel

8 The **Package Generation Options** panel allows you to specify how the package should be generated.

For all types of packages, you can specify that the Patch Packaging Wizard should create a patch package folder for each machine or share one folder for all patches used by all machines. If you are creating a package from a single patch, you can also create a single folder with a list of the machines that patch is valid for.

Choose how the patch packages should be created and click **Next** to continue. The **Package Configuration** panel appears.

Fig. 309 Package Configuration Panel

9 Enter the path to a local directory or UNC path where the Patch Packages should be saved, or click the browse (**...**) button and select the location, then select a naming format to use for the Patch Package folders and batch files from the **Package Name** drop-down list. You can type in the **Package Name** field to edit the name. When creating multiple packages, you should always leave the %MACHINENAME% or %IPADDRESS% variable in the Package Name to uniquely identify the machine the package belongs to. Click **Next** to continue. The **Inside Each Package** panel appears.

Fig. 310 Inside Each Package Panel

10 The Inside Each Package panel allows you to control where the patches that make up a package run on target computers, and to choose a naming format for the patch files and folders. A folder will be created for each Patch Package with the files needed to install the patches the package contains. Use a third-party tool to copy the folder and its contents to the target machine and execute the patch package batch file in the folder.

Enter a path or an environment variable for the Patch Package folder in the **Folder Name** field, and choose a naming format for the patch files from the **File Name** drop-down list, or select **Always use original patch name** to use the name supplied by Microsoft for the patch file.

Click **Next** to continue. The **Package Summary** panel appears, listing the patches to be created.

Fig. 311 Package Summary Panel

11 Click **Next** to continue. The **Completing the Patch Packaging Wizard** panel appears. When you're ready to continue, click **Start**. The **Prepare to Download** panel appears.

Fig. 312 Prepare to Download Panel

12 The **Prepare to Download** panel and the remaining panels in the Patch Packaging wizard are part of a separate utility.

Exactly how long patch downloads take to complete depends on the speed of your network connection, network congestion, and the amount of information to be downloaded. The download portion of the wizard runs separately from the BindView RMS Console and bv-Control for Windows. This allows you to close

the BindView RMS Console while the Patch Packaging Wizard downloads the selected patch files.

Note: Potentially, patch downloads could take up to several hours to complete.

You can specify the location the Patch Packaging wizard downloads the patches from.

- With both options unselected, the Patch Packaging wizard checks its cache first, then downloads the file from Microsoft if the Web version is newer than one in the cache.

- With **Always Download all patches from Microsoft website** selected, the wizard will always download the patches directly from Microsoft, ignoring the cache.

- With **Retrieve all patches from an intranet location** selected, the wizard downloads the patch files from an intranet location you specify. Retrieving the files from an intranet location allows you to package patches if your network configuration does not allow direct communications with the Microsoft website.

Patches you download to your intranet must be saved with the exact name Microsoft provides. The Patch Packaging wizard uses this name to locate the patches. Service Packs must be renamed, since service packs can share filenames in Microsoft's system. When you download a service pack, you should rename it using the pattern:

`ProductName_ServicePack.exe`

Thus, SP3 for MDAC 2.5 becomes MDAC_2.5_SP3.exe, and SP4 for Windows Media Player for Windows XP becomes Windows_Media_Player_for_Windows_XP_SP1.exe.

When you have chosen your options, click **Next** to continue. You will be prompted to confirm that you wish to continue.

13 Click **Yes** to continue, and the patch or patches you selected will be downloaded. A progress dialog will appear while the files are downloaded.

Fig. 313 Patch Download Progress

14 When the download is complete, click **Next** to continue. The **Completing the Patch Downloading and Packaging Wizard** panel appears. Click **Finish** to complete the wizard.

You can now use a third-party tool of your choice to deploy the patch packages to the target machines. The Patch Packages to deploy are in the location you specified in the Patch Packaging wizard. You should transfer the entire Patch Package folder to the target machine, and execute the batch file in the folder on the target machine.

