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SONIC SOA V7.0

INSTALLATION AND UPGRADE GUIDE



Sonic SOA V7.0 Installation and Upgrade Guide

Sonic Database Service

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Sonic ESB

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Sonic Orchestration Server

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Sonic Workbench

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Sonic XML Server

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Preface

This Preface contains the following sections:

- [“About This Manual”](#) describes this manual and its intended audience.
- [“Typographical Conventions”](#) describes the text formatting, syntax notation, and flags used in this manual.
- [“Other Sonic SOA Documentation”](#) describes the printed and online documentation that accompanies the Sonic SOA products.
- [“Worldwide Technical Support”](#) provides information on how to contact Sonic Software customer support and Sonic Software evaluation support.

About This Manual

Sonic Workbench is a complete architect's workbench for developing and testing the integration of services, applications and business processes that will be deployed on an Enterprise Service Bus (ESB). Workbench is comprised of both server licenses and architect tools for use in designing, configuring and testing ESB services definitions, business process models, and intelligent routing rules.

This book provides an overview of the Sonic Workbench software for developers, development managers, business experts, and enterprise IT managers.

This book consists of these sections:

- [Chapter 1, "QuickStart,"](#) describes the basic installation and upgrade functions.
- [Chapter 2, "Installing Sonic Workbench,"](#) outlines steps to install the Sonic SOA development environment.
- [Chapter 3, "Installing Sonic SOA Components,"](#) outlines steps to perform before installing software and the procedures for installation of the complete set of software on a single system or dispersed on to several systems.
- [Chapter 5, "Upgrading Sonic SOA Components,"](#) details the steps and the options that install the upgrade development and deployment installations from previous versions.
- [Chapter 7, "Uninstalling Sonic Software Products,"](#) describes steps to remove and unregister installed Sonic Software components from systems.
- [Chapter 6, "Using Response Files,"](#) introduces the underlying scripts that enable silent installations, upgrades, and uninstalls. These response files also provide preset prompts to graphical and console installations.

Typographical Conventions

This section describes the text formatting conventions used in this guide and a description of notes, warnings, and important messages. This guide uses the following typographical conventions:

- **Bold typeface in this font** indicates keyboard key names (such as **Tab** or **Enter**) and the names of windows, menu commands, buttons, and other Sonic user interface elements. For example, “From the **File** menu, choose **Open**.”
- **Bold typeface in this font** emphasizes new terms when they are introduced.
- Monospace typeface indicates text that might appear on a computer screen other than the names of Sonic user-interface elements, including:
 - Code examples and code that the user must enter
 - System output such as responses and error messages
 - Filenames, pathnames, and software component names, such as method names
- **Bold monospace typeface** emphasizes text that would otherwise appear in monospace typeface to emphasize some computer input or output in context.
- *Monospace typeface in italics* or ***Bold monospace typeface in italics*** (depending on context) indicates variables or placeholders for values you supply or that might vary from one case to another.

This guide uses the following syntax notation conventions:

- Brackets ([]) in syntax statements indicate parameters that are optional.
- Braces ({ }) indicate that one (and only one) of the enclosed items is required. A vertical bar (|) separates the alternative selections.
- Ellipses (. . .) indicate that you can choose one or more of the preceding items.

This guide highlights special kinds of information by shading the information area, and indicating the type of alert in the left margin.

Note **Note** indicates information that complements the main text flow. Such information is especially important for understanding the concept or procedure being discussed.

Important **Important** indicates information that must be acted upon within the given context in order for the procedure or task (or other) to be successfully completed.

Warning **Warning** indicates information that can cause loss of data or other damage if ignored.

Other Sonic SOA Documentation

Sonic SOA provides the following additional guides in PDF format to help you install, develop, manage, and deploy distributed Sonic ESB solutions:

- *Sonic SOA Installation and Upgrade Guide* — Provides installation and upgrade procedures for all the Sonic Software products.
- *Sonic SOA V7.0 Deployment Guide* — Detailed information on the tools and techniques for managing the deployment of ESB artifacts from development into production.
- *Sonic SOA V7.0 Configuration and Management Guide* — Provides installation and upgrade procedures for the development editions of all the Sonic Software products.
- *Introducing the V7.0 Sonic ESB Product Family* — Introduces the features of the Sonic service oriented architecture and the enterprise service bus.
- *Online help in the Eclipse Development Environment* — The help plug-ins provide help for the tools and the constructs created by the tools.
- The SonicMQ documentation set for information on the messaging infrastructure and clients.

Worldwide Technical Support

Sonic Software's support staff can assist you from their location on the Web site at www.sonicsoftware.com. There you can access technical support for licensed Sonic Software editions to help you resolve technical problems that you encounter when installing or using Sonic SOA products.

When contacting Technical Support, please provide the following information:

- The release version number and serial number of SonicMQ that you are using. This information is listed on the license addendum. It is also at the top of the SonicMQ Broker console window and might appear as follows:
`SonicMQ Continuous Availability Edition [Serial Number nnnnnnn]`
`Release nnn Build Number nnn Protocol nnn`
- The release version number and serial number of Sonic ESB that you are using. This information is listed on the license addendum. It is also near the top of the console window for a Sonic ESB container. For example:
`Sonic ESB Fault Tolerant Edition [Serial Number: nnnnnnn]`
`Release nnn Build Number nnn`

Note

You can alternatively access version information programmatically for installed Sonic components using the `Version` class in the Sonic API. See the “Upgrading Sonic SOA Components” chapter in *Sonic SOA Installation and Upgrade Guide* for instructions.

- The platform on which you are running Sonic SOA products, and any other relevant environment information.
- The Java Virtual Machine (JVM) your installation uses.
- Your name and, if applicable, your company name.
- E-mail address, telephone, and fax numbers for contacting you.

International Pre-sales and Technical Support contact information is available on Sonic Software's support page at <http://www.sonicsoftware.com>.

Chapter 1 **QuickStart**

This chapter provides an overview of installation and upgrade procedures for development and deployment:

- [“Installing Sonic Software Products”](#)
- [“Upgrading Sonic Software Installations”](#)

Each *QuickStart* section summarizes basic steps for these functions and references chapters in this book that detail the procedures introduced.

Installing Sonic Software Products

There are two categories of Sonic Software installations:

- **Development installations** — The Sonic Workbench provides the complete suite of Sonic Software products in an integrated Eclipse development environment.
- **Deployment installations** — Sonic Software products installed in management domains of messaging nodes, administrative toolsets, and service runtime systems.

While this guide describes installation of all Sonic Software products, its presentation of SonicMQ installation is confined to the basic parts of the underlying messaging infrastructure. See *SonicMQ Installation and Upgrade Guide* for installation options and the *SonicMQ Deployment Guide* for information about advanced broker and domain deployment configurations, including clusters, dynamic routing, and high availability of containers, clients, brokers, and management components.

What's a SonicMQ domain? — A SonicMQ domain is an administrative grouping of Sonic Software management containers, and brokers administered by one central management node, its Domain Manager. The Domain Manager is defined by its components:

- A JVM container that provides caching facilities, communicates with its management node (the broker it hosts!), and hosts the other components of the Domain Manager.
- A broker dedicated to management communications for the Domain Manager's two essential functions, the Directory Service and the Agent Manager.
- A Directory Service that provides a centralized point for configuration information, runtime management, and configuration storage.
- An Agent Manager that monitors the state of all containers managed in the domain.

For information about the domain manager, see the “Introduction to Configuration” chapter in the *SonicMQ Configuration and Management Guide* and the “Distributing Components” chapter in the *SonicMQ Deployment Guide*

Installing Sonic Workbench

This section is an overview of steps to install Sonic Workbench V7.0. See [“Installing Sonic Workbench” on page 32](#) for full instructions and options for this type of installation.

When you install Sonic Workbench V7.0 on a Windows system and accept the default installation parameters, you get all the Sonic Software components, a Java Runtime Environment, and the Eclipse development environment.

After installation, you can extend the Eclipse installation to use plugins that you obtain from third parties.

◆ To install and start Sonic Workbench V7.0 on a Windows system:

1. Insert the CD (or unpack the download package) on the Windows system where you want to install Sonic Workbench.
2. In Windows Explorer, navigate to the root of the installer.
3. Double-click **setup.bat**. The installer starts.
4. Choose the product **Sonic Workbench**.
5. Click **Next** on each panel, accepting the default values. When requested, enter your Sonic Workbench V7.0 license key.
6. After the installation succeeds, close the installer. There is no need to reboot.
7. Start the Workbench’s underlying messaging system and then the Sonic Workbench:
 - a. **Start > Programs > Sonic Software > Sonic Workbench 7.0 > Start Domain Manager**
 - b. **Start > Programs > Sonic Software > Sonic Workbench 7.0 > Sonic Workbench**

Installing Sonic SOA Products

This section is designed to help you quickly and easily install the Sonic SOA product for deployment.

Follow the instructions in this section to set up all the deployment products as typical installations on one system to provide an integration testbed. By staging the products on a single system, you can test the services architecture without distributing services over multiple systems. You can observe naming structures and naming conflicts during imports as applications under development are added to existing deployments, verify services, and develop test documents to be used in later stages.

The procedures in this section explain how to perform typical product installations to install the complete set of tools and runtime features for each Sonic product. Installation and overview documents are available on the product media and can be accessed via the Sonic Documentation portal ([soni c_documentati on. htm](#)) located in the root directory of the product media or download file.

This section provides the following quick start installation procedures:

- [“Installing SonicMQ V7.0 \(Typical\)” on page 24](#)
- [“Installing Sonic ESB V7.0” on page 25](#)
- [“Installing Sonic Orchestration Server V7.0” on page 27](#)
- [“Installing Sonic XML Server V7.0” on page 26](#)
- [“Installing Sonic Database Service V7.0” on page 28](#)

Each product installation requires you to provide a license key during the installation process. These license keys can be found on the license addendum (green sheet) enclosed with the product media.

Installing SonicMQ V7.0 (Typical)

A **Typical** installation of SonicMQ is a complete installation of all SonicMQ features that sets up two brokers (one for management traffic and one for messaging traffic). For details on specific types of custom installations used Sonic SOA, see:

- [“Installing a SonicMQ Domain Manager” on page 57](#)
- [“Installing SonicMQ Administration Tools” on page 59](#)
- [“Installing SonicMQ Containers for Enterprise Services” on page 64](#)

See *SonicMQ Installation and Upgrade Guide* for complete SonicMQ installation options.

◆ To install SonicMQ V7.0:

1. From the root directory of the product media (or downloaded file), run the appropriate setup script for your platform:
 - On Windows, run `setup.bat`
 - On UNIX and Linux, run `setup.sh`
 The Sonic Installer opens.
2. Choose the product **SonicMQ**.
3. Enter the SonicMQ license key (also called the license key) when prompted.
4. Follow the instructions on the screen, selecting a **Typical** installation of SonicMQ.
5. When the installation completes, start the SonicMQ container and domain manager:
 - On Windows platforms, use the **Start** command:
Start > Programs > Sonic Software > SonicMQ7.0 > SonicMQ DomainManager
 - On UNIX or Linux platforms, open a console window at the root of the SonicMQ installation directory, then enter `./bin/startcontainer.sh`.

The default SonicMQ management connection is `Domain1`, with connection URL `tcp://hostname:2506`. If you enable security, the default username is `Administrator` with the default password `Administrator`. For information about customizing management security, see [“Enabling Security in the Messaging Infrastructure” on page 53](#).

For information about installing SonicMQ as a domain manager or messaging node, or about installing the SonicMQ administration tools or runtime components in a deployment domain, see [“Installing SonicMQ in a Distributed Deployment” on page 55](#).

Important If you are installing under UNIX or Linux and you intend to install a Sonic Orchestration Server or Sonic XML Server, the Sonic install directory must be on a local volume.

Installing Sonic ESB V7.0

This section is a brief overview of steps to install Sonic ESB V7.0.

Important

- You must have a valid license key (control number) for Sonic ESB V7.0.
- You must have previously installed SonicMQ on the target system. See [“Installing SonicMQ V7.0 \(Typical\)” on page 24](#).

◆ To install Sonic ESB V7.0:

1. If not already running, start the Sonic domain manager that will be used with this installation (see [Step 5 on page 24](#)).
1. From the root directory of the product media (or downloaded file), run the appropriate setup script for your platform:
 - On Windows, run `setup.bat`
 - On UNIX and Linux, run `setup.sh`The Sonic Installer opens.
2. Select **Sonic ESB** from the **Product Selection** screen.
3. Enter the product license key when prompted.
4. When asked for a destination on the **Installation Location** screen, enter the **Sonic root**. For example, the default Sonic root under Windows is `c:\Sonic`. When you point to `c:\sonic` as the installation location, the installer locates the SonicMQ installation at the SonicMQ root, `c:\Sonic\MQ7.0`, and then creates `c:\Sonic\ESB7.0`.
5. Follow the instructions on the screen, selecting a **Typical** installation of Sonic ESB and choosing to overwrite any existing Sonic ESB components.

For information about installing Sonic ESB administration tools or runtime components in a deployment domain, see [“Installing Sonic ESB in a Distributed Deployment” on page 65](#).

Installing Sonic XML Server V7.0

This section is a brief overview of steps to install Sonic XML Server V7.0.

- Important**
- You must have a valid license key (control number) for Sonic XML Server V7.0.
 - You must have previously installed SonicMQ on the target system. See [“Installing SonicMQ V7.0 \(Typical\)” on page 24](#) for the SonicMQ installation procedure.
 - You must have previously installed Sonic ESB on the target system. See [“Installing Sonic ESB V7.0” on page 25](#) for the Sonic ESB installation procedure.

- Important** You can install only a single copy of Sonic XML Server V7.0 on a target system. You can maintain an earlier version of XML Server installed on the target system.)

◆ **To install Sonic XML Server V7.0:**

1. If it is not already running, start the Sonic domain manager that will be used with this installation (see [Step 5 on page 24](#)).
2. From the root directory of the product media (or downloaded file), run the appropriate setup script for your platform:
 - On Windows, run setup.bat
 - On UNIX and Linux, run setup.shThe Sonic Installer opens.
3. Select **Sonic XML Server** from the **Product Selection** page.
4. Enter the product license key when prompted.
5. When asked for a destination on the **Installation Location** screen, enter the **Sonic root**. For example, the default Sonic root under Windows is c: \Soni c. When you point to c: \soni c as the installation location, the installer locates the SonicMQ installation at the SonicMQ root, c: \Soni c\MQ7. 0, and then creates c: \Soni c\XServer7. 0.
6. Follow the instructions, selecting a **Typical** installation of Sonic XML Server.

For information about installing the Sonic XML Server, Datastore, or administration tools in a deployment domain, see [“Installing Sonic XML Server in a Distributed Deployment” on page 70](#).

Installing Sonic Orchestration Server V7.0

This section is a brief overview of steps to install Sonic Orchestration Server V7.0.

- Important**
- You must have a valid license key (control number) for Sonic Orchestration Server V7.0.
 - You must have previously installed SonicMQ on to your system. See [“Installing SonicMQ V7.0 \(Typical\)” on page 24](#) for the SonicMQ installation procedure.
 - You must have previously installed Sonic ESB on to your system. See [“Installing Sonic ESB V7.0” on page 25](#) for the Sonic ESB installation procedure.

- Important**
- On Windows platforms, only a single instance of Orchestration Server V7.0 can be installed on a system. This is because Windows services are created for the installed instance and start when the system reboots. Starting these services typically requires Administrator privileges on the Windows system. An earlier version of Sonic Orchestration Server can co-exist on a system where the newer version is installed.
- On UNIX or Linux platforms, multiple instances can be installed on one system. However, each installation’s datastore server processes must be started so that its assigned ports are reserved, thus forcing new installations to choose different ports.

◆ **To install Sonic Orchestration Server V7.0:**

1. If not already running, start the Sonic domain manager that will be used with this installation (see [Step 5 on page 24](#)).
2. From the root directory of the product media (or downloaded file), run the appropriate setup script for your platform:
 - On Windows, run `setup.bat`
 - On UNIX and Linux, run `setup.sh`The Sonic Installer opens.
3. Select **Sonic Orchestration Server** from the **Product Selection** screen.
4. Enter the product license key when prompted.
5. When asked for a destination on the **Installation Location** screen, enter the **Sonic root**. For example, the default Sonic root under Windows is `c:\Soni c`. When you point to `c:\soni c` as the installation location, the installer locates the SonicMQ installation at the SonicMQ root, `c:\Soni c\MQ7. 0`, and then creates `c:\Soni c\Server7. 0`.

6. Follow the instructions on the screen, selecting a **Typical** installation of Sonic Orchestration Server.

For information about installing Sonic Orchestration Server, Process Search, or administration tools in a deployment domain, see [“Installing Sonic Orchestration Server in a Distributed Deployment” on page 73](#).

Installing Sonic Database Service V7.0

This section is a brief overview of steps to install Sonic Database Service V7.0.

- Important**
- You must have a valid license key (control number) for Sonic Database Service V7.0.
 - You must have previously installed SonicMQ on the target system. See [“Installing SonicMQ V7.0 \(Typical\)” on page 24](#) for the SonicMQ installation procedure.
 - You must have previously installed Sonic ESB on the target system. See [“Installing Sonic ESB V7.0” on page 25](#) for the Sonic ESB installation procedure.

◆ To install Sonic Database Service V7.0:

1. If not already running, start the Sonic domain manager that will be used with this installation (see [Step 5 on page 24](#)).
2. From the root directory of the product media (or downloaded file), run the appropriate setup script for your platform:
 - On Windows, run setup.bat
 - On UNIX and Linux, run setup.shThe Sonic Installer opens.
3. Select **Sonic Database Service** from the **Product Selection** page.
4. Enter the product license key when prompted.
5. When asked for a destination on the **Installation Location** screen, enter the **Sonic root**. For example, the default Sonic root under Windows is c:\Sonic. When you point to c:\sonic as the installation location, the installer locates the SonicMQ installation at the SonicMQ root, c:\Sonic\MQ7.0, and then creates c:\Sonic\DBService7.0.
6. Follow the instructions on the screen, selecting a **Typical** installation of Sonic Database Service.

For information about installing Sonic Database Service, drivers, or administration tools, in a deployment domain, see [“Installing Sonic Database Service in a Distributed Deployment” on page 76](#).

Upgrading Sonic Software Installations

If you have an installation of Sonic Integration Workbench V6.1 or any V6.1 Sonic SOA products, you can upgrade them to the current version.

Important The SonicMQ upgrade logic can upgrade V6.0 and V6.1 installations to V7.0. However, the Sonic Workbench and SOA components only upgrade from V6.1 to V7.0. If you have V5.5 installations of Sonic Integration Workbench and SOA suite products, upgrade the installations and their related SonicMQ V6.0 components to V6.1 before starting V7.0 upgrades. See the *SonicMQ V6.1 Installation and Upgrade Guide* for instructions on upgrading SonicMQ from V6.0 to V6.1.

The process requires that you are issued license keys for the new product versions and that you perform software upgrades.

Important **ATTENTION: Sonic Collaboration Server V6.1 users** — Sonic Workbench V7.0 and Sonic SOA V7.0 do not provide upgrades for Sonic Collaboration Server V6.1 development or deployment installations. Contact your Sonic Software representative before you upgrade any domains, configurations, or components in the Collaboration Server stack (SonicMQ V6.1, Sonic ESB V6.1, and Sonic Collaboration Server V6.1.)

Upgrading Sonic Integration Workbench V6.1 Installations

The Sonic V7.0 Installer wizard provides the option to upgrade Sonic Workbench from V6.1. If you have a V7.0 license key (control number) for Sonic Workbench, just select **Sonic Workbench**, enter your license key, choose **Upgrade**, and then locate the V6.1 Sonic Workbench installation.

See [“Upgrading Sonic Workbench” on page 82](#) for a complete description of the options and procedures for upgrading an existing Sonic Workbench deployment to the latest version.

Upgrading Sonic SOA V6.1 Deployment Installations

The prescribed procedure for upgrading a deployment infrastructure starts with the domain manager, and then proceeds in an orderly fashion through the tools, the brokers, the containers, and client resources. See [“Upgrading Sonic SOA Components” on page 94](#) for more information about upgrading Sonic SOA V6.1 deployment installations.

While a SonicMQ domain is upgraded first, all products in the domain that have earlier versions can continue to operate in the upgraded domain. There are constraints to maintaining prior releases; one is that a system with prior version tools must be withheld

from upgrades so that it can continue to service any version-specific characteristics of the earlier release. In an installation directory on a system, the Sonic Software stack must be consistently updated. For example, if you have a SonicMQ V6.1 container that hosts a Sonic ESB V6.1 ESB container which in turn hosts a Sonic XML Server V6.1 server (a consistent set of installations), you must upgrade all three—first, the SonicMQ installation, then the Sonic ESB installation, and finally the Sonic XML Server installation—so that they are all V7.0 before the installed products are restarted.

Chapter 2 Installing Sonic Workbench

This chapter describes how to install Sonic Workbench in the following sections:

- [“Checklist Before Installing”](#) — Lists what to confirm before starting the installation.
- [“Performing A Sonic Workbench Installation”](#) — Details the steps to install Sonic Workbench.

Checklist Before Installing

Sonic Workbench V7.0 is installed from one installer program. This installer sets up all its components with complete features into one installation directory.

Important If the current system has a Sonic Workbench V6.1 installation, and you want to upgrade it, see [“Upgrading Sonic Workbench” on page 82](#).

◆ Checklist in preparation for installation of Sonic Workbench V7.0:

1. [] **Supported platform** — Confirm that the Windows system where you plan to perform an installation is a supported platform. For more information, see the Sonic Software Web page, www.sonicsoftware.com/support/supported_platforms/.
2. [] **Disk space available** — Confirm that you have adequate disk space for the installation. If you are installing from media, you need at least 1.2 GB and should have at least another 200 MB available disk space for data files and logs.
3. [] **Default port available** — Check whether the default port value, 2506, is in use. You can choose any port you want but the selected port number must not be in use.
4. [] **Installation location is not in use** — An existing target directory should be a new directory or cleared of any residual artifacts from a previous Sonic V7.0 installation.
5. [] **Sonic XML Server V7.0 not installed** — Confirm that a deployment edition of Sonic XML Server is not installed on the target system. If it is installed, you must uninstall it before running this installer.
6. [] **Sonic Orchestration Server V7.0 not installed** — Confirm that a deployment edition of Sonic Orchestration Server V7.0 is not installed on the target system. If it is installed, you must uninstall it before running this installer.
7. [] **Sonic Workbench V7.0 not installed** — You can install Sonic Workbench V7.0 only once on a system.
8. [] **Determine if you want to use an existing Eclipse installation** — While the Sonic installer will install a complete Eclipse tool set for Sonic development, you can choose to install Sonic Workbench tools into an existing Eclipse environment. If this choice interests you, review [“Adapting Your Eclipse to the Sonic Workbench Environment” on page 42](#) to verify that the required versions of Eclipse components are compatible with other tools in your Eclipse environment. Set your Eclipse to the workspace you want to use for Sonic development before starting the installation.

Important If you choose to use your existing Eclipse environment, you are encouraged to make a complete backup of it as well as its workspaces.

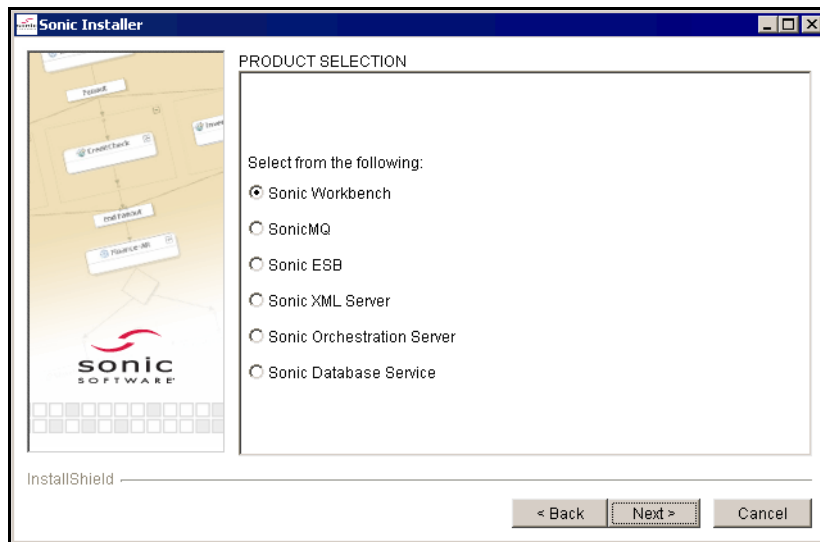
Performing A Sonic Workbench Installation

After you complete the checklist in preparation for installation of Sonic Workbench, you can perform the installation steps.

The following procedure describes installing a Sonic Workbench using the graphical interface. You could also use character-based installation and—when you learn about response files in [Chapter 6](#)—silent installations. Customized prompts can also be used in graphical and console installations.

◆ **To install Sonic Workbench V7.0 through the graphical interface:**

1. From the root directory of the product media (or downloaded file), run:
setup.bat
The Sonic Installer starts.
2. Click **Next**. The **Product Selection** panel displays:



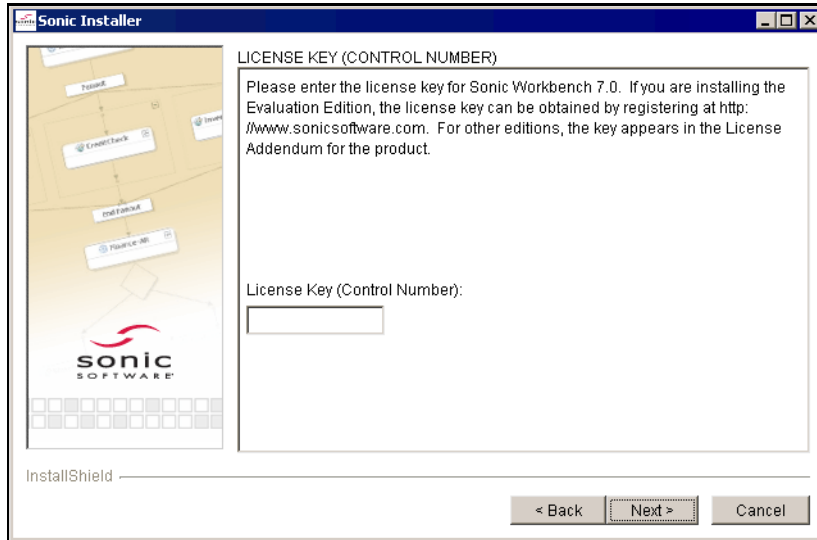
The Sonic Workbench option is the default selection.

Note

When you have deployment licenses, the other options will install deployment editions of the products.

3. Click **Next**. The readme file displays. Review the scope of the products and the general requirements for installation.

4. Click **Next**. The end user product license agreement displays. Read the agreement. When you understand and agree to it, choose the **I accept the terms of the license agreement** option. The **Next** button is enabled.
5. Click **Next**. The **License Key** entry panel displays, as shown:



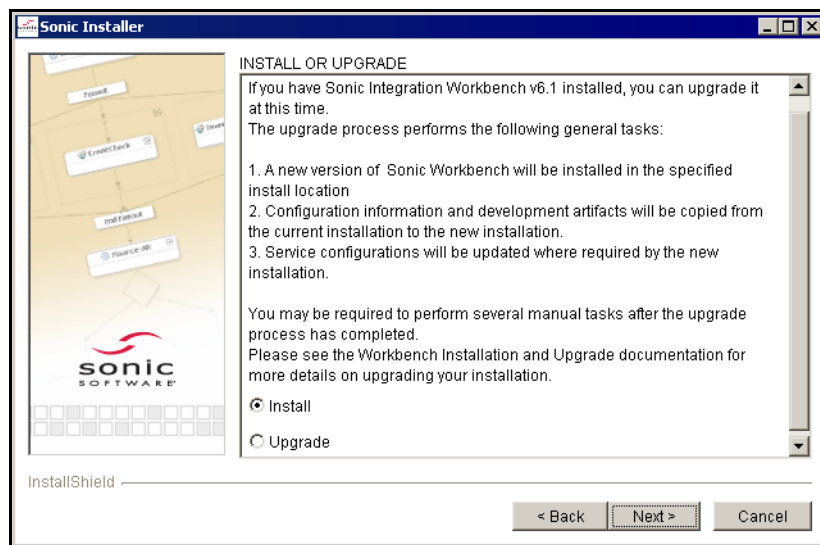
6. Enter the license key provided to you for Sonic Workbench V7.0.

Important

This license key (control number) value is your identification to Sonic Software Technical Support. The control codes that are stored in the component products in these developer and evaluation editions are derived from this license key.

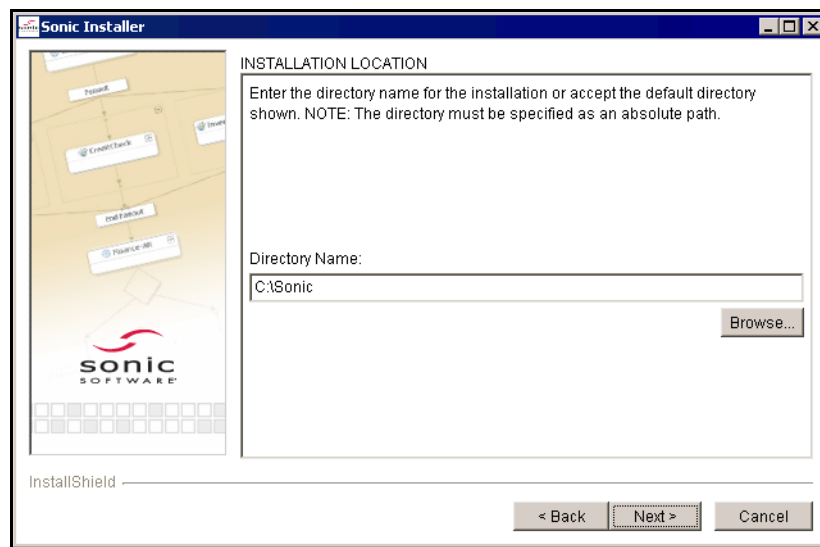
7. Click **Next**.

The **Install or Upgrade** panel displays, as shown:



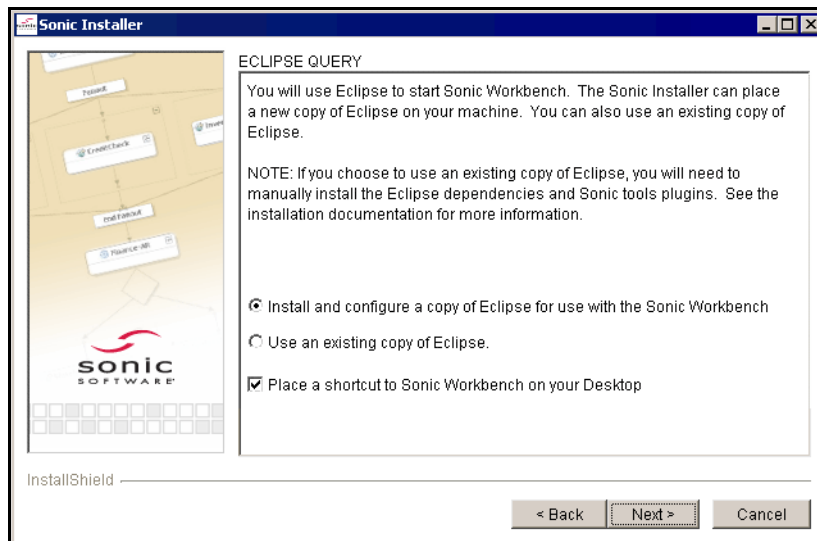
8. For an upgrade to an existing Sonic Workbench installation that is V6.1, see [“Upgrading Sonic Workbench” on page 82](#).

