

AGILE



Agile Advantage™ 2006 SP2

Installation and Maintenance Guide



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PREFACE

Before You Begin

This guide includes instructions for a **first-time setup** of Agile Advantage 2006 with Oracle 10g Release 2.

If you currently have a previous version of Oracle installed on your server, you need to remove it before installing Oracle 10g Release 2. For more information about removing previous versions of Oracle, see *Agile Advantage 2006 Upgrade Guide*.

If you are upgrading from an earlier version of Agile, see the *Agile Advantage 2006 Upgrade Guide*.

Agile Advantage Documentation

The Agile Advantage documentation includes Adobe® Acrobat® PDF files available online. Also, ask your Agile administrator if there is a Documentation folder available on your network, from which you can access the Agile documentation (PDF) files.

Note To read the PDF files, use the free Adobe® Acrobat® Reader™. For more information about Adobe Acrobat Reader, visit www.adobe.com.

Before you install, you should check for possible updates to the documentation files by visiting the Documentation section of the Support area of the Agile Web site at <http://sme.agile.com/Support/Login.asp>. If you do not have access, please contact advantagesupport@agile.com for assistance.

Documentation Roadmap

You can find a complete list of all Agile documentation from the **Help** menu, or by visiting the Documentation section of the Support area of the Agile Web site at <http://sme.agile.com/Support/Login.asp>.

Readme File

The Agile Advantage readme file contains up-to-date information that may be useful to you in configuring Agile Advantage. You can view the readme file from the main Agile Installation folder.

Other Information Sources

You can get additional help in a number of ways.

Agile Online Support

For product support or information about Agile products and services, visit the Agile Web site at <http://sme.agile.com/Support/Login.asp>.

Customers with a current Agile Support agreement (existing account required or request an account by e-mail to advantagesupport@agile.com) can log in to this site to access the following online services for Agile Software® products:

- Problem status and reporting
- Alerts
- Frequently asked questions (FAQs)
- Documentation

Agile Advantage Training

Agile and our certified solution providers offer a variety of training programs for Agile Advantage. These programs include onsite training, classroom training, and web-based training.

Agile Administrators are recommended to attend either onsite or classroom training for both the User and Administrator course work.

Agile users are recommended to use the web based training or attend classroom or onsite training for the User course work.

To schedule Agile training, contact your account executive.

Manual Conventions


The following table lists conventions used in the Agile Advantage documentation, and gives an example of how each convention is applied.

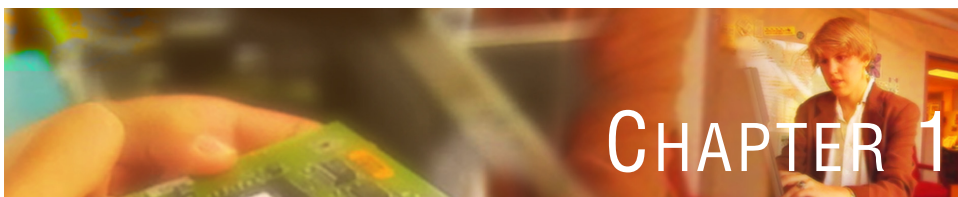
Table 1: Conventions used in this manual

Convention	Example
Text from the user interface (for example, field names, nodes, and menus and commands) is shown in a Sans Serif Bold font.	Select the SmartRules node. Click OK .
Text that you type is shown in <i>Courier</i> .	Type the user name <code>Administrator</code> .
Placeholders for variable text are shown in <i>Italic</i> .	Set the directory to <i>drive:\Agile\Qadmin\</i> .
A vertical bar is used to separate a menu name from its menu command; to indicate the expansion of nodes and subnodes; and to indicate Software keys.	You can generate Agile Administrator reports from the Tools Reports menu. Expand the Change Orders Attributes Cover Page node. HKEY_CURRENT_USER Software .
Right-click means to press and release the right mouse button.	Right-click to see the shortcut menu.
A plus sign (+) means to hold down one key while pressing another.	To open the File menu, press Alt+F.
Shift+click means to press and hold the Shift key while clicking the mouse button.	Shift+click to select a block of items in the list.
Ctrl+click means to press and hold the Ctrl key while clicking the mouse button.	Ctrl+click to select non-contiguous items in the list.
The term “computer” generically refers to hardware for a server or workstation.	Import the Agile database file to replicate the database on another computer.

Special Icons

This manual uses special icons to identify actions available to users. The icon appears to the left of the topic, for example,

	Identifies right mouse click actions
---	--------------------------------------



CHAPTER 1

Overview of Agile Advantage 2006 Installation

This chapter describes the Agile Advantage components you need to install, possible deployment choices, and system requirements or recommendations. It includes these topics:

- ❑ *Agile Advantage Components*
- ❑ *Installation Process*
- ❑ *Agile System Requirements*
- ❑ *Requirements for Running Client Components*
- ❑ *Agile Registry Changes*
- ❑ *Testing the Windows Servers*
- ❑ *Adjusting Windows Server Properties*
- ❑ *Installing Pre-Requisite Software*
- ❑ *Where to Go from Here*

Note Appendix E contains checklists and configuration information that is requested during the installation. Obtaining this information before installing Agile Advantage will improve the installation process and reduce the amount of time needed to successfully set up the system. It's also important to *follow* the steps in the *order* that they are required in.

Agile Advantage Components

“Software Requirements” on page 1-6 summarizes possible hardware configurations for the database server and Agile server software.

Agile Advantage 2006 consists of the following software components:

- ❑ **Agile server software**
 - Agile Advantage eHub (Application Server)
 - Agile Advantage iFS (File Server)
 - Agile ChangeCAST 2006 (optional)
 - Agile Advantage Listener
 - Agile Advantage Web Server (optional)
 - Agile Web Service for Data Extraction (optional)
- ❑ **Agile client software**
 - Agile Administrator 2006
 - Agile Advantage 2006 Windows Client
 - Agile Advantage 2006 Web Client
 - Agile DataLoad 2006 (optional)
 - Agile FileLoad 2006 (optional)
 - Agile Import 2006 (optional)
 - Agile View & Markup 2006 (optional)
 - Agile eXpress 2006 Professional (optional)
 - Agile ADK 2006 (Application Development Kit) (optional)
- ❑ **Required software**
 - Oracle 10g Release 2 Database
 - Oracle 10g Release 2 Companion
 - Apache Tomcat Web Server, version 5.5.20 (required for Agile Advantage Web Server, but not included)
 - Sun Java 2 Standard Edition Development Kit, version 1.5 (J2SE Development Kit 5.0 Update 9) (required for Apache Tomcat Web Server, but not included)
 - E-mail SMTP server (required for sending email notifications, but not included)

❑ Other software

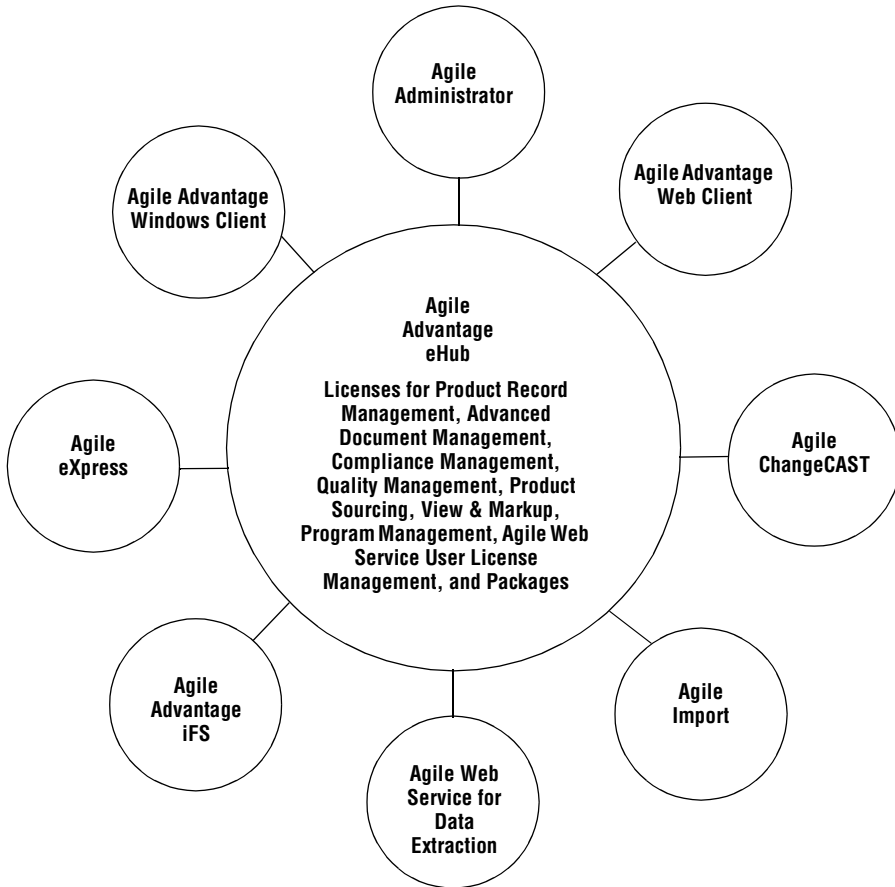
- Adobe Acrobat Reader 6.0 or later
- Internet Explorer 6.0 (Service Pack 1 or Service Pack 2) on Windows 2000 Professional Service Pack 4, Windows XP Professional (Service Pack 2), or Windows Server 2003 Standard Edition (Service Pack 1)
- For more details, see “Software Requirements” on page 1-6.

Note Windows XP Professional does not support Service Pack 1 anymore.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions. Furthermore, all Agile Advantage server components are only certified and tested on Windows Server 2003 Standard Edition and are not supported on any other operating system.

Figure 1-1 shows the conceptual relationship among these components.

Figure 1-1: Agile Advantage eHub, services, and client components



Installation Process

Agile Advantage 2006 is designed to run on a single computer system running Windows Server 2003 Standard Edition (Service Pack 1) (Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions). This guide is presented with separate chapters for certain Agile components.

To set up an Agile system, you *must* install the components in the following *precise order*:

- 1 J2SE Development Kit 1.5 (“Downloading and Installing the J2SE Development Kit 1.5” on page 1-17)
- 2 Apache Tomcat 5.5.20 Web Server (“Downloading and Installing the Tomcat Web Server 5.5.20” on page 1-18)
- 3 Oracle 10g Release 2 Database (Chapter 2, “Installing Oracle 10g Release 2 Database” on page 2-8)
- 4 Oracle 10g Release 2 Companion (Chapter 2, “Installing Oracle 10g Release 2 Companion” on page 2-11)
- 5 Agile Database Instance via Agile Advantage Installer (Chapter 2, “Creating and Configuring the Agile Database Instance” on page 2-15)
- 6 APM and/or PRM databases (Chapter 2, “Installing Agile Advantage Starter Database (Optional)” on page 2-23)
- 7 Full Text Search (Chapter 2, “Configuring Oracle Full Text Search” on page 2-25)
- 8 Oracle Enterprise Manager (Chapter 2, “Test Environment Specifications” on page 2-27)
- 9 Agile Advantage eHub (Chapter 4, “Installing Agile Advantage eHub, iFS and Listener”, on page 4-3)
- 10 Agile Advantage iFS (Chapter 4, “Installing Agile Advantage eHub, iFS and Listener”, on page 4-3)
- 11 Agile Advantage Listener (Chapter 4, “Agile Services Dependencies and Delay”, on page 4-8)
- 12 Agile Advantage Web Server (Chapter 4, “Installing Agile Advantage Web Server” on page 4-11)
- 13 Agile Advantage Clients (Chapter 7, “Installing Client Components” on page 7-3)
- 14 Agile Reports (Chapter 4, “Installing Report Templates” on page 4-12)
- 15 Active Directory Integration (Optional) (Chapter 4, “Configuring Active Directory Integration (Optional)” on page 4-14)

It is recommended that you thoroughly review the installation process before the actual installation, so that you know when to refer to another chapter.

Note The installation procedure in this guide is presented with each server component being installed on its own computer. If you are installing multiple server components on the same computer, you will need to reference multiple chapters during the installation.

Important You should print this page and use it as a checklist to ensure that you are installing the components in the proper order shown above.

Agile System Requirements

Depending on the size and type of the network system in each site, Agile Advantage may be deployed in different configurations. The amount of time required to complete an installation depends on the complexity of your Agile Advantage implementation.

Agile Advantage can be distributed over a wide-area network with multiple servers or can be limited to one or two server computers (running the Windows Server 2003 Standard Edition (Service Pack 1) operating system; Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions for Client and Server Operating Systems) with several client computers. In the latter case, Agile Advantage can usually be installed within a half day. However, network-based systems are inherently complex, and some installations require additional time.

The general recommended configuration for Agile Advantage components is as follows:

- ❑ Oracle database
- ❑ Agile Advantage eHub (requires an Oracle client if installed separately from the database), Agile Advantage iFS, and Agile Advantage Web Server

Software Requirements

You should install only supported versions of Agile Advantage components that are within the same release. You should not attempt to install Agile Advantage components on unspecified operating systems. Contact your Agile Solutions Consultant or Agile Technical Support for special requirements.

This section contains the following topics:

- ❑ Operating Systems

- ❑ Service Packs for Microsoft Windows
- ❑ Supported Browsers

Operating Systems

Table 1-1 lists the supported operating systems for Agile Advantage components.

Table 1-1: Agile Advantage Components

Component	Operating Systems	Notes
Agile Advantage eHub	Windows Server 2003 Standard Edition (Service Pack 1)	Required. Manages interaction between clients and the Oracle database.
Agile Advantage iFS	Windows Server 2003 Standard Edition (Service Pack 1)	Required. Stores and manages attached files.
Agile Administrator 2006	Windows 2000 Professional Service Pack 4, Windows XP Professional (Service Pack 2), or Windows Server 2003 Standard Edition (Service Pack 1).	Required for system administration; may be installed on client.
Agile Advantage Windows Client	Windows 2000 Professional Service Pack 4, or Windows XP Professional (Service Pack 2), or Windows Server 2003 Standard Edition (Service Pack 1)	Required. For client access to Agile Advantage eHub.
Agile Advantage Web Server components. The Agile Web Server Component is required to install the Agile Program Management (APM) solution	Windows Server 2003 Standard Edition (Service Pack 1)	Java 2 Software Development Kit (J2SE SDK) version 1.5 and Apache Tomcat 5.5.20 Web server required for installed Agile Advantage Web Server components, but not on the Web client machines.
Agile ChangeCAST 2006	Windows Server 2003 Standard Edition (Service Pack 1)	Optional. For transferring product data to ERP systems.
Agile eXpress 2006 Professional	Windows 2000 Professional Service Pack 4, or Windows XP Professional (Service Pack 2), or Windows Server 2003 Standard Edition (Service Pack 1)	Optional. For generating product data from Agile Advantage into PDX files.

Table 1-1: Agile Advantage Components

Component	Operating Systems	Notes
Agile Import 2006	Windows 2000 Professional Service Pack 4, or Windows XP Professional (Service Pack 2), or Windows Server 2003 Standard Edition (Service Pack 1)	Optional. For importing product data from text, Microsoft Excel®, or PDX files.
Agile ADK 2006	Windows 2000 Professional Service Pack 4, or Windows XP Professional (Service Pack 2), or Windows Server 2003 Standard Edition (Service Pack 1)	Optional. An application development tool for Agile Advantage.
Agile Reports	Installed on the Agile Advantage eHub server	Optional. For creating administrative and database reports in Agile Advantage.