Patch Deployment Console

The Patch Deployment Console is a stand-alone console that packages and deploys packages to target machines. The Patch Deployment Console uses the Patch Assessment query results to create patches and deploy them to machines. You must perform at least one Patch Assessment query before you can use the Patch Deployment Console.

This section describes how to start the BindView Patch Deployment Console, view Patch Assessment query results, and deploy patches. For additional information on the Patch Deployment Console, please see the BindView Patch Deployment Console Help.

Launching the Patch Deployment Console

You must use the BindView RMS Console (with bv-Control for Windows installed) to start the Patch Deployment Console.

▶ *To start the BindView Patch Deployment Console*

1   If it is not open, open the BindView RMS Console and select **Patch Deployment** in the Console Tree.

The Patch Deployment Details Pane appears.

Fig. 314 Patch Deployment Details Pane

2 Double-click **Patch Deployment Console**. The Patch Deployment Console appears.

Fig. 315 BindView Patch Deployment Console

Viewing Patch Assessment Query Results

Once you have used the BindView RMS Console and bv-Control for Windows to perform a Patch Assessment query, you can use the Patch Deployment Console to view the query results and deploy patches.

▶ *To view Patch Assessment Query Results*

1 If it's not open, start the Patch Deployment Console and click the Expand Listing icon ⊗ in the **Today's Scans** or **Recent Items** areas.

The area expands to display the contents of the list.

Fig. 316 Patch Deployment Console with Today's Scans Area Expanded

2 Click any scan to display the results of the query.

The details pane displays the results of the query.

Fig. 317 Patch Deployment Console with Query Results

3 Select **Summary by Patch** to display a summary of the query sorted by patch.

Fig. 318 Patch Deployment Console with Patch Summary

4 Select a machine name to display a summary of that machine's results.

Fig. 319 Patch Deployment Console with Machine Summary

The information displayed in the summary pages is identical to the information displayed when you view the query results in the BindView RMS Console (see "Viewing Patch Assessment Results" on page 294).

Deploying Patches

The Patch Deployment Console allows you to deploy selected patches to machines you select, or to deploy all missing patches to machines you select. While the Patch Packaging wizard creates packages that you can then deploy using a third-party tool, the Patch Deployment Console handles packaging and deployment to target computers itself.

▶ *To deploy patches using the Patch Deployment Console*

1 If it's not already running, start the BindView Patch Deployment Console and select a set of Patch Assessment query results to view (Fig. 317 on page 310).

2 There are several ways to select the patches to package.

Select One or More Machines

To select one or more machines and deploy all missing patches or missing patches by criticality to each machine, click the query results (labeled with the date and time of the query) in the top left pane. A list of all the machines that were scanned as part of the patch assessment query appears. Select one or more machines and right-click. The **Patch Machines** menu appears.

Choose **Deploy Patches to Selected Machines**, then choose **All Missing Patches** or **Based on Criticality** and choose a severity level. The **Deployment Configuration** dialog appears (Fig. 320 on page 313).

Deploy One or More Patches

To deploy one or more patches to every scanned machine missing the patch or patches, click **Summary by Patch** and select one or more patches in the Patch Assessment Results Details, then right-click. The **Patch** menu appears.

Choose **Deploy**, then **Selected Patches**. The **Deployment Configuration** dialog appears (Fig. 320 on page 313).

Deploy All Missing Patches

To deploy all missing patches to all machines in the Patch Assessment Query Results, click **Summary by Patch**. A list of all patches detected and all missing patches appears. Select any patch and right-click. The **Patch** menu appears

Choose **Deploy**, then **All Missing Patches** or **Based on Criticality** and choose a severity level. The **Deployment Configuration** dialog appears (Fig. 320).

Fig. 320 Deployment Configuration Dialog

3   In the **Deployment Configuration** dialog, choose a Deployment Template from the **Deploy How** drop-down list. These templates are similar to, but separate from, the deployment templates used by the Patch Packaging wizard. To create a new Deployment Template, click **New**. The **Deployment Template** dialog appears.

Fig. 321 Deployment Template Dialog

4 The Deployment Template dialog allows you to set the options for the deployment. You should enter a name for the new template in the **Name** field and enter a description in the **Description** field, then set the options for the deployment.