For a new installation, click **Next**. The **Installation Location** panel displays:



The default location is `C:\Sonic`. You can enter or choose a different location or local drive. However, you should keep the path name brief and—while embedded spaces are supported for this use in Sonic Software—using spaces in a path name might require you to place path statements in quotation marks in custom scripts and other toolsets. For example, you might choose to install in a path like `D:\dev\SOA\Sonic`.

9. When the Directory Name entry area has the path you want to use, click **Next**. If you are creating a new folder, you are prompted to approve its creation.
10. The **Program Group** panel displays. If you want to specify a program group other than the default group, enter the group name you want for this installation, and then click **Next**.
11. The **Samples** panel displays. When you choose to **Load the Workbench Samples**, the installer creates the SonicMQ queues, acceptors, and routing definitions that are used by SOA samples as their endpoints, connections, and routings, and the samples themselves are installed into the installation directories of their respective products. You can then load them into the Eclipse workspace by choosing **File > Import: Existing Projects into Workspace**. If you choose to not load the samples, these SonicMQ configuration objects are not created and the samples are not installed into installation directories (except SonicMQ samples, which are always installed.) Choose your preference, and then click **Next**.
12. The **Eclipse Query** panel displays, as shown:



To install the preferred Eclipse distribution, select **Install and configure a copy of Eclipse for use with the Sonic Workbench**, and then click **Next**. The installer installs the preferred Eclipse distribution with the required dependencies and Sonic tool plugins.

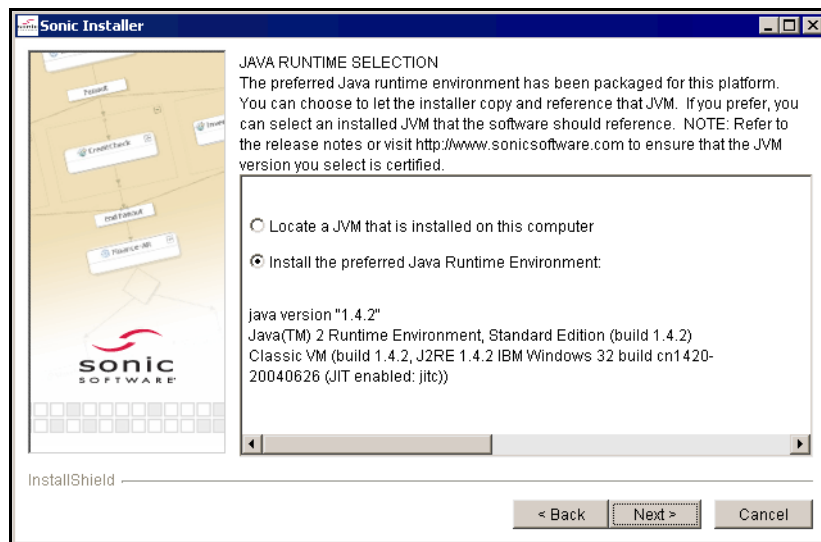
Alternatively, you can bind the Sonic Workbench to an existing Eclipse environment. Before making this selection, review the material in [“Adapting Your Eclipse to the Sonic Workbench Environment” on page 42](#). When you are sure that your existing Eclipse is adaptable, select **Use an existing copy of Eclipse** and click **Next**. Enter the path to the Eclipse installation directory, enter the path to the Eclipse workspace, and then click **Next**.

Important

After installation is complete, you need to add Sonic tool plugins, confirm that required Eclipse dependencies are installed, and then tune the workspace to your installation. See [“Adapting Your Eclipse to the Sonic Workbench Environment” on page 42](#) for detailed instructions.

Click **Next**.

13. The **Java Runtime** panel displays, as shown:

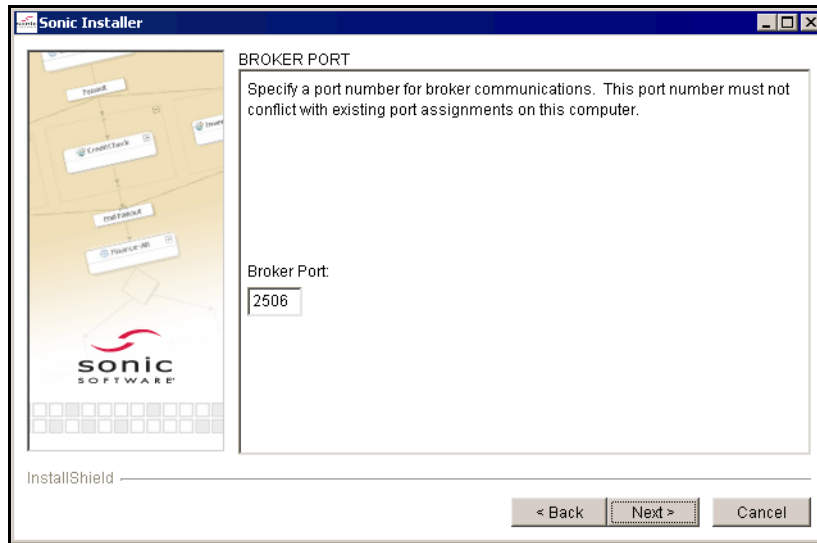


Sonic recommends that you use the preferred Java runtime environment.

If you chose to use a local JVM installation instead, clicking **Next** lets you navigate to the location of the supported JVM you want to use.

After you accept or locate the JVM you want to use, click **Next**.

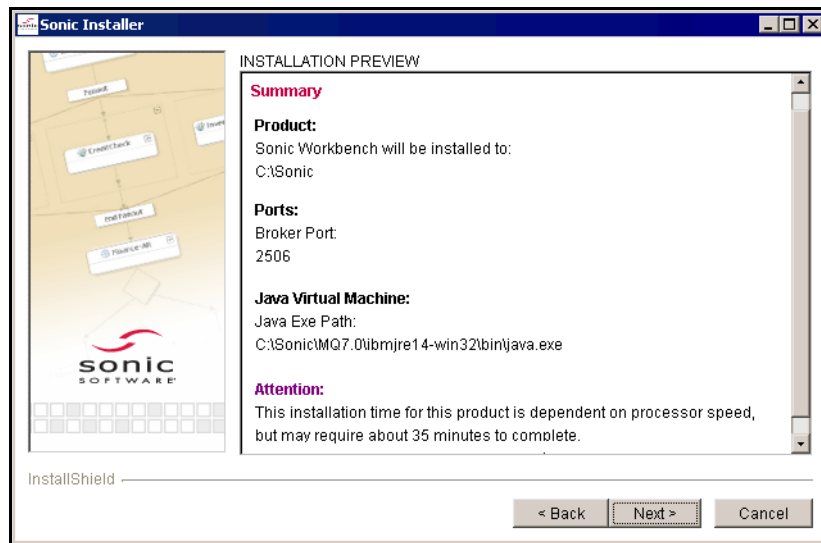
14. The **Broker Port** panel displays, as shown:



This is the local port where the broker establishes a listener for management connections. The same connection is also used for client messaging connections, in the development environment. If the port default value, 2506, is not available, specify the port you prefer to use (between 1024 and 65536).

After you accept or enter the port you want to use, click **Next**.

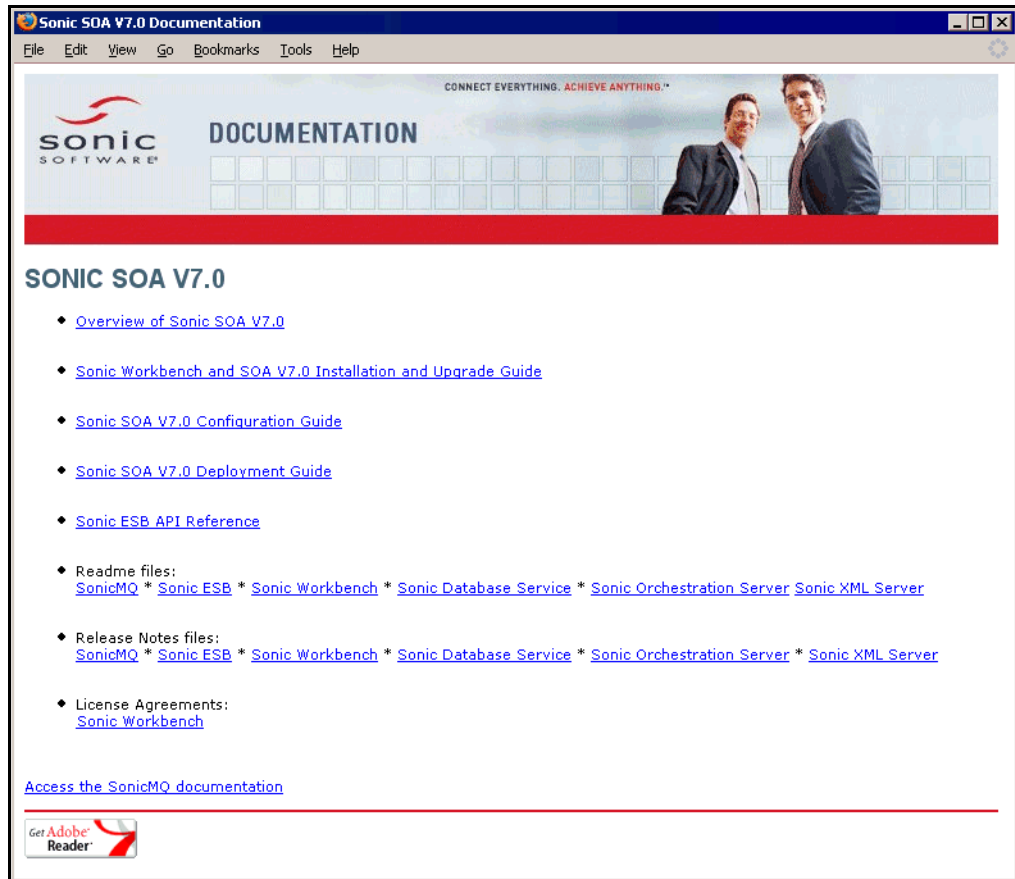
The **Installation Preview** summarizes the parameters, as shown:



15. Click **Next** to start the installation. The installation runs unattended.
16. When the installation completes successfully, you can choose whether to view the links to the documentation, and then click **Next**.
17. Click **Finish**. Sonic Workbench V7.0 installation is complete.

Sonic Workbench Documentation

When the installation opens the Sonic Workbench documentation page, it opens the document `soa_documentation_7.0.htm` at the root of the installation's **Workbench 7.0** directory, as shown:



The Sonic SOA documentation contains information on the configuration, management, deployment, and installation/upgrade of Sonic SOA components. The link to the SonicMQ documentation accesses the documentation for the underlying messaging infrastructure used by the Sonic SOA, SonicMQ.

The Sonic Workbench provides online help. For more information, see *Sonic SOA Development Guide* in the Eclipse help.

Adapting Your Eclipse to the Sonic Workbench Environment

If you chose to use an existing Eclipse installation, you need to perform the following steps after the Sonic Workbench installation has completed successfully:

1. Update your Eclipse environment to support the required versions of Eclipse and related component technologies. Use WinZip to extract the packages listed in [Table 1](#) from the Sonic installation media to your Eclipse folder. For example, if your existing Eclipse is installed under C: \myfol der\ ecl i pse then your target folder is C: \myfol der.

Table 1. Eclipse Technologies Required by Sonic Workbench

<i>Required Eclipse component</i>	<i>Zip package on the installer media folder /products/ecl i pse</i>
Eclipse SDK v3.1.1	ecl i pse-SDK-3. 1. 1-wi n32. zi p
Eclipse Graphical Editor Framework (GEF) SDK v3.1.1	GEF-SDK-3. 1. 1. zi p
Eclipse Modeling Framework (EMF) v2.1.1	emf-sdo-SDK-2. 1. 1. zi p
Eclipse Web Standard Tools (WST) v1.0.0	wtp-wst-1. 0. 0. zi p
Java EMF Model (JEM) SDK v1.1.0.1	JEM-SDK-1. 1. 0. 1. zi p

2. Add the Sonic Workbench plug-ins to your eclipse environment.

Important

The zip file for the Sonic Workbench tools does NOT contain the Eclipse folder in the zip file paths so the extraction target differs from the one used in the previous step. You must add the Eclipse subfolder to the extraction path when unpacking the Sonic Workbench plugins.

Use WinZip to extract the Sonic Workbench plugins located on the Sonic installation media at \products\ ecl i pse\soni c_tool s_pl ugi n. zi p into your Eclipse folder (not the parent folder.) For example, if your existing Eclipse is installed under C: \myfol der\ ecl i pse then your target folder is C: \myfol der\ ecl i pse.

3. Verify the configuration:
 - a. Start the Sonic Management Console
 - b. Create a connection to the Sonic domain
 - c. On the **Configure** tab, expand the workspace folder. Its contents should list the contents of your Eclipse's workspace folder.
4. Update your Sonic preferences in Eclipse:

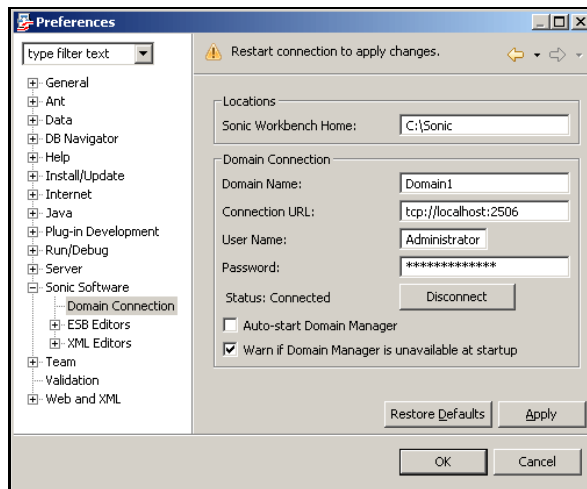
- a. Start your Eclipse environment:

Start > Programs > Sonic Software > Sonic Workbench 7.0 > Sonic Workbench

Note

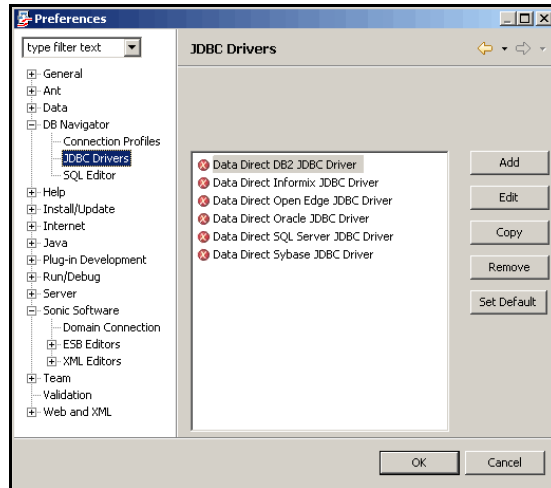
If an alert advises you that the Domain Manager is offline, click **OK** and continue. You might have selected a port number other than the default (2506), a preference that you will be correcting in Eclipse's Sonic preferences

- b. Choose the Eclipse menu command **Windows > Preferences**.
- c. In the **Preferences** dialog box, expand the **Sonic Software** node.
- d. Click **Domain Connection**. The current connection information is displayed.

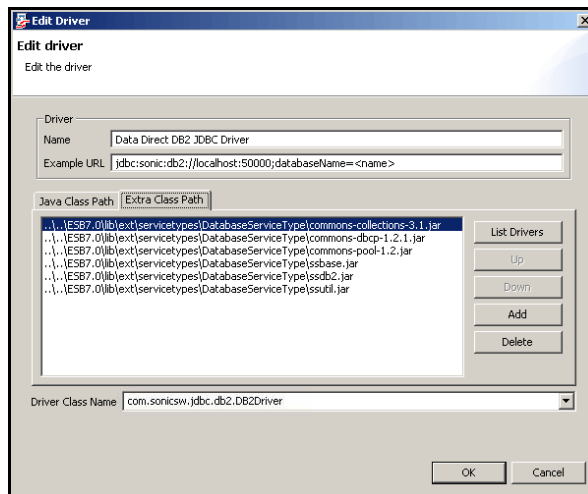


- e. If you accepted the defaults during installation, the data should appear as it does in the preceding figure.
- ❑ If you chose to install Sonic Workbench to a different folder than C: \Soni c, enter that location's full path in the **Sonic Workbench Home** field.
 - ❑ If you chose a port number other than **2506**, adjust the port number in the **Connection URL** field.
 - ❑ Click **Apply** to accept any changes.
 - ❑ If the **Domain Connection: Status** is Disconnected, click **Connect** to establish the connection. When you achieve connection, the Domain Connection preferences are good.
- f. If you intend to work with databases, you need to change the preferences for the DataBase Navigator and its extra classpath entries.

- g. Expand **DB Navigator**, and then click **JDBC Drivers**. The JDBC driver information is displayed.



- h. Select a driver, and then click **Edit**.
In the **Edit Driver** dialog box, choose the **Extra Class Path** tab.



- i. Click **Add**, and then navigate to the subfolder listed for the first relative item.
- j. Repeat for each of the relative items. When you are done, check that the additions you made are in the same order as the relative ones, then delete the relative ones.

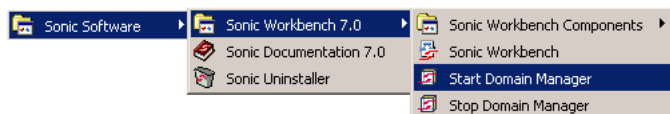
Your Sonic installation and your Eclipse installation are fully configured.

Sonic Workbench Start Menu Commands

The following sections show the basic **Start > Programs** menu commands for the Sonic Software functions and access to the components installed in Sonic Workbench V7.0.

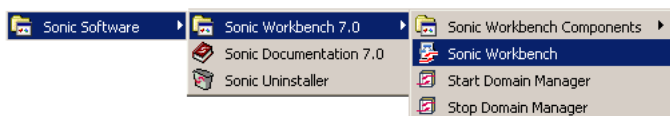
Launch the Sonic Domain Manager

Before starting to work on the Sonic Workbench, you should always start the Domain Manager first. You will be prompted to do so if you launch the Workbench when the Domain Manager is not running. To launch the Domain Manager, choose:



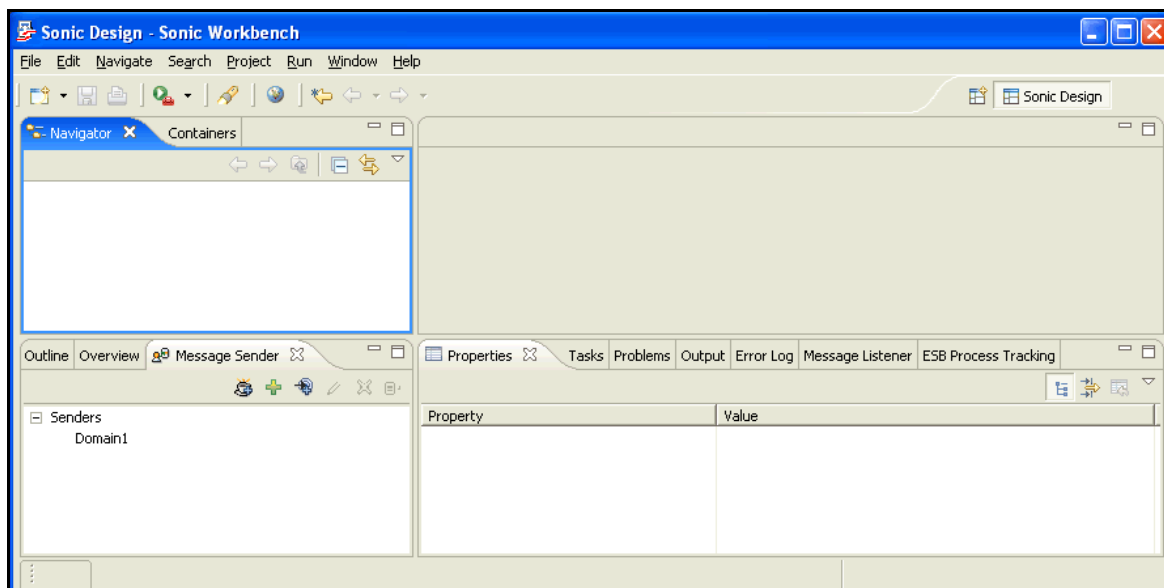
Launch the Sonic Workbench

When the Domain Manager has been started, launch the Sonic Workbench:



You can routinely exit the Sonic Workbench and leave the Domain Manager running. The next time you want to launch the Sonic Workbench, you do not have to start the Domain Manager.

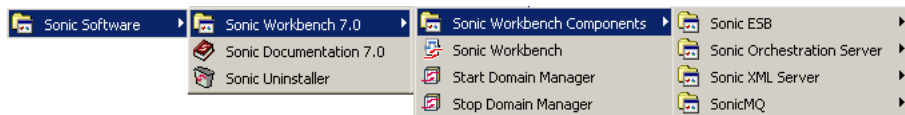
When the Sonic Workbench opens, your perspective is **Sonic Design**.



Choose **Help > Help Topics**. In the **Help** window's **Contents** panel, navigate to the *Sonic SOA Development Guide* for detailed information on the Sonic Workbench development environment and the installed samples.

Access Sonic SOA Component Features and Tools

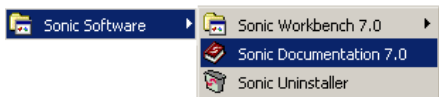
The **Start** menu commands for Sonic Workbench Components provide access to tmenu for each of the SOA components that provide tools as follows:



Note Before you start the container that hosts a Process Search Service, be sure that all the Orchestration Server datastores specified for the Process Search Service have run at least once so that the specified datastores exist.

Access Sonic Documentation

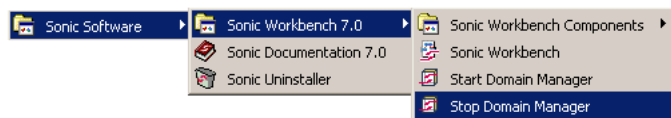
Open the Sonic SOA 7.0 documentation portal page from the following **Start** command:



The Sonic SOA documentation books, API online reference, readmes, licenses, and release notes are accessible from that portal page. The *Sonic SOA Development Guide* online help is accessible in the Eclipse help.

Stop the Sonic Domain Manager

If you are preparing to restart the Sonic Workbench system, or want to reclaim memory, do an orderly shutdown by exiting the Sonic Workbench first, and then choosing:



Windows Services Enabled by the Sonic Workbench

Sonic Workbench installs and starts Windows Services for some of the Sonic Workbench components. If you do not plan to develop with those components, you can reduce the memory usage on your system by disabling the services in the **Control Panel > Administrative Tools > Services** window, as follows:

<i>Product</i>	<i>Windows Services</i>
Sonic XML Server	Soni cXSvr7.0 DBServer, Soni cXSvr7.0 LockManager
Sonic Orchestration Server	Soni cOSvr7.0 DBServer, Soni cOSvr7.0 LockManager

Chapter 3 **Installing Sonic SOA Components**

The chapter includes both quick start instructions and more detailed procedures for installing the Sonic SOA products. You can follow the quick start instructions to install the Sonic products on a single system for staging or testing, then follow the detailed instructions for installing the products on multiple systems in a deployment domain. This chapter contains the following sections:

- [“Considerations for Deployment Installations”](#) — Information about hardware and software requirements, available deployment editions, security considerations, and console installations.
- [“Installing Sonic Products in a Distributed Deployment”](#) — Instructions and considerations for deploying Sonic products on multiple systems in a deployment domain.
- [“Completing non-root UNIX or Linux Installations”](#) — Instructions for completing the datastore configuration for installations not performed at the root.
- [“Completing Installations from Offline Scripts”](#) — Instructions for completing installations that were performed offline and running stored scripts to update the Directory Service when it becomes available.

Note The Sonic SOA products for deployment do not include the Sonic Workbench. For information about installing the Sonic Workbench in a development environment, see [Chapter 2, “Installing Sonic Workbench.”](#)

Considerations for Deployment Installations

This section provides general information you should consider before installing Sonic SOA products in staging and production environments.

Note Deployment products do not include samples. The samples are included in installations of the Sonic Workbench.

This section includes the following information:

- [“Deployment Editions of Sonic Products” on page 50](#)
- [“Deciding on Root or Non-root Installation” on page 51](#)
- [“Performing a Console Installation under UNIX or Linux” on page 52](#)
- [“Enabling Security in the Messaging Infrastructure” on page 53](#)
- [“Hardware Requirements” on page 53](#)
- [“Software Requirements” on page 54](#)
- [“Next Steps” on page 54](#)

Note This document uses Windows conventions when the context is not platform specific. If your installation is on UNIX or Linux, substitute UNIX syntax in path specifications (for example, change “\” to “/”) and use `.sh` in place of `.bat` for script files.

Deployment Editions of Sonic Products

You must have license keys (control numbers) to install SonicMQ, Sonic ESB, and any of the other Sonic Software products you intend to deploy. A license key is provided in the license addendum shipped with each deployment software product. The deployment editions of Sonic Software V7.0 products are shown in the following table.

<i>Product</i>	<i>Edition</i>
SonicMQ	Continuous Availability
	Enterprise
	Standard
	Remote Site
Sonic ESB	Continuous Availability
	Enterprise
	Remote Site
Sonic XML Server	Enterprise
	Standard
Sonic Orchestration Server	Deployment
Sonic Database Service	Deployment

Note A **Typical** installation of any Sonic Software product includes the complete documentation set for that product. If you perform a custom installation of any Sonic Software product and deselect the documentation feature, the documentation set for that product does not include:

- Guides in PDF format
- Online API HTML structures (when available)

When the documentation feature is not selected, the links are not displayed on the portal page.

The following documentation is always installed for SonicMQ and for any Sonic SOA product: portal page, readme, release notes, and license.

Deciding on Root or Non-root Installation

Note This section applies to installations of Sonic Orchestration Server, and Sonic XML Server on UNIX or Linux platforms.

On UNIX and Linux platforms, installations of Sonic Orchestration Server, and Sonic XML Server perform as expected and use activation daemons correctly when all their components are installed as root user with its associated permissions.

If you are installing SonicMQ and Sonic ESB components on a system for use by Sonic Orchestration Server, or Sonic XML Server and you cannot get root permissions, do the following:

1. Verify that SonicMQ and Sonic ESB are installed under the same user identity.
2. Install Sonic XML Server and Sonic Orchestration Server under that same identity.

When installed as root, the installer writes scripts to:

- /etc/rc2.d (on Solaris)
- /etc/rc.d/rc1.d and /etc/rc.d/rc3.d (on Linux)

These scripts enable XML Datastore processes to cleanly shutdown and restart on reboot. When the installation completes successfully, these processes are started. The processes can be controlled manually by running the installation's `bin/startdb.sh` and `bin/stopdb.sh` scripts.

The script `bin/pingdb.sh` is also provided to check the state of the datastore server process.

On Linux platforms, before starting the installation, execute the following commands as 'root or with the appropriate permissions:

```
cd /usr/lib
mv libstdc++-libc6.1-1.so.2 libstdc++-libc6.1-1.so.2.orig
ln -sf libstdc++-libc6.2-2.so.3 libstdc++-libc6.1-1.so.2
```

On AIX platforms, Sonic ESB must be installed from root account so that the system can make appropriate updates to AIX ODM entries.

Important When you are installing under UNIX or Linux and you intend to install a Sonic Orchestration Server or Sonic XML Server at this location, the installation location must be on a local volume.

Performing a Console Installation under UNIX or Linux

This guide describes installation, upgrade, and uninstallation procedures using the Sonic Installer wizard. While the graphical interface is used to present the options in each panel of the graphical wizard, you can perform the same procedures in a console window or preset the responses that will provision an unattended installation.

The following section describes how to initiate a console installation that uses the default prompts. The procedure is not commonly used under Windows.

Note Silent installations cannot use default prompts. See [Chapter 6, “Using Response Files,”](#) for information on creating response files that will predefine the prompts for graphical, console, and silent installations, upgrades, and uninstallations.

Starting a Console Installation that Uses Default Prompts

The following procedure describes console installation under UNIX or Linux.

◆ To perform a console install on UNIX or Linux platforms:

1. When installing from distribution media, put the CD into your machine’s CD-ROM drive, and change the directory to your CD-ROM directory.

Important

The mount command or procedure that you use must support mixed case and file names that are not restricted to eight characters with a three-character extension. Consult with your IT department to define the command syntax or procedure that supports mixed case and longer file names when mounting the CD-ROM drive.

2. Enter `setup.sh -console` to run the setup script from the installer root, either on the distribution media or on a network drive.
3. Follow the instructions on the screen.

Enabling Security in the Messaging Infrastructure

To establish complete security in your messaging infrastructure, you must enable security on both the SonicMQ broker and domain manager installations. When the broker is security-enabled, client connections must be authenticated. When the domain manager is security-enabled, management communications between the broker's container and the domain must be authenticated.

See the *SonicMQ Configuration and Management Guide* and the *SonicMQ Deployment Guide* for information about enabling security and using SSL.

If you chose to enable security when installing the Domain Manager, the management broker authenticates one username (Administrator) and its password (Administrator). If you changed the SonicMQ administrator password or created additional administrative users specifically to be used by administrative connections from Sonic SOA components, use your preferred password or administrative user for the management connection information.

See the section “Configuring Users and Their Group Membership” in the “Configuring Security” chapter of the *SonicMQ Configuration and Management Guide* for information about creating users and modifying an existing user's password.

Hardware Requirements

The following table shows the runtime installation requirements for a complete staging system (“[Considerations for Deployment Installations](#)” on page 49) using typical installations of each of the deployment products.

Product	Preferred Memory (RAM)	Preferred Disk Space
SonicMQ	384 MB	350 MB
Sonic ESB	128 MB	150 MB
Sonic XML Server	256 MB	250 MB
Sonic Orchestration Server	256 MB	550 MB
Sonic Database Service	256MB	150 MB

Software Requirements

See the Sonic Software Web site at <http://www.sonicsoftware.com> for the currently supported platforms and typical platform requirements.

SonicMQ

Sonic ESB deployments use the messaging infrastructure provided by SonicMQ. Every installed component of Sonic ESB must have a supporting SonicMQ installation. SonicMQ provides a managed Java container, and cache for the services the container hosts.

Java

Sonic requires a Java Virtual Machine (JVM.) The recommended Java Runtime Environments (JREs) are installed on Windows platforms. On UNIX or Linux platforms, you must access and install a supported JRE before starting installations.

Windows

A SonicMQ installation on Windows platforms provides Java installations that are used as the runtime environment for the components, clients, and tools. SonicMQ can install its preferred Java Runtime Environment, using the SonicMQ JRE directories as the preferred JREs.