Notes Agile Advantage 2006 is not tested with and is not supported on Windows NT 4.0 or earlier versions, and Windows OS x64 Editions.

Network service and TCP/IP protocol must be enabled before installing Agile Advantage.

Important Unless specified otherwise, all references to Windows® for the server operating system specifically require Windows Server 2003 Standard Edition (Service Pack 1), and all client references to Windows specifically require Windows 2000 Professional Service Pack 4, or Windows XP Professional (Service Pack 2), or Windows Server 2003 Standard Edition (Service Pack 1).

Note Agile Advantage 2006 is not tested with and does not support Windows NT 4.0 or earlier versions, and Windows OS x64 Editions.

Service Packs for Microsoft Windows

Before installing Agile's server software, you must install Windows Server 2003 Standard Edition (Service Pack 1). Agile Advantage 2006 is currently certified only with Windows Server 2003 Standard Edition (Service Pack 1).

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

When you restart the computer, version information appears and specifies which Service Pack is installed before the Windows desktop appears. If you do not see a message with the appropriate version and Service Pack, you need to download the desired Service Pack from Microsoft's Web site.

The Service Pack comes with a setup program and instructions.

Supported Browsers

The following browser is supported:

- Internet Explorer 6.0 (Service Pack 1 or Service Pack 2) on Windows 2000 Professional Service Pack 4, Windows XP Professional (Service Pack 2), or Windows Server 2003 Standard Edition (Service Pack 1).

Note Windows XP Professional does not support Service Pack 1 anymore.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

Hardware Requirements

Before you can install Agile Advantage server components, you must have at least 1 GB of available disk space available where the operating system is installed, in addition to the minimum disk space requirements specified in this guide. It is recommended that you have 2 GB of available disk space.

Important Agile Advantage computers and databases should be dedicated to Agile Advantage and should not have other software installed, unless otherwise specified. Do not attempt to include other database schema or use the Agile Advantage host server as the primary domain controller (PDC) or dynamic host configuration protocol (DHCP) server.

Disk compression must be disabled on Agile Advantage computers.

When choosing a hardware configuration, consider the number of total users, the number of concurrent users, the size of your database, the number of ECOs processed per day, and overall activity level. If you have questions about your system, Agile Technical Support or your Agile Solutions Consultant can give guidance on whether you have small, medium, or large system requirements.

It is required that the computer on which you are installing Agile Advantage components and the Oracle database have at least two physical drives or two partitions. This allows you to place the operating system on the C: drive and use the D: drive for Agile Advantage or Oracle components.

Note If you have only one drive or one partition, you will not be able to use the Agile Database Configuration utility. The use of this utility is a required step in the installation process.

Table 1-2 and Table 1-3 provide summarized information for minimum hardware requirements based on the database size.

Table 1-2: Minimum Hardware Requirements for the Database

Hardware	Small Database	Medium Database	Large Database
CPU	Dual 733 MHz	Dual 1 GHz	Dual 1 GHz
RAM (GB)	FTS not included: One Server 2 GB FTS included: Two Servers 2 GB	FTS not included: Two Server 2 GB FTS included: Two Servers (2 GB, 4 GB)	FTS not included: One Server 4 GB FTS included: Two Servers 4 GB
Number and size of disks (partitions)	FTS not included: One HDD 10 GB FTS included: One HDD 60 GB	FTS not included: Two HDD, 50 GB FTS included: Three HDD, 150 GB	FTS not included: Four HDD, 180 GB FTS included: Five HDD, 680 GB

Table 1-3: Minimum Requirements for eHub server, iFS server, Web Server and Agile Clients

Hardware	eHub	iFS
CPU	Dual 1 GHz	Single 733 MHz
RAM (MB)	1024	512
Number and size of disks (partitions)	1 GB	Depend on Vault size

The dump file size of your original database can be used in determining the size of the database instance to be created. Table 1-4 relates your new database size based on your original dump file size.

Table 1-4: Database Size based on Original Dump File Size

Database Size	Dump File Size
Small	0 - 300MB

Database Size	Dump File Size
Medium	300MB - 1024MB
Large	> 1024MB

About Oracle 10g Release 2 Database

The Agile Advantage database uses Oracle 10g Release 2 Database installed on a computer running Microsoft Windows Server 2003 Standard Edition, and an email system based on SMTP or SMTP gateway. Recommended database hardware depends on your Agile Advantage system configuration.

If you have only one processor computer and you are anticipating high network traffic, then the database and Agile Advantage eHub should be installed on two different computers to avoid competition for resources on a single computer, which would outweigh any advantage gained from reduced network traffic.

Note Oracle recommends separate disks for the operating system and database.

About Agile Advantage iFS (File Management)

Agile Advantage iFS can be installed on the same computer as the Oracle database and Agile Advantage eHub. However, this depends on the number of concurrent users, number of files, average number of file requests, average number of bytes transferred, amount of RAM, and amount of CPU activity. If the database and Agile Advantage eHub are installed on different computers, it is better to install Agile Advantage iFS with Agile Advantage eHub rather than with the database. This is because both the Agile Advantage iFS and the database system are I/O intensive and will compete for resources. Agile Advantage eHub is CPU intensive.

Make sure the computer has at least 1 GB of free disk space to accommodate attachment files, and that it is set up so that additional disks can be added as necessary.

Web Servers

Before you install the Agile Advantage Web Server, all other web servers must be uninstalled from the same computer.

Web Clients

Agile offers the Agile Advantage Web Client.

The following tables provide simplified definitions of small and large usage patterns for Agile’s Web client and the associated hardware requirements with the Agile Advantage Web server. Use the values in Table 1-5 to determine a baseline for your usage patterns.

Table 1-5: Agile Advantage Web Server Customer Sizing Definition

Usage Pattern	Active Agile Web Server Users	Active Agile Users	Number of Agile Advantage Web Servers
Small	Fewer than 10	Fewer than 20	1
Large	Fewer than 100	Fewer than 200	2

For security reasons, Agile recommends installing the Agile Advantage Web Server on a server separate from other Agile Advantage servers, if users will be accessing the system from outside the firewall. Based on the usage definitions, use Table 1-6 to determine the appropriate hardware requirements for your Agile Advantage Web Server configuration.

Table 1-6: Agile Advantage Web Server Hardware Requirements

Minimum Hardware Requirements
Single 733 MHz processor 1 GB RAM 1 GB hard drive

Network routers and external firewalls must allow TCP/IP connections to ports 9017 and 9018. These are the ports that are typically used by Agile Advantage eHub. Refer to the “Configuration Settings Worksheet” in Appendix E to use the particular settings of your Agile Advantage installation.

Note You may install Agile Advantage in your environment using different ports.

Agile Import 2006

Microsoft Excel 2000 or greater is required to import Excel files. If you are running large import source files, you may require additional hardware resources. Contact Agile Technical Support for information.

Agile ChangeCAST 2006

If you are running Agile ChangeCAST and expect to process only a small number of ECOs each day during times of low system usage, you can install Agile ChangeCAST on the same computer as Agile Advantage eHub. If you expect to process large numbers of ECOs at frequent intervals during times of normal or peak system usage, you should install Agile ChangeCAST and Agile Advantage eHub on separate computers.

Requirements for Running Client Components

This section provides information about the Agile Advantage requirements for client computers.

Windows Client System Requirements

To run efficiently, Agile Advantage client components running on Microsoft Windows require a Winsock-compliant TCP/IP computer with Windows 2000 Professional Service Pack 4, or Windows XP Professional (Service Pack 2), or Windows Server 2003 Standard Edition (Service Pack 1). Table 1-7 lists additional client hardware requirements.

Table 1-7: Agile Windows Client Minimum Requirements

Hardware	Minimum
CPU	400 MHz
RAM	256 MB
Disk space available	200 MB

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

Agile Advantage ADK 2006 System Requirements

To run efficiently, the Agile Advantage ADK 2006 (Application Development Kit) requires a Winsock-compliant TCP/IP computer with Windows 2000 Professional Service Pack 4, or Windows XP Professional (Service Pack 2), or Windows Server 2003 Standard Edition (Service Pack 1). Table 1-8 lists other hardware requirements:

Table 1-8: Agile Advantage SDK system requirements

Hardware	Minimum
CPU	400 MHz
RAM	256 MB
Disk space available	200 MB

Note Windows XP Professional does not support Service Pack 1 anymore.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

To run Agile Advantage ADK programs, you need to be able to connect to the following Agile Advantage servers:

- ❑ Agile Advantage eHub
- ❑ Agile Advantage iFS

Agile Registry Changes

During the Agile Advantage installation, changes are made to the registry to include information about Agile Advantage components. The installation program attempts to place information into the HKEY_LOCAL_MACHINE section of the registry. The user logged in during the installation must have write permissions to the HKEY_LOCAL_MACHINE section for the installation to be successful.

Note When you have an antivirus, as well as adware and spyware removal tools installed, you are sometimes asked to confirm registry changes during the Agile Advantage installation. Make sure you accept these changes before allowing the Agile Advantage installation program to reboot your machine at the end of the installation procedure.

Testing the Windows Servers

Before installing the Agile Advantage software, you need to log into Windows with local Administrator privileges and perform the following tests:

- ❑ Verify that an Oracle database server or an Oracle database client is installed on the computer.
- ❑ Verify in the Control Panel that the DNS host name is identical to the computer name:
 - 1 Open the Control Panel and double-click the **System** icon.
 - 2 If you are using Windows Server 2003 Standard Edition (Service Pack 1), select the **Computer Name** tab and verify that the **Full computer name** field content is identical to the **Domain** field content.
 - 3 If you are using Windows 2000 Professional Service Pack 4, select the **Network Identification** tab and verify that the **Full computer name** field content is identical to the **Domain** field content.
- ❑ Verify that you have read, write, and execute permissions for the computer on which you want to install Agile Advantage:
 - 1 Open the Control Panel and double-click the **Administrative Tools** icon.
 - 2 From **Administrative Tools** double-click the **Computer Management** icon.
 - 3 On the **Console Tree** expand **Local Users and Groups**, and click **Users** folder.
 - 4 Double-click on the name of the user which will perform the installation process.
 - 5 Select **Member Of** tab and check in the window if you are in the **Administrators** group (the **Administrators** group has read, write and execute permissions).
- ❑ Make sure you can ping the database server from the Agile Advantage eHub and vice versa. Substitute the host name of the target computer in place of the server shown in the following example:

```
c:\>ping server_hostname For example: c:\>ping saturn
```

Various messages appear. If ping is not successful, resolve the problem before continuing. You may have to go to the \Windows\System32 folder before using ping.

Caution! If any of these tests fails, you must perform corrective actions before installing Agile Advantage 2006.

Adjusting Windows Server Properties

Your database server and Agile Advantage components perform better if you make the following adjustment on computers that have Microsoft Windows Server 2003 Standard Edition (Service Pack 1) installed.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

To adjust Microsoft Windows Server 2003 Standard Edition properties:

- 1 Open the Control Panel and double-click the **Network Connections (Network and Dial-up Connections** for Microsoft Windows 2000 Professional) icon.
- 2 Right click **Local Area Connection** and click **Properties**.
The **Local Area Connection Properties** dialog box appears.
- 3 Select **File and Printer Sharing for Microsoft Networks** and click **Properties**.
- 4 Select **Maximize data throughput for network applications** and click **OK**.
- 5 Click **OK** to close the **Local Area Properties** dialog box and apply the settings.

Installing Pre-Requisite Software

If you *do not* plan on using the Agile Advantage Web client in your environment, please ignore the following section and proceed to the next chapter.

In addition to the system requirements specified in “Agile System Requirements” on page 1-6, the Agile Advantage Web server must be installed on a computer that does not have any other Web server installed. This computer must be accessible from the Internet. An optional signed certificate if you want to enable SSL. Agile Advantage Web Server is designed to support up to 250 users per computer.

Important Disable virus protection, if you are using it. Components used in the installer can be falsely identified as being infected and lock up the installation. You can turn the virus protection on after the installation completes.

You should also close any other open applications, including Outlook.

Prior to installing the Agile Advantage Web Server, you must download and install two tools: the Java 2 Software Development Kit (J2SDK), Standard Edition (SE) and the Tomcat Web Server version 5.5.20.

The sections below describe the following:

- ❑ Downloading and Installing the J2SE Development Kit 1.5
- ❑ Downloading and Installing the Tomcat Web Server 5.5.20

Downloading and Installing the J2SE Development Kit 1.5

To download and install the J2SE Development Kit 1.5:

- 1 Download the J2SE Development Kit 1.5. Compatible SDKs for many platforms (or links to where they can be found) are available at:
http://java.sun.com/javase/downloads/index_jdk5.jsp
- 2 Scroll down to the fourth **Separate Bundles** section and click on the **Download** button for **JDK 5.0 Update 9**.

Note J2SE Dev Kit 1.5 is the same as J2SE Dev Kit 5.0 Update 9. See <http://java.sun.com/j2se/1.5.0/docs/relnotes/version-5.0.html> for more details.
- 3 After downloading the J2SE Development Kit 1.5, it must be installed on your system. Double-click the executable:
`jdk-1_5_0_09-windows-i586-p.exe`
- 4 The **Welcome** window appears, then the **License Agreement** window opens. Read the terms and conditions and click **I accept the terms in the license agreement**.
- 5 After accepting the terms and conditions, click **Next**.
- 6 The **Custom Setup** window appears.
- 7 Accept the defaults and click **Next** to begin the installation process.
- 8 The **Custom Setup** window appears. Accept the defaults and click **Next**.

Note Accept the defaults because they can be changed later in the Java™ Control Panel.
- 9 A **Browser Registration** window opens. Make sure that the browsers installed on your system are checked and click **Next**.
- 10 The installation process continues.
- 11 When the installation is completed, click **Finish**.

Once you've installed the J2SE Development Kit 1.5, confirm that everything is configured properly by opening the **Command Prompt** window and typing:

```
java -version
```

Make sure the Java version “1.5.0_09” is displayed.

Important This is an important step to ensure that you are able to run the Web client, Agile eXpress, Windows Client, Web Server and APM (Agile Program Management).

Note If you receive an error message, you should check your path variable to ensure the location of the J2SE Development Kit is included in the path. To set the environment variable properly, refer to “Setting J2SE Development Kit 1.5 Environment Variable” below. Otherwise proceed to the “Downloading and Installing the Tomcat Web Server 5.5.20” section on page 1-18.

Setting J2SE Development Kit 1.5 Environment Variable

To set the J2SE Development Kit 1.5 Environment Variable:

- 1 Open the **Windows Control Panel** and double-click the **System** icon.
The **System Properties** dialog box appears.
- 2 Select the **Advanced** tab, click the **Environment Variables** button.
The **Environment Variables** dialog box appears.
- 3 In the **System Variables** pane, edit the **Path** variable by selecting the **Path** row and clicking the **Edit** button.
The **Edit System Variables** dialog box appears.
- 4 In the **Variable Value** field, place the cursor at the beginning of the field, add the actual directory path to the J2SE Development Kit 1.5 location (e.g. `C:\Program Files\Java\jdk1.5.0_09`) and click the **OK** button.
- 5 Click the **OK** button to close the **Environment Variables** dialog box.
- 6 Click the **OK** button to close the **System Properties** dialog box.