General Options

Name - The deployment template name

Description - A description of deployment template

Copy speed allows you to select how quickly the patches are copied to the remote machine (1 slowest, and 5 fastest). The faster the copy speed, the more network bandwidth used.

Wait ... seconds before retrying - If a patch copy fails, specify a pause between retries from 0 to 100 seconds.

When **Remote dialog** is selected, a dialog box appears on the deployment target machine while the deployment is active. You can specify both the title and caption of the dialog box.

Office Deployment

Office patches are handled differently from other patches. Office patches require the original CD media. This is because the patches are not complete files. Instead, the patch represents only the differences required to modify the original file with the patched code.

Administrative Installation Point - Administrators can create an Office Administrative Install Point (AIP) and then install Office on client machines from this location. Hotfixes can then be installed to the AIP, and the remote client machines can then be told to "update" their installations from the AIP. The update process really means re-installing all of Office on each machine - everything on the AIP will then get copied down to the remote machine.

The install point is technically nothing more than a network share of the requisite files, with special setup commands.

In the Administrative Installation Point field, enter the full UNC path to the Office AIP MSI file. For example, `\\officeserver\office\proplus.msi`. Press the **Set Credentials** button to provide credentials for the remote machine to access the UNC location.

If you specify an AIP for Office patches, then when you choose to install any Office patches using this deployment template the machine being patched will synchronize with the specified Office AIP.

Push patches to each machine - Alternatively, you can choose to directly deploy patches to the remote Office clients. When possible, you should elect to push full-file patches to the remote machines and specify a static location for Office media. Otherwise, not all Office patches will be successfully deployed.

Path to original installation media - Specify a UNC path to the original installation media used to install a specific version of Office. For example `\\corpserver\office`. Press the Set Credentials button to provide credentials for the remote

machine to access the UNC location. Office installations may fail unless the remote machine has access to the original installation media.

Patch Deployment

There are a number of options that can be selected to take place before, during and after patch deployment. Each option is discussed in detail.

Before - You can choose to shut down SQL Server and IIS with an option to warn machines connected to a SQL server that the services will be stopped. These services will automatically be shutdown when a SQL or IIS patch is applied to a remote machine regardless of this setting. Use this setting to shut down these services when installing OS or similar hotfixes, particularly if you are planning to reboot the machine after installation.

During - During the deployment, you can require BindView Patch Deployment to back up any files that are modified in order to perform an uninstall if something goes wrong. You can also choose to enable or disable 'Quiet Mode'. Quiet Mode does not present any evidence to the user that the deployment is taking place.

After - After the scan is complete, you can choose to remove any temporary files that were created during the deployment process.

Reboot Options

After successfully deploying all patches, you have the option of what to do to the remote system. You can either let it continue running or you can choose to reboot it. If you choose to reboot the deployment target, you can specify the number of reboot attempts (from 1 to 100) as well as the number of seconds to wait between attempts (1-100). Finally, if any clients are connected to the machine, you can indicate that they should be warned before the system is rebooted.

5   When you have set the options, click **Save**. The Deployment Template is saved for later reuse.

6   Click **Close** to close the **Deployment Template** dialog. The **Deployment Configuration** dialog reappears with the new template selected.

Fig. 322 Deployment Configuration Dialog

7   If you have more than one machine running the BindView Patch Deployment Console, you can choose the IP address of the Patch Deployment Console to use from the **PatchPush Tracker IP Address** drop-down list.

8   Choose when to deploy the patches from the **Deploy When** options. When you're ready to proceed, click **Deploy**. You may be prompted to confirm the credentials of the currently logged-on user. Otherwise, the deployment proceeds according to the options you have set. If the deployment takes place immediately, a progress dialog will appear.

9   When the deployment is complete, the **BindView PatchPush®️ Tracker** dialog will appear.

Fig. 323 BindView PatchPush Tracker Dialog

10 When you have reviewed the patch deployment status in the PatchPush Tracker dialog, close it, and the deployment is complete.

For additional information on the BindView Patch Deployment Console, please see the BindView Patch Deployment Help.