UNIX and Linux

For UNIX and Linux platforms, see the Sonic Software Web site at <http://www.sonicsoftware.com> for the currently supported platforms and JVM combinations. Once SonicMQ is installed (for example, /opt/Sonic/MQ7.0), other installations refer to the Sonic root (for example, /opt/Sonic) to use the same Java Runtime Environment (JRE) specified for SonicMQ, and recorded in the variable SONICMQ_JRE in the script /bin/setenv of the local SonicMQ installation.

Next Steps

When you have reviewed the deployment installation considerations in the preceding sections, and, optionally, completed product installations and testing on a single system, you can proceed to perform a distributed installation of the Sonic products in a deployment domain. In a distributed deployment, you set up components to host the domain manager, messaging nodes, tools systems, and runtime features in a scalable infrastructure. See [“Installing Sonic Products in a Distributed Deployment” on page 55](#).

Installing Sonic Products in a Distributed Deployment

In a Sonic deployment on multiple systems, each system must include installations of:

- **SonicMQ** — To establish the management and messaging infrastructure
- **Sonic ESB** — To enable the Sonic Enterprise Service Bus

In addition to these required products, you can also install one or more of the following Sonic Software products on each system: Sonic Orchestration Server, Sonic XML Server, and Sonic Database Service.

The following procedures explain how to install Sonic products in a distributed deployment:

- [“Installing SonicMQ in a Distributed Deployment” on page 55](#)
- [“Installing Sonic ESB in a Distributed Deployment” on page 65](#)
- [“Installing Sonic XML Server in a Distributed Deployment” on page 70](#)
- [“Installing Sonic Orchestration Server in a Distributed Deployment” on page 73](#)
- [“Installing Sonic Database Service in a Distributed Deployment” on page 76](#)

Installing SonicMQ in a Distributed Deployment

SonicMQ provides the messaging infrastructure used in a Sonic ESB deployment. Every deployment domain of Sonic Software products requires underlying SonicMQ features to provide messaging and management functionality to the Sonic ESB services.

The following SonicMQ features are typically installed in a production environment:

- **Domain Manager** — A domain manager centrally manages component configurations and monitors runtime characteristics of distributed components. A domain manager can manage many brokers and many containers.
- **Messaging Nodes** — Brokers provide communications, security, and messaging to each node in the distributed topology. Brokers can be assembled into clusters to provide better reliability and scalability to the services architecture yet act as a single node.
- **Administration Tools** — The graphical and command line tools enable system administrators and operators to interact with multiple domains.
- **Distributed Enterprise Services in Management Containers** — Containers provide the Java runtime environment (JRE), management communications, and caching of configurations for hosted Sonic ESB components and their services.

[Table 2](#) lists the different SonicMQ features and shows how you can install these features on the systems in your deployment domain.

Table 2. SonicMQ Installation Options

	<i>SonicMQ Installation Option</i>			
	<i>Messaging Nodes</i>	<i>Domain Manager</i>	<i>Administration Tools</i>	<i>Runtime Components</i>
Number Installed	One or more configured in a domain.	One per domain.	Many. Complete set of tools on each administrator system	Many. Software stack required to run ESB services on a system
Features	Required: <ul style="list-style-type: none"> ● Messaging Broker and Container 	Required: <ul style="list-style-type: none"> ● Domain Manager 	Required: <ul style="list-style-type: none"> ● JMS Client ● Administration Tools ● JMS Test Client Optional: <ul style="list-style-type: none"> ● Sample Applications ● Documentation 	Required: <ul style="list-style-type: none"> ● Container ● JMS Client
Other Sonic SOA Product Installations	None.	<ul style="list-style-type: none"> ● Administration Tools. 	For each installed product: <ul style="list-style-type: none"> ● Administration Tools ● Documentation 	ESB and advanced ESB runtime features hosted on the target system.

The following sections explain the different options for installing SonicMQ features in a distributed deployment:

- [“Installing a SonicMQ Domain Manager” on page 57](#)
- [“Installing SonicMQ Administration Tools” on page 59](#)
- [“Installing SonicMQ Messaging Nodes in the Domain” on page 61](#)
- [“Installing SonicMQ Containers for Enterprise Services” on page 64](#)

Each of these sections describes a different type of custom installation of SonicMQ. A distributed deployment will likely include each of these custom installations across the systems in the domain.

Important For Windows installations, the SonicMQ installer installs the preferred JRE by default. For other platforms, or if you want to use a different JRE, refer to the Sonic Software Web site at <http://www.sonicsoftware.com> for currently supported platforms and JVMs.

For more information about SonicMQ, distributed management, and messaging brokers, see the following SonicMQ documentation:

- *SonicMQ Deployment Guide*
- *SonicMQ Installation and Upgrade Guide*
- *SonicMQ Configuration and Management Guide*

Using the Sonic Installer to Create a Software Stack

The Sonic installer wizard provides a way in interactive use—the graphical interface and the console interface—to do another installation without exiting and re-entering the installer. When you are installing the toolset on a single system, you can cycle through the tool installations easily to create a complete stack of tools. When you are installing containers for enterprise services, you can build the software stack easily.

Use response files (see “[Running The Installer Using Response Files](#)” on page 142) to make a software stack in interactive modes even faster. When you preset the license agreement, license keys, target locations, domain manager connection, and feature selections, you enable quick cycles through installations. For container and broker installations, leave blank names in the response file that you fill in during the installation.

Installing a SonicMQ Domain Manager

A SonicMQ domain manager provides the foundation for the deployment infrastructure and configurations. While you can have several domains for your entire distributed services architecture, typically only one domain manager is used.

The first step in a deployment installation is installing a SonicMQ domain manager. All other Sonic product installations will have management connection to the domain manager and register their configurations there. You should give every deployment domain a unique name.

Note You must have a license key (control number) for SonicMQ V7.0.

◆ To install a SonicMQ domain manager

1. Run the setup script for the target platform, and then choose the product **SonicMQ**.
2. Enter your SonicMQ deployment edition license key when prompted.
3. Perform a custom installation, selecting the **Domain Manager** feature. Also select **Administration Tools** so that you can promptly change the default administrative password and, when necessary, perform direct connection to the Directory Service.

Important

The Sonic Workbench installer enable security by default, but the SonicMQ installer does not, by default, enable security. You must select the **Enable Security** option if you used management security on your Sonic Workbench or intend to use it in deployment environments.

4. When the installation completes, start the container to enable the Directory Service and the management broker's acceptors so that other installations can register their configurations.
 - On Windows platforms, use the **Start** command:
Start > Programs > Sonic Software > SonicMQ 7.0 > SonicMQ DomainManager
 - On UNIX or Linux platforms, open a console window at the root of the SonicMQ installation directory, then enter `. /bin/startcontainer.sh`.

The default SonicMQ management connection referenced by the components is the domain `Domain1`, with connection URL `tcp://hostname:2506`. If you enable security, the default username is `Administrator` with the default password `Administrator`.

Important No further installations are required on a Domain Manager to enable it for Sonic SOA.

Enabling a Domain Manager for ESB Components

Sonic ESB and each of the advanced ESB products (Sonic Orchestration Server, Sonic XML Server, or Sonic Database Service) must install its element predefined types and functionality into the Directory Service. Each deployment installation of tools or runtime components asks which domain you want to update for the installation. While the runtime components register their components in the domain, the tools insert functionality and runtime installations insert the predefined types for the product in the Directory Service.

Your domain must have all the functionality and predefined types for products you plan to import into the domain. The best way to do this is to get deployment licenses for all your Sonic products and then create a tools system at the same time you create a new domain, installing the toolset for each of the products and creating the predefined types and libraries in the domain manager.

As you install additional Sonic products, configuration objects for each of the products will be registered into the domain manager's Directory Service and remotely installed tools will access and manipulate those configuration objects. In a distributed topology, no additional installations will be done directly on this system. The domain manager should always be running and accessible.

Installing SonicMQ Administration Tools

In a distributed deployment, SonicMQ tools are typically installed on administrator systems that have no runtime components. These tools include the Sonic Management Console and are the foundation for the tools added to the toolsets of other deployed products. Documentation is often installed on tools systems.

Note You must have a valid license key for SonicMQ V7.0.

◆ To install SonicMQ administration tools:

1. On the system where you want to install the administrative tools, run the script setup to perform a **SonicMQ** installation that is **Custom** where you choose the **Administration Tools** feature. You can also install the **JMS Test Client**. You might also install the documentation on tools systems.
2. Enter your SonicMQ deployment edition license key when prompted.
3. When the installation is complete, if you intend to add other tools to this software stack, select the option to perform another install.

◆ To start the SonicMQ administration tools:

- ❖ After installation, start the Sonic Management Console and create a management connection to the domain manager to start administrative monitoring and configuration management:
 - On Windows platforms, use the **Start** command:
Start > Programs > Sonic Software > SonicMQ 7.0 > Management Console
 - On UNIX or Linux platforms, open a console window at the root of the SonicMQ installation directory, then enter `./bin/starttmc.sh`.

The default SonicMQ management connection referenced by the components is Domain1, with connection URL `tcp://hostname:2506`. If you enabled security, the default username is Administrator with the default password Administrator. Ideally, you should have changed this password when you installed the domain manager.

Note Messaging nodes do not require any Sonic ESB components. Their role is to provide the connections and endpoints that ESB services use for messaging.

Enabling Security on Management Connections

After you install a domain manager, other distributed components register their configuration through the specified management connection. If you plan to change the administrative password from its default values, do so before you install other components that will make management connections.

◆ To change the password for the default administrative user:

1. With the domain manager running, start the Management Console.
2. Connect to the domain. The default values are domain Domai n1, connection URL tcp: //hostname: 2506, user Admi ni strator, and password Admi ni strator.
3. On the **Configure** tab, expand **Security** to **Default Authentication > Users**, and double-click **Administrator**.
4. In the **Edit Authentication Domain User Properties** dialog box, click **Set Password**, enter your preferred password, then click **OK**.
You can also create other users in the **Administrator** group now, for example: Contai nerUser, AppUser, and Servi ceUser.
When you finish creating other users and setting passwords, click **OK** to close the **New Authentication Domain User Properties** dialog box
5. To update the password used by a container to connect with the domain manager, expand **Containers**, click the container for which you want to update the password, then choose **Action > Properties**.
6. In the **Edit Container Properties** dialog box's **General** tab, click **Set Password**, enter the new password you set in [Step 4](#), then click **OK**. Click **OK** to close the **Edit Container Properties** dialog box
7. Select the container for which you have just updated the password information, then choose **Action > Generate Boot File**.
8. Save the boot file at the SonicMQ root, replacing the existing boot file.

When you restart the domain manager, the boot file will present the updated authentication credentials.

When you reconnect through the Management Console, use the new password for the default administrator account, or connect as one of the administrative users you created.

Thereafter, whenever an installation requests management connection information, provide one of your administrative user names and the associated password.

Installing SonicMQ Messaging Nodes in the Domain

You can install SonicMQ as a messaging node in your deployment domain. You will likely have many messaging nodes in production deployments, and can repeat this process on as many systems as needed in the domain.

- Note**
- You must have a valid license key (control number) for SonicMQ V7.0.
 - The SonicMQ domain manager must be running on a network accessible system.

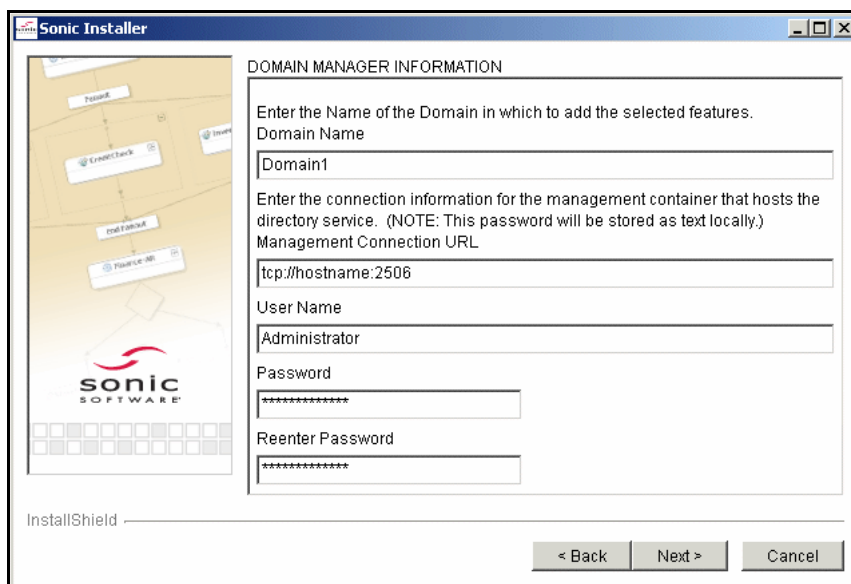
◆ **To install a SonicMQ messaging node:**

On your target system, use your SonicMQ deployment license key to perform a custom installation of the SonicMQ **Messaging Broker and Container** features. This type of installation defines a messaging broker in the domain.

Use unique names for brokers and unique names for containers within the domain. The installation defaults to the host name as the name of the container and the broker. If there are existing installations on the target system, you might qualify the name by adding an integer.

1. Be sure that the domain manager is running.
2. Run the setup script for the target platform.
3. Select **SonicMQ** from the **Product Selection** screen.
4. Enter your SonicMQ deployment license key when prompted.
5. Choose to **Install**.
6. On the **Installation Location** screen, enter the root for this installation. The default value under Windows is c: \Soni c.
7. Perform a **Custom** install of the **Messaging Broker and Container** feature.
8. Select your preferred (supported) JVM or accept the default JVM.
9. Choose to connect to the Domain Manager to record this configuration.

10. On the **Domain Manager Information** panel, specify the management connection information to the domain manager:



Sonic Installer

DOMAIN MANAGER INFORMATION

Enter the Name of the Domain in which to add the selected features.

Domain Name
Domain1

Enter the connection information for the management container that hosts the directory service. (NOTE: This password will be stored as text locally.)

Management Connection URL
tcp://hostname:2506

User Name
Administrator

Password

Reenter Password

InstallShield

< Back Next > Cancel

Enter:

- **Domain Name** — Name of the domain (the default is Domain1).
- **Management Connection URL**— Connection URL of the domain manager (the installation default is tcp://localhost:2506). In a deployment, you should not use localhost.
- **User Name** — User name to connect to the domain manager (the default user name is Administrator).
- **Password** — Password to connect to the domain manager (the default password for user Administrator is Administrator.) In a deployment, you should have changed the administrator password.

11. Click **Next**. On the **Broker Information** panel, enter:

- **Container Path and Name** — The default location in the configuration store is **/Containers**. The default container name is the system host name, a name that should be unique in an IT domain.
- **Broker Path and Name** — The default location in the configuration store is **/Brokers**. The default container name is also the system host name. While container names and broker names are unique, that is enforced within the scope of their configuration object type.
- **Broker Port** — A unused port value, by default **2506**. That value can be used on many brokers but not more than once on a single system.
- **Security** — Choose whether connections to this broker will require authentication and authorization. If you choose to enable security, the next panel lets you specify alternate security authentication domains and the related authorization policy in the domain.

12. Click **Next**. Complete the installation.

You do not have to start this messaging broker at this time. Its configuration is updated to accommodate the connection URLs and endpoints of ESB Services you set up. A messaging broker's container is managed by the domain manager you specify when asked for the management connection.

In a distributed topology, no additional installations are done directly on this system. Messaging nodes do not require any Sonic ESB components. Their role is to provide the connections and endpoints that ESB services use for messaging.

Important No further installations are required on a messaging broker to enable it for Sonic SOA.

Installing SonicMQ Containers for Enterprise Services

You can install SonicMQ on systems that will provide runtime services in your distributed deployment. On these systems, you install SonicMQ features to run the management containers and the libraries that enable client functionality. You also install a JRE (or reference the preferred JVM installed with the product). The JVM is used by Sonic ESB and the ESB services you install.

Important

- You must have a valid license key for SonicMQ V7.0.
- The SonicMQ domain manager must be running on a network accessible system. See [“Installing a SonicMQ Domain Manager” on page 57](#).

◆ To install a SonicMQ management container

1. On systems where you plan to install Sonic ESB and advanced ESB products (Sonic Orchestration Server, Sonic XML Server, or Sonic Database Service), start the Sonic installer.
2. Select **SonicMQ** from the **Product Selection** screen.
3. Enter your SonicMQ deployment license key when prompted.
4. Choose to **Install**.
5. On the **Installation Location** screen, enter the root for this installation set. That means that any subsequent installations of Sonic ESB or other Sonic Software products can use this location to establish a software stack. Later, upgrades of these installations will also be confined to this location. The default value under Windows is c: \Soni c.

Important

If you are installing under UNIX or Linux and you intend to install a Sonic Orchestration Server or Sonic XML Server at this location, the Sonic directory must be on a local volume.

6. Perform a **Custom** install of the **Container** feature.
7. Select your preferred (supported) JVM or accept the default JVM.
8. Specify the domain management connection (see [Step 10 on page 62](#))
9. Assign the container a unique name in the domain. By default, the system’s host name is used.
10. Complete the installation of the SonicMQ container.
11. When the installation is complete, select the option to perform another install. Install the Sonic ESB layer, as described in [“Installing Sonic ESB Containers” on page 67](#).

Installing Sonic ESB in a Distributed Deployment

Sonic ESB provides the administration tools and runtime features for the services that you import into the deployment domain and assign to the host system.

Note The domain manager becomes enabled and registered for Sonic ESB by registering at least one installation of the ESB tools and runtime components somewhere in the domain. This installation provides the domain manager with the plug-ins and preset types that enable it to support Sonic ESB services. Do not import deployments into a new domain until you enable it for Sonic ESB by installing Sonic ESB in a domain.

You can install Sonic ESB administration tools and documentation on systems used for administrative and operational interaction with the domain, and ESB containers on systems hosting runtime components. The following sections explain how to perform each type of Sonic ESB installation:

- [“Installing Sonic ESB Administration Tools” on page 65](#)
- [“Installing Sonic ESB Containers” on page 67](#)

Installing Sonic ESB Administration Tools

The following procedure explains how to install the Sonic ESB administration tools in a distributed deployment.

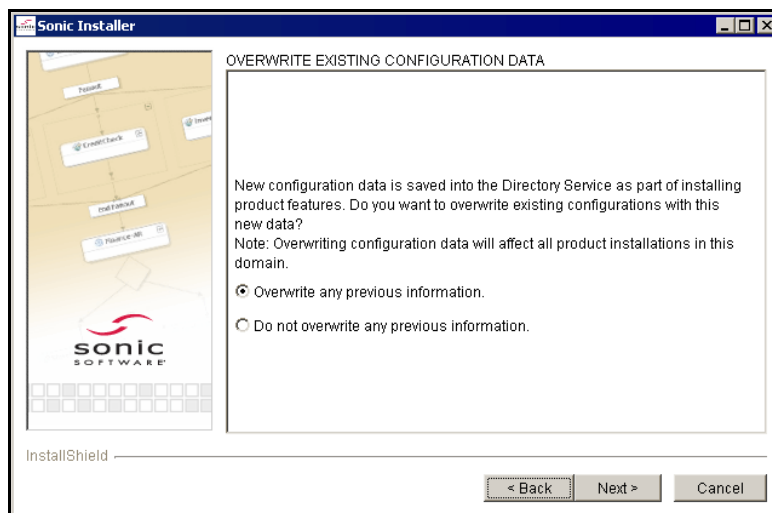
Important You must ensure the following before installing the Sonic ESB administration tools:

- You must have a valid license key for Sonic ESB V7.0.
- The SonicMQ domain manager must be running on a network accessible system. If you attempt to install Sonic ESB without first installing SonicMQ, you will be prompted to install SonicMQ first. See [“Installing a SonicMQ Domain Manager” on page 57](#).
- The SonicMQ administration tools must be installed on the target system. See [“Installing SonicMQ Administration Tools” on page 59](#).

◆ To install Sonic ESB Administration Tools

1. If the installer is not running, run the appropriate setup script for your platform:
 - On Windows, run `setup.bat`
 - On UNIX and Linux, run `setup.sh`The Sonic Installer opens. Click **Next**. The **Product Selection** panel displays.
2. Select **Sonic ESB**.

3. Enter your Sonic ESB license key when prompted.
4. Choose to **Install**.
5. When asked for a destination on the **Installation Location** screen, enter the Sonic root. The default value under Windows is `c:\Sonic`. When you specify `c:\Sonic` as the installation location, the installer locates the SonicMQ installation at `c:\Sonic\c\MQ7.0`, and then creates `c:\Sonic\ESB7.0`.
Click **Next**.
6. Perform a **Custom** install of the **Administration Tools** feature. You might want to also install the documentation on this system.
7. Specify the domain management connection (see [Step 10 on page 62](#))
8. Click **Next**. Choose **Overwrite any previous information** in the Directory Service.



A V7.0 domain needs to be enabled for ESB by at least one installation of ESB tools or container. You can choose to enable any V7.0 domain for ESB as a tools install does not install any configuration objects.

Choosing to not overwrite any previous information is the appropriate choice if you have already enabled a domain for V7.0.

9. Click **Next** to complete the wizard and start the installation.

After the Sonic ESB tools are installed on a tools system, you can install other Sonic tools on that system.

Installing Sonic ESB Containers

The following procedure explains how to install Sonic ESB containers in a distributed deployment.

Important You must ensure the following before installing Sonic ESB containers:

- You must have a valid license key for Sonic ESB V7.0.
- The SonicMQ domain manager must be running on a network accessible system. If you attempt to install Sonic ESB without first installing SonicMQ, you will be prompted to install SonicMQ first.
See [“Installing a SonicMQ Domain Manager” on page 57](#).
- The SonicMQ container must be installed on the target system. If you attempt to install Sonic ESB without first installing SonicMQ, you will be prompted to install SonicMQ first.
See [“Installing SonicMQ Containers for Enterprise Services” on page 64](#).

◆ **To install Sonic ESB containers:**

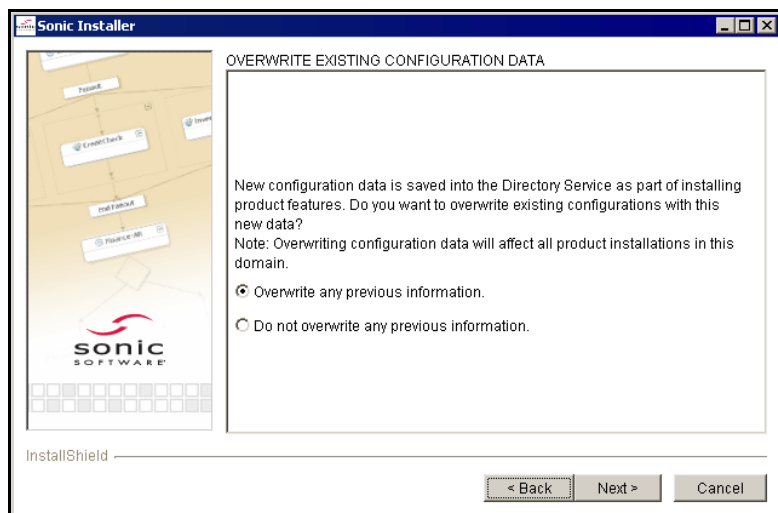
1. If the installer is not running, run the appropriate setup script for your platform:
 - On Windows, run `setup.bat`
 - On UNIX and Linux, run `setup.sh`The Sonic Installer opens. Click **Next**. The **Product Selection** panel displays.
2. Select **Sonic ESB**.
3. Enter your Sonic ESB license key when prompted.
4. Choose to **Install**.
5. When asked for a destination on the **Installation Location** screen, enter the Sonic root. The default value under Windows is `C:\Sonic`. When you specify `C:\Sonic` as the installation location, the installer locates the SonicMQ installation at `C:\Sonic\MQ7.0`, and then creates `C:\Sonic\ESB7.0`.
6. Click **Next**. Perform a **Custom** install.
7. Click **Next**. Choose the **Container** feature.
8. Click **Next**. Specify the domain management connection (see [Step 10 on page 62](#)). It is important that you choose your intended target domain for the configuration objects created by the container installation.

- Click **Next**. Enter the name for the container's configuration in the Directory Service store. The install will create a corresponding management container in the **Containers** folder. If your SonicMQ container installation put a container of that name in that folder, it is overwritten.

Important

A container name must be unique in a domain.

- Click **Next**. Choose **Overwrite any previous information** in the Directory Service.



A V7.0 domain needs to be enabled for ESB by at least one installation of ESB tools or container.

Choosing to not overwrite any previous information is the appropriate choice if you have already enabled a domain for V7.0.

- Click **Next** to complete the wizard and start the installation.

If you have deployment licenses for advanced ESB services, do another install into this location for that product's tools and runtime components:

- [“Installing Sonic XML Server in a Distributed Deployment” on page 70](#)
- [“Installing Sonic Orchestration Server in a Distributed Deployment” on page 73](#)
- [“Installing Sonic Database Service in a Distributed Deployment” on page 76](#)

Verifying an ESB Container Installation

After you complete an installation of a management container and an ESB container on a distributed system, you can run a service that lets you verify that the container setup and its registration in the domain operate correctly. After you complete the ESB installation, follow this procedure.

◆ **To verify a container installation:**

1. On a system that has SonicMQ and Sonic ESB administration tools installed, connect the Sonic ESB Explorer to the domain to confirm that **Endpoints > SonicMQ Endpoint > Connection** for `jms_defaultConnection` references a messaging node in the domain.
2. Open a console window to the ESB installation root, and enter:
 - On Windows platforms: `bin\VerificationContainer.bat`
 - On UNIX or Linux platforms: `./bin/VerificationContainer.sh`This step starts the container running a test service.

Important

If you running verification after an upgrade, be sure the management container `/Containers/VerificationContainer` has been upgraded to version 7.0. If it needs to be upgraded, right-click on the container name in the Sonic Management Console **Configure** tab, and then choose Upgrade. The container and its hosted components will be upgraded.

3. On a system that supports the administration tools, run the JMS Test Client.
 - a. Connect to the messaging node and create a topic session.
 - b. Establish a subscriber to ESB. `Verification.Exit`.
 - c. Establish a publisher to ESB. `Verification.Entry`.
 - d. Send a message on the publisher.

When operating correctly, the test verification service moves the message to its exit endpoint, `ESB.Verification.Exit`.
 - e. Look at the subscriber to confirm that the message you sent was received. If so, ESB container installation is operative. You can stop the JMS Test Client.
4. Stop the **VerificationContainer**.

When you finish installing the SonicMQ and Sonic ESB layers, you can import and manage Sonic ESB applications in the new domain.

Installing Sonic XML Server in a Distributed Deployment

Sonic XML Server provides administration tools and runtime functions that enable imported XML services to run on systems in your deployment domain. The domain manager requires at least one installation of the XML Server tools and runtime components in the domain. This installation updates the domain manager with the Sonic XML Server plug-ins and service type.

You can install the Sonic XML Server administration tools and documentation on systems used for administrative and operational interaction with the domain, and XML Servers and Datastores on systems hosting runtime components. The following sections explain how to perform each type of Sonic XML Server installation:

- [“Installing Sonic XML Server Administration Tools” on page 70](#)
- [“Installing Sonic XML Server and Sonic XML Datastore” on page 71](#)

Installing Sonic XML Server Administration Tools

The following procedure explains how to install the Sonic XML Server administration tools in a distributed deployment.

Important You must ensure the following before installing the Sonic XML Server administration tools:

- You must have a valid license key (control number) for Sonic XML Server V7.0.
- The SonicMQ domain manager must be running on a network accessible system. See [“Installing a SonicMQ Domain Manager” on page 57](#).
- The SonicMQ administration tools must be installed on the target system. See [“Installing SonicMQ Administration Tools” on page 59](#).
- The Sonic ESB administration tools must be installed on the target system. See [“Installing Sonic ESB Administration Tools” on page 65](#).

◆ To install the Sonic XML Server administration tools:

1. If the installer is not running, run the appropriate setup script for your platform:
 - On Windows, run `setup.bat`
 - On UNIX and Linux, run `setup.sh`The Sonic Installer opens. Click **Next**. The **Product Selection** panel displays.
2. Select **Sonic XML Server**.
3. Enter your Sonic XML Server license key (control number) when prompted.
4. Choose to **Install** into the Sonic root location for the **Custom** feature **Administration Tools**. You can also install the documentation.
5. Specify the domain management connection (see [Step 10 on page 62](#)), then choose to overwrite configuration data.
6. Complete the installation.

The toolset is now complete for maintenance of Sonic XML Server installations.

Installing Sonic XML Server and Sonic XML Datastore

The following procedure explains how to install Sonic XML Server and Sonic XML Datastore in a distributed deployment.

Important You must ensure the following before installing Sonic XML Server and Sonic XML Datastore:

- You must have a valid license key (control number) for Sonic XML Server V7.0.
- The SonicMQ domain manager must be running on a network accessible system. See [“Installing a SonicMQ Domain Manager” on page 57](#).
- The SonicMQ container must be installed on the target system. See [“Installing SonicMQ Containers for Enterprise Services” on page 64](#).
- The Sonic ESB container must be installed on the target system. See [“Installing Sonic ESB Containers” on page 67](#).

Important You can install only a single copy of Sonic XML Server V7.0 on a target machine. (Note that it is okay to have a copy of an earlier version of XML Server installed on the target machine.)

◆ **To install a Sonic XML Server and Sonic XML Datastore:**

1. If the installer is not running, run the appropriate setup script for your platform:
 - On Windows, run `setup.bat`
 - On UNIX and Linux, run `setup.sh`The Sonic Installer opens. Click **Next**. The **Product Selection** panel displays.
2. Select **Sonic XML Server**.
3. Enter your Sonic XML Server license key (control number) when prompted.
4. Choose to **Install** into the Sonic root location for either or both **Custom** features **XML Server** and **XML Datastore**.

Important

If there is an existing installation of a Sonic V7.0 XML Server or XML Datastore on the target system, you cannot complete the installation unless you first uninstall the other installation.

Warning

Under UNIX or Linux, the installation location must be on a local volume.

5. Specify the domain management connection (see [Step 10 on page 62](#)), then choose to overwrite existing objects.
6. Complete the installation.
7. If you installed in non-root location under UNIX or Linux, you need to perform the database startup tasks described at [“Completing non-root UNIX or Linux Installations” on page 79](#).

When the installation completes successfully, Sonic XML Server applications can be imported into the domain. Typically, when a system is running a Sonic XML Server and its datastores, additional services are not assigned for runtime on that system.

Installing Sonic Orchestration Server in a Distributed Deployment

Sonic Orchestration Server provides the administration tools and runtime functions that enable imported orchestrations to run. The domain manager requires at least one installation of the Orchestration Server tools and runtime components in the domain. This installation updates the domain manager with the Sonic Orchestration Server plug-ins and service type.

You can install the Sonic Orchestration Server administration tools and documentation on systems used for administrative and operational interaction with the domain, and the Orchestration Server and Process Search (Web server) on systems hosting runtime components. The following sections explain how to perform each type of Sonic Orchestration Server installation:

- [“Installing Sonic Orchestration Server Administration Tools” on page 73](#)
- [“Installing a Sonic Orchestration Server” on page 74](#)

Installing Sonic Orchestration Server Administration Tools

The following procedure explains how to install the Sonic Orchestration Server administration tools in a distributed deployment.