Downloading and Installing the Tomcat Web Server 5.5.20

The Apache Jakarta Organization provides a free reference implementation of Tomcat online. It is available at:

<http://archive.apache.org/dist/tomcat/tomcat-5/v5.5.20/bin/>

where `apache-tomcat-5.5.20.exe` can be downloaded.

Note The location of the EXE may be changed and you would need to locate it in such a case.

Note The Agile Web Server and the Agile Program Manager depend on Tomcat.

Installing Apache Tomcat 5.5.20 on Windows is like installing any other Windows software.

To install Apache Tomcat 5.5.20:

- 1 After downloading the executable, double-click on it to start the installation wizard.
- 2 The **Welcome** screen appears. Click **Next**.
- 3 The **License Agreement** window opens. Read the terms and conditions and click **I agree**.
- 4 You must perform a **Custom** type of install by expanding the **Tomcat** node and check the **Service** checkbox, so that the Tomcat Service would start up automatically with Windows. Click **Next**.
- 5 Choose the **Install Location** for Tomcat. You may leave the default value or select your desired **Destination Folder**. Click **Next**.
- 6 You will be prompted for the Initial Tomcat configuration information, including port number (default is **8080**) and administrative access information (Refer to the “Configuration Settings Worksheet” in Appendix E to use the particular settings of your Agile Advantage installation).

Note The default settings are acceptable in most cases, but you should change the HTTP/1.1 Connector Port number to **8010** (provided this port is available for use) to avoid conflict with other applications on the machine. Enter the Tomcat Administrator **Username** and **Password** login information. Click **Next**.

Important Make a note of the password that you’ve selected as you will not have the opportunity to review it again. Also, ensure that your IT staff opens up the appropriate port (e.g. port 8010) so that the Tomcat Web Server can be communicated with.

- 7 Tomcat requires that you select the location of the Java Virtual Machine (JVM), `jre1.5.0` folder location (e.g. `c:\Program Files\Java\jre1.5.0_09`) that is installed on the system as part of the J2SE Development Kit 1.5 that you have already set up on the system. By default, Tomcat attempts to locate the most recent JVM for you. The default JVM found by the installation wizard is acceptable, but you can change the location to point to any JVM you desire. Click **Install**.
- 8 Finally, the installation wizard will automatically install all the Tomcat files and the Completing the Apache Tomcat Setup Wizard dialog is displayed.
- 9 Click **Finish** to complete the installation process and launch the Tomcat Web server.
- 10 A Tomcat splash screen appears while the Tomcat Service starts and then disappears.

Verifying the Tomcat Web Server Installation

To verify that the Apache Tomcat Web Server was successfully installed:

- 1 Launch the Microsoft Internet Explorer on the machine on which it was installed.
- 2 Go to the following URL: `http://localhost:<TomcatPortNo>`

`<TomcatPortNo>` is the port number you entered for Tomcat during the installation process (e.g. 8010) (refer to Step 6 on page 1-19).
- 3 You should see a home page for Apache Tomcat 5.5.20 with the following message:

If you're seeing this page via a web browser, it means you've setup Tomcat successfully. Congratulations!

Stopping the Tomcat Web Server

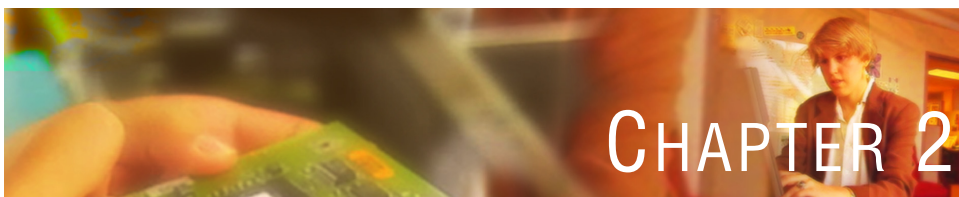
From the Windows Task Manager tray on the task bar, right click the **Apache Tomcat** and select **Stop service** from the shortcut menu to stop the Tomcat Web Server. You should see the Apache Service Manager progress bar while the Tomcat Service shuts down gracefully.

Starting the Tomcat Web Server

From the **Windows Task Manager** tray on the task bar, right click the **Apache Tomcat** and select **Start Service** from the shortcut menu to start the Tomcat Web Server. You should see the Apache Service Manager progress bar while the Tomcat Service starts up.

Where to Go from Here

Now that the pre-requisites for the installation are installed and configured correctly, you must proceed to Chapter 2 entitled “Installing and Configuring Oracle”.



CHAPTER 2

Installing and Configuring Oracle

This chapter explains how to install and configure Oracle 10g Release 2 Standard Edition. It includes these topics:

- ❑ *Installation Notes*
 - ❑ *Before Installing Oracle 10g Release 2*
 - ❑ *Installing and Configuring Oracle 10g Release 2 and the Agile Advantage 2006 Database*
 - ❑ *Test Environment Specifications*
-

Installation Notes

For best results, as you install:

- ❑ Follow directions in the order in which they are given. Do not attempt to install any components out of sequence.
- ❑ Oracle passwords are not case-sensitive. Agile Advantage passwords are case-sensitive. All other text entries, such as schema names and folder names, are not case-sensitive. To avoid confusion, all passwords and text entries in this guide appear in lowercase and should be typed as shown.
- ❑ When prompted for a host name, type the short name for the host, not the fully qualified name. For example, if a host is named tiger, type **tiger**, not **tiger.mycompany.com**.

Before Installing Oracle 10g Release 2

Agile server and client components require Oracle 10g Release 2.

Note If you are installing Agile Advantage eHub and the Oracle database on separate computers, an Oracle client is required on the eHub computer (refer to Chapter 3, “Installing and Configuring an Oracle Client”). Agile Advantage clients do not require any Oracle components.

Before installing Oracle, you must:

- ❑ Determine the name of the Microsoft Windows Server 2003 Standard Edition computer where Oracle is to be installed. The target installation folder for the Oracle database is recommended to be %Oracle_Home%\db_name (e.g. D:\oracle\product\10.2.0\db_1).

Note It is recommended to install Oracle on a clean hardware, as well as using the latest corporate Operating System image that includes security software, software back up tools and any other IT “helper” applications.

Note It is required that the computer on which you are installing Oracle database have at least two physical drives or two partitions. This allows you to place the operating system on the C: drive and use the D: drive for Oracle components. The examples in this guide use a C: and D: drive.

- ❑ Be sure that you have Administrator privileges within Windows Server 2003 Standard Edition on the computers where you will be installing Oracle and Agile Advantage.

Important Do not attempt to install the Oracle database using the Terminal Service.

- ❑ Install Microsoft Windows Server 2003 Standard Edition on the computers where Oracle and Agile Advantage eHub will be installed, typically, separate computers.
- ❑ Verify that the Microsoft NTFS file system is being used instead of FAT or FAT32 and convert the file system if necessary. See “Checking the Microsoft Windows Server 2003 File System” on page 2-7 for directions.
- ❑ On the computer where Agile Advantage eHub will be installed, install Microsoft Internet Explorer.
- ❑ Make sure you have your Agile Advantage Installation and Product serial numbers during the installation process. The serial numbers are provided by Agile via email.
- ❑ Disable disk compression, if you are using it.
- ❑ Disable virus protection, if you are using it. Components used in the installer can be falsely identified as being infected and lock up the installation. You can turn the virus protection on after the installation is complete.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

The following sections provide more information about these procedures.

Network Check

Before proceeding, it is important to confirm two settings to prevent difficulties from occurring.

Confirming Computer Name and Hostname Identities

The computer on which Oracle is located must use the same value as both its computer name and its DNS host name. The following procedures can be used to identify the current values.

To determine the computer name for Windows Server 2003:

- 1 From the **Start** menu, choose **Settings | Control Panel**.
- 2 Double-click the **Network** icon.
- 3 In the **Network** dialog box, click the **Identification** tab.
- 4 Note the name listed in the **Computer Name** field.

To determine the computer name for Windows Server 2003:

- 1 Right-click the **My Computer** icon on the desktop, and choose **Properties** in the shortcut menu.
- 2 In the **System Properties** dialog box, click the **Network Identification** tab.
- 3 Note the name listed in the **Full Computer Name** field.

Note Windows Server 2003 uses the same name for the computer name and DNS host name. Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

Confirming the Server Date

It is important to adjust the date and time of the computer. The date and time need to be correct when you work with your production data.

To confirm the date and time, click the **Date/Time** icon in the Windows Control Panel. Be sure to verify the **Time Zone** setting too.

Caution! If you change the date or time after Agile services have been installed and started, you will need to restart Agile Advantage eHub immediately after the change.

For Servers Configured with DHCP

If your server is configured with DHCP (Dynamic Host Configuration Protocol), there is a known issue with the Oracle 10g installation. The installation fails and the following message displays:

Thrown when the IP address of a host can not be determined

There are three possible solutions:

- 1 Copy the Oracle 10g installation software to your local disk and perform an off-network installation, *or*
- 2 Install the Microsoft Loopback adapter on the DHCP server, then add one entry to the hosts file, *or*
- 3 Assign a static IP address to your Oracle 10g server.

Installing Microsoft Loopback adapter on Windows Server 2003 Standard Edition

To install the Microsoft Loopback adapter on Windows Server 2003 Standard Edition:

- 1 Click **Start | Settings | Control Panel | Add Hardware**. The **Add Hardware** wizard appears. Click **Next**.
- 2 In the Add Hardware wizard choose **Yes, i have already connected the hardware**, then click **Next**.
- 3 Scroll to the bottom of the **Installed hardware** list box, select **Add a new hardware device**, and click **Next**.
- 4 Select the **Install the hardware that I manually select from a list (Advanced)** option, and click **Next**.
- 5 Under **Common hardware types**, select **Network adapters**, and click **Next**.
- 6 Under **Manufacturer**, select **Microsoft**.
- 7 Under **Network Adapter**, select **Microsoft Loopback Adapter**.
- 8 Click **Next** twice, and click **Finish**.

Note Unless there are already existing adapters, Windows will install the loopback adapter with the name **Local Area Connection**. If other adapters exist, Windows will name it **Local Area Connection <next number>**.

To configure the hosts file:

- 1 Open the hosts file, located at `C:\WINDOWS\system32\drivers\etc.`
- 2 Add the following entry to the hosts file:
`10.10.10.10 hostname.domain hostname`

For example, if the full machine name of your database server is `db1.agile.agilesoft.com`, the entry in the hosts file would be:

```
10.10.10.10 db1.agile.agilesoft.com db1
```

- 3 Save the file.

Note If the Oracle 10g and the Agile Advantage eHub are installed on the same hardware, there is no need to configure the hosts file as described above.

To configure the loopback IP address on the network for Windows Server 2003 Standard Edition:

- 1 On the database server, right-click the **My Network Places** icon.
- 2 Choose **Properties** to display the **Network Connections** window.
- 3 Locate a connection with the device name of Microsoft Loopback Adapter. This connection is usually Local Area Connection 2.
- 4 Right-click this connection icon.
- 5 Choose **Properties** to display the **Local Area Connection 2 Properties** dialog box.
- 6 On the General tab, select Internet Protocol (TCP/IP), then click **Properties** to display the Internet Protocol (TCP/IP) Properties dialog box.
- 7 On the General tab, choose **Use the following IP Address.**
- 8 Enter the following values:
 - **IP address:** 10.10.10.10
 - **Subnet mask:** 255.255.255.0
- 9 Click **OK.**

On completion, restart the system. You can proceed with the Oracle installation.

Checking the Microsoft Windows Server 2003 File System

In addition, Agile Advantage requires that servers use NTFS (NT File System) rather than FAT (File Allocation Table), as NTFS is more robust.

To determine the file system type:

- 1 Open Windows Explorer.
- 2 Right-click the drive where Windows Server 2003 Standard Edition is installed.
- 3 Choose **Properties** from the menu.

If your computer uses NTFS, proceed with the Oracle installation. If your computer uses a FAT or FAT32 file system, Agile Advantage requires converting it before proceeding.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

Installing and Configuring Oracle 10g Release 2 and the Agile Advantage 2006 Database

These instructions describe how to install and configure Oracle 10g Release 2 to run with Agile Advantage. The installation follows the steps below:

- 1 Installing Oracle 10g Release 2 Database.
- 2 Installing Oracle 10g Release 2 Companion.
- 3 Installing Agile Advantage Database Instance via the Agile Advantage Installer.
- 4 Installing Product Record Management (PRM) Schema and/or Agile Program Management (APM) Schema if you are installing Product Record Management or Agile Program Management.

Note Throughout the instructions, default values are shown (such as the installation path or the service name). If you change any of these values during the installation, update the information specific to your installation where appropriate.

Removing Previous Versions of Oracle

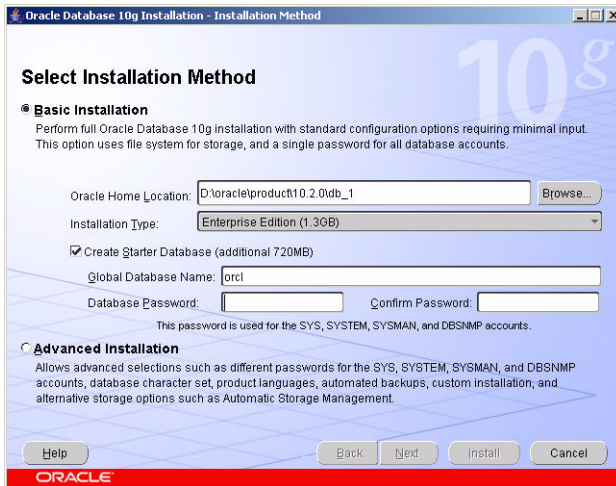
If you currently have or have ever had a version of Oracle installed on your server, you need to remove it before installing Oracle 10g Release 2. Refer to the *Agile Advantage 2006 Upgrade Guide* for information about removing previous versions of Oracle.

Installing Oracle 10g Release 2 Database

To install Oracle 10g Release 2 Database:

- 1 Log in to the computer using a login with local Administrator permissions.
- 2 Insert the Oracle 10g Release 2 Database Installation CD.
- 3 Locate and double-click the **Setup.exe** icon.
- 4 In the **Oracle Database 10g Installation** window, select **Basic Installation**.

Figure 2-1: The Installation Method Window



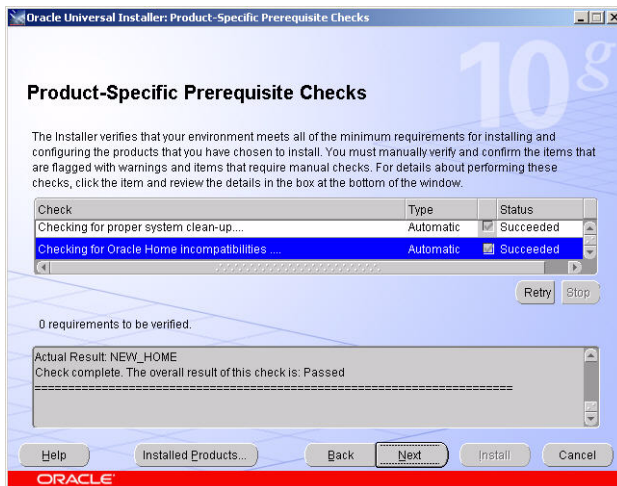
- 5 For Oracle Home Location, select: `D:\oracle\product\10.2.0\db_1`, which is the default if you have two disks.