12   Web Services

In This Chapter

Understanding Web Services

Web Services is designed to help Web administrators and information security groups:

• Secure and manage Microsoft IIS and .NET Web services
• Diagnose Web site problems
• Enforce security policies

Web Services helps Web administrators to easily identify unauthorized changes to shared Web files, virtual directories, and Web content. The product provides complete security vulnerability assessment and analysis of the following Web server components:

• Security
• Configuration settings
• Non-essential software
• Installed updates, patches, and hotfixes
• System level resource usage
• Network intrusion vulnerability

Web Services is built into the bv-Control for Windows product with availability based on having specific Web Services licenses. It is installed when you install the bv-Control for Windows product and its operational components:

• BindView RMS® Console
• Enterprise Configuration Service (ECS)
• bv-Config Utility
• BindView Support Services
• Query Service

Features

Using the Web Services data sources offers capabilities that:

• Ensure high-level review of problem status through baseline and analysis reports.
• Offer the ability to identify configuration errors, rogue servers, and any inappropriate access control issues.
• Provide security and management information for your enterprise Web server environment including analysis of virtual directories, files, shares, and permissions.
• Enable administrators to pinpoint symptoms of dangerous viruses or worms within Microsoft .NET assemblies.
• Deliver a central console that makes it easy for current database information to be shared across the enterprise.
• Offer a variety of easily understood pre-defined query reports along with the option for users to define and configure their own reports.

Licenses

Licenses are an integral part of the Web Services functionality. The Web Services-specific data sources will only be visible if you have the appropriate Web Services licenses installed.

Licensing for the bv-Control for Windows and Web Services separate for each product. Table 9, "Licenses Needed for Querying Data Sources" indicates what will occur based on the licenses you have installed.

Table 9 Licenses Needed for Querying Data Sources

Licenses installed	Effect
bv-Control for Windows and Web Services	All data sources are visible and you can run queries on all data sources.
bv-Control for Windows only	The Windows data sources are visible and you can run queries on Windows data sources.
Web Services only	All data sources are visible but you can only run queries on Web Services data sources.

Requirements

To use Web Services, you must meet all the system requirements for the BindView RMS Console and bv-Control for Windows.

This section describes the system requirements for bv-Control for Web Services only.

Web Services

• Microsoft Windows 2000 Server or .Net Servers
• Microsoft Internet Information Server (IIS) v5.0 or later
• BindView RMS Console v7.20 SP1

Web Services will *not* run on Windows NT 4.0 or IIS v4.0. However, you will be able to report on Windows NT 4.0 and IIS v4.0 computers.

IIS must be installed but does *not* have to be running.

Adding Licenses for Web Services

To use Web Services, you must add the Web Services licenses to be able to run queries on the Web Services data sources.

When you add the necessary licenses, the license contains a limited number of unassigned object licenses. These object licenses are automatically assigned when you run a query. The results of the query will only return data for the amount of object licenses that are available.

You received your Web Services license ID in one of the following ways:

• If you are evaluating the product, the license ID is on an Evaluation License diskette.

• If you purchased the product, the license ID is in a letter packaged with your bv-Control for Windows and Web Services CD.

If you are missing, or have lost your license ID, please contact Technical Support: *www.bindview.com/support*

1 Enter the license ID in the text frame beside the Add button, and click **Add**. If your license information is stored on a disk, click **Have Disk**.

If you have multiple license IDs, repeat this Step for each ID.

Note: You will also need to add the BindView RMS Console license ID.

Working with Web Services

The following sections provide information on using Web Services.

Web Services Data Sources

Web Services data sources are only visible if you have the Web Services licenses. (bv-Control for Windows data sources are always visible.) For information on Web Services licenses, see "Licenses" on page 319.

ADSI interfaces are used to collect most of the information from Web Services resources. The following data sources are available with Web Services:

• .NET CLR Performance Statistics

• .NET Global Assembly Cache

• IIS Computers

• IIS Virtual Directories

• IIS Web Content Permissions

• IIS Web Sites

• IIS WWW Service Master Properties

.NET CLR Performance Statistics

By scoping on the .NET CLR (Common Language Runtime) Performance Statistics data source, you can report on machines in your environment with .NET Runtime installed. You can scope on all machines in the domain or only on a particular machine in the domain.