Important You must ensure the following before installing the Sonic Orchestration Server administration tools:

- You must have a valid license key (control number) for Sonic Orchestration Server V7.0.
- The SonicMQ domain manager must be running on a network accessible system. See [“Installing a SonicMQ Domain Manager” on page 57](#).
- The SonicMQ administration tools must be installed on the target system. See [“Installing SonicMQ Administration Tools” on page 59](#).
- The Sonic ESB administration tools must be installed on the target system. See [“Installing Sonic ESB Administration Tools” on page 65](#).

◆ To install Sonic Orchestration Server administration tools:

1. If the installer is not running, run the appropriate setup script for your platform:
 - On Windows, run `setup.bat`
 - On UNIX and Linux, run `setup.sh`The Sonic Installer opens. Click **Next**. The **Product Selection** panel displays.
2. Select **Sonic Orchestration Server**.
3. Enter the Sonic Orchestration Server license key (control number) when prompted.
4. Choose to **Install** into the Sonic root location for the **Administration Tools** feature. You can also install the documentation.
5. Specify the domain management connection (see [Step 10 on page 62](#)), then choose to overwrite objects.
6. Complete the installation.

The toolset is now enabled for maintenance of Sonic Orchestration Server installations.

Installing a Sonic Orchestration Server

The following procedure explains how to install the Sonic Orchestration Server and Process Search features in a deployment domain.

Important You must ensure the following before installing the Sonic Orchestration Server and Process Search features:

- You must have a valid license key (control number) for Sonic Orchestration Server V7.0.
- The SonicMQ domain manager must be running on a network accessible system. See [“Installing a SonicMQ Domain Manager” on page 57](#)).
- The SonicMQ container must be installed on the target system. See [“Installing SonicMQ Containers for Enterprise Services” on page 64](#)).
- The Sonic ESB container must be installed on the target system. See [“Installing Sonic ESB Containers” on page 67](#)).

Important On Windows platforms, only a single instance of Orchestration Server V7.0 can be installed on a system. This is because Windows services are created for the installed instance and start when the system reboots. These services typically require Administrator privileges on the Windows system. An earlier version of Sonic Orchestration Server can co-exist on a system where the newer version is installed.

On UNIX or Linux platforms, multiple instances can be installed on one system. However, each installation's datastore server processes must be started so that its assigned ports are reserved, thus forcing new installation to choose different ports.

◆ **To install the Sonic Orchestration Server and Process Search features:**

1. If the installer is not running, run the appropriate setup script for your platform:
 - On Windows, run `setup.bat`
 - On UNIX and Linux, run `setup.sh`The Sonic Installer opens. Click **Next**. The **Product Selection** panel displays.
2. Select **Sonic Orchestration Server**.
3. Enter the Sonic Orchestration Server license key (control number) when prompted.
4. Choose to **Install** into the Sonic root location for either or both the **Orchestration Server** and **Process Search** features.

Important If there is an existing installation of a Sonic V7.0 Orchestration Server or Process Search on the target system, you cannot complete the installation unless you first uninstall the other installation.

5. Specify the domain management connection (see [Step 10 on page 62](#)), then choose to overwrite existing objects.
6. Complete the installation.
7. If you installed in non-root location under UNIX or Linux, you need to perform the database startup tasks described at [“Completing non-root UNIX or Linux Installations” on page 79](#).

Typically, when a system is running Sonic Orchestration Server, additional services are not assigned for runtime on that system.

Note Before you start a container that hosts a Process Search Service, be sure that all the Orchestration Server DataStores specified for the Process Search Service have been run at least once so that the specified DataStores exist.

Installing Sonic Database Service in a Distributed Deployment

Sonic Database Service provides the administration tools and runtime functions that enable imported database services and drivers to run. The domain manager requires at least one installation of the Database Service tools and runtime components in the domain. This installation updates the domain manager with the Sonic Database Service plug-ins and service type.

You can install the Sonic Database Service administration tools and documentation on systems used for administrative and operational interaction with the domain, and the Database Service and drivers on systems hosting runtime components. The following sections explain how to perform each type of Sonic Database Service installation:

- [“Installing Sonic Database Service Administration Tools” on page 76](#)
- [“Installing Sonic Database Services” on page 77](#)

Installing Sonic Database Service Administration Tools

The following procedure explains how to install the Sonic Database Service administration tools in a deployment domain.

Important You must ensure the following before installing the Sonic Database Service administration tools:

- You must have a valid license key (control number) for Sonic Database Service V7.0.
- The SonicMQ domain manager must be running on a network accessible system. See [“Installing a SonicMQ Domain Manager” on page 57](#).
- The SonicMQ administration tools must be installed on the target system. See [“Installing SonicMQ Administration Tools” on page 59](#).
- The Sonic ESB administration tools must be installed on the target system. See [“Installing Sonic ESB Administration Tools” on page 65](#).

◆ To install Sonic Database Service administration tools:

1. If the installer is not running, run the appropriate setup script for your platform:
 - On Windows, run `setup.bat`
 - On UNIX and Linux, run `setup.sh`The Sonic Installer opens. Click **Next**. The **Product Selection** panel displays.
2. Select **Sonic Database Service**.
3. Enter the Sonic Database Service license key (control number) when prompted.

4. Choose to **Install** into the Sonic root location for the **Administration Tools** feature. You can also install the documentation.
5. Specify the domain management connection (see [Step 10 on page 62](#)), then choose to overwrite objects.

The installation of the Database Service administration tools is complete.

Installing Sonic Database Services

The following procedure explains how to install the Sonic Database Service and drivers in a distributed deployment.

- Important** You must ensure the following before installing the Sonic Database Service and drivers:
- You must have a valid license key (control number) for Sonic Database Service V7.0.
 - The SonicMQ domain manager must be running on a network accessible system. See [“Installing a SonicMQ Domain Manager” on page 57](#).
 - The SonicMQ container must be installed on the target system. See [“Installing SonicMQ Containers for Enterprise Services” on page 64](#).
 - The Sonic ESB container must be installed on the target system. See [“Installing Sonic ESB Containers” on page 67](#).

- Important** The IBM platform is not suitable for long duration runs of the Database Service. If IBM is required, Sonic Software recommends disabling JIT entirely, which leads to a significant performance degradation on the order of 60%. For deployment, Sonic Software recommends Sun 1.4.2_06 with the Hotspot -server option enabled. This requires installation of the JDK, not just the JRE. For multiway systems, there is improvement when parallel GC is enabled. This will result in a smaller performance degradation than using the IBM JVM with JIT disabled (on the order of 20%). For further information concerning the tuning of the Sun JVM please see <http://java.sun.com/docs/hotspot/>.

◆ To install a Sonic Database Service and drivers:

1. If the installer is not running, run the appropriate setup script for your platform:
 - On Windows, run `setup.bat`
 - On UNIX and Linux, run `setup.sh`The Sonic Installer opens. Click **Next**. The **Product Selection** panel displays.
2. Select **Sonic Database Service**.
3. Enter the Sonic Database Service license key (control number) when prompted.
4. Choose to **Install** into the Sonic root location for the **Database Service** feature and, unless you are using custom database drivers, also select the appropriate **Database Drivers**.
5. Specify the domain management connection (see [Step 10 on page 62](#)), then choose to overwrite existing objects.

When a system is running Sonic Database Services, additional services might be assigned for runtime on that system.

Completing non-root UNIX or Linux Installations

When a UNIX or Linux installation is not installed as root, the datastores for Sonic Orchestration Server, and Sonic XML Server cannot be started automatically. As a result, the datastore configuration cannot be completed. In every installation that is performed as other than root, perform the following procedure.

◆ **To start an XML datastore that was not installed at the root:**

1. Open a console window to the product installation directory where an XML datastore is located.
2. Enter: `./bin/startdb.sh`
3. For Sonic Orchestration Server, one additional step is required when the datastore is running.

Enter: `./bin/configureXMLDatabase.sh`

Completing Installations from Offline Scripts

When an installation cannot connect to the domain manager, you can continue the installation in offline mode by clicking **OK**. When the local installation finishes, the configuration information for managing the installed components are in scripts that you must run when the domain manager is available.

The following procedure describes how to complete installations that were performed offline and run stored scripts to update the Directory Service when it becomes available.

◆ To run the procedures that complete offline installations:

1. Start the domain manager (the container that hosts the SonicMQ Directory Service) (**DomainManager** in a default deployment installation):
 - On Windows platforms, select:
Start > Program Files > Sonic Software > SonicMQ 7.0 > SonicMQ DomainManager
 - On UNIX or Linux platforms:
Open a console window in the root of the SonicMQ installation directory, then enter `./bin/startcontainer.sh`
2. For an installation that was performed offline, open a console window to that product's installation directory.
3. Run the script `bin\offline.bat` (Windows) or `./bin/offline.sh` (UNIX or Linux).
4. Repeat steps 2 and 3 for each product that generated offline installation scripts.

Note

For Sonic XML Server installed as non-root, if the XML datastore was not running, open a console window to the product's installation directory then:

- **Windows:**
Enter `bin\startdb.bat`.
- **UNIX or Linux:**
Enter `./bin/startdb.sh`.

For Sonic Orchestration Server, if the XML datastore was not running, open a console window to the product's installation directory then:

- **Windows:**
Enter `bin\startdb.bat`.
When the datastore is running, run `bin\configureXMLDatabase.bat`
- **UNIX or Linux:**
Enter `./bin/startdb.sh`.
When the datastore is running, run `./bin/configureXMLDatabase.sh`

When the offline scripts complete successfully, the installations are complete.

Chapter 4 **Upgrading Sonic Workbench**

This chapter contains the following sections:

- [“Upgrading a Sonic Workbench V7.0 Evaluation License”](#)
- [“Upgrading Sonic Workbench from V6.1”](#)

Important **ATTENTION: Sonic Collaboration Server V6.1 users** — Sonic Workbench V7.0 and Sonic SOA V7.0 do not provide upgrades for Sonic Collaboration Server V6.1 development or deployment installations. Contact your Sonic Software representative before you upgrade any domains, configurations, or physical upgrade of components in the Collaboration Server stack (SonicMQ V6.1, Sonic ESB V6.1, and Sonic Collaboration Server V6.1.)

Upgrading a Sonic Workbench V7.0 Evaluation License

If you have the Sonic Workbench Evaluation Edition, contact Sonic Software to get licensed as a developer for the Sonic Workbench Edition. When you get your updated license key, running a script in the existing installation records the new license even if the existing evaluation license has expired.

◆ To upgrade a V7.0 Sonic Workbench Evaluation installation:

1. Stop all containers in the installation.
2. Open a console windows to the *sonic_install_dir* root.
3. Enter: `bin\eval_upgrade.bat -b host:port -u name -p password`
4. `-d domain -c newLicenseKey -ds path-to-ds.xml`

where:

- *host:port* is the system name and port of the management broker
- *name* is the username of an administrator in the domain
- *password* is the username's password
- *domain* is the domain name of the installation
- *newLicenseKey* is the new license key
- *path-to-ds.xml* is the absolute location of the domain's Directory Service boot file, typically *sonic_install_dir\MQ7.0\ds.xml*

Using default values for all but the new license key, this entry is:

```
bin\eval_upgrade.bat -b localhost:2506 -u Administrator -p Administrator  
-d Domain1 -c newLicenseKey -ds c:\Sonic\MQ7.0\ds.xml
```

5. When you are prompted to start the container that hosts the Domain Manager, choose:
Start > Programs > Sonic Software > Sonic Workbench 7.0 > Start Domain Manager.
6. Once the startup indicates that it is complete, press **Enter** in the console window to complete the upgrade.

The process upgrades the licenses of the products in the Sonic Workbench. When it completed, you can resume working on the Sonic Workbench under the new license.

Upgrading Sonic Workbench from V6.1

The upgrade procedure in Sonic Workbench V7.0 creates a complete installation in its folder structure at the root location you specify. The V6.1 installation and location remain intact and the software remains fully functional. However, to avoid conflicts, you should run only one version at a time. If you choose to uninstall V7.0, the V6.1 installation remains fully functional. For a complete uninstall, you must perform a V6.1 uninstallation as well.

The V7.0 upgrade is therefore an install-and-migrate procedure, reading the V6.1 Directory Service store to establish its content in the new version's Directory Service store.

There are additional tasks you might have to perform after the upgrade completes successfully to apply V7.0 patterns to the migrated configurations and move any datastore content.

Important If you have V5.5 installations of Sonic Integration Workbench, upgrade the installations and their related SonicMQ V6.0 components to V6.1 before starting V7.0 upgrades. See the *SonicMQ V6.1 Installation and Upgrade Guide* for instructions on upgrading SonicMQ from V6.0 to V6.1.

◆ Checklist in preparation for upgrading Sonic Workbench to V7.0:

1. **[] Provide additional disk space** — Confirm that you have adequate disk space for the upgrade. You need at least 650 MB and should have at least another 1.2 GB available disk space for data files and logs. Note that the current installation is not removed so no space is reclaimed in the upgrade.
2. **[] Sonic XML Server V7.0 not installed** — Confirm that a deployment edition of Sonic XML Server is not installed on the target system. If any version or edition is installed, and you want to proceed with this installation, you must uninstall it (by choosing the **Uninstall** command in its **Start** menu list) before running the installer for Sonic Workbench V7.0.
3. **[] Sonic Orchestration Server V7.0 not installed** — Confirm that a deployment edition of Sonic Orchestration Server V7.0 is not installed on the target system.
4. **[] Sonic Workbench V7.0 not installed** — You can install Sonic Workbench V7.0 only once on a system.
5. **[] Determine if you want to use an existing Eclipse installation** — While the Sonic installer will install a complete Eclipse tool set for Sonic development, you can choose to install Sonic Workbench tools into an existing Eclipse environment. If this

choice interests you, review [“Adapting Your Eclipse to the Sonic Workbench Environment” on page 42](#) to verify that the required versions of Eclipse components are compatible with other tools in your Eclipse environment. Set your Eclipse to the workspace you want to use for Sonic development before starting the installation.

Important

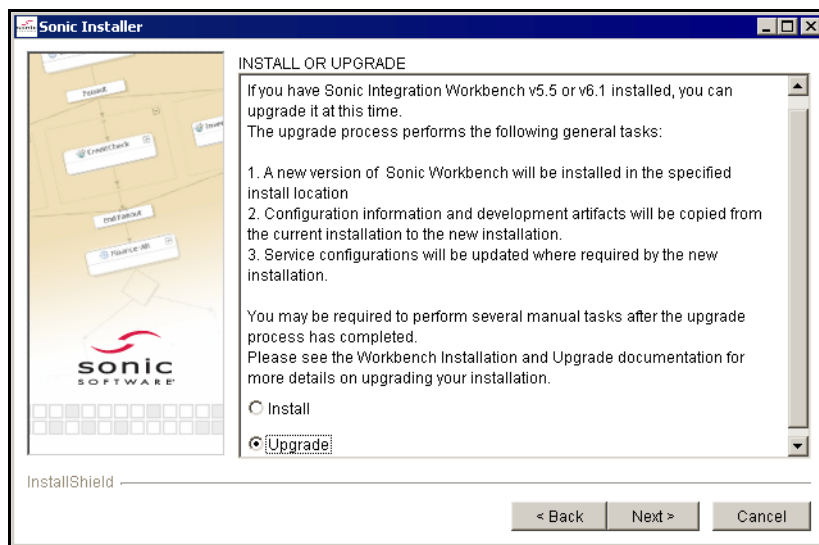
If you choose to use your existing Eclipse environment, you are encouraged to make a complete backup of it as well as its workspaces.

When you complete the checklist in preparation for upgrade of Sonic Workbench, you can perform the installation steps.

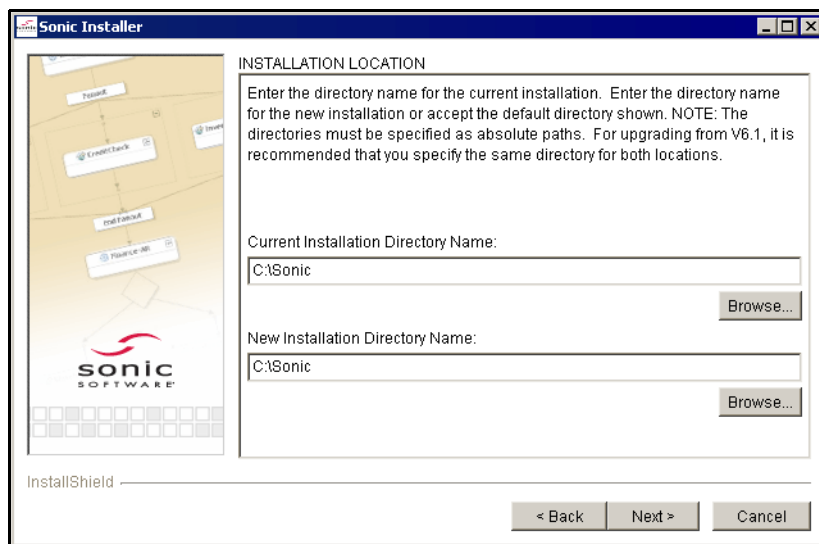
◆ To perform a Sonic Workbench V6.1 upgrade to V7.0

1. Insert the distribution media or unpack the download package on the Windows system where you want to install Sonic Workbench V7.0.
2. Open a console window to the root of the installation software.
3. Enter `setup.bat`. The Sonic Installer starts.
4. Click **Next**. The **Product Selection** panel displays.
The **Sonic Workbench** option is the default selection.
5. Click **Next**. The readme file displays.
6. Click **Next**. The end user product license agreement displays. Read the agreement. When you understand and agree to it, choose the **I accept the terms of the license agreement** option. The **Next** button is enabled.
7. Click **Next**. The **License Key** entry panel displays.
8. Enter the license key provided to you for Sonic Workbench V7.0.
9. Click **Next**. The **Install or Upgrade** panel displays.

10. Choose **Upgrade**, as shown:



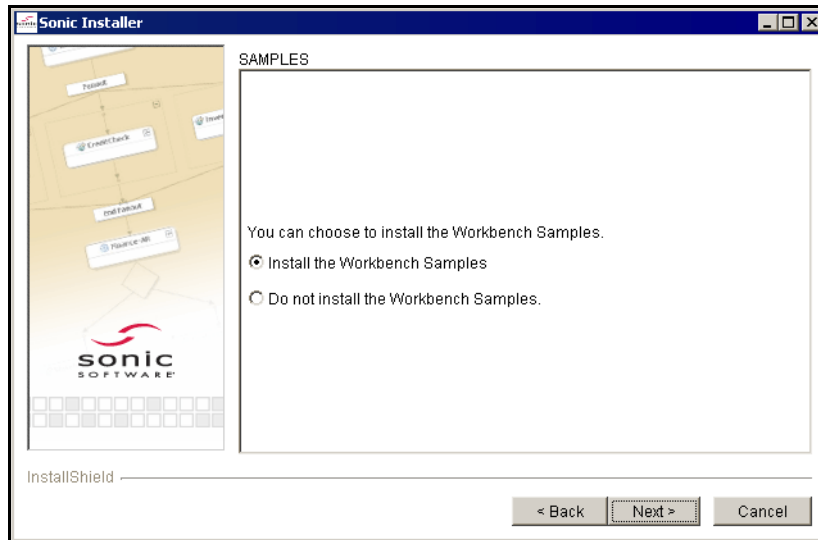
11. Click **Next**. The **Installation Location** panel displays, as shown:



12. Enter or browse to the location of the Sonic installation root for V6.1. Then enter or browse to the location where V7.0 components will be installed. These can be the

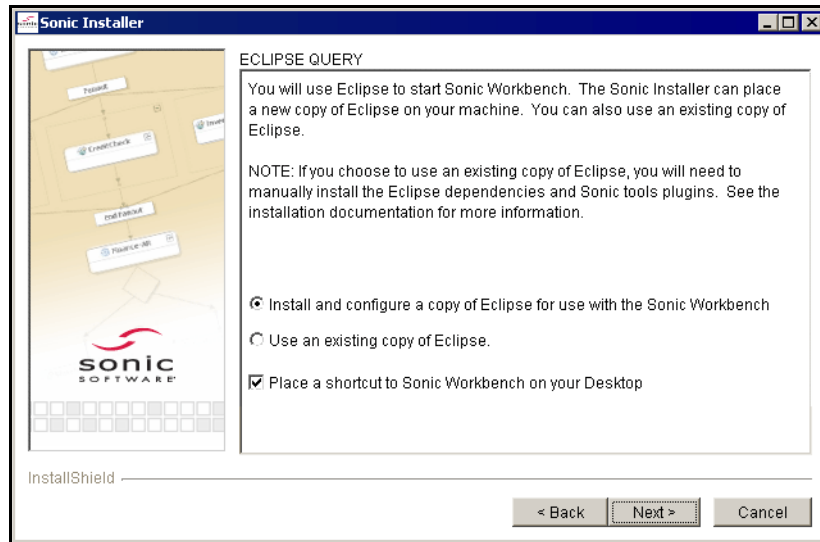
same installation root directory as the products are in versioned subdirectories and the installation control files manage multiple versions.

13. Click **Next**. The **Program Group** panel displays. The Windows program group can also use one Sonic Software structure for multiple versions as the next level is differentiated by version identifiers.
14. Click **Next**. The **Samples** panel displays, as shown:



You can choose to not install sample files.

15. Click **Next**. The **Eclipse Query** panel displays, as shown:



To install the preferred Eclipse distribution, select **Install and configure a copy of Eclipse for use with the Sonic Workbench**, and then click **Next**. The installer installs the preferred Eclipse distribution with the required dependencies and Sonic tool plugins.

Alternatively, you can bind the Sonic Workbench to an existing Eclipse environment. Before making this selection, review the material in [“Adapting Your Eclipse to the Sonic Workbench Environment” on page 42](#). When you are sure that your existing Eclipse is adaptable, select **Use an existing copy of Eclipse** and click **Next**. Enter the path to the Eclipse installation directory, enter the path to the Eclipse workspace, and then click **Next**.

Important

After installation is complete, you need to add Sonic tool plugins, confirm that required Eclipse dependencies are installed, and then tune the workspace to your installation. See [“Adapting Your Eclipse to the Sonic Workbench Environment” on page 42](#) for detailed instructions.

16. Click **Next**. The **Java Runtime Selection** panel displays. Typically, the preferred JVM is accepted.
17. Click **Next**. A summary of the upgrade parameters is displayed.
18. When you click **Next**, the upgrade proceeds unattended.

Tasks After the Upgrade and Migration Are Complete

The upgrade process installs the V7.0 development environment and performs some additional tasks to copy and restructure the data copied from the V6.1 structure:

- The SonicMQ Directory Service store is copied in full.
- License keys for SonicMQ, Sonic ESB, Sonic XML Server, and Sonic Orchestration Server are upgraded.
- Sonic ESB GUI property files are copied from from `soni c_install_root/ESB7.0/explorer/ext/servicetypes` to `soni cfs: //System/SonicESB/7.0/properties/servicetypes`.
- The Sonic XML Server default action list is copied to a `soni cfs: ///Resources` location.

The basic SonicMQ infrastructure and Sonic ESB components are fully upgraded in the V7.0 location. Some things might have to be adjusted in the V7.0 structure if you have developed in Sonic XML Server or Sonic Orchestration Server.

Note Tasks you perform on configurations that are deployed can be exported—after you complete the changes on the Sonic Workbench—from Sonic Workbench and imported into target deployment domains, thus resolving the requirement in deployment environments you are upgrading to perform the same tasks. This is the preferred technique so that there is a consistent set of configurations in the development to deployment lifecycle.

Sonic XML Server Storage Locations and Collections

You might want to either recreate or move collections to the upgraded Sonic Workbench. You can restore your document collections using the backup and restore procedures described in the “Backing Up and Restoring Document Collections” chapter in the *Sonic SOA V7.0 Configuration and Management Guide*.

Sonic Orchestration Server Properties and Worklist Services

The following tasks apply to Sonic Orchestration Server in the development environment.

- **Orchestration Service Configurations: Project Property** — Manually update this property to point to the new project location in SonicFS. Projects must be stored in `soni cfs: ///Projects/SonicOrchestration/7.0`.
- **Orchestration Service Configurations: Storage Location Property** — This property is optional. If you set this property in V6, you must modify it for V7.0 to point to the new location of the XML datastore; otherwise, you do not have to modify it.

- **Process Search Service Configurations: Remote Datastore Property** — Manually update this property for each Process Search service configuration, replacing the V6 datastore locations with V7.0 locations.
- **Worklist Services** — After upgrade, create new service configurations for upgraded Worklist services.

See the *Sonic SOA V7.0 Configuration and Management Guide* for information about configuring Orchestration, Process Search, and Worklist services.

Windows Services for XML Server and Orchestration Server

Sonic Workbench installs and starts Windows Services for some of the Sonic Workbench components. After an upgrade, the Windows Services for both V6 and V7.0 Sonic Workbench components are installed and running.

If you do not plan to develop with those components or versions, you can reduce the memory usage on your system by disabling the services in the **Control Panel > Administrative Tools > Services** window until you use them, as follows:

<i>Product</i>	<i>Workbench 7.0 Services</i>	<i>Workbench 6 Services</i>
Sonic XML Server	SonicXSvr7.0 DB Server SonicXSvr7.0 Lock Manager	SonicXSvr6.1 DB Server SonicXSvr6.1 Lock Manager
Sonic Orchestration Server	SonicOSvr7.0 DB Server SonicOSvr7.0 Lock Manager	SonicOSvr6.1 DB Server SonicOSvr6.1 Lock Manager SonicOSvr6.1 Server

Upgrading Projects in the Sonic Workbench

After adjusting the paths, locations, and services for XML Server and Orchestration Server, the development environment of the upgraded Sonic Workbench provides working development tools; however, the existing configurations (services, processes, itineraries, etc.) are yet to be upgraded. These configurations are stored in a location that does not need any adjustment after the upgrade, the Sonic File System, **soni cfs**, a part of the Directory Service.

The configurations are perpetuated as V6.1 configurations. These artifacts can be manually upgraded to V7.0 either as complete projects or upgraded as individual files into a project.

◆ To create a project:

1. Start the Sonic Workbench,
2. Create a new project by choosing **File > New > Sonic Development Project**. The Sonic Development Project wizard opens.
3. Enter a name for the project, and then click **Next**.
4. Select the **Create new Orchestration Process Set** option.
5. You can enter a **Display Name** for the project now or do so later. It could be the same name as the project.
6. Continue in the next procedures to either upgrade the complete project or just selected files.

◆ To upgrade a complete project:

- ❖ After creating and naming a project on the Workbench, select an existing V6.1 project as the source for the new project. The existing source project can be either a Stylus project (a .prj file) or an Orchestration Server project (an .xprj file).

The project wizard creates an Eclipse project, copies the artifacts stored in the source project into the Eclipse workspace, and then upgrades the artifacts as necessary.

For Orchestration Server projects, the artifacts are restructured to conform to the V7.0 process set structure within the Eclipse project.

For other artifacts (such as ESBDB files, XSLT files), scenario information is stripped from the file, yet the configuration information is unchanged.

◆ To upgrade individual files:

1. After creating and naming a project on the Workbench, complete the wizard process.
2. Choose **File > Import** to import files into the new project (or any other V7.0 project you might have created).

When a selected source file is a V6.1 artifact, it is imported into the project, copied to the Eclipse workspace, and upgraded to V7.0 as appropriate for the artifact type. Scenario information is removed from most artifacts, yet they are otherwise unchanged.

Upgrading Custom Containers on the Workbench

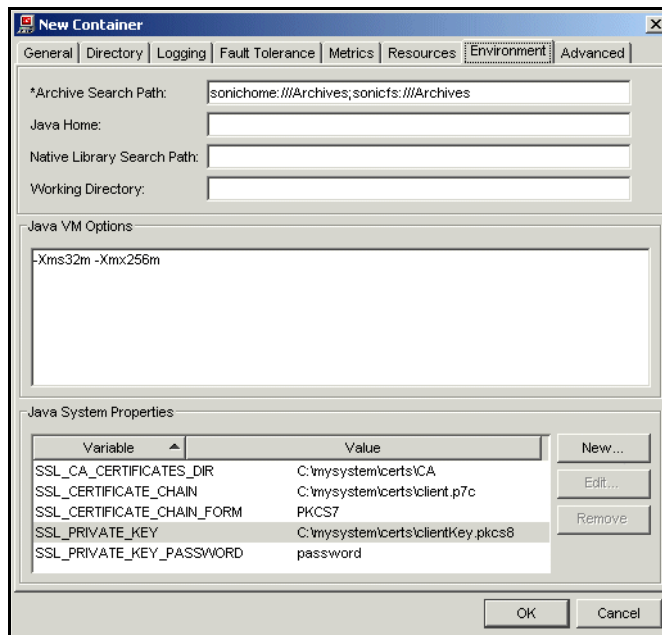
If you created any custom containers in V6.1, the ESB Containers and the management containers that host them must be upgraded.

After you have upgraded the Sonic Workbench, you can either upgrade the containers or rehost the services in new containers. Any Sonic ESB services running in these containers do not need upgrading.

Alternatively, you might want to simply redeploy the services to run in the preconfigured test/debug containers that are installed and configured as a part of the Sonic Workbench installation.

◆ To upgrade Sonic ESB Containers and the management containers:

1. Upgrade the management container. See [“Upgrading SonicMQ Components” on page 97](#) for more information.
2. In the Sonic Management Console, navigate to the management container. Right-click on it, choose **Properties**, and then choose the **Environment** tab.



See the “Configuring Containers and Collections” chapter of the *SonicMQ Configuration and Management Guide* for detailed information about this dialog box.

Environment settings that were in V6.1 scripts on the local system must be moved to the container's configuration in the Directory Service so that they can be centrally managed.

- a. Copy JVM options that were in the local script to the **Java System Properties** are in the configuration dialog box. Notice in the illustration that the name on each name-value pair is implicitly prepended with **-D**.
- a. Edit or append JVM arguments to the **Java VM Options** text string.
3. Upgrade (or recreate) the Sonic ESB container hosted in the management container. Any Sonic ESB services running in the container will not need upgrading.
4. Configure the ESB container's classpath with the classpath of any user classes that are required by the services. This information was added to the management container startup script in V6.1; in V7.0, the classpaths are added to the container's **Properties** dialog box on the **Classpath** tab.

◆ **To rehost Sonic ESB Containers and the management containers:**

1. In the Sonic ESB Explorer, create a new ESB Container.
2. Add the service you are rehosting to the new ESB Container.
1. Install a new 7.0 management container.
2. In the Sonic Management Console, add the new ESB Container to the new management container.

Chapter 5 **Upgrading Sonic SOA Components**

This chapter contains the following sections:

- “Upgrade Issues For All Sonic Software Components”
- “Upgrading SonicMQ Components”
- “Upgrading Sonic ESB Components”
- “Upgrading Sonic XML Server Components”
- “Upgrading Sonic Orchestration Server Components”
- “Upgrading Sonic Database Service Components”

Important **ATTENTION: Sonic Collaboration Server V6.1 users** — Sonic Workbench V7.0 and Sonic SOA V7.0 do not provide upgrades for Sonic Collaboration Server V6.1 development or deployment installations. Contact your Sonic Software representative before you upgrade any domains, configurations, or components in the Collaboration Server stack (SonicMQ V6.1, Sonic ESB V6.1, and Sonic Collaboration Server V6.1.)