Note `db_1` is the name of the Oracle database you are creating. The value can be changed. It is required to change the name of the Oracle database.

Note In case you forgot the name of the Oracle database, you can open the registry key **HKEY_LOCAL_MACHINE | SOFTWARE | ORACLE | KEY_OraDb10g_home1** called **ORACLE_HOME** to find the name of the Oracle database under it. You can store as well the name of the Oracle database in Appendix E in the Database section on the “Configuration Settings Worksheet”.

- 6 For Installation Type, select **Enterprise Edition**.
- 7 Uncheck **Create Starter Database** when installing Oracle 10g Release 2 Database software. You will create the Agile Database by running the Agile database creation Utility later on. Click **Next**.
- 8 The Oracle Universal will verify the server environment and configuration.
- 9 Within the **Product-Specific Prerequisite Checks**, make sure in the **Summary** window that the overall check result is passed. Then click **Next** to continue.

Figure 2-2: The Product-Specific Prerequisite Checks Window



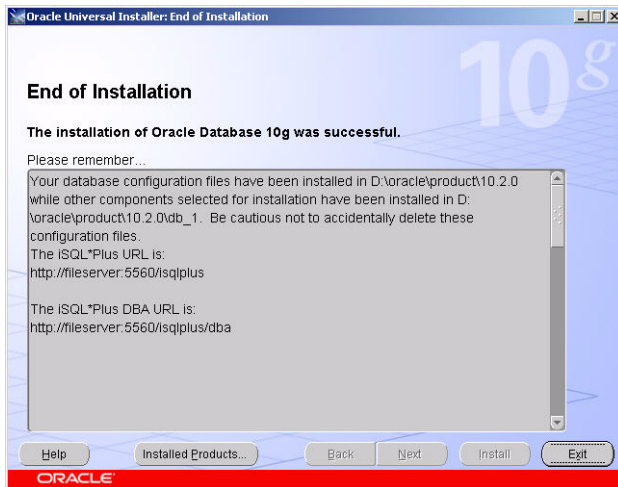
- 10 The **Summary** window will appear, click **Install** to start the installation process.

Figure 2-3: The Summary Window



11 When the installation is complete, the **End of Installation** window appears. Click **Exit**.

Figure 2-4: The End of Installation Window



12 Answer **Yes** to the prompt question that will appear asking you if you want to quit the installation.

Note You can select additional product options, although they are not required for Agile. If your Oracle database is used only with Agile, it is recommended that you check only the minimum required product options.

Additional options may appear in the list of available components depending on software installed on the computer.

Note The Oracle database installation with the options above requires 600 MB of disk space.

Installing Oracle 10g Release 2 Companion

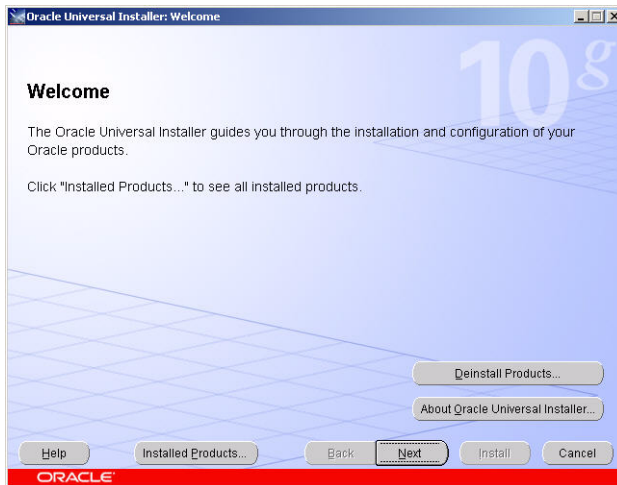
After installing Oracle 10g Release 2 Database, you need to install the Oracle 10g Release 2 Companion.

To install Oracle 10g Release 2 Companion:

Note Before you install Oracle 10g Release 2 Companion, you need to restart your machine.

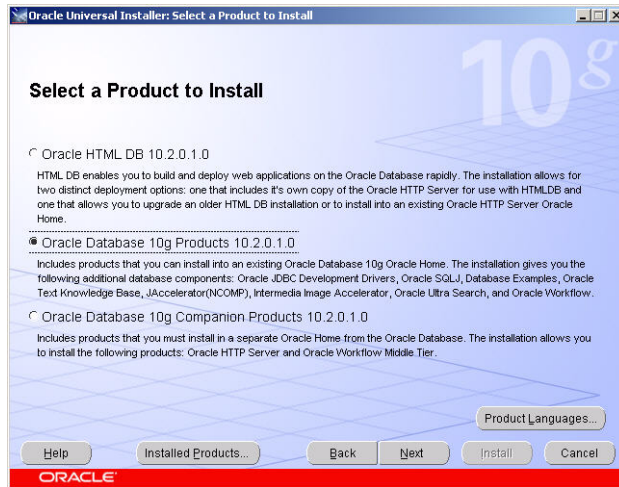
- 1 Insert the Oracle 10g Release 2 Companion CD.
- 2 Locate and double-click the **Setup.exe** icon.
- 3 The **Oracle Universal Installer** command window, then the **Welcome** window appear. Click **Next** to continue.

Figure 2-5: The Oracle Universal Installer Window



4 The **Select a Product to Install** window appears.

Figure 2-6: The Select a Product to Install Window



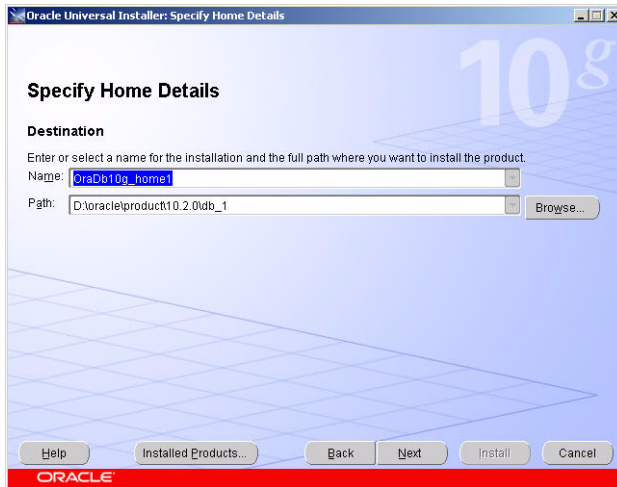
5 Select **Oracle Database 10g Products 10.2.0.1.0** and click **Next**.

6 The **Specify Home Details** window appears.

Enter the correct Oracle Home (e.g. OraDb10g_home1) and Path.

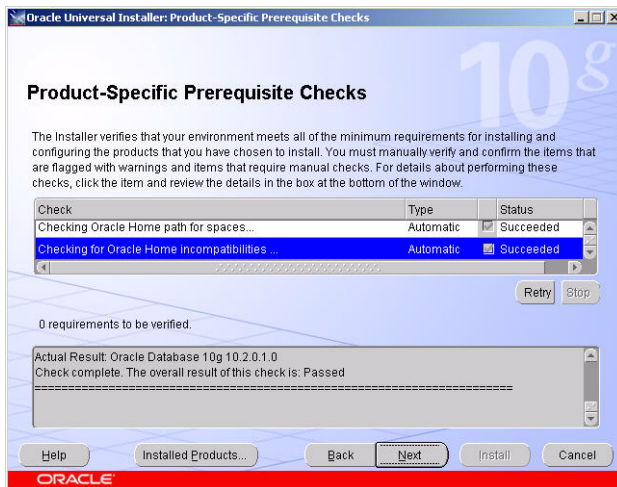
Note Make sure that the Path of the Oracle database is correct as in step 5 on page 2-8 (e.g. D:\oracle\product\10.2.0\db_1).

Figure 2-7: The Specify Home Details Window



7 Click **Next** to continue.

Figure 2-8: The Product-Specific Prerequisite Checks Window



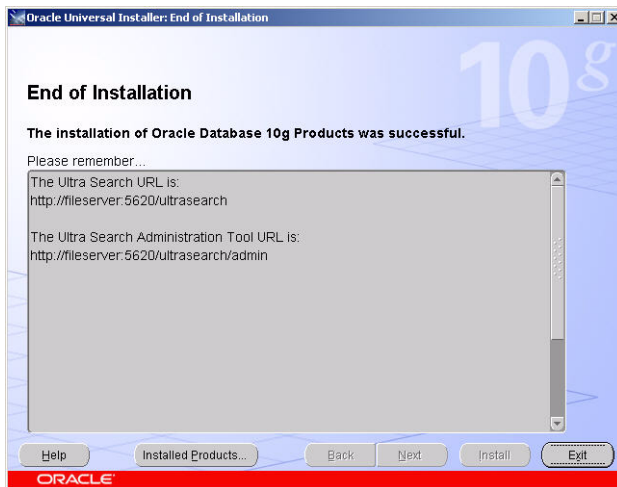
- 8 In the **Product-Specific Prerequisite Checks**, make sure in the **Summary** window that the overall check result is passed, then click **Next** to continue.
- 9 The **Summary** window will appear. Click **Install** to start the installation process.

Figure 2-9: The Summary Window



10 When the installation is complete, the **End of Installation** window appears. Click **Exit**.

Figure 2-10: The End of Installation Window



11 Answer **Yes** to the prompt question that will appear asking you if you want to quit the installation.

Note Make sure you restart your machine after the installation is complete.

You must now edit the `sqlnet.ora` file.

Editing the `sqlnet.ora` File for Windows

For databases installed on Windows Server computers, you must check the `sqlnet.ora` file to make sure authentication services are configured correctly.

- 1 Go to the `D:\oracle\product\10.2.0\db_1\NETWORK\ADMIN` folder (provided that you have not installed Oracle to a different location).
- 2 In a text editor such as Notepad, open the `sqlnet.ora` file (right click the filename and select Open with Notepad) and look for the following line:

```
SQLNET.AUTHENTICATION_SERVICES = (NTS)
```

If the parameter is set to (None), you do not need to edit the file.

- 3 If the parameter is set to (NTS), place a pound symbol (#) followed by a SPACE at the beginning of the line so it appears as follows:

```
# SQLNET.AUTHENTICATION_SERVICES= (NTS)
```

If you do not want to comment the line, you can change (NTS) to (None).

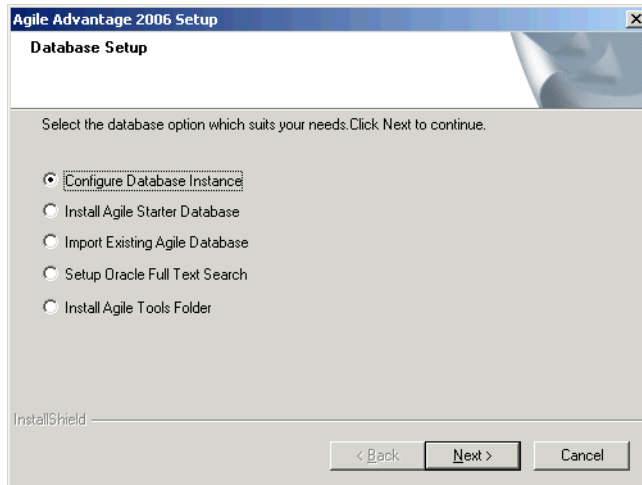
- 4 Save and close the file.

Now that you have successfully installed Oracle, you must proceed to the section below entitled “Creating and Configuring the Agile Database Instance” to set up your database instance. Refer to the “Installation Process” on page 1-4, in order to ensure that you are following the steps in the correct order.

Creating and Configuring the Agile Database Instance

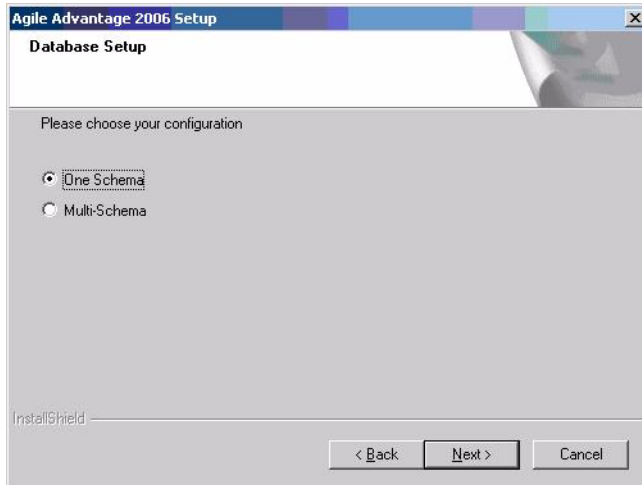
- 1 Log in to the computer using a login with local Administrator permissions.
- 2 Download Agile Advantage 2006 following the instructions in your “Agile Advantage Customer Support Welcome Email”.
- 3 Locate and double-click the **DB.exe** icon. The **Preparing Setup** dialog box appears.
- 4 After a few moments, the **Database Setup** dialog box appears. Click the **Configure Database Instance** radio button, then click **Next**.

Figure 2-11: Database Setup Dialog Box



- 5 A popup window appears asking if you want to create the FTS tablespace at this time: you can select **Yes** if you want to create the tablespace right away or select **No** to create it later (see “Configuring Oracle Full Text Search” on page 2-25). If you select **Yes**, make sure you have installed the Oracle 10g Release 2 Companion (see “Installing Oracle 10g Release 2 Companion” on page 2-11).
 - 6 The **Choose Destination Location** dialog appears. Determine the correct drive and folder to install. The default is C:\Program Files\Agile Advantage 2006, however it is recommended to consult the internal systems management team for the proper installation drive and/or folder. You can change this setting by selecting the **Browse** button. Click **Next**.
- Important** It is important to have two separate C: and D: drives for this step of the installation process to be successfully completed.
- 7 If the **Database Setup** dialog box appears. Select **One Schema**, then click **Next**.

Figure 2-12: Database Setup Dialog Box



- 8 The **Database Size Estimate** dialog box appears. New Agile customers without an existing database to migrate should accept the default (**Small**) (for more information about the Database Size refer to Table 1-4, “Database Size based on Original Dump File Size” on page 1-10). Click **Next**.
 - 9 The **Oracle Home** dialog box appears. This is the location where the Oracle database files will be placed.
You should consult your Oracle Database Administrator for preferred database location or just accept the default unless there is insufficient disk space available. Click **Next**.
- Note** Choose the **Oracle Home** you created in Install Oracle 10g Release 2 (in this case D:\oracle\product\10.2.0\db_1). The **Oracle SID** dialog box appears.
- 10 You can accept the default **agil** SID. Click **Next**.

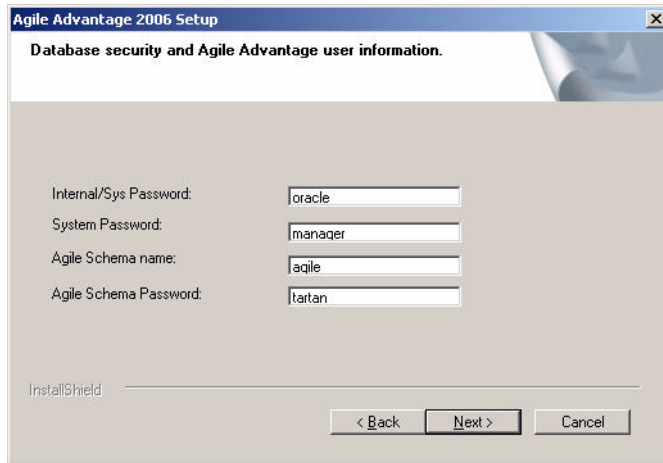
If you want to change the SID, you must use an eight-character ID to uniquely identify the Oracle SID.