This data source retrieves .NET Runtime configuration information including:

• JIT data including standard JIT failures

• Remoting data including total remote calls

• Security data including total runtime and number of link time checks

• Versions of .NET runtime installed (list)

.NET Global Assembly Cache

By scoping on the .NET Global Assembly Cache data source, it allows you to report on machines in your environment with .NET Runtime installed. You can scope on all machines in the domain or only on a particular machine in the domain.

This data source retrieves information about .NET Runtime configuration including:

• Assembly type
• Version number

IIS Computers

By scoping on the IIS Computers data source, you can report on machines in your environment with IIS installed. You can scope on all machines in the domain or only on a particular machine in the domain.

This data source retrieves IIS-related information including:

• IIS install path
• IIS major and minor version
• IIS Web sites (list)

Note: In order to run IIS queries, IIS must be installed but does **not** have to be running.

IIS Virtual Directories

By scoping on the IIS Virtual Directories data source, you can report on virtual directories and files. With this data source, you can scope by:

• All virtual directories for a website.
• All virtual directories for all websites on a computer.
• All virtual directories on all machines in the Domain.

This data source enables you to drill down into the WWW Service- (containing website information) and Virtual Directory-level directories to collect more detailed information on your IIS-related data.

IIS Web Content Permissions

By scoping on the IIS Web Content Permissions data source, you can report on information, such as permissions, on virtual directories and files. With this data source, you can scope to:

• All virtual directories for a website.
• All virtual directories for all websites on a computer.
• All virtual directories on all machines in the Domain.

This data source enables you to drill down into the WWW Service- (containing website information) and Virtual Directory-level directories to collect more detailed information on your IIS-related data.

IIS Web Sites

By scoping on the IIS Web Sites data source, you can query information on any machines in your environment that have IIS

installed, and are in domains or workgroups that have query engines installed.

This data source allows you to report information such as configuration settings and log settings on the following IIS-hosted websites in your environment:

• A specific website

• All websites on a computer

• All websites on all computers in a domain

When scoping to a specific website, you may drill down to the website name or manually enter the Domain or workgroup name, machine name, and Web Site instance using the Advanced Scopes option.

The Web Site instance is a unique identifier that is used to distinguish the website, since multiple websites may exist with the same user-friendly name. The Web site instance is displayed in the metabase and as part of the ADSI path.

IIS WWW Service Master Properties

By scoping on the IIS WWW Service Master Properties data source, you can report on machines with IIS installed in your environment. You can scope on all machines in the domain or only on a particular machine in the domain.

This data source retrieves information about IIS configuration at the service level, such as:

• Authentication

• Home directory

• Logging

• Performance data

Caution: On .NET Servers running IIS 6.0, the Ratings-type fields ***always*** report [None]. However, on .NET Servers running IIS 5.0 and 5.1, the fields report correctly.

13   Uninstalling Program Components Using bv-Config Utility

In This Chapter

Uninstalling the Product

If you want to remove a Query Engine, the BindView Support Service, or the Enterprise Configuration Service (ECS), you should use the bv-Config utility.

If you are removing all program components (Query Engines, Support Services, ECS, and bv-Config utility), each component must be removed in a specific order. You should remove each Query Engine tracked by the ECS database you plan to remove first, then each Support Service, then the ECS.

Removing a Query Engine

If you are removing all components (Query Engine, BindView Support Service, and the ECS) from a machine, you should remove the Query Engine service first.

Warning: When you uninstall the Query Engine, it will also uninstall the BindView Support Services without prompting you.

▶ *To remove a query engine*

1. Run the bv-Config utility.

2. From the left-hand component of the bv-Config window, select the domain where the Query Engine you want to remove resides.

3. Select the machine running the Query Engine you want to remove.

4. From the right-hand component of the window, double-click the **Uninstall Query Engine** option. The bv-Config warning message is displayed.