Upgrade Issues For All Sonic Software Components

When upgrading Sonic components, the following requirements must be met:

- The domain manager must be running and accessible from the upgrade location so that the version information can be registered.
- You must perform upgrades in a specific sequence (see [“Sequence of Operations” on page 95](#)).

You can programmatically determine the version of installed Sonic components, as described in [“Checking Product Versions” on page 96](#).

Sequence of Operations

You must upgrade SonicMQ components first, then Sonic ESB components, then any other Sonic components. The following table shows the required order to perform upgrades for the Sonic components.

<i>Sonic Product</i>	<i>Upgrades Required Before Upgrading Product</i>
Sonic ESB	SonicMQ
Sonic Database Service	SonicMQ, and then Sonic ESB
Sonic XML Server	SonicMQ, and then Sonic ESB
Sonic Orchestration Server	SonicMQ, and then Sonic ESB

You should always upgrade the complete software stack that comprises a runtime installation into a new directory. For example, if you upgrade a SonicMQ management container and client, and then upgrade its Sonic ESB Container, a hosted Orchestration Server service must also be upgraded.

Important The SonicMQ upgrade logic can upgrade V6.0 and V6.1 installations to V7.0. However, the Sonic Workbench and SOA components only upgrade from V6.1 to V7.0. If you have V5.5 installations of Sonic Integration Workbench and SOA suite products, upgrade the installations and their related SonicMQ V6.0 components to V6.1 before starting V7.0 upgrades. See the *SonicMQ V6.1 Installation and Upgrade Guide* for detailed instructions on upgrading SonicMQ components from V6.0 to V6.1.

Checking Product Versions

There are circumstances where you want to know an installation's product versions but not run the product. You can determine the version of installed software programmatically using the static methods supplied in the `Version` class.

◆ **To determine a product version without starting the product:**

1. Open a console window in the installation root.
(This example uses the Windows default location and Windows syntax.)
2. Set the environment by entering: `C:\Sonic>MQ7.0\bin\setenv`
3. To display the Java version set in the environment, enter: `java -version`
4. Change directory as noted and enter the command to run `Version.class` files.
5. To display the Sonic ESB installed version:

```
C:\Sonic\ESB7.0>
java -classpath c:\Sonic\ESB7.0\lib\mq_core.jar com.sonic.sw.xqimpl.Version
```

The response is similar to the following:
MAJOR_VERSION=6 MINOR_VERSION=1 BUILD_NUMBER=nnn
6. Change the directory as noted to run other `Version.class` files.
7. To display the installed version of a SonicMQ messaging node or domain manager:

```
C:\Sonic\MQ7.0>
java -classpath c:\Sonic\MQ7.0\lib\broker.jar
                                     progress.message.zclient.Version
```
8. To display the installed version of a Sonic MQ container or client:

```
C:\Sonic\MQ7.0>
java -classpath c:\Sonic\MQ7.0\lib\Sonic_client.jar
                                     progress.message.zclient.Version
```
9. To display the installed version of a Sonic Database Service:

```
C:\Sonic\DBService7.0>
java -classpath c:\Sonic\DBService7.0\lib\esb_rdbms.jar
                                     com.sonic.sw.esb.service.rdbms.Version
```
10. To display the installed version of a Sonic Orchestration Server:

```
C:\Sonic\OAServer7.0>
java -classpath c:\Sonic\OAServer7.0\lib\bpm.jar com.sonic.sw.bpm.Version
```
11. To display the installed version of a Sonic XML Server:

```
C:\Sonic\XServer7.0>
java -classpath c:\Sonic\XServer7.0\lib\xeservice.jar
                                     com.sonic.sw.xmlimpl.Version
```

Upgrading SonicMQ Components

Upgrades of Sonic Software components to V7.0 proceed in the same sequence as the installation of SonicMQ components described in [“Installing SonicMQ in a Distributed Deployment” on page 55](#):

1. Stop the Domain Manager, upgrade it, then start the upgraded Domain Manager.
2. Copy certificates to the upgraded Domain Manager.
3. Upgrade installations of Sonic Software tools.
4. Upgrade installations hosting messaging nodes in the domain.
5. Upgrade installations hosting containers for deployed ESB services in the domain.

Note

For detailed SonicMQ upgrade instructions and compatibilities, see the *SonicMQ Installation and Upgrade Guide* and the *SonicMQ Deployment Guide*.

◆ To upgrade SonicMQ components to V7.0:

1. Run the setup script for the target platform.
2. Choose the product **SonicMQ**.
3. When requested, enter your SonicMQ deployment license key.
4. Choose the **Upgrade** option.
5. Follow the steps to complete the upgrade.

After you complete the SonicMQ upgrade, proceed to [“Upgrading Sonic ESB Components” on page 98](#).

Upgrading Sonic ESB Components

This section explains how to upgrade deployment editions of Sonic ESB V6.1 to Sonic ESB V7.0.

You can have multiple versions of Sonic ESB on the same physical platform, and the multiple versions can interoperate. That is, a Sonic ESB V6.1 service can send a message to an endpoint that is connected to a Sonic ESB V7.0 service. (Contact your Sonic Software representative or Sonic Software technical support for more information about other interoperability scenarios.)

To use Sonic ESB V7.0 with Sonic XML Server and Sonic Orchestration Server, you must also install or upgrade to V7.0 of those products. (Sonic ESB V7.0 is not backward compatible with earlier versions of Sonic XML Server or Sonic Orchestration Server.)

Before upgrading Sonic ESB, you should determine whether your upgraded installation will be compatible with other SonicMQ and Sonic ESB components you might have installed elsewhere.

Upgrading a Sonic ESB V6.1 Installation

You can upgrade from Sonic ESB V6.1 to V7.0. To achieve a Sonic ESB upgrade, the installation location must be positioned at the installation root of a Sonic installation directory that has:

- An **ESB 6.1** subdirectory (and a supporting **MQ6.1** subdirectory).
- An **MQ7.0** subdirectory (indicating that you already did the upgrade of **MQ6.1**)

The upgraded version of Sonic ESB will be installed in a new directory, **ESB7.0**, and the existing version remains in its original location.

Note Sonic ESB V6.1 services will run in a V7.0 container.

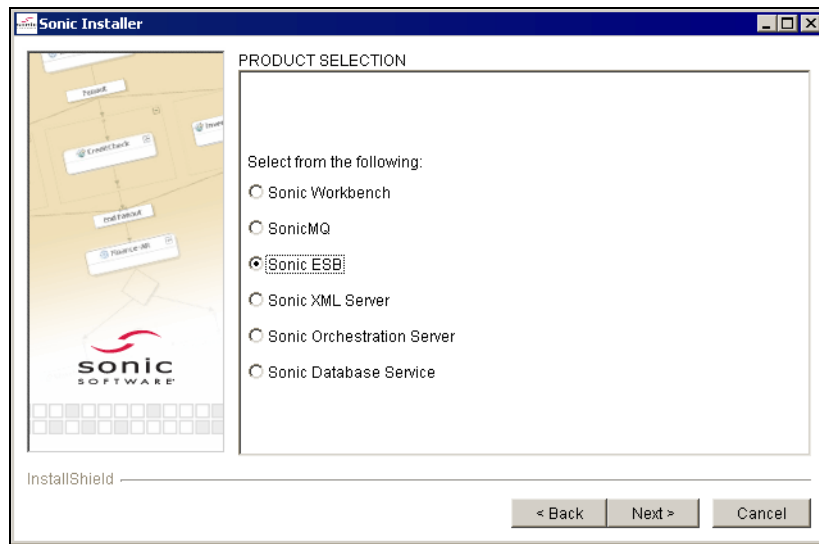
The following procedure describes the upgrade process using the Sonic Installer.

Prerequisites:

- [] SonicMQ V7.0 domain manager is running on a network accessible system (page 97).
- [] SonicMQ on the local system is upgraded to V7.0 (page 97).

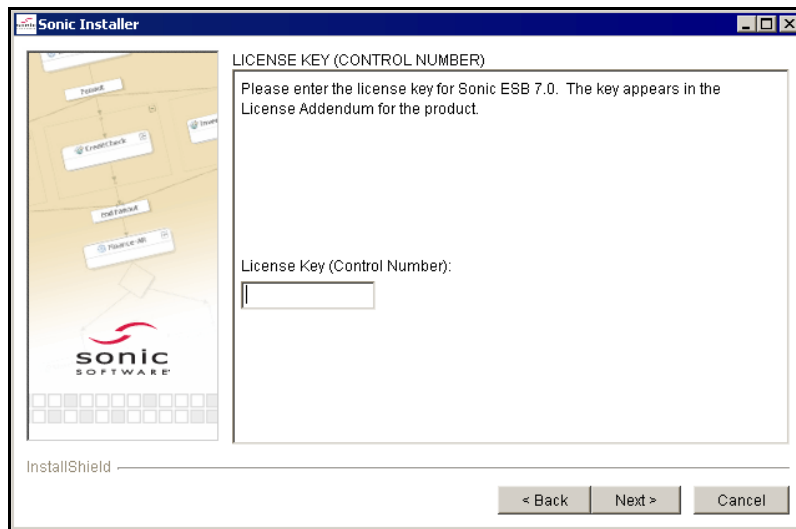
◆ To upgrade to Sonic ESB V7.0:

1. On the system where you plan to install Sonic ESB, start the Sonic Installer wizard. The **Welcome** window opens.
2. Click **Next**, then select **Sonic ESB** from the **Product Selection** list:



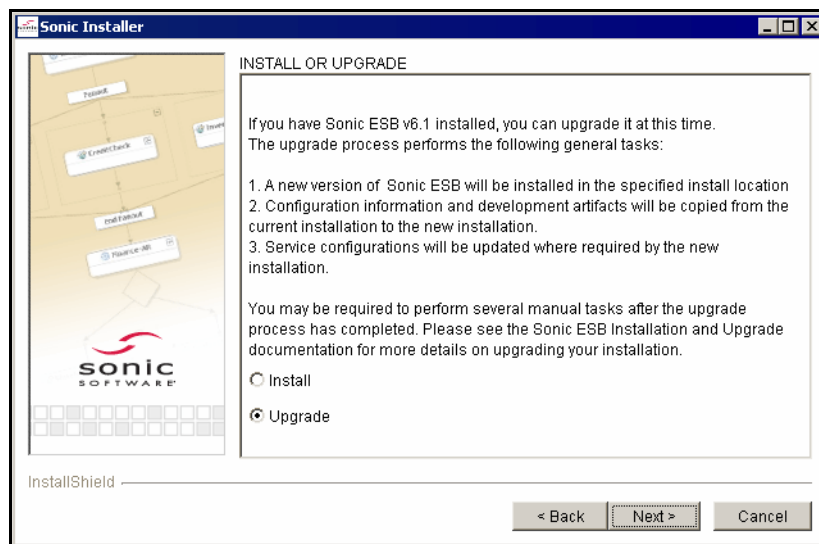
3. Click **Next**.
Review the ReadMe file that is displayed.
4. Click **Next**.
The **End User Product License Agreement** is displayed. Read this agreement and, if you agree, select **I accept the terms of the license agreement** to continue with the installation.
5. Click **Next**.

Enter the Sonic ESB **License Key (Control Number)** for your installation:



6. Click **Next**.

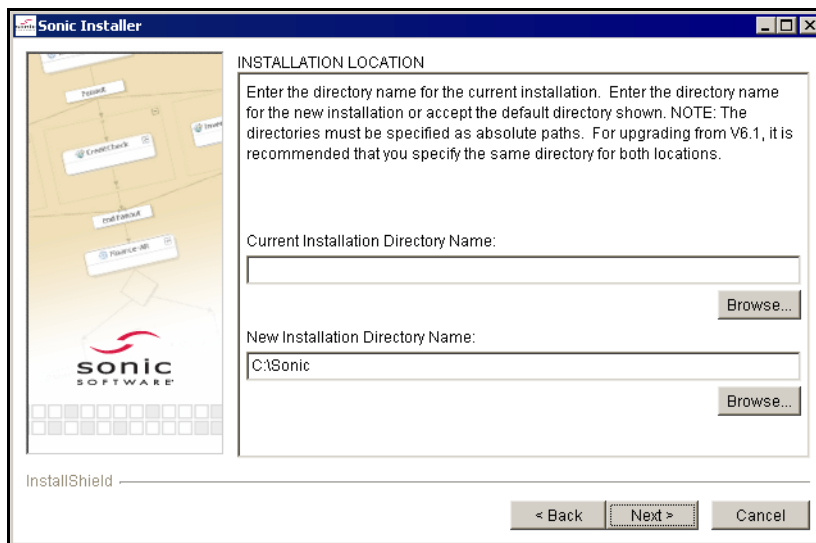
Select **Upgrade** to upgrade an existing Sonic ESB installation:



7. Click **Next**.

Verify or browse to the following installation locations, being sure to enter complete paths for the locations:

- **Current Installation Directory Name** — The location of the Sonic installation root that has a subdirectory with the installation you want to upgrade.
- **New Installation Directory Name** — The location of the Sonic installation root where you want to install the upgrade's subdirectory. This location must be the same root as the SonicMQ V7.0 installation that will support this product. Because the product subdirectories are identified by version, the same installation root directory is usually specified.

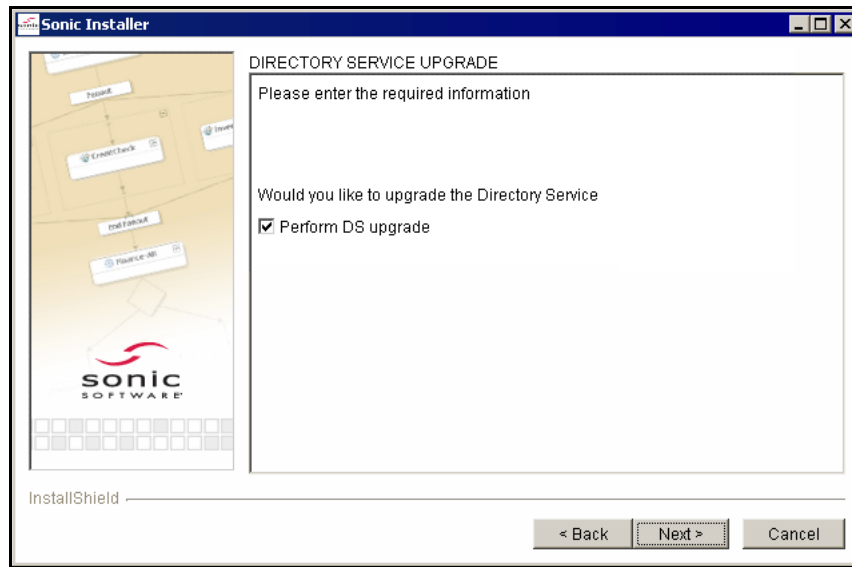


8. Click **Next**.

Important

The option to upgrade the Directory Service must be selected in the first Sonic ESB upgrade you perform in a domain. Until you upgrade the Directory Service, services and resources for Sonic ESB and other Sonic products (XML Server, Database Service, and Orchestration Server) are not upgraded.

Check the box to perform a Directory Service upgrade in this upgrade process.

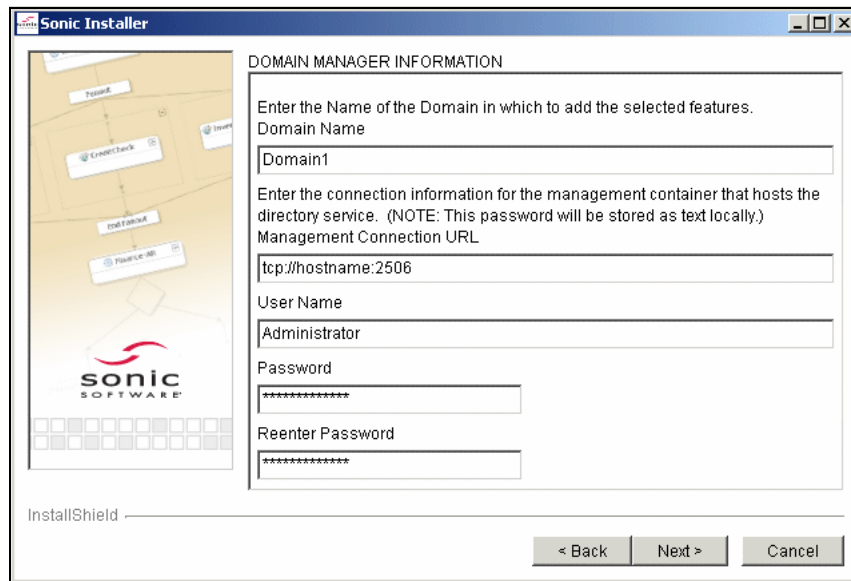


9. Click **Next**. For an upgrade on a Windows system, select the **Program Group** for your upgraded version of Sonic ESB. The default is **Sonic Software**.

You can use the same program group as the current installation as the products installed in subdirectories are labeled with their version identifiers.

10. Click **Next**.

Enter the connection information to the V7.0 domain manager:



Sonic Installer

DOMAIN MANAGER INFORMATION

Enter the Name of the Domain in which to add the selected features.
Domain Name
Domain1

Enter the connection information for the management container that hosts the directory service. (NOTE: This password will be stored as text locally.)
Management Connection URL
tcp://hostname:2506

User Name
Administrator

Password

Reenter Password

InstallShield

< Back Next > Cancel

The domain manager is the broker that hosts the SonicMQ Directory Service. This might be a local installation but in production is typically one remote system that manages a domain of distributed containers.

Enter:

- **Domain Name** — Name of the domain (the installation default is **Domain1**).
- **Management Connection URL**— Connection URL of the domain manager (the installation default is **tcp://localhost:2506**). In a deployment, you should not use local host.
- **User Name** — User name to connect to the domain manager (the default user name is **Administrator**).
- **Password** — Password to connect to the domain manager (the default password for user Administrator is **Administrator**.) In a deployment, you should set private passwords.

11. Click **Next**.

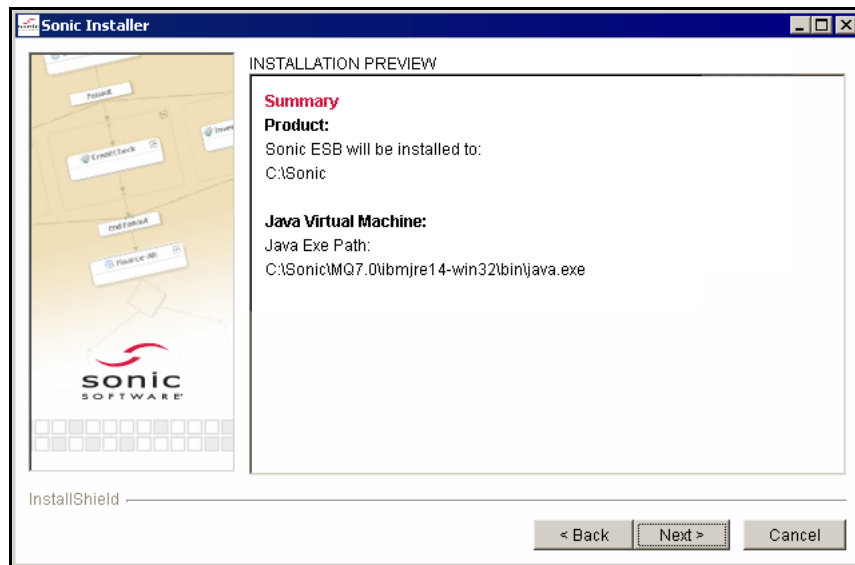
Select whether to overwrite existing configuration data. New configuration data is saved into the Directory Service as part of the upgrade process.

Important

The option to overwrite existing configuration data must be selected in the first Sonic ESB upgrade you perform in a domain.

12. Click **Next**.

13. The **Installation Preview** window shows a **Summary** of where the upgrade will be installed and the location of the `java.exe` file of the JVM that will be used:



14. Click **Next**. The Sonic ESB upgrade proceeds.

15. When the upgrade completes, select whether to display the access page of the Sonic SOA documentation set.

16. Click **Next**.

The **Installation Summary** window shows where the upgrade is installed and the location of the `java.exe` file of the JVM.

17. Click **Next**, then:

- If other Sonic products will be upgraded on this system, choose **Yes**, and then see:
 - [“Upgrading Sonic XML Server Components” on page 105](#)
 - [“Upgrading Sonic Orchestration Server Components” on page 113](#)
 - [“Upgrading Sonic Database Service Components” on page 126](#)
- If you have finished upgrading at this time, select **No**, and then click **Next** to exit the Sonic Installer. There are no additional tasks to perform for Sonic ESB upgrades. You can run [“Verifying an ESB Container Installation” on page 69](#).

Upgrading Sonic XML Server Components

You can upgrade existing Standard and Enterprise editions of Sonic XML Server V6.1 to V7.0 using the Sonic Installer.

You can either copy an existing document collection to a new storage location for the upgraded Sonic XML Server installation, or leave the document collection in place and share the collection location between the V6.1 and V7.0 installations. See [“Migrating the XML Server Datastore” on page 113](#) for information about how document collection locations are updated in upgraded XML Service configurations.

The following sections provide information about upgrading Standard and Enterprise editions of Sonic XML Server to V7.0:

- [“Upgrading to Sonic XML Server V7.0” on page 106](#)
- [“Post-upgrade Tasks and Considerations” on page 112](#)

Note Sonic XML Server installations can be upgraded and, while not recommended, can run in a prior version’s container.

Upgrading to Sonic XML Server V7.0

The following procedure explains how to use the Sonic Installer to upgrade from Sonic XML Server V6.1 to V7.0.

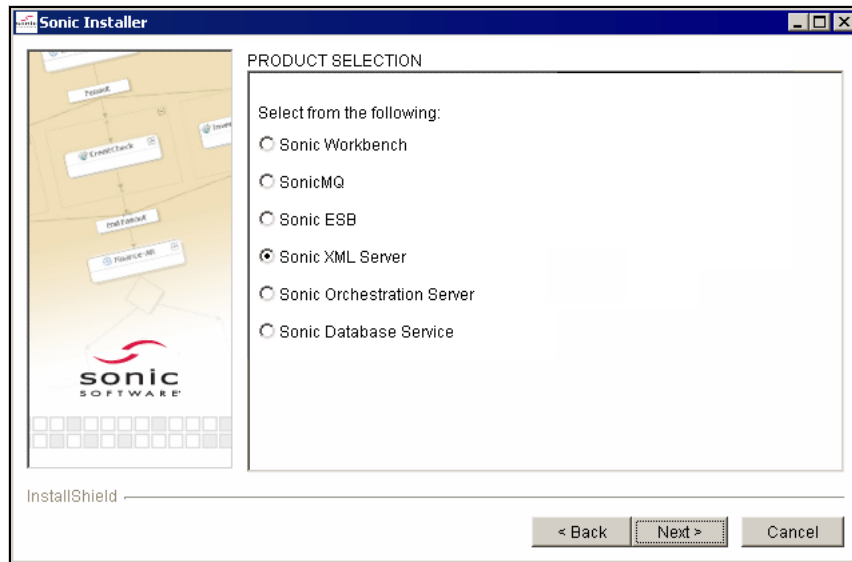
Prerequisites:

- [] SonicMQ V7.0 domain manager is running on a network accessible system (page 97).
- [] SonicMQ on the local system is upgraded to V7.0 (page 97).
- [] Sonic ESB on the local system is upgraded to V7.0 and the Directory Service upgraded (page 98).

◆ To upgrade to Sonic XML Server V7.0:

1. If you are continuing from upgrading the ESB components (Step 17 on page 105), select **Sonic XML Server** from the **Product Selection** list.

If you are restarting the installer and the prerequisites listed above are met, start the Sonic Installer wizard from the `setup` script, click **Next**, and then select **Sonic XML Server** from the **Product Selection** list:

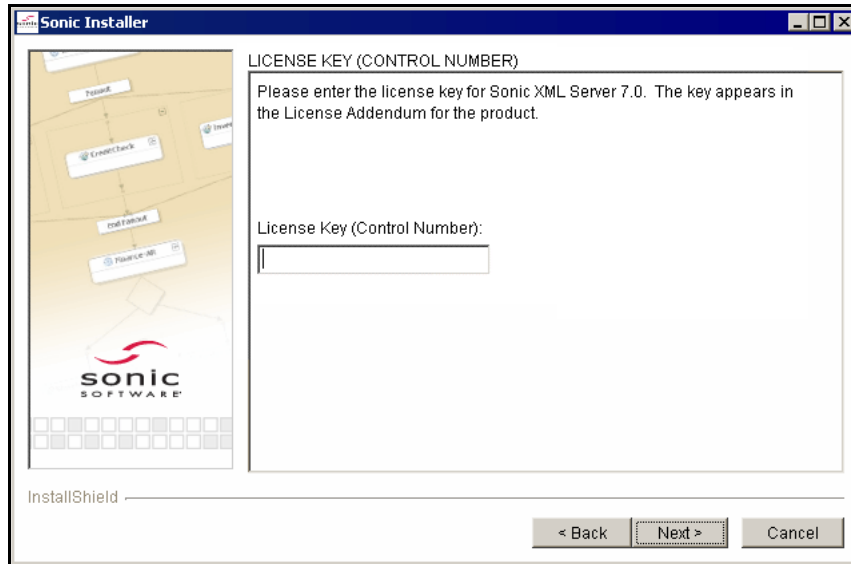


2. Click **Next**.
Review the ReadMe file that is displayed.
3. Click **Next**.

The **End User Product License Agreement** is displayed. Read this agreement and, if you agree, select **I accept the terms of the license agreement** to continue with the installation.

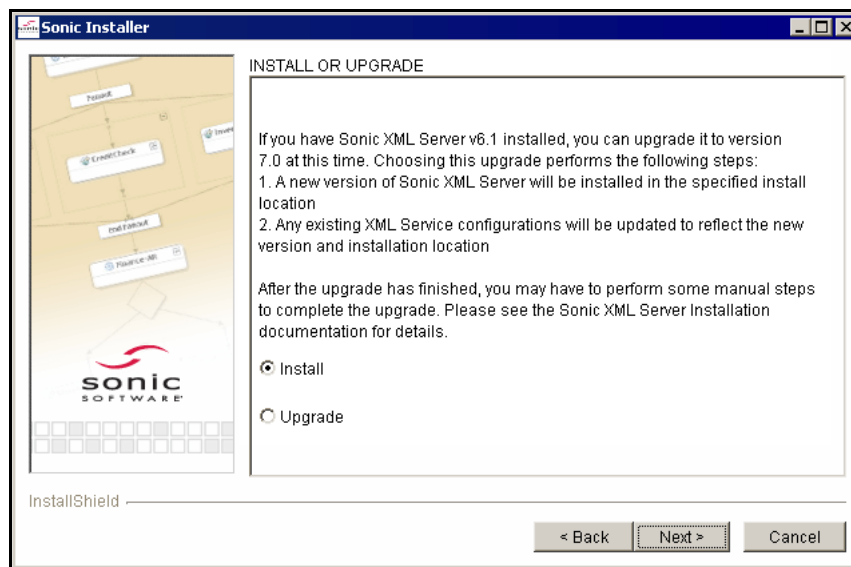
4. Click **Next**.

Enter the **License Key (Control Number)** for your installation:



5. Click **Next**.

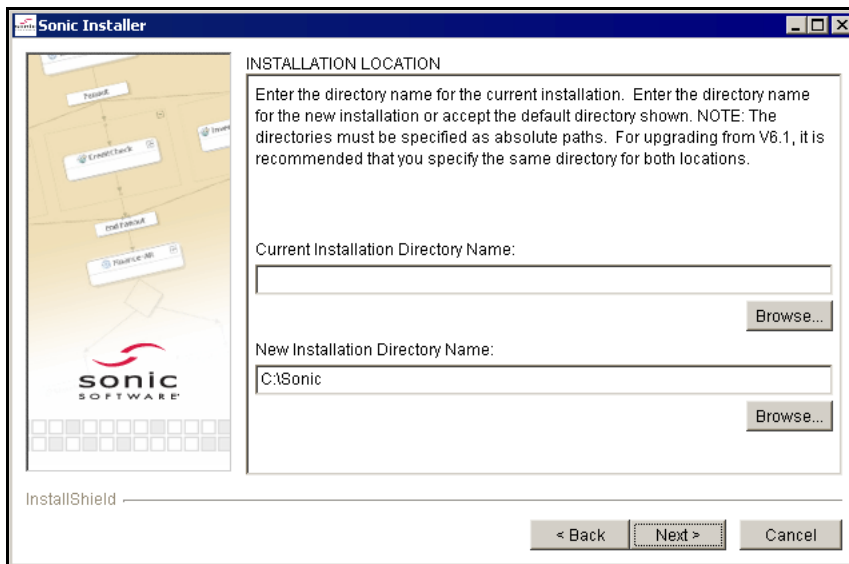
Select **Upgrade** to upgrade an existing XML Server installation:



6. Click **Next**.

Verify or browse to the following installation locations, being sure to enter complete paths for the locations:

- **Current Installation Directory Name** — The location of the Sonic installation root that has a subdirectory with the installation you want to upgrade.
- **New Installation Directory Name** — The location of the Sonic installation root where you want to install the upgrade's subdirectory. This location must be the same root as the SonicMQ V7.0 and Sonic ESB V7.0 installations that will support this product. Because the product subdirectories are identified by version, the same installation root directory is usually specified.



7. Click **Next**. For an upgrade on a Windows system, select the **Program Group** for your upgraded version of Sonic XML Server. The default is **Sonic Software**.
8. Click **Next**.

Enter the connection information to the V7.0 domain manager. See [Step 10 on page 103](#) for information about this connection.

Sonic Installer

DOMAIN MANAGER INFORMATION

Enter the Name of the Domain in which to add the selected features.
Domain Name
Domain1

Enter the connection information for the management container that hosts the directory service. (NOTE: This password will be stored as text locally.)
Management Connection URL
tcp://hostname:2506

User Name
Administrator

Password

Reenter Password

InstallShield

< Back Next > Cancel

9. Click Next.

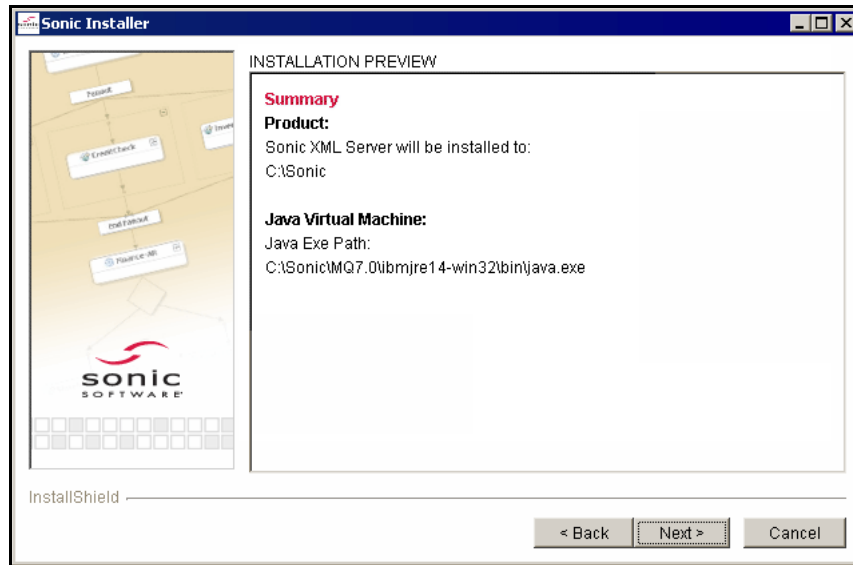
Select whether to overwrite existing configuration data. New configuration data is saved in the Directory Service as part of the upgrade process.