If you want to use an existing SID, you must remove it before you can re-use it. If you are installing and configuring Agile Program Management, you should make note of the value you are using for the SID.

You will need this during the Agile Program Management configuration.

- 11 The **Database Security and Agile Advantage user information** dialog box appears. You should accept the default values for Internal/Sys Password, System Password, Agile Schema Name, Agile Schema Password. Click **Next**.

Figure 2-13: Database Security and Agile Advantage user information Window



Note The **Internal/Sys Password** is by default `oracle`. This is a standard and most of the applications use it.

Note Make sure that you remember the Passwords.

- 12 The **Tablespaces (Data Files)** dialog box appears. You should accept the default values, unless you have additional hard drives with sufficient space available that will allow you to distribute the files across multiple hard drives. Click **Next**.

Figure 2-14: Tablespaces (Data Files) Dialog Box

Select the drives where you want to allocate Tablespaces (data files).

	Drive	Required	Available
SYSTEM:	C	300 MB	4397 MB
TOOLS:	C	20 MB	4377 MB
UNDO:	C	100 MB	4277 MB
TEMP:	C	100 MB	4177 MB
USERS:	C	20 MB	4157 MB
SYSAUX:	C	200 MB	3957 MB
DATA1:	C	125 MB	3832 MB
DATA2:	C	75 MB	3757 MB
DATA3:	C	100 MB	3657 MB
FTS:	C	500 MB	3332 MB
IDX1:	C	40 MB	3217 MB
IDX2:	C	60 MB	3057 MB
APM:	C	100 MB	2957 MB

Please make sure that there is enough disk space as indicated in the available column. If a negative number is shown in this column, it indicates that you need to select a different drive.

InstallShield

< Back Next > Cancel

Note It is recommended to install the Full Text Search tablespace on a different hard drive than the others for efficiency. Refer to Table 2-2 (“Two-Disk Configuration”) on page 2-21.

- 13** The **Redo Log Files** dialog box appears. You should accept the default values, unless you have additional hard drives with sufficient space available that will allow you to distribute the files across multiple hard drives. Click **Next**.

Note It is recommended to put the Redo Log Files and the Control Files on the same hard drive as the SYSTEM tablespace.

- 14** The **Control Files** dialog box appears. You should accept the default values, unless you have additional hard drives with sufficient space available that will allow you to distribute the files across multiple hard drives. Click **Next**.

- 15 If you accept the default location for the files on one drive, a message appears notifying you about distributing the files across multiple drives (mirroring protection). If this is not an option, click **Next**. Otherwise, click **Back** and reassign files to different hard drives.
- 16 The **Archive Log File** dialog box appears. You should accept the default value, unless you have additional hard drives with sufficient space available that will allow you to store the file on a different hard drive. Click **Next**.
- 17 The **Oracle Net Listener** dialog box appears. In the Name field accept the default value Listener and click **Next**.
- 18 The **Oracle Net Listener Port** dialog box appears. In the Port field accept the default value 1521 and click **Next**.
- 19 A popup message appears notifying that the Agile Advantage 2006 is ready to be created. Click **Next** to continue.
- 20 At this stage, the Agile Database Instance and the Agile Starter Database are being created. A popup message appears notifying that the Setup is complete. Click **OK**.
- 21 The **Install Shield Wizard Complete** window appears. Click **Finish**.

Important It is highly recommended to restart your system to ensure that the following Oracle services are automatically started without any errors:

- OracleService<SID> (e.g. OracleServiceagil, SID=agil)
- Oracle<HOME_NAME>TNSListener (e.g. OracleOraDb10g_home1TNSListener)

Table 2-1: One-Disk Configuration

Disks (no RAID)	Disks (RAID 1)	Mount Points	Oracle_Home	Tablespaces	Redo Logfiles	Controlfiles
Disk 0	Disk 0/1	/u01	ORACLE_HOME	SYSTEM, TOOL, SYSAUX, USERS, AA_DATA1 AA_DATA2 AA_DATA3 AA_FTS AA_IDX1 AA_IDX2 AA_IDX3 UNDO, TEMP	LOG1 LOG2 LOG3 LOG4	Controlfile01 Controlfile02 Controlfile03

Table 2-2: Two-Disk Configuration

Disks (no RAID)	Disks (RAID 1)	Mount Points	Oracle_Home	Tablespaces	Redo Logfiles	Controlfiles
Disk 0	Disk 0/1	/u01	ORACLE_HOME	SYSTEM, TOOL, SYSAUX, USERS, AA_DATA1 AA_DATA2 AA_DATA3 AA_IDX1 AA_IDX2 AA_IDX3 UNDO, TEMP	LOG1 LOG2 LOG3 LOG4	Controlfile01 Controlfile02 Controlfile03
Disk 1	Disk 2/3	/u02		AA_FTS		

Table 2-3: Four-Disk Configuration for OFA (Optimal Flexible Architecture) Initial Implementation

Disks (no RAID)	Disks (RAID 1)	Mount Points	Oracle_Home	Tablespaces	Redo Logfiles	Controlfiles
Disk 0	Disk 0/1	/u01	ORACLE_HOME	SYSTEM, TOOL, SYSAUX,		Controlfile01
Disk 1	Disk 2/3	/u02		UNDO,TEMP	Archive Logfile	Controlfile02
Disk 2	Disk 4/5	/u03		AA_IDX1 AA_IDX2 AA_IDX3 AA_FTS	LOG1 LOG2 LOG3 LOG4	Controlfile03
Disk3	Disk 6/7	/u04		USERS, AA_DATA1 AA_DATA2 AA_DATA3		

Table 2-4: Nine-Disk Configuration for OFA Implementation

Disks (no RAID)	Disks (RAID 1)	Mount Points	Oracle_Home	Tablespaces	Redo Logfiles	Controlfiles
Disk 0	Disk 0/1	/u01	ORACLE_HOME	SYSTEM, TOOL, TEMP		
Disk 1	Disk 2/3	/u02		UNDO		Controlfile01
Disk 2	Disk 4/5	/u03		SYSAUX, USERS	LOG1 LOG2 LOG3 LOG4	Controlfile02
Disk3	Disk 6/7	/u04			Archive Logfile	Controlfile03
Disk4	Disk 8/9	/u05		AA_IDX1 AA_IDX2,		

Table 2-4: Nine-Disk Configuration for OFA Implementation

Disks (no RAID)	Disks (RAID 1)	Mount Points	Oracle_Home	Tablespaces	Redo Logfiles	Controlfiles
Disk5	Disk 10/ 11	/u06		AA_DATA1		
Disk6	Disk 12/ 13	/u07		AA_DATA2		
Disk7	Disk 14/ 15	/u08		AA_DATA3		
Disk8	Disk 16/ 17	/u09		AA_FTS		

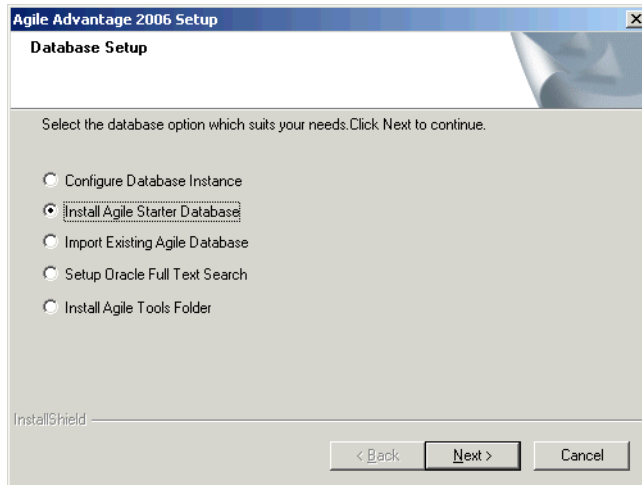
Installing Agile Advantage Starter Database (Optional)

Note If you completed the steps under “Creating and Configuring the Agile Database Instance” on page 2-15, you can skip this section because you already have an Agile Advantage starter database with a default name `agile` and password `tartan` (see step 11 on page 2-15).

To install Agile Advantage Starter Database:

- 1 Log in to the computer using a login with local Administrator permissions.
- 2 Download Agile Advantage 2006 following the instructions in your “Agile Advantage Customer Support Welcome Email”.
- 3 Locate and double-click the **DB.exe** icon. The **Preparing Setup** dialog box appears.
- 4 After a few moments, the **Database Setup** dialog box appears. Click the **Install Agile Starter Database** radio button, then click **Next**.

Figure 2-15: Database Setup Dialog Box



- 5 A popup window appears prompting if you want to support the **Advanced Search**.

Note If you have purchased the Agile Advantage Advanced Document Management product from Agile (*i.e.*, the Full Text Search capability) as part of your Agile Advantage 2006 upgrade, click **Yes**.

Please note that you must have also selected **Yes** to the popup window that prompted the creation of the FTS tablespace in the “Creating and Configuring the Agile Database Instance” section on page 2-15. If you didn't set up your FTS tablespace during the database instance creation, then you can set up your FTS tablespace by selecting **Setup Oracle Full Text Search** from the **DB.exe** tool. For more information, see the “Configuring Oracle Full Text Search” section on page 2-25.

- 6 The **Choose Destination Location** dialog appears. You should determine the correct drive and folder to install. The default is C:\Program Files\Agile Advantage 2006, however it is recommended to consult the internal systems management team for the proper installation drive and/or folder. You can change this setting by selecting the **Browse** button. Click **Next**.

Important It is important to have two separate C : and D : drives for this step of the installation process to be successfully completed.

- 7 After a few moments, the **Enter DBA Account** dialog box appears. Enter the ServiceName (e.g. AGIL), UserName and Password of a Database Administrator (DBA). Click **Next**.

Note If you have already an Agile Database you can select **Import Existing Agile Database**. For more details refer to Appendix B (“Database Management”).

- 8 The **Database Schema and Password** window appears. Enter Username and Password for the new Schema. Click **Next** to continue.
- 9 A popup window appears notifying that the Setup is complete. Click **OK** and then **Finish**.

Confirming Net Configuration Assistant

You need to open the Oracle Net Manager to confirm that the settings are correct for the Service Naming.

Open the Oracle Net Manager window by choosing **Start | Programs | Oracle - OraClient10g_home1 | Configuration and Migration Tools | Net Manager**.

To confirm or edit the Service Naming settings:

- 1 Open the **Service Naming** folder within the **Local** folder, then select the service name.
- 2 The **Service Naming** configuration appears in the right pane.

To verify the service name:

- 1 Make sure the **Service Name** field contains the Oracle SID (e.g. AGIL).
- 2 Make sure the following information appears in the **Address Configuration**:
 - Protocol: TCP/IP
 - Host: the computer where the Oracle database is installed
 - Port Number: 1521

Choose **File | Save Network Configuration** to save any changes.

Configuring Oracle Full Text Search

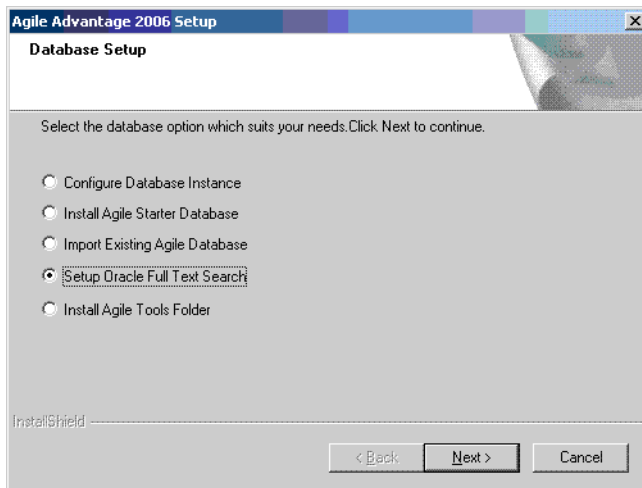
The following applies if you have not enabled Full Text Search (FTS) when creating and configuring the Agile database instance (see step Important in “Creating and Configuring the Agile Database Instance” on page 2-16).

Important Make sure that all users have logged off and all Agile Services are stopped.

To install and configure FTS:

- 1 Log in to the computer using a login with local Administrator permissions.
- 2 Download Agile Advantage 2006 following the instructions in your “Agile Advantage Customer Support Welcome Email”.
- 3 Locate and double-click the **DB.exe** icon. The **Preparing Setup** dialog box appears.
- 4 After a few moments, the **Database Setup** dialog box appears. Click the **Install Oracle Full Text Search** radio button, then click **Next**.

Figure 2-16: Database Setup Dialog Box



- 5 The **Choose Destination Location** dialog appears. You should determine the correct drive and folder to install. The default is C:\Program Files\Agile Advantage 2006, however it is recommended to consult the internal systems management team for the proper installation drive and/or folder. You can change this setting by selecting the **Browse** button. Click **Next**.
- 6 The **Login** dialog box appears. Enter the SYS user password and the SID of the database instance. Click **Login**.
- 7 The **Configure Oracle Text** dialog appears. Choose the Oracle SID (e.g. OraDb10g_home1), the drive where you want to install your tablespace, and the size of your database. Choose **Full Search Engine** and click **Start**.

8 The installation completes.

Note You can also configure FTS using `ConfigFTS.exe` located under `%AGILE_HOME%\Tools`.

Note If you have many attachment files already present in your Agile Vault, you can index these files using `ReFTSIndex.exe` located under `%AGILE_HOME%\Tools`. The tool requires a lot of resources to complete. Table 2-5 outlines sample running results on different file types using the testing environment displayed in Table 2-6.

Table 2-5: Sample Running Results

File Type	File Count	Size (MB)	Time Cost (Min)	Space Cost (MB)	Average Time (Min/1Gb)	Average Size (MB/1Gb)	Average Time (Min/1000)	Average Size (MB/1000)
doc	7420	4694	60	72	13	16	8	10
xls	7532	6880	60	236	9	35	8	31
pdf	5789	7564	180	1536	24	208	31	265
txt	1568	897	90	468	103	534	57	298
ppt	4687	3468	90	63	27	19	19	13
Whole Vault	26996	23503	480	2375	21	103	18	88

Table 2-6: Test Environment Specifications

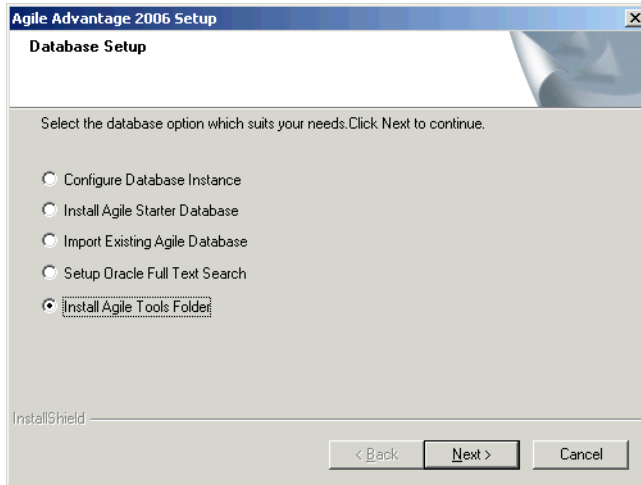
Environment	Memory	CPU
Database Server	1 GB	2.4 GHz
eHub/iFS Server	1 GB	-
File Vault Size	25.7 Gb	
Amount of Files	35763	

Installing Agile Tools Folder

- 1 Log in to the computer using a login with local Administrator permissions.
- 2 Download Agile Advantage 2006 following the instructions in your “Agile Advantage Customer Support Welcome Email”.
- 3 Locate and double-click the **DB.exe** icon. The **Preparing Setup** dialog box appears.