5 Click **Yes**. The **BindView NT Query Engine Service Uninstall** dialog appears.

Fig. 324 BindView NT Query Engine Service Uninstall Dialog

The **BindView Uninstall** dialog appears virtually the same whether removing a Query Engine, a Support Service, or an ECS. The difference is in the actions that are displayed beneath the **Uninstall** button when removing each component. Also, when removing a Query Engine, the option to remove a service user account is available.

Optional: Select the **Remove Service User Account** option.

Caution: If you choose to remove a service user account, a **BVNTUninstall** dialog appears, warning that if any other Query Engine in the domain is using the same service user account as the Query Engine you are removing, the remaining Query Engine(s) using that account will cease to function after the service user account is removed and the service is restarted.

Optional: Select the **Remove Local Groups** option.

If you have a Query Engine installed on a Domain Controller and the groups are shared, you can remove the last local group from the QE.

6 Click **Uninstall**. The uninstall program proceeds to remove the following Query Engine components:

- Query Engine from the SCM
- Query Engine Files
- Registry Settings and Keys
- Service User Account (if selected)

When the uninstall is complete, it will state **Finished!** at the end of the dialog box.

Fig. 325 BindView Uninstall Dialog - Uninstall Query Engine Service

7 Click **OK**.

It is possible that the uninstall completed successfully but was unable to remove some of the service components. If this is the case, you will receive a message.

8 Click **OK**.

If you would like more information about the details of the uninstall, see .

9 From the **BindView Uninstall** message, click **OK**. The **BindView Uninstall** message closes, and all Query Engine options are removed from the right-hand component of the bv-Config window.

Removing a Support Service

Support Services that are installed with an ECS or Query Engine are automatically removed when that component is removed. There is no need to remove them manually for machines running an ECS or Query Engine service.

▶ *To remove the support service*

1 Run the bv-Config utility.

2 From the left-hand component of the bv-Config window, select the domain where the Support Service you want to remove resides.

3 Select the machine running the Support Service.

4   From the right-hand component of the window, double-click the **Uninstall BindView Support Service** option, or right-click on the machine to display a menu that will allow you to remove the service. A bv-Config **Warning** message appears.

Click **Yes** if you wish to continue. If you click Yes, the BindView Uninstall dialog appears.

5   The **BindView Support Service Uninstall** dialog appears virtually the same whether removing a Query Engine, a BindView Support Service, or an ECS. The difference is in the actions that display beneath the **Uninstall** button when removing each component. Also, when removing a Query Engine, the option to remove the service user account is available.

Fig. 326 BindView Support Service Uninstall Dialog

6   Click **Uninstall**. The uninstall program proceeds to remove the following Support Service components:

- BindView Support Service from SCM
- BindView Support Service Files
- Registry Settings and Keys

After the BindView Support Service uninstall is complete, the BindView Support Service Uninstall dialog reappears, similar to the dialog shown in Fig. 327.

Fig. 327 BindView Support Service Uninstall Dialog

It is possible that the uninstall completed successfully but was unable to remove some of the service components. If this is the case, you will receive a message.

7 Click **OK**. If you would like more information about the uninstall details, see "Viewing Uninstall Details" on page 331.

8 Click **OK**. The **BindView Uninstall** dialog closes, and the option to remove the BindView Support Service is removed from the right-hand component of the bv-Config utility window.

Removing an Enterprise Configuration Service

After removing the Query Engine service(s) and the BindView Support Service(s) tracked by the Enterprise Configuration Service (ECS) database you want to remove, you can then remove the ECS. Just as when you installed the ECS, a copy of the bv-Config utility was automatically installed. The bv-Config utility is also removed automatically when you uninstall the ECS.

▶ *To remove an ECS*

1 Open the bv-Config window.

2 From the left-hand component of the bv-Config window, select the domain where the ECS you want to remove resides.

3   From the **Actions** menu, select **Uninstall ECS**. The **Select Computer** dialog appears.

Fig. 328 Select Computer Dialog

4   Select the machine where the ECS you want to remove is installed.

5   Click **OK**. The bv-Config message displays a warning that the Console may not be able to communicate with any of the Query Engines if the ECS is removed.