Note

Overwriting configuration data affects all product installations in the domain in which you are installing or upgrading. It should be performed with the first upgrade of Sonic XML Server installations in a domain; thereafter, it is not required.

10. Click Next.

11. The **Installation Preview** window shows a **Summary** of where the upgrade will be installed and the location of the `java.exe` file of the JVM that will be used:



12. Click **Next**.
The Sonic XML Server upgrade proceeds.
13. When the upgrade completes, select whether to display the access page of the Sonic SOA documentation set.
14. Click **Next**.
The **Installation Summary** window shows where the upgrade is installed and the location of the `java.exe` file of the JVM.
15. Click **Next**.
Select whether to install or upgrade another Sonic product or select **No** and then click **Next** to exit the Sonic Installer.

Post-upgrade Tasks and Considerations

This section includes tasks and considerations to complete any remaining updates after you have upgraded to Sonic XML Server V7.0.

Updating XML Service Configurations

Check to confirm that your XML Service configurations are accessible in ESB Explorer, and examine the service properties. If you upgraded the Directory Service during your ESB V7.0 upgrade (see [Step 8 on page 101](#)), then your XML Services, actions lists, and other resource files were automatically updated. You have some remaining update tasks to perform for the following service properties:

- **License Key** — You must manually update the deployment license key (control number) for each service configuration with your Sonic XML Server V7.0 key. The old key is left in the service configuration by default for backward compatibility with your existing applications, but you must use the V7.0 license key to work with other Sonic V7.0 components.
- **Metadata and Storage Locations** — You cannot change the storage location path in the upgraded XML Service configuration. Update the storage locations as follows:
 - If these locations were left blank (the default) in your original service configurations, then the upgrade leaves the locations blank and use V7.0 defaults. In this case, you must copy any collections.
 - If your original service configurations specified non-default locations, these locations are carried forward in the upgrade.

If you want to specify a storage location other than the location in the upgraded XML Service configuration, you must create a new XML Service in the upgraded installation. You can either accept the default location or explicitly specify a different location in the newly created XML Service.

You can restore your document collections using the backup and restore procedures described in the “Backing Up and Restoring Document Collections” chapter in the *Sonic SOA V7.0 Configuration and Management Guide*.

- **Default Action List** — The location of the default action list is automatically updated during the upgrade process to reflect the soni cfs: ///Resources location.
- **XAction files** — All XAction files must be updated by the upgrade wizards in the Sonic Workbench before they can be used in V7.0. After the XAction files are upgraded, export them from the Workbench, and then import them into the deployment Directory Service.

Migrating the XML Server Datastore

This task is necessary for distributed systems running deployed services.

◆ **To dump an XML Server V6.1 datastore and load it into V7.0, do the following:**

1. Be sure that the V6.1 database is running.
2. Open a console window to the `V6_install_dir/XMLDatabase/storage` directory, where `V6_install_dir` is the installation directory for XML Server V6.1.
3. Run the following command to dump the data from the existing XML datastore:
`V6_install_dir/XMLDatabase/bin/xlndump temp_dir`
where `install_dir` is the installation directory for Sonic XML Server V6.1, and `temp_dir` is the target directory where the runtime data will be dumped.

Note

You can use the `-store` parameter of `xlndump` to perform the dump action on a specified `datastore_name` where `datastore_name` is the name of the XML datastore containing your runtime V6.1 data. The parameter uses the syntax:

```
V6_install_dir/XMLDatabase/bin/xlndump -store datastore_name dir
```

4. Change to `V70_install_dir/XMLDatabase/storage` directory, where `V70_install_dir` is the installation directory for Sonic XML Server V7.0.
5. Enter the command `startdb` in the V7.0 installation.
6. Run the following command to create a new XML datastore:
7. `V70_install_dir/XMLDatabase/bin/xlnload -overwrite temp_dir`
where `V70_install_dir` is the installation directory for Sonic XML Server V7.0 and `temp_dir` is the directory where the runtime data was temporarily dumped.

Upgrading Sonic Orchestration Server Components

When you upgrade Sonic Orchestration Server from V6.1 to V7.0, the steps you perform depend on the nature of the system where you perform the upgrade:

- On a development system, you upgrade Sonic Orchestration Server as part of the process of upgrading Sonic Workbench, although there are some manual tasks that must be performed after you upgrade Workbench. See [“Upgrading Sonic Orchestration Server Deployment Components” on page 115](#).
- On a distributed system whose purpose is to run one or more services for Sonic Orchestration Server, you perform different steps. See [“Upgrading Sonic Orchestration Server Installations to V7.0” on page 116](#).

Runtime Compatibilities Between Orchestration Server Versions

Orchestration Server V7.0 is a Sonic ESB V7.0 service and, therefore, is subject to the same runtime compatibility constraints that affect all Sonic ESB V7.0 services.

Compatibility of Orchestration Server Versions to Process Definitions

The following compatibility requirements are supported in Orchestration Server 7.0:

<i>Orchestration Server Version'</i>	<i>Process Definition Version</i>	<i>Supported?</i>
5.0	7.0	No
5.5	7.0	Yes
7.0	5.0	Yes
7.0	5.5	Yes
7.0	6.1	Yes
7.0	7.0	Yes

Upgrading Sonic Orchestration Server Deployment Components

This section describes how to use the tools in the Sonic Workbench to upgrade Sonic Orchestration Server, and then move the changes into deployment.

There are two procedures in upgrading deployment components:

- Copying projects to SonicFS
- Upgrading each project to V7.0

The upgraded projects are packaged into a deployment archive for transfer to the deployment domain.

This upgrade procedure assumes the following prerequisites are met.

Prerequisites:

- [] A Sonic Workbench has been upgraded to V7.0
- [] The SonicMQ deployment domain manager has been upgraded to V7.0 and is running on a local or network accessible system.

See [“Tasks After the Upgrade and Migration Are Complete” on page 89](#) for the detailed procedures to upgrade Sonic Orchestration Server projects.

After the Workbench tasks are complete and imported into the deployment domain, proceed with upgrading deployment systems in the domain.

Upgrading Sonic Orchestration Server Installations to V7.0

This section describes how to upgrade Sonic Orchestration Server on a distributed system. It assumes the following prerequisites have been met.

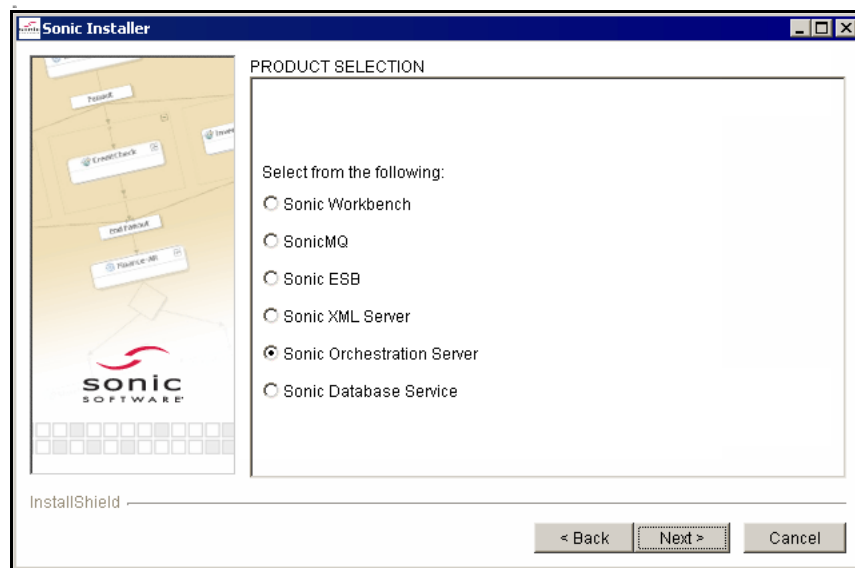
Prerequisites:

- [] SonicMQ V7.0 domain manager is running on a network-accessible system (page 97),
- [] Sonic Orchestration Server components were upgraded on a Workbench and imported into the deployment's Directory Service (page 115).
- [] SonicMQ on the local system is upgraded to V7.0 (page 97).
- [] Sonic ESB on the local system is upgraded to V7.0 and the Directory Service upgraded (page 98).

◆ To use the Sonic Installer to upgrade Sonic Orchestration Server:

1. If you are continuing from upgrading the ESB components (Step 17 on page 105), select **Sonic Orchestration Server** from the **Product Selection** list.

If you are restarting the installer and the prerequisites listed above are met, start the Sonic Installer wizard from the `setup` script, click **Next**, and then select **Sonic Orchestration Server** from the **Product Selection** list:



2. Click **Next**.

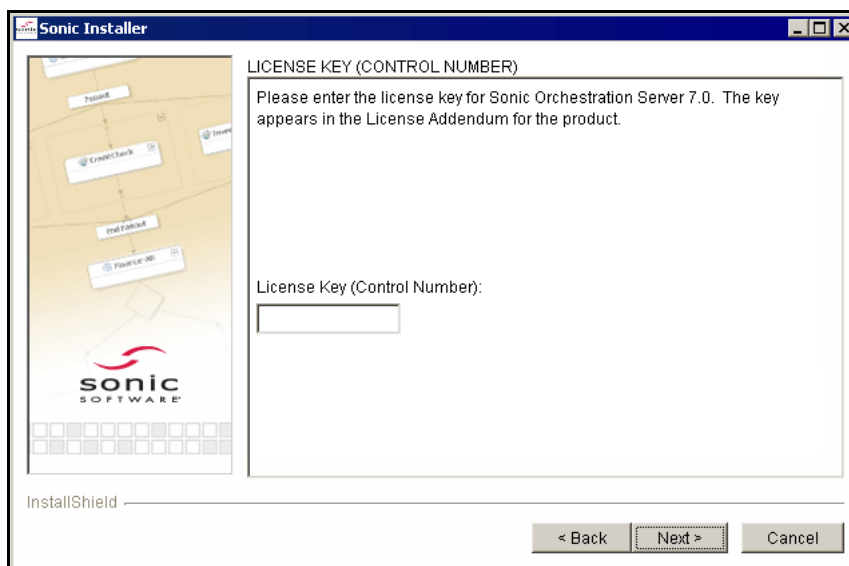
Review the ReadMe file that is displayed.

3. Click **Next**.

The **End User Product License Agreement** is displayed. Read this agreement and, if you agree, select **I accept the terms of the license agreement** to continue with the installation.

4. Click **Next**.

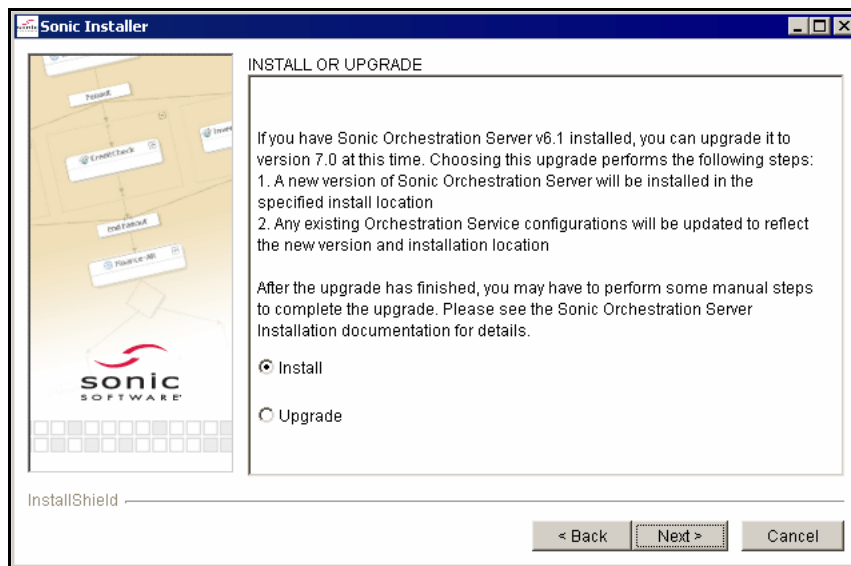
Enter the **License Key (Control Number)** for your installation:



The screenshot shows the 'Sonic Installer' window. On the left is a vertical navigation pane with a diagram of components: 'Person', 'Credit Card', 'Email', 'Phone', and 'Sonic Software'. The 'Sonic Software' component is highlighted. The main area is titled 'LICENSE KEY (CONTROL NUMBER)' and contains the text: 'Please enter the license key for Sonic Orchestration Server 7.0. The key appears in the License Addendum for the product.' Below this text is a label 'License Key (Control Number):' followed by a text input field. At the bottom of the window are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted.

5. Click **Next**.

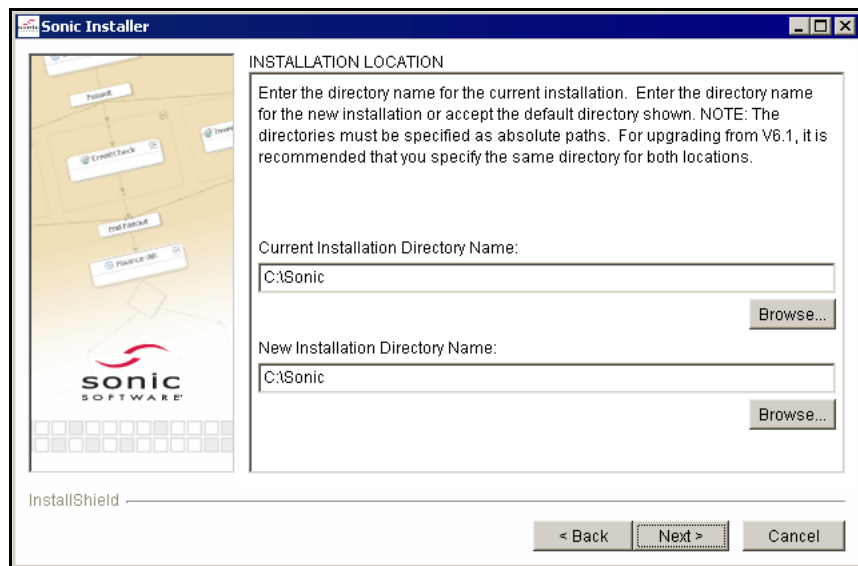
Select **Upgrade** to upgrade an existing Sonic Orchestration Server installation:



6. Click **Next**.

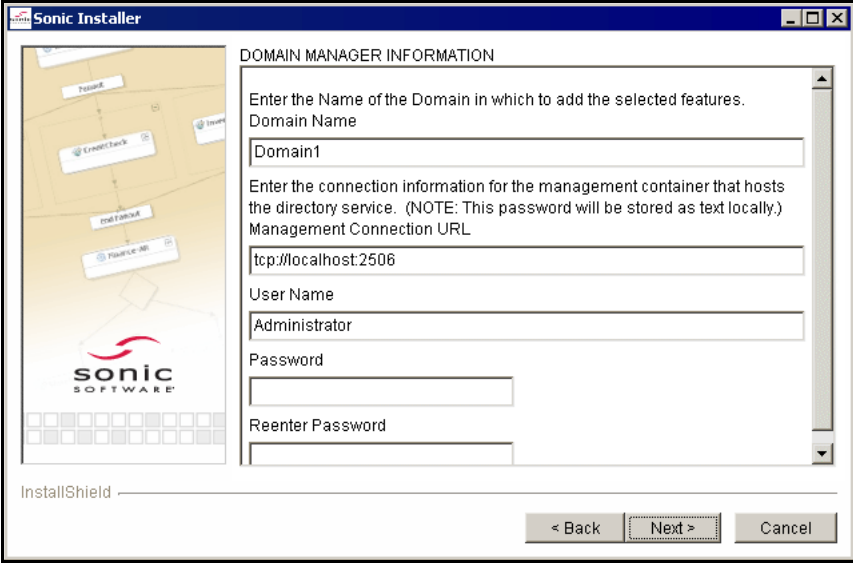
Verify or browse to the following installation locations, being sure to enter complete paths for the locations:

- **Current Installation Directory Name** — The location of the Sonic installation root that has a subdirectory with the installation you want to upgrade.
- **New Installation Directory Name** — The location of the Sonic installation root where you want to install the upgrade's subdirectory. This location must be the same root as the SonicMQ V7.0 and Sonic ESB V7.0 installations that will support this product. Because the product subdirectories are identified by version, the same installation root directory is usually specified.



7. Click **Next**. For an upgrade on a Windows system, select the **Program Group** for your upgraded version of Sonic Orchestration Server. The default is **Sonic Software**.
8. Click **Next**.

Enter the connection information to the V7.0 domain manager. See [Step 10 on page 103](#) for information about this connection.



Sonic Installer

DOMAIN MANAGER INFORMATION

Enter the Name of the Domain in which to add the selected features.
Domain Name
Domain1

Enter the connection information for the management container that hosts the directory service. (NOTE: This password will be stored as text locally.)
Management Connection URL
tcp://localhost:2506

User Name
Administrator

Password
[Empty]

Reenter Password
[Empty]

InstallShield

< Back Next > Cancel

9. Click *Next*.

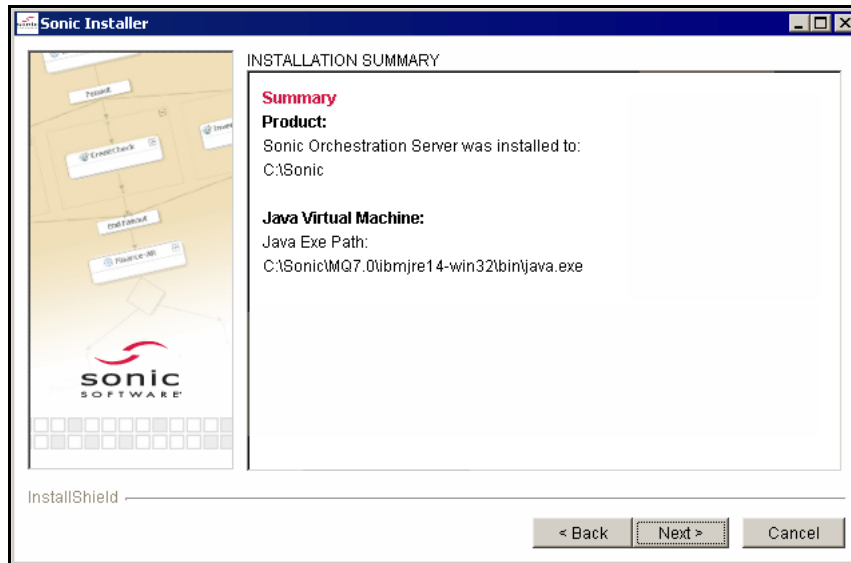
Select whether to overwrite existing configuration data. New configuration data is saved into the Directory Service as part of the upgrade process.

Note

Overwriting configuration data affects all product installations in the domain to which you are installing or upgrading.

10. Click *Next*.

11. The **Installation Preview** window shows a **Summary** of where the upgrade will be installed and the location of the `java.exe` file of the JVM that will be used:



12. Click **Next**.
The Sonic Orchestration Server upgrade proceeds.
13. When the upgrade completes, select whether to display the access page of the Sonic SOA documentation set.
14. Click **Next**.
The **Installation Summary** window shows where the upgrade is installed and the location of the `java.exe` file of the JVM.
15. Click **Next**.
Select whether to install or upgrade another Sonic product. Select **No** then click **Next** to exit the Sonic Installer.

Post-upgrade Tasks and Considerations

This section includes tasks and considerations to complete any remaining updates after each upgraded Sonic Orchestration Server.

You must have performed the steps that upgrade the minimum software stack that hosts a Sonic Orchestration Server:

- Upgraded the SonicMQ management container and JVM.
- Upgraded the Sonic ESB container
- Upgraded the Sonic Orchestration Server

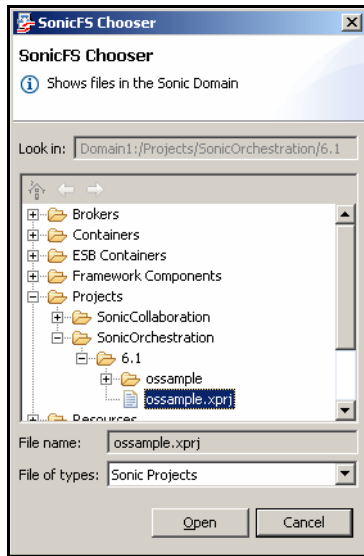
◆ To complete the upgrade of a Sonic Orchestration Server to V7.0:

1. Start the Sonic Management Console, and connect to the domain that hosts the Sonic Orchestration Server you are working on.
2. Maintain the management container's configuration:
 - a. Click on the management container that hosts the ESB Container that hosts the Orchestration Server.
 - b. Edit its **Properties**, and then click its **Logging** tab.
 - c. Update the logging location.
 - d. Click **OK** to save the changes.
 - e. Generate a boot file for the management container.

The generated file must be transported to the physical installation directory of the upgraded Orchestration Server to replace the existing boot file.

3. Maintain the ESB Container's configuration:
 - a. Click on the ESB Container that hosts the Orchestration Server.
 - b. Edit its **Properties**, and then click its **Resources** tab.
 - c. Update the classpaths.
 - d. Click **OK** to save the changes.
4. Access the V6.1 configuration from a Sonic Workbench by choosing **Window > Preferences**, expanding the **Sonic Software** item, and then selecting **Domain Connection**.
 - a. Click **Disconnect**.

- a. Enter the domain connection information for the V6.1 domain that hosts the V6.1 configuration. Be sure that its management broker is running.
 - b. Click **Connect**. When you achieve connection, you can close the dialog.
(Remember to reset it to connect to the local workbench domain when you are done.)
5. On the Sonic Workbench, choose **File > Import > Sonic Projects Created with a Previous Version of Workbench**, and then point to the Orchestration Server project file, as shown for the V6.1 sample:



6. After import is complete, the validator might report problems (markers) in the **Problem** view when it finds interfaces with missing **operations**. Whenever such a marker is generated, a set of resolutions is associated with it. Those resolutions can be inspected and executed by right clicking on a problem in **Problem** view.
Right-click on each operation in the Problems view, and then select **Quick Fix** to open the **Quick Fix** dialog box with its list of available fixes:
 - **Add operation to the process set** — Recover operation based on information available from the bp file. This is the preferred option.
 - **Reset activity to the default state** — Removes the service input definition from the activity in bp file. If you choose this option, you then must use the bp editor to change activity invocation properties to satisfy runtime requirements for the project.

7. Save the project.
8. Upload the project.
9. Start the Deployment Export Tool. Connect to the Workbench system.
 - a. **Choose SonicFS**, then choose the project file `process-set.xml`
 - b. **Choose SonicFS**, then choose the Process Search Service WSDL file.
 - c. **Choose SonicFS**, then choose the `custom-services-classes.jar` in the project.
10. Complete the export and create an export archive.
11. Start the ESB Admin tool on the Workbench system.
Use the `createMap` command on the export archive to generate a map file.
12. Edit the map file to adjust `sonicfs: ///` string references, then save the file.
13. In ESB Admin, run `applyMap` on the original archive and the edited map file to create the mapped archive.
14. Start the Deployment Import Tool. Connect to the deployment's domain.
 - a. Open the mapped archive.
 - b. Connect to the deployment domain.
 - c. Right click on the archive level, and then select **Overwrite**.
 - d. Right click on the `.xprj` file, and then choose **Ignore**.
 - e. Right click on any residual Workbench files such as `.project`, `.classpath`, `*.sid`, and then choose **Ignore**.
 - f. Import the mapped archive into the deployment domain.
15. In the Sonic Management Console, open the Sonic ESB Explorer to **Services**, and then update each Orchestration Service instance:
 - a. WSDL URL (when applicable)
 - b. Control code with your Sonic Orchestration Server V7.0 license key
 - c. Click on **Create Correlation Queue**
 - d. Project path to show the full path in `sonicfs: ///` to the `process-set.xml` file.

16. In the Sonic Management Console, open the Sonic ESB Explorer to **Services**, and then update each Process Search Service instance:
 - a. WSDL URL (when applicable)
 - b. Remote datastores
 - c. Template location
17. In the Sonic Management Console, open the Sonic ESB Explorer to Services, and then update each Orchestration Service instance:
 - a. WSDL URL (when applicable)
18. Dump the V6.1 datastore and load it into the V7.0 datastore
 - a. Be sure that the V6.1 database is running.
 - b. Open a console window to the `V6_install_dir/XMLDatabase/storage` directory, where `V6_install_dir` is the installation directory for Orchestration Server V6.1.
 - c. Run the following command to dump the data from the existing XML datastore:
`V6_install_dir/XMLDatabase/bin/xmlndump temp_dir`
where `install_dir` is the installation directory for Sonic Orchestration Server V6.1, and `temp_dir` is the target directory where the runtime data will be dumped.

Note

You can use the `-store` parameter of `xmlndump` to perform the dump action on a specified `datastore_name` where `datastore_name` is the name of the XML datastore containing your runtime V6.1 data. The parameter uses the syntax:
`V6_install_dir/XMLDatabase/bin/xmlndump -store datastore_name dir`

- d. Change to `V70_install_dir/XMLDatabase/storage` directory, where `V70_install_dir` is the installation directory for Sonic Orchestration Server V7.0.
- e. Enter the command `startdb` in the V7.0 installation.
- f. Run the following command to create a new XML datastore:
- g. `V70_install_dir/XMLDatabase/bin/xmlnload -overwrite temp_dir`
where `V70_install_dir` is the installation directory for Sonic Orchestration Server V7.0 and `temp_dir` is the directory where the runtime data was dumped in [Step c](#).

Upgrading Sonic Database Service Components

When you upgrade Sonic Database Service from V6.1 to V7.0, the steps you perform depend on the nature of the system where you perform the upgrade:

- On a development system, you upgrade Sonic Database Service as part of the process of upgrading Sonic Workbench. The only manual task after upgrade is updating the license key on upgraded database services.
- On a distributed system whose purpose is to run one or more database services, you perform different steps. See [“Upgrading Sonic Database Service Installations to V7.0” on page 127](#).

Runtime Compatibilities Between Database Service Versions

Sonic Database Service V7.0 is a Sonic ESB V7.0 service and, therefore, is subject to the same runtime compatibility constraints that affect all Sonic ESB V7.0 services.

Upgrading Sonic Database Service Installations to V7.0

This section describes how to upgrade Sonic Database Service on a distributed system. It assumes the following prerequisites have been met.

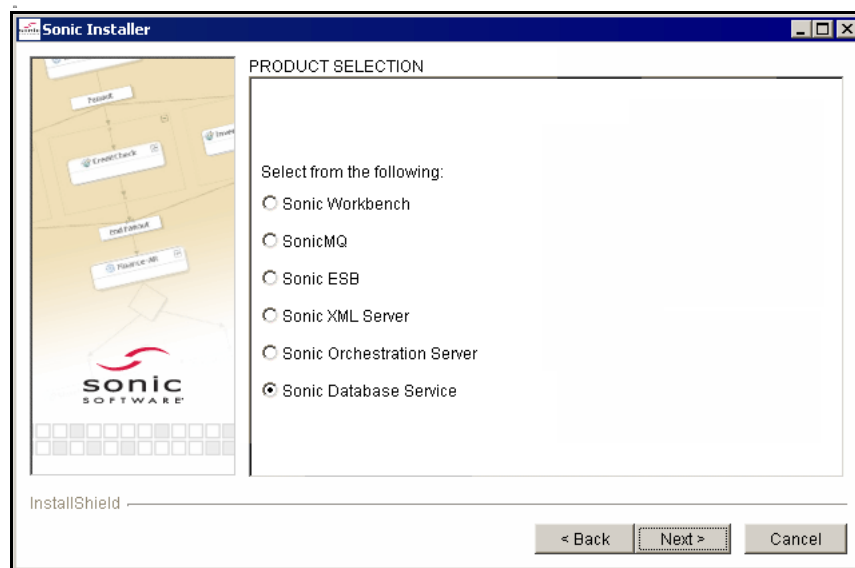
Prerequisites:

- [] SonicMQ V7.0 domain manager is running on a network-accessible system (page [97](#)),
- [] SonicMQ on the local system is upgraded to V7.0 (page [97](#)).
- [] Sonic ESB on the local system is upgraded to V7.0 and the Directory Service upgraded (page [98](#)).

◆ To use the Sonic Installer to upgrade Sonic Database Service:

1. If you are continuing from upgrading the ESB components ([Step 17 on page 105](#)), select **Sonic Database Service** from the **Product Selection** list.

If you are restarting the installer and the prerequisites listed above are met, start the Sonic Installer wizard from the `setup` script, click **Next**, and then select **Sonic Database Service** from the **Product Selection** list:



2. Click **Next**.

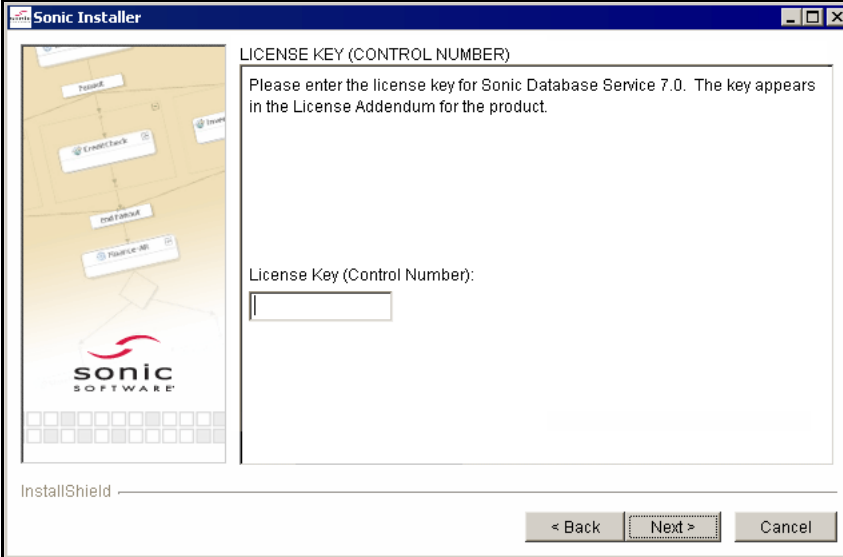
Review the ReadMe file that is displayed.

3. Click **Next**.

The **End User Product License Agreement** is displayed. Read this agreement and, if you agree, select **I accept the terms of the license agreement** to continue with the installation.

4. Click **Next**.

Enter the **License Key (Control Number)** for your installation:



The screenshot shows the 'Sonic Installer' window. On the left is a navigation pane with a tree view containing 'Product', 'InstallShield', 'End User License Agreement', 'License Key (Control Number)', and 'Sonic Software'. The 'License Key (Control Number)' screen is active, displaying the text: 'Please enter the license key for Sonic Database Service 7.0. The key appears in the License Addendum for the product.' Below this is a text input field labeled 'License Key (Control Number):'. At the bottom of the window are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted.