- 4 After a few moments, the **Database Setup** dialog box appears. Click the **Install Agile Tools Folder** radio button, then click **Next**.

Figure 2-17: Database Setup Dialog Box



- 5 The **Choose Destination Location** dialog appears. You should determine the correct drive and folder to install. The default is C:\Program Files\Agile Advantage 2006, however it is recommended to consult the internal systems management team for the proper installation drive and/or folder. You can change this setting by selecting the **Browse** button. Click **Next**.
- 6 After a few moments, a popup window appears notifying that the Setup is complete. Click **Finish**.

Deploying Oracle Enterprise Manager

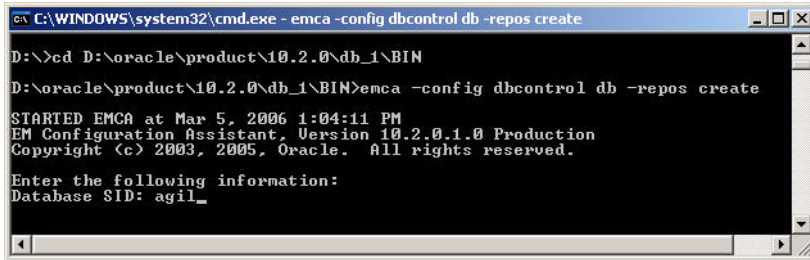
When installing Oracle 10g Release 2 Database, the Enterprise Manager will not be installed by default. You have to manually set up the Enterprise Manager after you create and configure the Agile database instance (refer to “Creating and Configuring the Agile Database Instance” on page 2-15).

To deploy Oracle Enterprise Manager:

- 1 Open a **Command Prompt** window
- 2 Go to %ORACLE_HOME%\bin

- 3 At the command prompt, run the command:
emca -config dbcontrol db -repos create
- 4 A prompt window appears asking you to input:
 - SID - the SID of your database instance (e.g. AGIL)

Figure 2-18: Configuring Database Control



```
em C:\WINDOWS\system32\cmd.exe - emca -config dbcontrol db -repos create

D:\>cd D:\oracle\product\10.2.0\db_1\BIN
D:\oracle\product\10.2.0\db_1\BIN>emca -config dbcontrol db -repos create

STARTED EMCA at Mar 5, 2006 1:04:11 PM
EM Configuration Assistant, Version 10.2.0.1.0 Production
Copyright (c) 2003, 2005, Oracle. All rights reserved.

Enter the following information:
Database SID: agil_
```

- Listen port - the port for the Oracle TNS Listener (default port: 1521)
 - Password for SYS User (default password: oracle)
 - Password for DBSNMP user (the same as the SYS password)
 - Password for SYSMAN user (the same as the SYS password)
 - Email address for notifications (Optional)
 - Outgoing Mail (SMTP) server for notifications (Optional)
 - A **Do you wish to continue?** message appears. Type **y** for “Yes”
- 5 The Oracle Enterprise Manager is installed.
To access it, go to the following URL:
<http://<hostname>:1158/em>



Installing and Configuring an Oracle Client

This chapter explains how to install and configure an Oracle10g Release 2 client. It includes the following topics:

- ❑ *Installation Notes*
 - ❑ *Before Installing an Oracle 10g Release 2 Client*
 - ❑ *Installing and Configuring an Oracle 10g Release 2 Client*
-

This Oracle 10g Release 2 Client software installation guide helps users to install the Oracle 10g Release 2 Client.

Installation Notes

For best results, as you install:

- ❑ Follow directions in the order in which they are given. Do not attempt to install any components out of sequence.
- ❑ Oracle passwords are not case-sensitive. Agile passwords are case-sensitive. All other text entries, such as schema names and folder names, are not case-sensitive. To avoid confusion, all passwords and text entries in this guide appear in lowercase and should be typed as shown.

- ❑ Type the fully qualified host name of the computer in the Service field (or Host String in some cases) if you are not logging in on the same computer where you have installed Oracle or if you receive a TNS error message. If you are logging in on the same computer where Oracle is installed, type the short name for the host, not the fully qualified name. For example, if a host is named tiger, type tiger, not tiger.mydomain.com.

Before Installing an Oracle 10g Release 2 Client

Oracle Client must be installed on the computer where the Agile Advantage eHub is installed, if the machine does not contain the primary Oracle database.

Before installing an Oracle Client, you must:

- ❑ Determine the name and target drive of the computer where the Oracle Client database is installed.
- ❑ Be sure that you have administrator privileges on the computers where you will be installing the Oracle Client.
- ❑ Install the Microsoft Windows Server 2003 Standard Edition and the required Service Pack on the computers where the Oracle Client will be installed.
- ❑ Verify that the Windows Server 2003 Standard Edition has been configured correctly.
- ❑ Disable disk compression, if you are using it.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

The following sections provide more information about these procedures.

Confirming Computer Name and Hostname Identities

You must know the name of the computer on which the Oracle database is located before you can set up an Oracle client with an Agile Advantage component. To determine the name, you can go to the computer where the Oracle database is installed and use the following procedures.

To determine the computer name on which the Oracle database is located for Windows:

- 1 From the **Start** menu, choose **Settings | Control Panel**.
- 2 Double-click the **Network** icon.

- 3 In the **Network** dialog box, click the **Identification** tab.
- 4 Note the name listed in the **Computer Name** field.

To determine the computer name on which the Oracle database is located for Windows Server 2003 Standard Edition:

- 1 Double-click the **My Computer** icon on the Desktop, and choose **Properties** in the shortcut menu.
- 2 In the **System Properties** dialog box, click the **Network Identification** tab.
- 3 Note the name listed in the **Full Computer Name** field.

Note Windows Server 2003 uses the same name for the computer name and DNS host name. Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

Installing and Configuring an Oracle 10g Release 2 Client

These instructions describe how to install and configure an Oracle Client to run with an Agile Advantage server component (Agile Advantage eHub or Agile Advantage Web Server).

Install the Oracle 10g Release 2 Client

To install Oracle Client 10g Release 2:

- 1 Log in to the computer with a user name with local Administrator permissions.
- 2 Locate and double-click Oracle 10g Release 2 Client **Setup.exe** icon.
- 3 The **Welcome** window appears. Click **Next**.
- 4 The **Specify File Locations** window appears. Click **Next**.
- 5 In the **Select Installation Type** window select **Administrator**. Click **Next**.
- 6 In the **Summary** window, click the **Install** button. The installation process starts.
- 7 At the end of the process, the **Configuration Assistants** window appears. You can choose to configure the Oracle net configuration assistant later by clicking **Stop** or you can continue the process.
- 8 If you choose the to continue, after a few moments the **Oracle Net Configuration Assistant: Welcome** window opens, accept the default. Click **Next**.

- 9 The **End of Installation** window appears confirming that the installation of Oracle Client was successful.



Installing Agile Advantage Servers

This chapter describes how to install Agile Advantage eHub and related server and client components. It includes these topics:

- ❑ *Agile Installation Overview*
- ❑ *Installing Agile Advantage eHub, iFS and Listener*
- ❑ *Agile Services Dependencies and Delay*
- ❑ *Configure Routing Table for Agile Advantage Listener*
- ❑ *Installing Agile Advantage Web Server*
- ❑ *Configuring Active Directory Integration (Optional)*
- ❑ *Verifying That Services Are Running*
- ❑ *Post-installation Tasks*

Agile Installation Overview

Use the Agile installer to install Agile Advantage eHub and client components.

- ❑ To use Agile Advantage with Oracle 10g Release 2, you need to install Agile Advantage iFS and the Agile Advantage eHub with the Agile Advantage installer. For details on different system configurations, see “Agile System Requirements” on page 1-6.

- ❑ In addition to installing these service applications, you can use the Agile Advantage installer to install Agile Advantage client components on the eHub machine at the same time.

Caution! It is common to install the full suite of components on the same computer as the Agile Advantage eHub to facilitate testing. However, avoid running client components on the server (except for testing the installation).

Important If you are upgrading either Agile Advantage or Oracle, refer to the *Agile Advantage 2006 Upgrade Guide*. There are specific upgrade requirements.

Before you can install Agile Advantage eHub, you must confirm the following information:

- ❑ The serial number supplied by Agile.
- ❑ The name (System DNS) of the computer where Agile Advantage eHub (the main data management service) will be installed. Agile Advantage eHub default ports are **9017** and **9018** (Refer to the “Configuration Settings Worksheet” in Appendix E to use the particular settings of your Agile Advantage installation).
- ❑ The name of the computer where Oracle 10g Release 2 is installed. The database system is typically installed on a different computer. Oracle uses port **1521** (Refer to the “Configuration Settings Worksheet” in Appendix E to use the particular settings of your Agile Advantage installation).
- ❑ The name of the computer and the disk drive name where Agile Advantage iFS (the file management service) will be installed. Agile Advantage iFS uses port **9010** (Refer to the “Configuration Settings Worksheet” in Appendix E to use the particular settings of your Agile Advantage installation).
- ❑ All computer testing has been performed successfully, as specified in Chapter 1.
- ❑ Network service and TCP/IP protocol must be enabled before you install Agile.

If you receive the error message “Failed to retrieve domain name from registry. Please enter the domain name in the TCP/IP properties and try again later” and the installation aborts, then you must setup Network service:

- a From the Control Panel window, double-click the **Network and Dial-up** icon.
- b Right-click on the **Local Area Connection** icon and choose **Enable** from the shortcut menu.

- It is generally recommended, but not required, that the computer on which you are installing Agile Advantage have at least two physical drives or two partitions. This allows you to place the operating system on the C drive and use the D drive for Agile Advantage components. The examples in this guide use a C and D drive. If you have only one drive, replace the references to D drive with C drive.

Refer to Chapter 1 for information about hardware and software requirements for the Agile Advantage eHub computer.

If you install Agile Advantage eHub on a computer that does not include the Oracle database, you will have to configure an Oracle 10g Release 2 Client on the Agile Advantage eHub to communicate with the database server. Refer to Chapter 3, “Installing and Configuring an Oracle Client”, for information about installing and configuring an Oracle Client.

Installing Agile Advantage eHub, iFS and Listener

Use these instructions to install Agile Advantage eHub and Agile Advantage Listener on a server.

Note If you are installing Agile Advantage 2006 onto a Windows 2003 server, you may see the following Install Microsoft Windows warning:

Files that are required for Windows to run properly have been replaced by unrecognized versions. To maintain system stability, Windows must restore the original versions of these files.

This includes a Microsoft recommendation to reapply the Microsoft Service Pack. You can either click the **Cancel** button to bypass this warning, or you may reapply your Microsoft Service Pack, after you complete the Agile Advantage installation process.

The Agile installer presents different dialog boxes depending on the components being installed. Some of the dialog boxes mentioned in the following steps might not appear.

Note When messages prompt you to restart, click **No**. Restart manually after the entire installation is complete.

Important Disable virus protection, if you are using it. Components used in the installer can be falsely identified as being infected and lock up the installation. You can turn the virus protection on after the installation completes.

You should also close any other open applications, including Microsoft Outlook.

To install Agile Advantage eHub, Agile Advantage Listener and other Agile components:

- 1 Log in to the computer using a login with local Administrator permissions.
- 2 Download Agile Advantage 2006 following the instructions in your “Agile Advantage Customer Support Welcome Email”.
- 3 Locate and double-click the **Setup.exe** icon.
After a few moments, the **Welcome** screen appears.
- 4 Read and follow the recommendations, then click **Next**.
- 5 The **Software License Agreement** dialog box appears. Click **Yes** to accept the terms of the license agreement to proceed.
- 6 The **Customer Information** dialog box appears. Type your User Name, Company Name, and the Agile Advantage Serial Number (contact your Agile administrator for your serial number), then click **Next**.
- 7 The **Choose Destination Location** window appears. The **Destination Folder** can be changed by selecting the **Browse** button. The default is `C:\Program Files\Agile Advantage 2006`. Please consult your internal server-systems management department for preferred application installation locations. Click **Next**.

The components listed in this dialog box are determined by the Serial Number you typed in the **Customer Information** dialog box, and should reflect the components for which you are licensed.

Notes This chapter provides information for installing the Agile Advantage eHub, Agile Advantage Listener and other components that are typically installed on the Agile Advantage eHub for testing purposes. The components that should be installed with Agile Advantage eHub are:

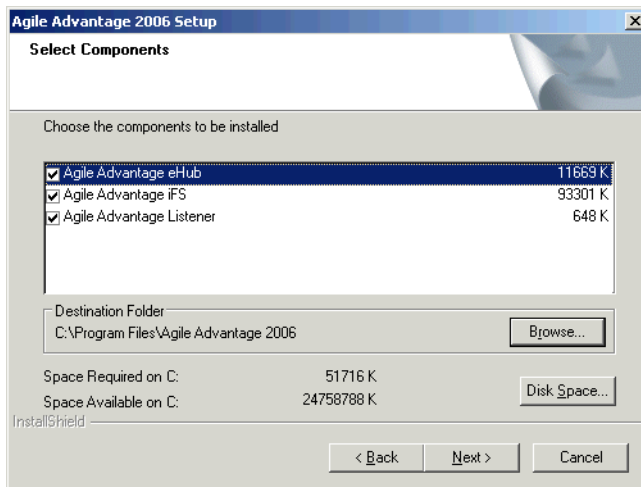
- Agile Advantage eHub
- Agile Administrator
- Agile Advantage (Windows client)
- Agile FileLoad (optional)
- Agile ChangeCAST (optional)
- Agile ADK (optional)
- Agile Import (optional)
- Agile DataLoad (optional)

- Agile Advantage Web Server (optional as a separate installation process)
- Agile View & Markup (optional as a separate installation process)
- Agile eXpress Professional
- Agile Web Service for Data Extraction
- Agile Advantage Listener
- Agile Advantage iFS/
Distributed iFS (optional)

More information about installing and configuring Agile Advantage iFS and the Agile Advantage Web Server appears in the following chapters.

If you are installing the Agile Advantage Web server, you must uninstall any Web servers on the computer before continuing with the installation. However, it is recommended that Agile Advantage Web server be installed on a separate computer.

Figure 4-1: Agile Advantage Setup - Select Components



For special information about Agile Advantage Web Server architecture information see “Installing the Agile Advantage Web Server” on page 6-9.

For special information about Agile ChangeCAST, see “Installing Agile ChangeCAST” on page 4-12.

Note If you are not installing distributed Agile Advantage iFS, but your license key permits this feature, do not disable it. Later in the installation, you will be prompted about whether or not this server is used in a distributed environment. At that time, you will click **No**. For more information regarding iFS installation, refer to “Installing and Configuring Agile Advantage iFS” on page 4-1.

- 8 Make sure Agile Advantage eHub, Agile Advantage Listener and Agile Advantage iFS are selected, then click **Next**.

Note Depending on the components you select, additional **Choose Destination Location** dialog boxes may appear for each specific component. In general, you should determine the correct location for each component.