6   Click **Yes**. Another bv-Config message displays a warning that the ECS which the bv-Config utility is currently using is about to be removed, and confirms deletion of the ECS.

7   Click **Yes** to remove the ECS.

The **BindView Enterprise Configuration Service Uninstall** dialog appears.

Fig. 329 BindView Enterprise Configuration Service Uninstall Dialog

The **BindView Enterprise Configuration Service Uninstall** dialog appears virtually the same whether removing a Query Engine, a BindView Support Service, or an ECS. The difference is in the actions that are displayed beneath the **Uninstall** button when removing each component. Also, when removing an ECS, the option to remove the service user account is disabled.

8   Click **Uninstall**. The **BVNTUninstall** message appears, warning you that if you remove the ECS, you may be leaving Query Engine services installed that can only be removed directly from the machine where they reside.

This message also reminds you that the ECS should be the last piece to be removed.

9   Read the message carefully, and click **Yes** to remove the ECS.

The ECS components being removed appear beneath the **Uninstall** button. They are as follows:

• Enterprise Configuration Service from SCM

• Enterprise Configuration Service Files

• Registry Settings and Keys

After the uninstall program finishes removing the ECS, the dialog displays **Finished!** as the last item in the component list.

Note: The **BVNTUninstall** message is displayed whether or not the ECS was removed successfully.

If the uninstall completed successfully but was unable to remove some of the ECS components, and you would like more information about the uninstall, see"Viewing Uninstall Details" on page 331.

10 Click **OK**. The **BindView Uninstall** dialog appears.

11 Click **OK** on the **BindView Uninstall** dialog. After the dialog closes, the bv-Config window also closes, as the utility was removed during the ECS uninstall.

Viewing Uninstall Details

When you remove a bv-Control for Windows component, it is possible that the uninstall will complete successfully but not all of the service components are removed. If this happens, you will receive a message indicating that this has occurred. If you receive this message, you should view the details of the uninstall to determine what components could not be removed, and attempt to remove the components manually.

▶ *To view details of the query engine uninstall*

1 From the **BindView Uninstall** dialog, click the **Details** button to view errors the uninstall program encountered. The **Error Details** dialog appears similar to the dialog shown in Fig. 330.

Error Details

```
Unable to delete 'C:\ECS\BVNTSetup.dll'. Error Code: 5
Unable to delete 'C:\ECS\BVNTObjects.dll'. Error Code: 5
Unable to delete 'C:\ECS\ECSCommon.dll'. Error Code: 5
Unable to delete 'C:\ECS\BVNTRPC32.dll'. Error Code: 5
Unable to delete 'C:\ECS\ECSCommon.dll'. Error Code: 5
Unable to delete 'C:\ECS\BVQEConfig.exe'. Error Code: 5
Unable to delete 'C:\ECS\mfc42u.dll'. Error Code: 5
Unable to delete 'C:\ECS\msvcp50.dll'. Error Code: 5
Unable to delete 'C:\ECS\msvcrt40.dll'. Error Code: 5
Unable to delete 'C:\ECS\BVNTSysObjs.dll'. Error Code: 5
Unable to delete 'C:\ECS\BVNTUninstall.exe'. Error Code: 5
Unable to delete path '\\CFOULKROD\C$\ECS'. Error Code: 32
```

OK

Fig. 330 Error Details Dialog

2 Review the errors, and click **OK**. The **BindView Uninstall** dialog appears.

3 Click **OK** on the **BindView Uninstall** dialog.

4 Perform any needed actions to completely remove the service components. This may include removing shared files and folders.

To be sure that all the files have been removed, view the directories and files using Windows Explorer. The service directory, its subfolders, and all of its files should be removed. If all of those components are not removed, you may simply delete them using Windows Explorer.

A Secondary Windows 2000 Installation

When installing bv-Control® for Windows® on a secondary Windows 2000 Domain Controller (DC) that has Active Directory® replicated to it, a **Replication Wait Dialog** appears during the installation process.