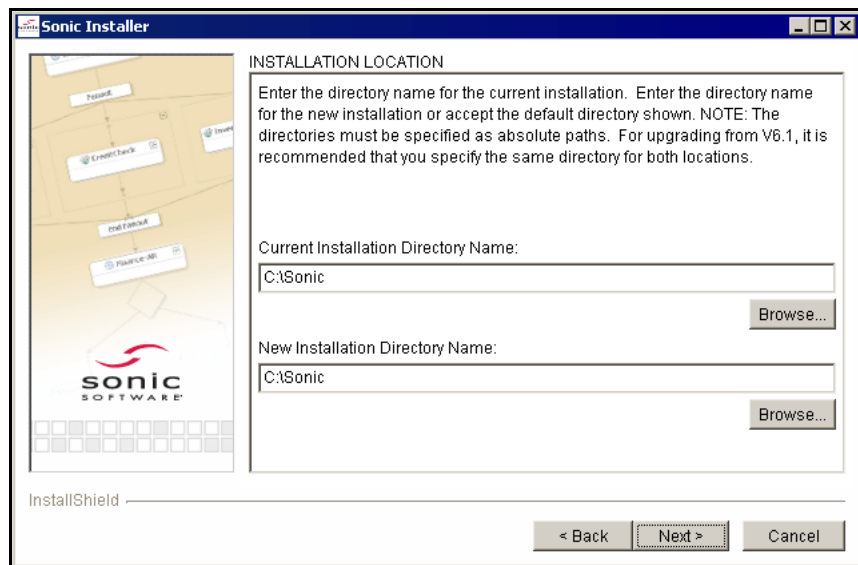
5. Click **Next**.

Select **Upgrade** to upgrade an existing Sonic Database Service installation:

6. Click **Next**.

Verify or browse to the following installation locations, being sure to enter complete paths for the locations:

- **Current Installation Directory Name** — The location of the Sonic installation root that has a subdirectory with the installation you want to upgrade.
- **New Installation Directory Name** — The location of the Sonic installation root where you want to install the upgrade's subdirectory. This location must be the same root as the SonicMQ V7.0 and Sonic ESB V7.0 installations that will support this product. Because the product subdirectories are identified by version, the same installation root directory is usually specified.



7. Click **Next**. For an upgrade on a Windows system, select the **Program Group** for your upgraded version of Sonic Database Service. The default is **Sonic Software**.

8. Click **Next**.

Enter the connection information to the V7.0 domain manager. See [Step 10 on page 103](#) for information about this connection.

Sonic Installer

DOMAIN MANAGER INFORMATION

Enter the Name of the Domain in which to add the selected features.
Domain Name
Domain1

Enter the connection information for the management container that hosts the directory service. (NOTE: This password will be stored as text locally.)
Management Connection URL
tcp://localhost:2506

User Name
Administrator

Password
[Empty]

Reenter Password
[Empty]

InstallShield

< Back Next > Cancel

9. Click **Next**.

Select whether to overwrite existing configuration data. New configuration data is saved into the Directory Service as part of the upgrade process.

Warning

Overwriting configuration data affects all product installations in the domain to which you are installing or upgrading.

10. Click **Next**. The **Installation Preview** window shows a **Summary** of where the upgrade will be installed and the location of the `java.exe` file of the JVM that will be used:
11. Click **Next**. The Sonic Database Service upgrade proceeds.
12. When the upgrade completes, select whether to display the access page of the Sonic SOA documentation set.
13. Click **Next**. The **Installation Summary** window shows where the upgrade is installed and the location of the `java.exe` file of the JVM.
14. Click **Next**. Select whether to install or upgrade another Sonic product. To exit the Sonic Installer, select **No** then click **Next**.

Post-upgrade Tasks and Considerations

This section includes tasks and considerations to complete any remaining updates after you upgrade to Sonic Database Service.

- **License Key** — You must manually update the deployment license key (control number) for each service configuration with your Sonic Database Service V7.0 key. The old key is left in the service configuration by default for backward compatibility with your existing applications, but you must use the V7.0 license key to work with other Sonic V7.0 components.
- **ESBDB files** — All ESBDB files must be updated by the upgrade wizards in the Sonic Workbench before they can be used in V7.0. After the ESBDB files are upgraded, export them from the Workbench, and then import them into the deployment Directory Service.

Chapter 6 **Using Response Files**

The chapter contains the following sections:

- “[Overview](#)” describes the general procedure for using response files
- “[Capturing Response Files](#)” shows how to obtain a response file or a template of responses.
- “[Contents of a Response File](#)” describes the parameters in a response file and points to the appropriate pages where the parameters are presented in the graphical installer for installations and upgrades.
- “[Tailoring Response Files](#)” describes how refine the set of patterns for basic installation and upgrade categories.
- “[Running The Installer Using Response Files](#)” summarizes the syntax for running the installer with a response file.

Note The response file and techniques for SonicMQ and SOA Suite are identical. However, the breadth of installation and upgrade options for SonicMQ are described in the *SonicMQ V7.0 Installation and Upgrade Guide*. This chapter recaps only the SonicMQ installations and upgrades that apply to a Sonic SOA Suite stack on a system.

See the SonicMQ documentation for information about installing and upgrading SonicMQ brokers and domains.

Overview

The procedure for using response files to tailor the Sonic installer's prompts in graphical, console, or silent installations takes three steps:

1. Capture a response file from the installer you want to use by either:
 - Recording an installation/upgrade (`setup -options-record file`), or
 - Dumping a template (`setup -options-template file`).
2. Tailor the response file as appropriate for the next installation you want to perform and save the tailored file.
3. Use tailored responses to run setup for the installation type you want to do and reference the edited file:
 - (`setup -options file`) to start the graphical installer and use the options file specified.
 - (`setup -console -options file`) to start the console (text-based) installer and use the options file specified.
 - (`setup -silent -options file`) to start the installer in silent mode and use the options file specified.

The following sections detail each of these steps.

Capturing Response Files

You can either capture the responses you use during an installation you want to tailor for reuse, or you can dump the template file unchanged to use as a pattern.

◆ To record your responses when you run the Sonic Installer:

1. In a console window opened to the folder where the setup file is located, enter:
`setup -options-record {file}`
where {*file*} is replaced by the name of file on an explicit path where you have write access. For example:
`D:\>setup -options-record C:\responses.rsp`
Running Sonic Installer...

The installer opens the graphical installer wizard

Important

The installer must complete a product installation and finish in order for the recording to be saved. If you choose to do another installation, you erase the preceding installation information.

2. At the end of an installation, choose **No** for another installation and then click **Finish**.
3. Open the response file you generated to tailor it for reuse.

◆ **To dump the installer's response template:**

1. In a console window opened to the folder where the setup file is located, enter:

```
setup -options-template {file}
```

 where `{file}` is replaced by the name of file on an explicit path where you have write access. For example:

```
C: \>setup -options-template C:\template.rsp
```

 Running `Sonic Installer...`

```
C: \>
```
2. Open the template response file you generated for reuse.

Contents of a Response File

A response file is a series `-W` parameter statements. In a template file, all the parameters are commented out. In a response that is a record of an installation's prompts, all the parameters are exposed.

You are required to have all the parameters that are used by the installation or upgrade you intend to perform. Because parameters are exposed that might seem unrelated to your task, you need to have some understanding of the relationship of the parameters.

The panels generally follow the pattern of the panels in the installer. For Sonic SOA Suite products (excluding SonicMQ), the sets and subsets of parameters are as follows:

Product

```
-- Install
---- Typical
---- Custom
-- Upgrade
```

Note References to SonicMQ in the template are described in the *SonicMQ Installation and Upgrade Guide*.

The sets of files for each usage type are excerpted later in this chapter:

- [“Using a Response File to Install a Sonic Workbench” on page 143](#)
- [“Using Response Files to Install Tools and Documentation” on page 144](#)
- [“Using Response Files to Install Containers and Components” on page 150](#)
- [“Using a Response File to Install a SonicMQ JMS Java Client” on page 156](#)

The text in those segments can be copied and then modified to define that type of installation or upgrade.

Important All field names and values are case sensitive.

Table 3. Response File Settings Used in Sonic SOA Suite Installs and Upgrades

<i>User Input Field</i>	<i>Details</i>
PRODUCT SELECTION Panel Product -W productChoice. <i>Product</i>	<i>Product</i> is one of the following: <ul style="list-style-type: none">● "IW" for Sonic Workbench● "MQ" for SonicMQ (See the <i>SonicMQ Installation and Upgrade Guide</i> for the features and options in SonicMQ installation and upgrade.)● "ESB" for Sonic ESB● "OSVR" for Sonic Orchestration Server● "XSVR" for Sonic XML Server● "DBS" for Sonic Database Service Note: Other parameters in this table that show <i>Product</i> in their name use these values in their parameter name.
LICENSE AGREEMENT Panel License -W licenseAgreement <i>Product</i> . selection	One integer value in the selected product's license field from: <ul style="list-style-type: none">● 0 for no selection● 1 for "I accept the terms of the license agreement."● 2 for "I do not accept the terms of the license agreement." Set this to 1 after you have read, understood, and agreed to the terms of the license agreement for this installation. A silent installation cannot complete successfully when this property is 0 or 2.
LICENSE KEY Panel License Key (Control Number) -W license <i>Product</i> . key	One quoted text value in the selected product's key field that records the product's V7.0 license key. This parameter is required for all installations and upgrades.
INSTALL OR UPGRADE Panel Install or Upgrade -W installTypePanel <i>Product</i> . type	One quoted text value in the selected product's type field from: <ul style="list-style-type: none">● INSTALL to perform a new installation● UPGRADE to upgrade an existing installation

Table 3. Response File Settings Used in Sonic SOA Suite Installs and Upgrades (*continued*)

User Input Field	Details
Install INSTALLATION LOCATION Panel Installation Location: New Directory -W destination.location	One quoted text string that provides an absolute path on the target system for the files in this installation. UNIX/Linux: If you do not have a disk mounted as /opt, select an alternate location, otherwise /opt will be created as a subdirectory of / (if you have permissions) and SonicMQ will be installed there. It is generally not advised to install software in /.
Upgrade INSTALLATION LOCATION Panel Installation Location: Current Directory -W destinationUpgrade.currentLocation	One quoted text string that provides the Sonic install root of an existing V6 installation you want to upgrade.
Upgrade INSTALLATION LOCATION Panel Installation Location: New Directory -W destinationUpgrade.location	One quoted text string that provides the Sonic install root of the V7 installation after upgrade. This can be the same value as the Current Directory of a V7.0 installation because it is the root for both the existing installation at <i>sonic_install_root/MQ6.1</i> and the new installation at <i>sonic_install_root/MQ7.0</i> .
Install Panel Upgrade DS -W esbDSUpgradePanel.dsupgrade	One quoted text string that is either: <ul style="list-style-type: none"> ● "DS_UPGRADE" to enable upgrading the Directory Service, or ● "" to skip upgrading the Directory Service
Install PROGRAM GROUP Panel Program Group (Windows) -W programFolder.group	For Windows systems, one quoted text string that provides the Start menu path.
Install Program Folder Groups (Windows) -W programFolder.folderGroups	This provides display-only information. The default is "Current User Folders".
Install SAMPLES Panel Samples -W installSamplesPanel.samples	For a Workbench installation, determines whether to install the samples for all products in the Sonic SOA Suite: <ul style="list-style-type: none"> ● true to install the samples ● false to skip the samples

Table 3. Response File Settings Used in Sonic SOA Suite Installs and Upgrades (*continued*)

<i>User Input Field</i>	<i>Details</i>
Install ECLIPSE Panel Eclipse -W i nstal l Ecl i psePanel . ecl i pse	One quoted text string that provides installation type: <ul style="list-style-type: none"> ● NEW to set up a complete Eclipse environment. ● EXISTING to specify an existing Eclipse environment.
Install ECLIPSE Panel Eclipse Icon -W i nstal l Ecl i psePanel . deskto pl con	Determines whether to install an Eclipse desktop icon: <ul style="list-style-type: none"> ● true to install an Eclipse icon ● false to not install an Eclipse icon
Install ECLIPSE LOCATION Panel Eclipse Location -W ecl i pseLocati onPanel . ecl i pse	When an existing Eclipse is chosen, the location of that Eclipse on the local system.
Install ECLIPSE LOCATION Panel Eclipse Workspace -W ecl i pseWorkspaceLocati on. workspace	When an existing Eclipse is chosen, the location of that Eclipse's workspace on the local system.
Install INSTALLATION TYPE Panel Type -W setupTypePanel . type	One quoted text string that provides installation type: <ul style="list-style-type: none"> ● TYPICAL to set up a complete domain manager, a messaging broker, and all client, tools, and learning resources. ● CUSTOM to specify the features to install. <p>Note: This field is common to all products except SonicMQ. For SonicMQ installations, the corresponding field is:</p> <p>-w setupTypePanel Mq. type</p>

Table 3. Response File Settings Used in Sonic SOA Suite Installs and Upgrades (*continued*)

User Input Field	Details
Install Custom FEATURE SELECTION Panel Features -W featurePanel <i>Product</i> . features	<p>One quoted text string with the following semicolon (;) delimited values:</p> <ul style="list-style-type: none"> When <i>Product</i> is MQ, one or more of: CONTAINER JMS_CLIENT ADMINISTRATION DOCUMENTATION <p>These SonicMQ features are described in this document. See the <i>SonicMQ Installation and Upgrade Guide</i> for the complete set features and options for SonicMQ installations.</p> <ul style="list-style-type: none"> When <i>Product</i> is ESB, one or more of: CONTAINER ADMINISTRATION DOCUMENTATION When <i>Product</i> is XSVR, one or more of: XML_SERVER XML_DATABASE ADMINISTRATION DOCUMENTATION When <i>Product</i> is OSVR, one or more of: ORCHESTRATION_SERVER PROCESS_SEARCH ADMINISTRATION DOCUMENTATION When <i>Product</i> is DBS, one or more of: DATABASE_SERVICE DATABASE_DRIVERS ADMINISTRATION DOCUMENTATION <p>Note: Workbench installation does not allow feature selection.</p>

Table 3. Response File Settings Used in Sonic SOA Suite Installs and Upgrades (*continued*)

<i>User Input Field</i>	<i>Details</i>
Install JAVA RUNTIME SELECTION Panel Java Runtime Selection -W bundl edJre. useBundl ed	On a Windows system, declares whether to install the bundled JRE or point to an installed JRE. One quoted text string with either: <ul style="list-style-type: none"> ● true (the default value) ● false
Install JAVA SELECTION PANEL Panel JRE Version Text -W bundl edJre. versi onText	Include but leave as ""
Install JAVA SELECTION PANEL Panel JRE Location -W j re. locati on	One quoted text string with the explicit path delimited by slashes (/) that points to the Java directory. <ul style="list-style-type: none"> ● On a Windows system, it ignores this parameter unless you set bundl edJre. useBundl ed=false. ● On UNIX or Linux systems, it searches for a Java directory (whether certified for this version of SonicMQ or not.) ● For Linux, provide the path to the installed Sun j dk1. 4. 2. _02.

Table 3. Response File Settings Used in Sonic SOA Suite Installs and Upgrades (*continued*)

User Input Field	Details
Install, Upgrade DOMAIN MANAGER INFORMATION Panel Domain Name -W domainManagerInfo.domain	The domain name for connection to the installation or upgrade's domain.
Install, Upgrade DOMAIN MANAGER INFORMATION Panel Domain Management Connection -W domainManagerInfo.mgmtConnecti onUrl	
Install, Upgrade DOMAIN MANAGER INFORMATION Panel Domain Administrative User -W domainManagerInfo.userName	The administrative user for connection to the installation or upgrade's domain.
Install, Upgrade DOMAIN MANAGER INFORMATION Panel Domain Administrative User's Password -W domainManagerInfo.password	
Install, Upgrade DOMAIN MANAGER INFORMATION Panel Domain Administrative User's Password -W domainManagerInfo.password2	Restate the password.
Install, Upgrade DOMAIN MANAGER INFORMATION Panel Domain Management Node -W domainManagerInfo.managementNode	If management nodes are in use, the management node name.

Table 3. Response File Settings Used in Sonic SOA Suite Installs and Upgrades (*continued*)

<i>User Input Field</i>	<i>Details</i>
Install (Container) ESB CONTAINER INFO Panel Container Name -W getEsbContainerInfo.containerName	One quoted text string with the unique name for the container in the domain.
Install (Container) Panel DS Override -W dsOverride.dsOverride	One quoted text string with either: <ul style="list-style-type: none">● true (the default value)● false
All DOCUMENTATION PORTAL Panel Display Documentation -W docPortal.displayDoc	One quoted text string with either: <ul style="list-style-type: none">● true (the default value)● false

Tailoring Response Files

Before using response files, for each product that will be installed you must:

- Read, understand and agree to each End User License Agreement.
- Provide a Sonic Software license key.

While you can create response files from captures or templates, you can also edit the patterns provided in this book. Patterns of responses for Sonic SOA Suite installation and upgrade types make it easier to achieve successful response file actions. In the patterns, do not remove any lines as a missing parameter that is required terminates the process.

The patterns provided are:

- [“Using a Response File to Install a Sonic Workbench”](#)
- [“Using Response Files to Install Tools and Documentation”](#)
- [“Using Response Files to Install Containers and Components”](#)
- [“Using a Response File to Install a SonicMQ JMS Java Client”](#)
- [“Using a Response File to Upgrade a Sonic Workbench”](#)
- [“Using Response Files to Upgrade Containers and Components”](#)

Running The Installer Using Response Files

The installer runtime procedure uses the `-options` switch with the name of the response file that provides the prompts.

◆ **To run the installer using a response file:**

3. Save the tailored response file where you will start the installer on a system. For example, `C:\ESB_for_OSVR.txt`.
4. Run the `setup` script for the type of installer you want to use:
 - Wizard: `setup -options C:\myResponses.txt`
Running a new response file in GUI mode lets you observe the values in the context of the installer panels. You can observe any errors or omissions that will help you refine the pattern and verify its success.
 - Console: `setup -console -options C:\myResponses.txt`
 - Silent: `setup -silent -options C:\myResponses.txt`

Note The Sonic Workbench installs all products in a single pass of the installer.

Other products require that you build the software stack. When installing a deployment stack, you must install the SonicMQ components first. When that installation completes successfully, then install Sonic ESB components. If you are installing additional components, each one requires an additional installation run.

Using a Response File to Install a Sonic Workbench

A complete Sonic Workbench installation provides only a few options and installs all the products and the required software stack. After the SonicMQ Domain Manager is installed, it is started so that the configuration objects from the other installations can be recorded in the domain's Directory Service.

◆ **To use a response file to install a Sonic Workbench:**

1. Copy [Code Sample 1](#).

Code Sample 1. Response File for Installing a Sonic Workbench

```
-W productChoice.product="IW"
-W licenseAgreementIW.selection=1
-W licenseIW.key="myIWkey"
-W installTypePanelIW.type="INSTALL"
# Windows syntax and program group info
-W destination.location="C:\Sonic"
-W programFolder.group="Sonic Software"
-W programFolder.folderGroups=""
# Samples
-W installSamplesPanel.samples="true"
# Eclipse
-W installEclipsePanel.eclipse="NEW"
-W installEclipsePanel.desktopIcon="true"
-W eclipseLocationPanel.eclipse=""
-W eclipseWorkspaceLocation.workspace=""
# Domain Manager Setup
-W getMqInfo.brokerPort="2506"
```

2. Replace *myIWkey* with your key
3. As appropriate, adjust the locations and program groups.
4. If you prefer, set the installation of samples to **false**.
5. If you want to use an existing Eclipse installation, change the Eclipse parameter from **NEW** to **EXISTING** and then identify its location and workspace.
6. If you want to set a specific port for the broker, enter your preferred value.
7. Save the file as a text file. For example, `c:\SonicWorkbench.txt`.
8. At the root of the installer, enter:
`setup [-silent | -console] -options c:\SonicWorkbench.txt`

As a Sonic Workbench installation stands alone, you can reuse this response file if the assigned port and Eclipse settings will be consistent on every target system.

Using Response Files to Install Tools and Documentation

The tools and documentation are all installed in a Sonic Workbench. In deployment, the tools and documentation are typically installed on a system that does not host configuration objects.

You must always install the SonicMQ tools to support the other tools. Sonic ESB tools must connect to a domain to enable the domain for Sonic ESB. After Sonic ESB tools are installed, you can install the other tools and connect to an ESB-enabled domain.

The following procedures describe how to use response files to install tools and documentation:

- [“Using a Response File to Install SonicMQ Tools and Documentation”](#)
- [“Using a Response File to Install Sonic ESB Tools and Documentation”](#)
- [“Using a Response File to Install Sonic Orchestration Server Tools and Documentation”](#)
- [“Using a Response File to Install Sonic XML Server Tools and Documentation”](#)
- [“Using a Response File to Install Sonic Database Service Tools and Documentation”](#)

As a tools and documentation are not bound to a domain, you can reuse this response file on every target system.

Note The management connection that is required for tools installation must enable every domain that will host configurations of Sonic SOA deployments. However, you can install tools with response files such that every installation updates the same domain.

Using a Response File to Install SonicMQ Tools and Documentation

SonicMQ tools are the foundation installation for all other Sonic tools.

- ◆ **To use a response file to install only the tools and documentation features of SonicMQ:**

1. Copy [Code Sample 2](#).

Code Sample 2. Response File for Installing SonicMQ Tools and Documentation

```
-W productChoice.product="MQ"
-W licenseAgreementMQ.selection=1
-W licenseMQ.key="myMQkey"
-W installTypePanelMQ.type="INSTALL"

# Windows syntax and program group info
-W destination.location="C:\Sonic"
-W programFolder.group="Sonic Software"
-W programFolder.folderGroups=""
-W bundledJre.useBundled="true"
-W bundledJre.versionText=""
-W jre.location="$J(sonic.default.java)"
-W setupTypePanelMq.type="CUSTOM"
-W featurePanelMQ.features="ADMINISTRATION; DOCUMENTATION"
```

2. Replace *myMQkey* with your key
3. As appropriate, adjust the locations and program groups.
4. If appropriate, specify to not use the bundled JRE, and then provide its location.
5. If you want, deselect tools or documentation features for this installation.
6. Save the file as a text file. For example, `c:\mqToolsDoc.txt`.
7. At the root of the installer, enter:
`setup [-silent | -console] -options c:\mqToolsDoc.txt`

Using a Response File to Install Sonic ESB Tools and Documentation

After you have installed SonicMQ tools on a system, you can install Sonic ESB tools in that same location. These tools require a management connection to a running domain.

- ◆ **To use a response file to install only the tools and documentation features of Sonic ESB:**

1. Copy [Code Sample 3](#).

Code Sample 3. Response File for Installing Sonic ESB Tools and Documentation

```
-W productChoice.product="ESB"
-W licenseAgreementESB.selection=1
-W licenseESB.key="myESBkey"
-W installTypePanelESB.type="INSTALL"

# Windows syntax and program group info
-W destination.location="C:\Sonic"
-W programFolder.group="Sonic Software"
-W programFolder.folderGroups=""
-W setupTypePanel.type="CUSTOM"
-W featurePanelESB.features="ADMINISTRATION; DOCUMENTATION"

# Connection to a running Domain Manager
-W esbDSUpgradePanel.dsupgrade="DS_UPGRADE"
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.mgmtConnectonUrl="tcp://localhost:2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
-W dsOverride.dsOverride="true"
```

2. Replace *myESBkey* with your key
3. As appropriate, adjust the locations and program groups.
4. If you want, deselect tools or documentation features for this installation.
5. Set the domain connections for a V7.0 Domain Manager that will get adapted for the functionality of these tools.
6. Save the file as a text file. For example, `c:\esbToolsDoc.txt`.
7. At the root of the installer, enter:


```
setup [-silent | -console] -options c:\esbToolsDoc.txt
```

Using a Response File to Install Sonic Orchestration Server Tools and Documentation

- ◆ **To use a response file to install only the tools and documentation features of Sonic Orchestration Server:**

1. Copy [Code Sample 4](#).

Code Sample 4. Response File for Installing Sonic Orchestration Server Tools and Documentation

```
-W productChoice.product="OSVR"
-W licenseAgreementOSVR.selection=1
-W licenseOSVR.key="myOSVRkey"
-W installTypePanelOSVR.type="INSTALL"

# Windows syntax and program group info
-W destination.location="C:\Sonic"
-W programFolder.group="Sonic Software"
-W programFolder.folderGroups=""
-W setupTypePanel.type="CUSTOM"
-W featurePanelOSVR.features="ADMINISTRATION; DOCUMENTATION"

# Connection to a running Domain Manager
-W esbDSUpgradePanel.dsupgrade="DS_UPGRADE"
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.mgmtConnectionUrl="tcp://localhost: 2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
-W dsOverride.dsOverride="true"
```

2. Replace *myOSVRkey* with your key
3. As appropriate, adjust the locations and program groups.
4. If you want, deselect tools or documentation features for this installation.
5. Set the domain connections for a V7.0 Domain Manager that has been updated for Sonic ESB tools and that will get adapted for the functionality of these tools.
6. Save the file as a text file. For example, `c:\osvrToolsDoc.txt`.
7. At the root of the installer, enter:
`setup [-silent | -console] -options c:\osvrToolsDoc.txt`

Using a Response File to Install Sonic XML Server Tools and Documentation

- ◆ **To use a response file to install only the tools and documentation features of Sonic XML Server:**

1. Copy [Code Sample 5](#).

Code Sample 5. Response File for Installing Sonic XML Server Tools and Documentation

```
-W productChoice.product="XSVR"
-W licenseAgreementXSVR.selection=1
-W licenseXSVR.key="myXSVRkey"
-W installTypePanelXSVR.type="INSTALL"

# Windows syntax and program group info
-W destination.location="C:\Sonic"
-W programFolder.group="Sonic Software"
-W programFolder.folderGroups=""

-W setupTypePanel.type="CUSTOM"
-W featurePanelXSVR.features="ADMINISTRATION; DOCUMENTATION"

# Connection to a running Domain Manager
-W esbDSUpgradePanel.dsupgrade="DS_UPGRADE"
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.mgmtConnectionUrl="tcp://localhost:2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
-W dsOverride.dsOverride="true"
```

2. Replace *myXSVRkey* with your key
3. As appropriate, adjust the locations and program groups.
4. If you want, deselect tools or documentation features for this installation.
5. Set the domain connections for a V7.0 Domain Manager that has been updated for Sonic ESB tools and that will get adapted for the functionality of these tools.
6. Save the file as a text file. For example, c:\xsvrToolsDoc.txt.
7. At the root of the installer, enter:


```
setup [-silent | -console] -options c:\xsvrToolsDoc.txt
```

Using a Response File to Install Sonic Database Service Tools and Documentation

- ◆ **To use a response file to install only the tools and documentation features of Sonic Database Service:**

1. Copy [Code Sample 6](#).

Code Sample 6. Response File for Installing Sonic Database Service Tools and Documentation

```
-W productChoice.product="DBS"
-W licenseAgreementDBS.selection=1
-W licenseDBS.key="myDBSkey"
-W installTypePanelDBS.type="INSTALL"

# Windows syntax and program group info
-W destination.location="C:\Sonic"
-W programFolder.group="Sonic Software"
-W programFolder.folderGroups=""

-W setupTypePanel.type="CUSTOM"
-W featurePanelDBS.features="ADMINISTRATOR; DOCUMENTATION"

# Connection to a running Domain Manager
-W esbDSUpgradePanel.dsupgrade="DS_UPGRADE"
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.managementUrl="tcp://localhost: 2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
-W dsOverwrite.dsOverwrite="true"
```

2. Replace *myDBSkey* with your key.
3. As appropriate, adjust the locations and program groups.
4. If you want, deselect tools or documentation features for this installation.
5. Set the domain connections for a V7.0 Domain Manager that has been updated for Sonic ESB tools and that will get adapted for the functionality of these tools.
6. Save the file as a text file. For example, `c:\dbsToolsDoc.txt`.
7. At the root of the installer, enter:
`setup [-silent | -console] -options c:\dbsToolsDoc.txt`

Using Response Files to Install Containers and Components

Deployment configurations need an installed software stack that supports their runtime requirements. A SonicMQ management container hosts a Sonic ESB container. Other Sonic SOA Suite configurations then run the container structure.