- 9 The **Agile Advantage 2006 eHub Port Number** dialog box appears. Accept the default port 9017. Click **Next**.
- 10 In the **Server Hostname and Server Port Number** window, enter the Server Hostname where you are installing the Agile Advantage eHub (use the short version of the computer name, e.g., *Myserver*, not *Myserver.domainname*).
- 11 The **Database Schema and Password** dialog box appears. Enter the Net ServiceName. The default entries for the Username and Password are *agile* and *tartan*, but others could be used (refer to the “Configuration Settings Worksheet” in Appendix E to use the particular settings of your Agile Advantage installation). Click **Next**.
- 12 The **Agile Advantage iFS Products Destination Location** dialog box appears. The default folder is on the C: drive. The iFS vault can get very large as you add documents and files to the Agile Advantage iFS vault. It is recommended to review the drive location and space available. You can also add more folder and drive locations as needed. Please refer to the “Adding Storage Folders” section in Appendix A. Click **Next**.
- 13 The **Agile Advantage iFS Port** dialog box appears. Accept the default value 9010 for the iFS port or enter a new one. Click **Next**.
- 14 The **Agile Advantage iFS Secure Word** dialog box appears. Type a Secure Word from 8 to 32 characters. Please document your Secure Word. You may need this in a future installation step. Click **Next**.
- 15 The **Agile Advantage 2006 Agile Listener** dialog box appears. Enter **9022** for the Server Listen Port. Click **Next**.

Important The secure word is designed to protect communication between an Agile Advantage eHub and an Agile Advantage iFS computer. The same secure word must be used when installing Agile Advantage eHub and Agile Advantage iFS components on multiple computers within the same Agile Advantage system.

The secure word can be modified only using the `swdreg.exe` utility located in the eHub and iFS folders. The utility does not show the current secure word. Refer to “Using swdreg” on page A-8 for usage information.

16 A pop up message appears asking you if the Agile Advantage iFS server will be participating in a distributed environment with other iFS servers. Click **No**.

Important If you have a distributed iFS environment, you must upgrade all Agile Advantage iFS servers before updating the schema.

17 In the pop up message click **Yes** to add eHub/iFS to the Agile Listener.

18 Click **Next** and the installation begins.

19 The **Install Shield Wizard Complete** window appears. You are advised to restart the computer. Click **Finish** to complete the installation.

Restart the computer only after all components and applications are installed on this computer. If a **Command Prompt** window appears while the computer is restarting, do not close it. It is part of the installation. The Agile Advantage eHub installation is complete.

Note Depending on the number of resources that need to start up, the eHub may take several minutes to completely load even though the service appears to have started.

When Oracle, Agile Advantage eHub and Agile Advantage Listener have been installed, continue with the remaining chapters, including installing Agile Advantage iFS and other Agile Advantage components.

Agile Services Dependencies and Delay

The following table describes the Agile Services dependencies and delay:

Table 4-1: Agile Services Dependencies and Delay

Services	Description of Dependencies and Delay
eHub and Oracle dependency	Starting the Agile Advantage eHub service will start the OracleServiceagil service. If you want to stop the OracleServiceagil service, you must stop the Agile Advantage eHub service first.
Agile ChangeCAST and Agile Advantage Listener dependency	Starting the Agile ChangeCAST service will start Agile Advantage Listener service. If you want to stop the Agile Advantage Listener service, you must stop the Agile ChangeCAST service first.
Agile Advantage eHub service delay	The Agile Advantage eHub service starts depending on the following registry values: <ul style="list-style-type: none"><li data-bbox="497 755 1081 820">❑ ServerStartDelay: Time delay to start the Agile Advantage eHub service.<li data-bbox="497 820 1081 885">❑ MAXDBRetries: Number of starting attempts of the Agile Advantage eHub service.<li data-bbox="497 885 1081 990">❑ EhubRetryIntervalTime: Time delay between each starting attempt of the Agile Advantage eHub service.
Agile ChangeCAST service delay	The Agile ChangeCAST service starts depending on the delay time registry setting of: <ul style="list-style-type: none"><li data-bbox="497 1063 1081 1096">❑ ChangeCastStartDelay

Configure Routing Table for Agile Advantage Listener

Note If you have installed all your Agile server products and Oracle 10g on the same server, then you can skip this step.

- 1 Launch the Agile Service Configuration tool from **Start | Program | Agile Advantage 2006**
- 2 From the menu, click **File | Open** to open the configuration file for the Agile Advantage Listener you want to change (the default file name is `AgileServiceConfig.xml`, and is located under `%AGILE_HOME%\Network`).
You can also change the configuration file for the Listener.
- 3 From the menu, click **Action | Add Server** to add an eHub or an iFS.
The **Add eHub Configuration** dialog box appears prompting values for the following fields:

Figure 4-2: Add eHub Configuration Window



The screenshot shows a dialog box titled "Add eHub Configuration". It contains the following fields and controls:

- Configuration section with a minus sign icon.
- eHub Name: text input field.
- Company: text input field.
- Service Name: text input field.
- Client Connect Name: text input field.
- Listener Connect Name: text input field.
- Port Number: text input field containing "9017".
- Weight Value: dropdown menu showing "1".
- Mode: dropdown menu showing "Failover".
- Buttons: Test, OK, and Cancel.

- eHub/iFS Name - the name of the eHub/iFS.

Note The eHub/iFS Name can be fetched by verifying the Properties of the eHub/iFS from the **Services** window. Follow the instructions below to acquire the eHub/iFS name value.

To verify the Agile eHub and Agile Advantage iFS properties:

- 1 From the Windows taskbar, select **Start | Programs | Administrative Tools | Services**. The **Services** window appears.
- 2 Right click on the **Agile eHub for <CompanyName>** service, select **Properties** and note the values of the **Service name** and **Display name** fields.
Click **Cancel** to close the window.
- 3 Right click on the **Agile Advantage iFS** service, select **Properties** and note the values of the **Service name** and **Display name** fields.
Click **Cancel** to close the window.
 - **Company** - the Company value is used to group eHub and iFS services. It determines which service connection parameters to return when client connections are requested: client connection requests will pass the Company value to the Agile Listener so that it can determine which appropriate parameters to return back to the client. This allows for different IP addresses to be returned to the clients, thus supporting multiple address connections and distributed iFS configurations.
 - **Service Name** - the Windows service name of the eHub/iFS to be monitored for availability.

Note The Service Name can be fetched by verifying the Properties of the eHub/iFS from the **Services** window. Follow the instructions below to acquire the eHub/iFS name value.

To verify the Agile eHub and Agile Advantage iFS properties:

- 1 From the Windows taskbar, select **Start | Programs | Administrative Tools | Services**. The **Services** window appears.
- 2 Right click on the **Agile eHub for <CompanyName>** service, select **Properties** and note the values of the **Service name** and **Display name** fields.
Click **Cancel** to close the window.
- 3 Right click on the **Agile Advantage iFS** service, select **Properties** and note the values of the **Service name** and **Display name** fields.
Click **Cancel** to close the window.
 - **Client Connect Name** - the IP address (or the name that resolves to that IP address) of the machine hosting the eHub or iFS service. That value is returned to clients requesting a connection to the eHub or iFS service.

- **Listener Connect Name** - The IP address (or the name that resolves to that IP address) of the machine hosting the eHub or iFS. That value is used by the Agile Listener to monitor both the eHub and iFS service.
 - **Port Number** - the listen port of the eHub/iFS
 - **Weight Value** - the weight value can vary from 1 to 10. Set the value to 1.
 - **Mode** - can be set to either Router or Failover.
- 4 Click the **Test** button. A message appears confirming that the information provided is correct.
 - 5 Click **OK** to finish.

To verify eHub and iFS values in Agile Service Configuration:

- 1 From the Windows taskbar, select **Start | Programs | Agile Advantage 2006 | Agile Service Configuration**.
- 2 In the **Agile Service Configuration** window, expand the **eHubs** node, right click on **Agile Advantage eHub for <CompanyName>** and select **Change**.
- 3 From the **Change eHub Configuration** window, verify that the values of the eHub and iFS **Service name** and **Display name** fields are identical with the values retrieved in Step 3 above.

Important If under the **Services** window the **Agile eHub for <CompanyName>** field value includes the {nbsp} string, then you must uninstall Agile Advantage 2006 and reinstall it again. The presence of the {nbsp} string indicates that there was an error during the installation process. Make sure during the installation process of Agile Advantage 2006 that you enter the company name with no spaces or underscore characters (i.e., only a single word).

Installing Agile Advantage Web Server

Refer to “Installing the Agile Advantage Web Server” on page 6-9 for instructions on installing the Agile Advantage Web Server.

Installing Report Templates

Agile Report templates are installed from the Agile Advantage program group. They must be installed on the same computer where Agile Advantage eHub is installed and must be installed after you have installed Agile Advantage eHub, configured the Agile Advantage database, and started the Agile Advantage eHub and Agile Advantage iFS services. See “Configuring Active Directory Integration (Optional)” on page 4-14 for more information about the services.

To install Agile Reports:

Note Agile Administrator privileges are required.

- 1 From the Windows taskbar, select **Start | Programs | Agile Advantage 2006 | Report Installer**.
- 2 When the **Welcome to Report Installer** screen appears, type the Agile Administrator’s user name and password in the appropriate fields (the default is administrator/agile).
- 3 The **Report Installer Options** window appears, displaying a list of Available Report templates you can install. Use the arrow keys to move any or all of the listed report templates to the **Selected Reports** list on the right, then click the **Install** button.
The report templates you have selected are installed to Agile, and report layouts are automatically upgraded.
- 4 When the installation is complete, click **Close** to exit.

Note You must make the Reports available to users of the system in Agile Administrator Preferences.

Installing Agile ChangeCAST

Agile ChangeCAST is an application used to transfer Engineering Change Order (ECO) information from Agile Advantage to a host ERP (Enterprise Resource Planning) system.

Agile ChangeCAST must be installed on a Windows Server 2003 Standard Edition computer (Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions). ChangeCAST can be resource intensive, so you may want to use a computer other than the one containing Agile Advantage eHub as the primary ChangeCAST computer. To help you decide if you can install Agile ChangeCAST on the same computer as Agile Advantage eHub, see page 1-13. You can install only one instance of Agile ChangeCAST.

Note You can install ChangeCAST on more than one computer, but only one instance of ChangeCAST can be running at any given time.

Installing Agile ChangeCAST on the Agile Advantage eHub Server

Agile ChangeCAST can be installed on the same computer with Agile Advantage eHub. Make sure to include the **Agile ChangeCAST** component in the Select Components dialog box when installing the eHub, as described on page 4-4.

Installing Agile ChangeCAST on a Different Computer from the Agile Advantage eHub

To install only Agile ChangeCAST on a computer that does not include Agile Advantage eHub, select *only* the **Agile ChangeCAST** component in the Select Components dialog box, as described on page 4-4.

On the dedicated computer where only ChangeCAST is installed, open the Windows Control Panel and double-click the **Services** icon. Verify that **Agile ChangeCAST Server** appears in the list of services, and start the service.

Using Agile ChangeCAST

When you restart the computer after installing ChangeCAST, the ChangeCAST Login dialog box appears. If your Agile administrator has created a user name for you, type your Agile Advantage user name and password, then click **OK**; otherwise, click **Cancel**.

You do not need to start the service unless you are ready to process ECOS. See the next section for more information about locating and starting Agile services in the Windows Control Panel. For more information about starting and using Agile ChangeCAST, see the *Agile ChangeCAST 2006 User Guide*.

ChangeCAST must be configured before it can be used. For more information about running and using ChangeCAST, see the *Agile ChangeCAST 2006 User Guide* and the *Agile ChangeCAST 2006 Integration Developer Guide*.

Note You must first have been granted appropriate privileges in Agile Administrator before you can access ChangeCAST. For details, see the *Agile Administrator 2006 User Guide*.

Configuring Active Directory Integration (Optional)

Agile Advantage 2006 supports Lightweight Directory Access Protocol (LDAP) authentication and can integrate with your existing Microsoft Active Directory Server to centrally manage your users.

The integration preferences are configured from the Agile Administrator. For more details, see the *Agile Administrator 2006 User Guide*.

Verifying That Services Are Running

You need to verify that services are running on each computer where you install an Agile server component.

Note If there is a failure to connect to the Agile database, ensure that Agile Advantage eHub is running. If you have recently restarted Agile Advantage eHub, services will be unavailable until the eHub is completely loaded. This could take several minutes if there are other resources that must load before the eHub.

To determine that services are running for Windows Server 2003 Standard Edition:

- 1 Choose **Start | Settings | Control Panel | Administrative Tools | Services**.
The Services window appears.
- 2 Locate the Agile Advantage iFS and Agile Advantage eHub services, Agile Advantage Listener and the Agile Advantage Web Server (Apache Tomcat) service if you installed it as a service.
- 3 Verify that “Started” appears in the Status column to the right of each service.
- 4 Close the Services window.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

After you have verified that both Agile Advantage eHub and Agile Advantage iFS are running, proceed to “Securing the Storage Area” on page 5-13.

The Agile Advantage eHub can take up to 30 seconds to restart, even though the Service Manager shows the eHub is running. Right-click in the taskbar and choose **Task Manager**. Click the **Performance** tab. When the CPU Usage History drops from near 100 percent to near 0 percent and stays low, the eHub has finished restarting and is ready to accept client connections.

If the Agile Advantage eHub is not starting, there might be a problem with the Oracle database. Confirm your Oracle configuration settings, and that your Agile database is using the schema you specified during the Agile Advantage eHub installation. Contact your Agile Solutions Consultant or Agile Technical Support if the problem persists.

Post-installation Tasks

This section provides information about tasks that should be performed after installation. Refer to the *Agile Administrator 2006 User Guide* for additional information and step-by-step directions.

Modifying Settings in Agile Administrator

You should be able to start Agile Administrator and log in as Administrator with the password `agile`.

Important It is recommended that you change the Agile Administrator password soon after completing the installation to avoid unauthorized access to Agile Advantage.

Entering the License Key

Agile Advantage tracks the number of concurrent users. The appendix “Installation Checklist and Serial Numbers” contains a field for the Agile Administrator license key. This key determines the number of licensed concurrent users for each component that are allowed to log in to that component.

For convenience when implementing and testing Agile, new customers receive a temporary key with more than the purchased number of licenses. This temporary server serial number should be written down in the last appendix of this guide. The temporary serial number expires 90 days after installation, unless otherwise specified; temporary users must use the permanent server serial number after that.

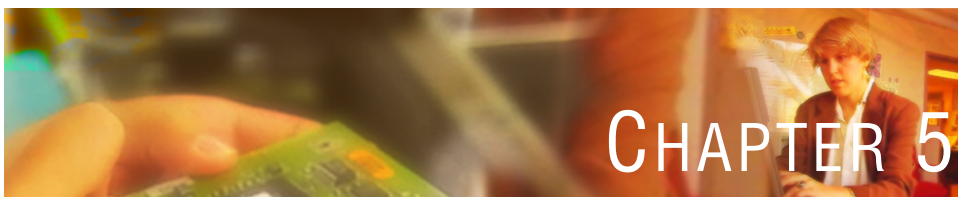
Note You need to stop and restart the Agile Advantage eHub service before license modifications take effect.