Fig. 331 Replication Wait Dialog

The **Replication Wait Dialog** appears because the **BV Console Users** and **BV Console Admin** groups are installed on the primary DC, and the BindView RMS Console cannot be launched on the secondary DC until these groups are replicated through Active Directory.

If you choose not to click the **Cancel** button during the installation process, the dialog will disappear automatically after the groups are replicated. After the replication occurs, the installation process continues and bv-Control for Windows will immediately be ready for use after installation.

If you choose to click the **Cancel** button, the dialog will disappear and the installation process will continue. If you launch the BindView RMS Console before the groups have been replicated, you will receive an "Initial Failed" message in the MMC Console pane and the product will be unusable. If this occurs, simply close MMC and wait for the groups to replicate. Once replication occurs, you will be able to launch the Console.

▶ *To verify replication*

You can verify if the groups have been replicated by opening the **BindView Properties** dialog. You can get to the **BindView Properties** dialog using the following steps:

1 From the computer **Desktop**, right-click **My Computer**.

2 Select **Manage**.

This will launch the **Computer Management Console**.

3 Under the Share Folders container, expand the **Shares** folder.

4 From the details pane, right-click on the **BindView** share.

5 Select **Properties**.

The **BindView Properties** dialog appears (Fig. 332).

6 Select the **Share Permissions** tab.

Fig. 332 BindView Properties Dialog

From Fig. 332, you can see that the **BV Console Users** group is already replicated, but the **BV Console Admins** group is not. The string of numbers and dashes under the **BV Console Users** group is a placeholder representing the **BV Console Admins** group waiting to replicate.

▶ *To force replication*

Instead of waiting on the Active Directory replication to occur on its own (which can take up to 45 minutes), you can manually force a replication.

1 From the Windows **Start** menu, go to **Programs**.

2 Select **Administrative Tools**.

3 Select **AD Sites and Services**.

The AD Sites and Services Console appears.

Fig. 333 AD Sites and Services Console

4 Navigate to the **NTDS Settings** on the secondary DC where bv-Control for Windows was installed (shown in Fig. 333).

5 From the details pane, right-click on the connection object.

6 Choose **Replicate Now**.

Note: You will be notified if the replication was successful.

Glossary

ActiveAdmin   BindView feature that allows a user to delete resource objects, historical datasets, or session logs, or to modify resource object attributes.

Advanced Scoping   Ability to manually enter machine scope targets using one of several different types of machine scopes.

Atomic jobs   Both Master and Slave Query Engines divide jobs into these small pieces for processing.

bv-Config   Utility that enables you to view details and modify functions for all Windows machines from a single location in your enterprise. A copy of bv-Config must be installed on the machine where the ECS, QE, and Console are installed.

DCA   Data Collection Agent. BindView program used to collect data from the NT network. Default is 6 DCAs per Master and Slave Query Engines. Use the DCA tab of the Query Engine Settings dialog to increase or decrease the number of DCAs per QE (range 1-30) to optimize performance.

Distribution Rules   Rules that enable you to control the distribution of queries or data collection from a Master Query Engine to a Slave Query Engine.

ECS   Enterprise Configuration Service. A service that maintains a list of Master Query Engines and Slave Query Engines located in your network. The ECS keeps a record of the rules for data collection by tracking which Slave Query Engines report to each Master Query Engine. One ECS is recommended per domain but can be more than one.

Master Query Engine   Receives a query from the Console, divides it into smaller jobs and distributes it to the Slave Query Engines.

Named Scope   Group of saved scope items associated with a specific data source and Information Server.

Slave Query Engine   Automatically installed on the machine where there is an MQE. The SQE gets its jobs from the MQE, breaks them into atomic jobs, then uses DCAs to collect data to fulfill the requirements of these atomic jobs.

Support Service   Automatically installed on the machine where you install an ECS and Query Engine Services, as well as on any machine where you kill a process using the bv-Config utility. If installed on a domain controller, it can be used to process last logon cache data collection.

Sync Master   If changes are made to the ECS or Distribution Rules, it may be necessary to use the Sync Master to update the file listed in the Database Path field with a current list of SQE, protocol sequences, and Distribution Rules.

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