- [“Using a Response File to Install SonicMQ Management Containers”](#)
- [“Using a Response File to Install Sonic ESB Containers”](#)
- [“Using a Response File to Install Sonic Orchestration Servers and Process Search”](#)
- [“Using a Response File to Install Sonic XML Server sand XML DataStores”](#)
- [“Using a Response File to Install Sonic Database Services and Database Drivers”](#)

Using a Response File to Install SonicMQ Management Containers

◆ **To use a response file to install a SonicMQ management container:**

1. Start the domain manager that will manage this configuration.
2. Copy [Code Sample 7](#).

Code Sample 7. Response File for Installing a SonicMQ Management Container

```
-W productChoice.product="MQ"
-W licenseAgreementMQ.selection=1
-W licenseMQ.key="myMQkey"
-W installTypePanelMQ.type="INSTALL"
# Windows syntax and program group info
-W destination.location="C:\Sonic"
-W programFolder.group="Sonic Software"
-W programFolder.folderGroups=""
-W setupTypePanel.type="CUSTOM"
-W featurePanelMQ.features="CONTAINER"
-W bundledJre.useBundled="true"
-W bundledJre.versionText=""
-W jre.location="$J(sonic.default.java)"
# Connection to the Domain Manager
-W connectQueryPanel.connect="true"
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.mgmtConnectionUrl="tcp://localhost:2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
# Specs for this container
-W getMqContainerInfo.container="/Containers/ContainerNNNN"
```

3. Replace *myMQkey* with your key.
4. As appropriate, adjust the locations and program groups.
5. If appropriate, specify to not use the bundled JRE, and then provide its location.
6. Set the connections to the V7.0 Domain Manager that will host the configuration.
7. Specify a configuration path and unique container name in the domain.
8. Save the file as a text file. For example, for Container0005, `c:\mqContainer0005.txt`.
9. At the root of the installer (for this example), enter:
`setup [-silent | -console] -options c:\mqContainer0005.txt`

Using a Response File to Install Sonic ESB Containers

◆ To use a response file to install a Sonic ESB container:

1. Start the domain manager that will manage this configuration.
2. Copy [Code Sample 8](#).

Code Sample 8. Response File for Installing a Sonic ESB Container

```
-W productChoice.product="ESB"
-W licenseAgreementESB.selection=1
-W licenseESB.key="myESBkey"
-W installTypePanelESB.type="INSTALL"
# Windows syntax and program group info
-W destination.location="C:\Sonic"
-W programFolder.group="Sonic Software"
-W programFolder.folderGroups=""
-W setupTypePanel.type="INSTALL"
-W featurePanelESB.features="CONTAINER"
# Connection to the Domain Manager
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.mgmtConnectonUrl="tcp://localhost:2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
-W getEsbContainerInfo.containerName="uniqueContainerName"
-W getEsbContainerInfo.containerClasspath="optionalClasspath"
-W dsOverride.dsOverride="true"
```

3. Replace *myESBkey* with your key.
4. Adjust the location and program groups to match a SonicMQ container location.
5. Set the domain connections for the same V7.0 Domain Manager that manages the configuration of the management container.
6. Specify a unique ESB container name in the domain.
7. Save the file as a text file. For example, for ESB_0005, c:\ESB_0005.txt.
8. At the root of the installer, enter:
 setup [-silent | - console] -options c:\ESB_0005.txt

Using a Response File to Install Sonic Orchestration Servers and Process Search

◆ **To use a response file to install Sonic Orchestration Server configured objects:**

1. Start the domain manager that will manage this configuration.
2. Copy [Code Sample 9](#).

Code Sample 9. Response File for Installing a Sonic Orchestration Server and Process Search

```
-W productChoice.product="OSVR"
-W licenseAgreementOSVR.selection=1
-W licenseOSVR.key="myOSVRkey"
-W installTypePanelOSVR.type="INSTALL"
# Windows syntax and program group info
-W destination.location="C:\Sonic"
-W programFolder.group="Sonic Software"
-W programFolder.folderGroups=""
-W setupTypePanel.type="CUSTOM"
-W featurePanelOSVR.features="ORCHESTRATION_SERVER; PROCESS_SEARCH"
# Connection to the Domain Manager
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.mgmtConnectionUrl="tcp://localhost:2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
-W dsOverride.dsOverride="true"
```

3. Replace *myOSVRkey* with your key
4. Adjust the location and program groups to match a SonicMQ container location that has had a Sonic ESB container installed.
5. Set the domain connections for the same V7.0 Domain Manager that manages the configuration of the management container.
6. If you want to install only one of the product features in this location, edit the list to either "ORCHESTRATION_SERVER" or "PROCESS_SEARCH".
7. Save the file as a text file. For example, `c:\OSVR.txt`.
8. At the root of the installer, enter:
`setup [-silent | -console] -options c:\OSVR.txt`

Using a Response File to Install Sonic XML Server and XML DataStores

◆ To use a response file to install Sonic XML Server configured objects:

1. Start the domain manager that will manage this configuration.
2. Copy [Code Sample 10](#).

Code Sample 10. Response File for Installing a Sonic XML Server and XML Data Store

```
-W productChoice.product="XSVR"
-W licenseAgreementXSVR.selection=1
-W licenseXSVR.key="myXSVRkey"
-W installTypePanelXSVR.type="INSTALL"
# Windows syntax and program group info
-W destination.location="C: \Sonic"
-W programFolder.group="Sonic Software"
-W programFolder.folderGroups=""
-W setupTypePanel.type="CUSTOM"
-W featurePanelXSVR.features="XML_SERVER; XML_DATABASE"
# Connection to the Domain Manager
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.mgmtConnectonUrl="tcp: //localhost: 2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
-W dsOverride.dsOverride="true"
```

3. Replace *myXSVRkey* with your key
4. Adjust the location and program groups to match a SonicMQ container location that has had a Sonic ESB container installed.
5. Set the domain connections for the same V7.0 Domain Manager that manages the configuration of the management container.
6. If you want to install only one of the product features in this location, edit the list to either "XML_SERVER" or "XML_DATABASE".
7. Save the file as a text file. For example, c: \XSVR. txt.
8. At the root of the installer, enter:


```
setup [-silent | - console] -options c: \XSVR. txt
```

Using a Response File to Install Sonic Database Services and Database Drivers

◆ **To use a response file to install Sonic Database Server configured objects and drivers:**

1. Start the domain manager that will manage this configuration.
2. Copy [Code Sample 11](#).

Code Sample 11. Response File for Installing a Sonic Database Service and Drivers

```
-W productChoice.product="DBS"
-W licenseAgreementDBS.selection=1
-W licenseDBS.key="myDBSkey"
-W installTypePanelDBS.type="INSTALL"
# Windows syntax and program group info
-W destination.location="C:\Sonic"
-W programFolder.group="Sonic Software"
-W programFolder.folderGroups=""
-W setupTypePanel.type="CUSTOM"
-W featurePanelDBS.features="DATABASE_SERVICE; DATABASE_DRIVERS"
# Connection to the Domain Manager
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.mgmtConnectionUrl="tcp://localhost:2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
-W dsOverride.dsOverride="true"
```

3. Replace *myDBSkey* with your key
4. Adjust the location and program groups to match a SonicMQ container location that has had a Sonic ESB container installed.
5. Set the domain connections for the same V7.0 Domain Manager that manages the configuration of the management container.
6. If you want to install only one of the product features in this location, edit the list to either "DATABASE_SERVICE" or "DATABASE_DRIVERS".
7. Save the file as a text file. For example, `c:\DBS.txt`.
8. At the root of the installer, enter:
`setup [-silent | -console] -options c:\DBS.txt`

Using a Response File to Install a SonicMQ JMS Java Client

Installing a SonicMQ client enables Java applications to run on systems that are running neither tools or configured objects. Under Windows, the installer will also install the preferred Java runtime environment.

◆ **To use a response file to install only the SonicMQ Java client:**

1. Copy [Code Sample 12](#).

Code Sample 12. Response File for Installing a SonicMQ JMS Java Client

```
-W productChoice.product="MQ"
-W licenseAgreementMQ.selection=1
-W licenseMQ.key="myMQkey"
-W installTypePanelMQ.type="INSTALL"
# Windows syntax and program group info
-W destination.location="C:\Sonic"
-W programFolder.group="Sonic Software"
-W programFolder.folderGroups=""
-W setupTypePanelMq.type="CUSTOM"
-W featurePanelMQ.features="JMS_CLIENT"
-W bundledJre.useBundled="true"
-W bundledJre.versionText=""
-W jre.location="$J(sonic.default.java)"
```

2. Replace *myMQkey* with your key.
3. Adjust the location and program groups.
4. Save the file as a text file. For example, c:\client.txt.
5. At the root of the installer, enter:
setup [-silent | -console] -options c:\client.txt

Using a Response File to Upgrade a Sonic Workbench

◆ **To use a response file to upgrade a Sonic V6.1 Workbench:**

1. Backup the existing installation.
2. Copy [Code Sample 13](#).

Code Sample 13. Response File for Upgrading a Sonic Workbench

```
-W productChoice.product="IW"
-W LicenseAgreementIW.selection=1
-W LicenseIW.key="myIWkey"
-W installTypePanelIW.type="UPGRADE"

-W destinationUpgrade.currentLocation="current_path"
-W destinationUpgrade.location="<value>"
-W programFolder.group="<value>"
-W programFolder.folderGroups="<value>"

# Samples
-W installSamplesPanel.samples="<value>"

# Eclipse
-W installEclipsePanel.eclipse="<value>"
-W installEclipsePanel.desktopIcon="<value>"
-W eclipseLocationPanel.eclipse="<value>"
-W eclipseWorkspaceLocation.workspace="<value>"
-W docPortal.displayDoc="false"
```

3. Replace *myIWkey* with your key.
4. Adjust the location to point to the V6.1 installation.
5. If you prefer, set the installation of samples to **false**.
6. If you want to use an existing Eclipse installation, change the Eclipse parameter from **NEW** to **EXISTING** and then identify its location and workspace.
7. If you want to set a specific port for the broker, enter your preferred value.
8. Save the file as a text file. For example, **c:\UpgradeSonicWorkbench.txt**.
9. At the root of the installer, enter:
setup [-silent | -console] -options c:\UpgradeSonicWorkbench.txt

Using Response Files to Upgrade Containers and Components

All deployment configuration objects must be upgraded:

- “Using a Response File to Upgrade a SonicMQ Management Container”
- “Using a Response File to Upgrade a Sonic ESB Container”
- “Using a Response File to Upgrade a Sonic Orchestration Server Installation”
- “Using a Response File to Upgrade a Sonic XML Server Installation”
- “Using a Response File to Upgrade a Sonic Database Service Installation”

Important The domain manager that host configured objects must be upgraded to V7.0 before you attempt to upgrade any configurations in that domain to V7.0. See the *SonicMQ Installation and Upgrade Guide* for information about upgrading a Domain Manager.

Using a Response File to Upgrade a SonicMQ Management Container

◆ **To use a response file to upgrade a deployed SonicMQ V6.1 management container:**

1. Start the domain manager that manages this configuration.
2. Copy [Code Sample 14](#).

Code Sample 14. Response File for Upgrading a SonicMQ V6.1 Management Container

```
-W productChoice.product="MQ"
-W licenseAgreementMQ.selection=1
-W licenseMQ.key="myMQkey"
-W installTypePanelMQ.type="UPGRADE"
-W mqUpgradeContainerPanel.containerType="CONTAINER_INSTALL"
-W destinationUpgrade.currentLocation="current_path"
-W destinationUpgrade.location="upgrade_into_path"
-W mqUpgradeContainerInfo.containerPath="path"
-W mqUpgradeContainerInfo.containerBootFile="bootFileName"
-W pdmQueryPanel.primaryDomainManager=""

# Connection to the Domain Manager
-W connectQueryPanel.connect="true"
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.mgmtConnectonUrl="tcp://localhost:2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
```

3. Replace *myMQkey* with your V7.0 key.
4. Adjust the location to point to a current installation root.
5. If appropriate, specify to not use the bundled JRE, and then provide its location.
6. Set the connections to the V7.0 Domain Manager that hosts the V6.1 configuration.
7. Specify the container paths.
8. Save the file as a text file. For example, for Container0005, c: \UpgradeMqContainer0005. txt.
9. At the root of the installer (for this example), enter:
setup [-silent | - console] -options c: \UpgradeMqContainer0005. txt

Using a Response File to Upgrade a Sonic ESB Container

After you have upgraded a SonicMQ management container that hosts a Sonic ESB container, you must upgrade the ESB container.

◆ **To use a response file to upgrade a deployed Sonic ESB V6.1 Container:**

1. Start the domain manager that hosts this configuration.
2. Copy [Code Sample 15](#).

Code Sample 15. Response File for Upgrading a Sonic ESB V6.1 Container

```
-W productChoice.product="ESB"
-W licenseAgreementESB.selection=1
-W licenseESB.key="myESBkey"
-W installTypePanelESB.type="UPGRADE"
-W destinationUpgrade.currentLocation="current_path"
-W destinationUpgrade.location="upgrade_into_path"

# Connection to the Domain Manager
-W connectQueryPanel.connect="true"
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.mgmtConnectonUrl="tcp://localhost:2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
```

3. Replace *myESBkey* with your V7.0 key.
4. Adjust the location and program groups to an upgraded SonicMQ container location.
5. Set the domain connections for the same V7.0 Domain Manager that manages the configuration of the management container.
6. Save the file as a text file. For example, c:\UpgradeESB.txt.
7. At the root of the installer, enter:


```
setup [-silent | -console] -options c:\UpgradeESB.txt
```

Using a Response File to Upgrade a Sonic Orchestration Server Installation

After you have upgraded a SonicMQ management container and a hosted Sonic ESB container, you can upgrade Sonic Orchestration Server deployed components.

◆ **To use a response file to upgrade a Sonic Orchestration Server V6.1 deployed components:**

1. Start the domain manager that hosts this configuration.
2. Copy [Code Sample 16](#).

Code Sample 16. Response File for Upgrading Sonic Orchestration Server V6.1

```
-W productChoice.product="OSVR"
-W LicenseAgreementOSVR.selection=1
-W LicenseOSVR.key="myOSVRkey"
-W installTypePanelOSVR.type="UPGRADE"
-W destinationUpgrade.currentLocation="current_path"
-W destinationUpgrade.location="upgrade_into_path"

# Connection to the Domain Manager
-W connectQueryPanel.connect="true"
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.mgmtConnectonUrl="tcp://localhost: 2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
```

3. Replace *myOSVRkey* with your V7.0 key
4. Adjust the location and program groups to the location where Sonic Orchestration Server V6.1 is installed.
5. Set the domain connections for the same V7.0 Domain Manager that manages the configuration of the management container.
6. Save the file as a text file. For example, `c:\UpgradeOSVR.txt`.
7. At the root of the installer, enter:
`setup [-silent | -console] -options c:\UpgradeOSVR.txt`

Using a Response File to Upgrade a Sonic XML Server Installation

After you have upgraded a SonicMQ management container and a hosted Sonic ESB container, you can upgrade Sonic XML Server deployed components.

◆ **To use a response file to upgrade Sonic XML Server V6.1 deployed components:**

1. Start the domain manager that hosts this configuration.
2. Copy [Code Sample 17](#).

Code Sample 17. Response File for Upgrading Sonic XML Server V6.1

```
-W productChoice.product="XSVR"
-W licenseAgreementXSVR.selection=1
-W licenseXSVR.key="myXSVRkey"
-W installTypePanelXSVR.type="UPGRADE"
-W destinationUpgrade.currentLocation="current_path"
-W destinationUpgrade.location="upgrade_into_path"

# Connection to the Domain Manager
-W connectQueryPanel.connect="true"
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.mgmtConnectonUrl="tcp://localhost:2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
```

3. Replace *myXSVRkey* with your V7.0 key
4. Adjust the location and program groups to the location where Sonic XML Server V6.1 is installed.
5. Set the domain connections for the same V7.0 Domain Manager that manages the configuration of the management container.
6. Save the file as a text file. For example, `c:\UpgradeXSVR.txt`.
7. At the root of the installer, enter:


```
setup [-silent | -console] -options c:\UpgradeXSVR.txt
```

Using a Response File to Upgrade a Sonic Database Service Installation

After you have upgraded a SonicMQ management container and a hosted Sonic ESB container, you can upgrade Sonic Database Service deployed components.

◆ **To use a response file to upgrade Sonic Database Service V6.1 deployed components:**

1. Start the domain manager that hosts this configuration.
2. Copy [Code Sample 18](#).

Code Sample 18. Response File for Upgrading Sonic Database Service V6.1

```
-W productChoice.product="DBS"
-W licenseAgreementDBS.selection=1
-W licenseDBS.key="myDBSkey"
-W installTypePanelDBS.type="UPGRADE"
-W destinationUpgrade.currentLocation="current_path"
-W destinationUpgrade.location="upgrade_into_path"

# Connection to the Domain Manager
-W connectQueryPanel.connect="true"
-W domainManagerInfo.domain="Domain1"
-W domainManagerInfo.mgmtConnectonUrl="tcp://localhost:2506"
-W domainManagerInfo.userName="Administrator"
-W domainManagerInfo.password="Administrator"
-W domainManagerInfo.password2="Administrator"
-W domainManagerInfo.managementNode=""
```

3. Replace *myDBSkey* with your V7.0 key
4. Adjust the location and program groups to the location where Sonic Database Service V6.1 is installed.
5. Set the domain connections for the same V7.0 Domain Manager that manages the configuration of the management container.
6. Save the file as a text file. For example, `c:\UpgradeDBS.txt`.
7. At the root of the installer, enter:
`setup [-silent | -console] -options c:\UpgradeDBS.txt`

Chapter 7 Uninstalling Sonic Software Products

This chapter contains the following sections:

- “Sequence of Operations”
- “Managing Prior Versions on Deployment Systems”
- “Alternative Techniques for Uninstallation”

Sequence of Operations

When you install Sonic Software V7.0 products on a deployment system, you install SonicMQ components, then Sonic ESB, and then—as appropriate—advanced ESB components. When you uninstall the stack, do the same process in reverse, as described in this table.

<i>To uninstall...</i>	<i>Uninstall that product then uninstall...</i>
Sonic XML Server	Sonic ESB, and then SonicMQ
Sonic Orchestration Server	Sonic ESB, and then SonicMQ
Sonic Database Service	Sonic ESB, and then SonicMQ
Sonic ESB	SonicMQ

Managing Prior Versions on Deployment Systems

While you could retain the prior versions installation to enable a rollback, you should rename its container bootfile by appending `_before70Upgrade` to its name or similar so that it is not started inadvertently.

After you have completed upgrades and you are sure you do not want to revert the upgrade, you can delete the prior installation but there are some considerations. There are several functions that might have been maintained in the prior installations directory structure and that could adversely impact the upgraded installation.

Important If any configurations on a system are not yet upgraded to V7.0, you need to maintain the environment and scripts in the physical installation that will support those configurations.

It is good practice to archive the prior installation's directory, purge the unused portions, and then, when the upgraded installation is seen to operate correctly, delete the archive.

Note If your SonicMQ broker and domain manager upgrades involved leaving the data stores, logs, or certificate stores in the previous location, or if you defined additional brokers using the same installation resources, see the checklist in the “Uninstalling SonicMQ” chapter of the *SonicMQ Installation and Upgrade Guide*.

When you uninstall Sonic Software components you are removing the physical components that provide a management container for hosting service instances. The service and the service type are not removed from the Directory Service as they can have other instances that are active.

The configuration of the management container is not deleted when the SonicMQ component is deleted, so you can generate a new boot file and use it on another installation to host the services once again in runtime. If you used a naming pattern that requires the container be deleted, choose its configuration in the Sonic Management Console, and then choose **Action > Delete**. The ESB Container and services hosted in a deleted management container are unbound from that container instance but are not deleted.

Alternative Techniques for Uninstallation

The procedures in this chapter describe using the graphical installer wizard in its uninstall mode. You can use other modes to accomplish uninstallations.

Console Mode

You can choose to use the console interface by adding the `-console` option in the command line.

For example, in a console window at the root of the installation, enter:

```
uninstall.bat -console
```

The uninstaller runs in the console interface.

Specifying a Product Version Parameter for Silent Mode

You can add a parameter that specifies the product to uninstall. This functionality enables silent uninstallation. It is not preferred for console or graphical uninstall runs, as running without the product parameter will prompt you with the best product to uninstall first and then let you cycle through the installer to remove other products in the installation's software stack.

The syntax of a silent uninstall using the product parameter is (in a console window at the root of the installation you want to uninstall):

```
uninstall.bat -silent -G uninstall ProductChoice=value
```

where *value* is one quoted text value that provides the product and its version number in the form *product=version*, as follows

- `"IW=7.0"` for Sonic Workbench
- `"MQ=7.0"` for SonicMQ
- `"ESB=7.0"` for Sonic ESB
- `"OSVR=7.0"` for Sonic Orchestration Server
- `"XSVR=7.0"` for Sonic XML Server
- `"DBS=7.0"` for Sonic Database Service

For example,

```
uninstall.bat -silent -G uninstall ProductChoice="OSVR=7.0"
```

Note You can use the V7.0 uninstaller to uninstall V6.1 products in the same directory. For example, `uninstall.bat -silent -G uninstall ProductChoice="OSVR=6.1"`

Graphical Mode

The following sections detail the procedures for uninstalling Sonic Software Products in graphical mode under Windows and under UNIX or Linux. The general concept and housekeeping tasks described in these procedures are common to the console and silent modes.

Uninstalling Sonic XML Server

To remove a Sonic XML Server installation from a system, stop the running containers on that system before starting the uninstall script. If the XML Datastore is used by containers on other machines, those containers should also be stopped.

Uninstalling Sonic XML Server on Windows

The following procedure describes how to uninstall Sonic XML Server using the uninstall wizard on Windows.

◆ **To uninstall Sonic XML Server on Windows:**

1. Back up any files you want to retain.
2. Select: **Start > Programs > Sonic Software > Sonic Uninstaller**.
The **Welcome** window opens.
3. Click **Next**.
The **Product Selection** window opens and displays the installed products you can choose to uninstall.
4. Select **Sonic XML Server**, and then click **Next**.
You are reminded to shut down all containers running Sonic XML Server services.
5. Click **Next**.
A window opens showing the progress of the uninstallation. The **Uninstallation Summary** reviews the status of the uninstallation.
6. Clean up any remaining files by deleting the installation's **XServer7.0** directory.
7. When you complete this task, you can:
 - Uninstall Sonic ESB on this system (page [174](#)).
 - Uninstall SonicMQ on this system (page [176](#)).

Uninstalling Sonic XML Server on UNIX or Linux

The following procedure describes uninstalling Sonic XML Server on UNIX or Linux.

◆ **To uninstall Sonic XML Server on UNIX or Linux:**

1. Login as **root** if you installed as **root**.
2. Back up any files you want to retain. You might want to perform backup procedures on the XML datastore.

Note

If you did not install as **root**, stop the database before uninstalling it; for example, `/opt/Sonic/XServer7.0/bin/stopdb.sh`

3. Open a console window to the root of the installation; for example, `/opt/Sonic`.
4. Run `uninstall.sh`.
The **Welcome** window opens.
5. Click **Next**.
The **Product Selection** window opens and displays the installed products you can choose to uninstall.
6. Select **Sonic XML Server**, and then click **Next**.
You are reminded to shut down all containers running Sonic XML Server services.
7. Click **Next**.
A window opens showing the progress of the uninstallation. The **Uninstallation Summary** reviews the status of the uninstallation.
8. Clean up any remaining files by invoking `rm -r` in the installation's `XServer7.0` directory.
9. When you complete this task, you can:
 - Uninstall Sonic ESB on this system (page [175](#)).
 - Uninstall SonicMQ on this system (page [177](#)).

Uninstalling Sonic Orchestration Server

To remove a Sonic Orchestration Server installation from a system, stop the running containers on that system before starting the uninstall script. If the XML Datastore is used by containers on other machines, those containers should also be stopped.

Uninstalling Sonic Orchestration Server on Windows

The following procedure describes how to uninstall Sonic Orchestration Server using the uninstall wizard on Windows.

◆ To uninstall Sonic Orchestration Server on Windows:

1. Back up any files you want to retain.
2. Select: **Start > Programs > Sonic Software > Sonic Uninstaller**.
The **Welcome** window opens.
3. Click **Next**.
The **Product Selection** window opens and displays the installed products you can choose to uninstall.
4. Select **Sonic Orchestration Server**, and then click **Next**.
You are reminded to shut down all containers running Sonic Orchestration Server services.
5. Click **Next**.
A window opens showing the progress of the uninstallation. The **Uninstallation Summary** reviews the status of the uninstallation.
6. Clean up any remaining files by deleting the installation's **OServer7.0** directory.
7. When you complete this task, you can:
 - Uninstall Sonic ESB on this system (page [174](#)).
 - Uninstall SonicMQ on this system (page [176](#)).

Uninstalling Sonic Orchestration Server on UNIX or Linux

The following procedure describes uninstalling Sonic Orchestration Server on UNIX or Linux.

◆ **To uninstall Sonic Orchestration Server on UNIX or Linux:**

1. Login as **root** if you installed as **root**.
2. Back up any files you want to retain. You might want to perform backup procedures on the XML datastore.

Note

If you did not install as **root**, stop the database before uninstalling it.

3. Open a console window to the root of the installation.
4. Run `uninstall.sh`.
The **Welcome** window opens.
5. Click **Next**.
The **Product Selection** window opens and displays the installed products you can choose to uninstall.
6. Select **Sonic Orchestration Server**, and then click **Next**.
You are reminded to shut down all containers running Sonic Orchestration Server services.
7. Click **Next**.
A window opens showing the progress of the uninstallation. The **Uninstallation Summary** reviews the status of the uninstallation.
8. Clean up any remaining files by invoking `rm -r` in the installation's `OServer7.0` directory.
9. When you complete this task, you can:
 - Uninstall Sonic ESB on this system (page [175](#)).
 - Uninstall SonicMQ on this system (page [177](#)).

Uninstalling Sonic Database Service

To remove a Sonic Database Service installation from a system, stop the running containers on that system before starting the uninstall script. If the database is used by containers on other machines, those containers should also be stopped.

Uninstalling Sonic Database Service on Windows

The following procedure describes how to uninstall Sonic Database Service using the uninstall wizard on Windows.

◆ To uninstall Sonic Database Service on Windows:

1. Back up any files you want to retain.
2. Select: **Start > Programs > Sonic Software > Sonic Uninstaller**.
The **Welcome** window opens.
3. Click **Next**.
The **Product Selection** window opens and displays the installed products you can choose to uninstall.
4. Select **Sonic Database Service**, and then click **Next**.
You are reminded to shut down all containers running Sonic Database Service services.
5. Click **Next**.
A window opens showing the progress of the uninstallation. The **Uninstallation Summary** reviews the status of the uninstallation.
6. Clean up any remaining files by deleting the installation's **DBService7.0** directory.
7. When you complete this task, you can:
 - Uninstall Sonic ESB on this system (page [174](#)).
 - Uninstall SonicMQ on this system (page [176](#)).

Uninstalling Sonic Database Service on UNIX or Linux

The following procedure describes uninstalling Sonic Database Service on UNIX or Linux.

◆ **To uninstall Sonic Database Service on UNIX or Linux:**

1. Login as **root**.
2. Open a console window to the root of the installation.
3. Back up any files you want to retain.
4. Run `uninstall.sh`.
The **Welcome** window opens.
5. Click **Next**.
The **Product Selection** window opens and displays the installed products you can choose to uninstall.
6. Select **Sonic Database Service**, and then click **Next**.
You are reminded to shut down all containers running Sonic Database Service services.
7. Click **Next**.
The **Pre Uninstall Summary** window opens that summarizes the product and features to be uninstalled.
8. Click **Next**.
A window opens showing the progress of the uninstallation. The **Uninstallation Summary** reviews the status of the uninstallation.
9. Clean up any remaining files by invoking `rm -r` in the installation's `DBService7.0` directory.
10. When you complete this task, you can:
 - Uninstall Sonic ESB on this system (page [175](#)).
 - Uninstall SonicMQ on this system (page [177](#)).

Uninstalling Sonic ESB

To remove a Sonic ESB installation from a system, stop the running containers on that system before starting the uninstall script.

Uninstalling Sonic ESB on Windows

The following procedure describes how to uninstall Sonic ESB using the uninstall wizard on Windows.

◆ To uninstall Sonic ESB on Windows:

1. Back up any files you want to retain.
2. Select: **Start > Programs > Sonic Software > Sonic Uninstaller**.
The **Welcome** window opens.
3. Click **Next**.
The **Product Selection** window opens and displays the installed products you can choose to uninstall.
4. Select **Sonic ESB**, and then click **Next**.
You are reminded to shut down all containers running Sonic ESB services.
5. Click **Next**.
The **Pre Uninstall Summary** window opens This section includes tasks and considerations to complete any remaining updates after you have upgraded to summarizes the product and features to be uninstalled.
6. Click **Next**.
A window opens showing the progress of the uninstallation. The **Uninstallation Summary** reviews the status of the uninstallation.
7. Clean up any remaining files by deleting the installation's **ESB7.0** directory.
8. When you complete this task, you can uninstall SonicMQ on this system (page [176](#)).

Uninstalling Sonic ESB on UNIX or Linux

The following procedure describes uninstalling Sonic ESB on UNIX or Linux.

◆ **To uninstall Sonic ESB on UNIX or Linux:**

1. Login as **root**.
2. Open a console window to the root of the installation.
3. Back up any files you want to retain.
4. Run `uninstall.sh`.
The **Welcome** window opens.
5. Click **Next**.
The **Product Selection** window opens and displays the installed products you can choose to uninstall.
6. Select **Sonic ESB**, and then click **Next**.
You are reminded to shut down all containers running Sonic ESB services.
7. Click **Next**.
A window opens showing the progress of the uninstallation. The **Uninstallation Summary** reviews the status of the uninstallation.
8. Clean up any remaining files by invoking `rm -r` in the installation's **ESB7.0** directory.
9. When you complete this task, you can uninstall SonicMQ on this system (page [177](#)).

Uninstalling SonicMQ

To remove a SonicMQ installation from a system, stop the running containers on that system before starting the uninstall script.

Uninstalling SonicMQ on Windows

The following procedure describes how to uninstall SonicMQ using the uninstall wizard on Windows.

◆ To uninstall SonicMQ on Windows:

1. Back up any files you want to retain.
2. Select: **Start > Programs > Sonic Software > Sonic Uninstaller**
The **Welcome** window opens.
3. Click **Next**.
The **Product Selection** window opens and displays the installed products you can choose to uninstall.
4. Choose **SonicMQ**. Click **Next**.
You are reminded to shut down all Sonic containers.
5. Click **Next**.
A window opens showing the progress of the uninstallation. The **Uninstallation Summary** reviews the status of the uninstallation.
6. Clean up any remaining files by deleting the installation's **MQ7.0** directory.
7. If you removed all Sonic product installations, you can clean up any remaining files by deleting the installation directory.

Uninstalling SonicMQ on UNIX or Linux

The following procedure describes uninstalling SonicMQ on UNIX or Linux.

◆ **To uninstall SonicMQ on UNIX or Linux:**

1. Login as **root**.
2. Open a console window to the root of the installation.
3. Back up any files you want to retain.
4. Run `uninstall.sh`.
The **Welcome** window opens.
5. Click **Next**.
The **Product Selection** window opens and displays the installed products you can choose to uninstall.
6. Choose **SonicMQ**. Click **Next**.
You are reminded to shut down all Sonic containers.
7. Click **Next**.
A window opens showing the progress of the uninstallation. The **Uninstallation Summary** reviews the status of the uninstallation.
8. Clean up any remaining files by invoking `rm -r` in the installation's **MQ7.0** directory.
9. If you removed all Sonic product installations, you can clean up any remaining files by invoking `rm -r` in the root directory of the installation.

Uninstalling Sonic Workbench

Uninstalling Sonic Integration Workbench V6.1

As the upgrade process leaves the Sonic Integration Workbench V6.1 installation intact, you do not have to remove it. If you do choose to remove the V6.1 version, run the uninstaller as described.

Important When uninstalling, always use the Sonic Uninstaller as described in this procedure. Do not invoke the individual product uninstall scripts.

◆ **To uninstall Sonic Integration Workbench V6.1:**

1. Stop all V6.1 Sonic Software containers and tools.
2. Back up any V6.1 work files you want to save.
3. Choose **Start > Programs > Sonic Software > Sonic Uninstaller**.
4. Let the uninstall process complete. When complete, you can delete the directory (default is C:\Program Files\Sonic Software) to eliminate the residual artifacts.

Sonic Workbench V6.1 is uninstalled from this system. If you plan to uninstall Sonic Workbench V7.0 also, see the next section.

Uninstalling Sonic Workbench V7.0

Removing Sonic Workbench V7.0 from a system requires stopping the running objects and running the Sonic Workbench uninstaller.

◆ **To uninstall Sonic Workbench V7.0:**

1. Stop all Sonic Software containers and tools.
2. Back up any work files you want to save.
3. Choose **Start > Programs > Sonic Software > Sonic Uninstaller** and click **Next**. If the Product Selection panel lists several products, choose Sonic Workbench 7.0.
4. Click **Next**. Let the uninstall process complete.
5. Review the remaining artifacts. They are mostly logs, Java installations, and properties. Any other files might be work files you want to archive.
6. Delete the directory and all its subdirectories to eliminate the residual artifacts. This is an important step if you plan to re-install Sonic Workbench.

Sonic Workbench V7.0 is uninstalled from this system.

Important **Reboot after Unistallation of an Eclipse installation** — After uninstalling a Sonic Workbench that installed Eclipse, the Eclipse installation finishes deletion of Eclipse after the system restarts, If you delete the Sonic Workbench, delete the residual files, and then install it in the same location without rebooting the system, the next reboot on that system will delete the installed Eclipse.exe.