Testing Agile After All Components Are Installed

Refer to the *Agile Advantage 2006 Windows Client User Guide* to perform the following tests:

- ❑ Verify that you can log in to the Agile Windows client with one of the user names you added in Agile Administrator.
- ❑ Verify that the Agile Advantage Windows client can send and receive email. One way to do this is to telnet to port 25 of the SMTP server and test for expected responses to commands. See “Using Telnet to Test an SMTP Gateway” on page C-5 for directions.
- ❑ Attach a file to a test object in the Agile Advantage Windows client and verify that it can be retrieved with its original name.
- ❑ Validate that Oracle, Agile Advantage eHub, and Agile Advantage iFS services start upon restarting the computer. See “Configuring Active Directory Integration (Optional)” on page 4-14 for directions.

Caution! For best results, avoid running client components on the server except for testing installation or Agile Administrator modifications.



Installing and Configuring Agile Advantage iFS

This chapter describes how to install Agile Advantage iFS and related components. It includes these topics:

- ❑ *Overview*
 - ❑ *Installing Agile Advantage iFS*
 - ❑ *Installing the Master Agile Advantage iFS in a Distributed Environment*
 - ❑ *Installing a Slave Agile Advantage iFS in a Distributed Environment*
 - ❑ *Stopping the eHub Service on Slave iFS Servers*
 - ❑ *Updating Master File Server Settings*
 - ❑ *Reconfiguring Distributed iFS Server Settings*
 - ❑ *Communicating with the Master File Server*
 - ❑ *Configuring a Windows Client for a Specific iFS Server*
 - ❑ *Validating Your Distributed iFS System*
 - ❑ *Checking Port Usage*
-

Overview

Use the Agile Advantage installer to install Agile Advantage iFS and related components.

Agile Advantage iFS is the file server (also called the *vault*) used for storing Agile Advantage file attachments. Agile Advantage iFS can be installed in a distributed master/slave environment. A distributed iFS configuration allows you to create additional slave iFS servers at remote locations so that remote sites can store and retrieve files locally, while still making the files available to the enterprise. This reduces the download time and network traffic by placing Agile Advantage iFS servers close to remote Agile Advantage clients. The slave iFS servers can also support unique configuration settings, such as short names or fully qualified names.

The determination for using the distributed iFS feature is based on your Agile Advantage server and network configuration. In general, the following criteria can help you to determine if you need additional slave iFS servers:

- ❑ Multiple remote locations
If you have multiple remote sites connected over a WAN, clients at remote locations who need to store and retrieve files from the primary iFS server can experience large time delays.
- ❑ Reducing inter-network traffic
If your network is divided into subnets to reduce network traffic, then you should consider putting a slave iFS in each subnet that contains Agile Advantage client components. This will reduce your inter-subnet network traffic.
- ❑ Relieving an overloaded iFS server
If your master iFS server is on a different computer from the database server and it becomes overloaded, then consider setting up subnets and installing a slave iFS in each subnet. This may involve greater hardware expense than simply upgrading your existing server, but it will reduce network traffic and provide limited redundancy in case one of the servers fails.

Before you can install Agile Advantage iFS, you must confirm the following information:

- ❑ The serial number supplied by Agile.
- ❑ The name (system DNS) of the computer where Agile Advantage eHub is installed.

- ❑ The name of the computer where Oracle 10g Release 2 is installed. The database system is typically installed on a different computer.
- ❑ The name of the computer and the disk drive name where Agile Advantage iFS will be installed.
- ❑ All computer testing has been performed successfully, as specified in Chapter 1.

Refer to Chapter 1 for information about hardware and software requirements for the Agile Advantage iFS computer.

Installing Agile Advantage iFS

This section describes how to install Agile Advantage iFS. These instructions are similar to those provided in Chapter 4 for installing Agile Advantage eHub, except that additional information is provided for setting up Agile Advantage iFS in a distributed environment.

Important Disable virus protection, if you are using it. Components used in the installer can be falsely identified as being infected and lock up the installation. You can turn the virus protection on after the installation is complete.

You should also close any other open applications, including Outlook.

To install a single Agile Advantage iFS:

- 1 Log in to the computer using a login with local Administrator permissions.
- 2 Download Agile Advantage 2006 following the instructions in your “Agile Advantage Customer Support Welcome Email”.
- 3 Locate and double-click the **Setup.exe** icon.
After a few moments, the Welcome screen appears.
- 4 Read and follow the recommendations, then click **Next**.
The Software License Agreement dialog box appears.
- 5 If you accept the terms of the license agreement, click **Yes**.
The **Customer Information** dialog box appears.
- 6 Type your User Name, Company Name, and Agile Advantage Serial Number (contact your Agile Administrator for your serial number), then click **Next**.

- 7 Select the components you wish to install. The **Destination Folder** can be changed by selecting the **Browse** button. The default is C:\Program Files\Agile Advantage 2006. Please consult with your internal server-systems management department for preferred application installation locations, then click **Next**.
- 8 The **Select Components** dialog box appears.
The minimum components that should be installed with Agile Advantage iFS so that Agile Advantage iFS can communicate with the Agile Advantage system are:
 - Agile Advantage eHub
 - Agile Advantage iFS or Distributed iFS (Advanced File Management)
 - Agile Advantage Windows Client
- 9 In the **Agile Advantage 2006 eHub Port Number** window enter the default eHub Listen Port (9017) and click **Next**.
- 10 In the **Server Hostname and Server Port Number** window enter the Server Hostname (the server name) and the default Server Listen Port (9022) and click **Next**.
- 11 The **Agile Advantage iFS Products Destination Location** window appears. The **Destination Folder** can be changed by selecting the **Browse** button. The default is C:\Program Files\Agile Advantage 2006\iFS. Please consult with your internal server-systems management department for preferred application installation locations, then click **Next**.
- 12 The **Agile Advantage iFS Port** dialog box appears.
Accept the default iFS port 9010 or enter a new value. Click **Next**.
- 13 The **Agile Advantage iFS Secure Word** dialog box appears. Type a Secure Word from 8 to 32 characters. Please document your Secure Word. You may need this in a future installation step. Click **Next**.

Important The secure word is designed to protect communication between an Agile Advantage eHub and an Agile Advantage iFS computer. The same secure word must be used when installing Agile Advantage eHub and Agile Advantage iFS components on multiple computers within the same Agile Advantage system.

The secure word can be modified only using the `swdreg.exe` utility located in the eHub and iFS folders. The utility does not show the current secure word. Refer to “Using swdreg” on page A-8 for usage information.

- 14** You may receive a prompt about whether your Agile Advantage iFS is part of a distributed iFS system. A distributed iFS system uses a primary iFS server and one or more slave iFS clients.

- a** Click **No** if this will be your only iFS server.
- b** If you click **Yes**, go to “Installing the Master Agile Advantage iFS in a Distributed Environment” on page 5-6 or “Installing a Slave Agile Advantage iFS in a Distributed Environment” on page 5-8 to continue.

A verification message appears. Click **Yes** to proceed with the installation. Indicators appear showing that the installation continues. Depending on the number of components you are installing, this could take a while. Do not interrupt the installation until prompted.

- 15** The **Apply eXpress settings to** dialog appears. Select **For all Users** if you want Agile eXpress to be available to any Microsoft login user. Select **Only for Myself** if you want Agile eXpress to be available only to the Microsoft login user used for this installation.
- 16** The Agile Advantage installer asks if you would like to have Agile application shortcuts created on your Windows desktop. Click **Yes** (recommended) to receive the shortcuts on your desktop. If you click **No**, shortcuts will appear in the Windows **Programs** menu but not on your desktop.

Note Do not attempt to create shortcuts manually. It is recommended that you click **Yes** to create the shortcuts and then move or delete them later. Agile components (such as the Agile Client Software Update program) store information about shortcuts only when the Agile Advantage installer creates them.

- 17** If you are installing only one Agile Advantage iFS, click **Yes** to restart the computer. Otherwise, click **No** and then click **Finish** to complete the installation and install additional components.

If a Command Prompt window appears while the computer is restarting, do not close it. It is part of the installation.

Installing the Master Agile Advantage iFS in a Distributed Environment

This section continues the process from step 14 b on page 5-5 where you clicked **Yes** when asked if your Agile Advantage iFS is part of a distributed iFS system.

To install Agile Advantage iFS on a master file server in a distributed iFS environment:

- 1 When you receive the prompt about whether your Agile Advantage iFS is part of a distributed iFS system, click **Yes**.
The **Master or Slave iFS** dialog box appears.
- 2 Select **Master**. Click **Next**.
The **Slave iFS Hostnames** dialog box appears.
- 3 Type the host name of each Agile Advantage iFS slave computer. Separate each slave host name with a comma; do not include any spaces after the commas.
Also, enter the Port ID. Click **Next**.
- 4 The **Master iFS Hostname** dialog box appears. Enter the host name of the Master iFS and the Port ID. Click **Next**.

The installation continues as described in step 16 on page 5-5, where the Agile Advantage installer prompts for shortcuts.

Installing a Slave Agile Advantage iFS in a Distributed Environment

Note These instructions assume that you have purchased the distributed iFS option from Agile Advantage.

Important You can install Agile Advantage iFS on slave servers that do not include a running Agile Advantage eHub.

Here are some criteria for determining the number and locations of slave file servers:

- If your master server becomes overloaded and it is on the same computer as the database server, then move it (or the database server) to a different computer.
- If you have one or more remote LANs connected by relatively slow networks, then consider putting a slave server on each remote LAN.

- ❑ If your network is divided into subnets to reduce network traffic, then you should consider putting a slave server on each subnet that contains Agile client components. This will reduce your inter-subnet network traffic.
- ❑ If your master server is on a different computer from the database server and it becomes overloaded, then consider setting up subnets and installing a slave server on each subnet. This may involve greater hardware expense than simply upgrading your existing server, but it will reduce network traffic and provide some redundancy in case one of the servers fails.
- ❑ The secure word is designed to protect communication between an Agile Advantage eHub and Agile Advantage iFS. The same secure word must be used when you install Agile Advantage eHub and iFS components within the same Agile Advantage system.

The distributed iFS server feature allows Agile Advantage users throughout your network to connect to a local iFS slave server for storing and retrieving attachments.

Before installing Agile Advantage iFS on a slave server, you must know the host name of the following:

- ❑ Agile Advantage iFS master server
- ❑ Agile Advantage eHub
- ❑ Oracle database server

This section continues the process from step 14 b on page 5-5 where you would click **Yes** when asked if your Agile Advantage iFS is part of a distributed iFS system.

Figure 5-1: Agile Advantage iFS Installation Verification



Note These instructions assume you have purchased the Distributed iFS feature (Advanced File Management) from Agile.

To install Agile Advantage iFS on a slave file server:

- 1 When you receive the prompt about whether your Agile Advantage iFS is part of a distributed IFS system, click **Yes**.
The **Master or Slave iFS** dialog box appears.
- 2 Select **Slave**. Click **Next**.
The **Master iFS Hostname** dialog box appears.
- 3 Type the name of the master Agile Advantage iFS computer and the Port ID.
Click **Next**.

Note This information is required for the Agile Advantage system to function properly.

The installation continues as described in step 16 on page 5-5, where the Agile Advantage installer prompts for shortcuts.

- 4 When prompted to start Agile Advantage iFS and Agile Advantage eHub, start Agile Advantage iFS but not Agile Advantage eHub.

Once you have configured the master and slave iFSs and they are functioning correctly, the agfmnetwork.dat data file is copied between computers every 20 minutes as a means of maintaining a list of all slave servers and iFS activity. Any iFS changes made to the master server are propagated to the slave servers.

Stopping the eHub Service on Slave iFS Servers

After Agile Advantage iFS is installed and configured on all slave file servers, you must disable the eHub on each slave server:

To disable the eHub server on a slave iFS server for Windows Server 2003 Standard Edition:

- 1 Choose **Start | Settings | Control Panel | Administrative Tools | Services**.
The **Services** window appears.
- 2 Select the Agile Advantage eHub service, right-click, and choose **Properties** in the shortcut menu.
- 3 In the Properties dialog box, click **Stop**.
- 4 After the service stops, click **OK** to close the **Properties** dialog box.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

Updating Master File Server Settings

After Agile Advantage iFS is installed and configured on all slave file servers, as described in “Installing a Slave Agile Advantage iFS in a Distributed Environment” on page 5-6, follow these steps for verifying and modifying the `agfmnetwork.dat` file located in the `\\Program Files\Agile Advantage 2006\iFS` folder on the server where the master iFS server is installed.

To stop Agile Advantage iFS services on the master iFS server for Windows Server 2003 Standard Edition:

- 1 Choose **Start | Settings | Control Panel | Administrative Tools | Services**.
The Services window appears.
- 2 Select the Agile Advantage iFS service, right-click, and choose **Properties** in the shortcut menu.
- 3 In the Properties dialog box, click **Stop**.
- 4 After the service stops, click **OK** to close the Properties dialog box.
- 5 Close the Services window.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

To edit the `agfmnetwork.dat` file:

- 1 On the master iFS server, open the `agfmnetwork.dat` file located in the Agile Advantage iFS folder.
- 2 Verify the following entry immediately below [ServerList]:

```
masterservername 9012
```

where *masterservername* is the host name of the master iFS server. If this line does not appear, insert a new line directly below [ServerList] and add the master iFS server host name (refer to the “Configuration Settings Worksheet” in Appendix E to use the particular settings of your Agile Advantage installation).

- 3 Immediately below *masterservername* 9012, ensure that each slave iFS server appears on a line by itself. If it does not, type the name of each slave iFS server followed by 9010; for example:

```
slaveservername1 9010  
slaveservername2 9010
```

Adding all the slave iFS servers to this DAT file lets the master iFS server communicate with the slaves as described in the next section, “Communicating with the Master File Server.”

The completed file should appear similar to the following example:

```
[ServerList]
  masterservername 9012
  slaveservername1 9010
  slaveservername2 9010
  slaveservername3 9010
  slaveservername4 9010
```

- 4 Save the file.
- 5 Restart the master iFS server.
- 6 Restart the slave iFS servers.

Reconfiguring Distributed iFS Server Settings

When you set up a distributed iFS environment, you must ensure that all slave iFS servers are configured to recognize the master iFS server. A change to the host name of the master iFS server or a slave iFS server requires that the `agfmnetwork.dat` file be updated on *all* iFS servers. In addition, any change to the host name of the master iFS server requires an update to the registry of each slave iFS server. If the host name is changed for a slave iFS server, that change must also be reflected in all Agile Advantage Windows clients using that slave iFS server.

To change the registry settings on a slave iFS server to reflect the master iFS server:

- 1 Choose **Start | Run**.
- 2 In the **Open** field of the Run dialog box, type **regedit** or **regedt32**.
The Registry window opens.
- 3 Open **My Computer | HKEY_LOCAL_MACHINE | SOFTWARE | Agile Advantage** and select **AgileiFS**.
- 4 In the right pane, double-click **Host**.
The Edit String dialog box appears.
- 5 Replace the **Value data** field with the name of the master iFS server.

The current value of the host name entry is the name of the computer where the slave iFS server is installed.

This entry should never have a value other than the name of the master iFS server, and there should never be more than one master iFS server.

Important Whenever you type a name in these steps, use the computer name, not the IP address.

- 6 After changing the host name, close the registry.

To modify the `agfmnetwork.dat` file:

- 1 On the master iFS server and each slave iFS server, use a text editor to open the `agfmnetwork.dat` file. By default, the file is located in `\\Program Files\Agile Advantage 2006\iFS\`.
- 2 Verify the following entry immediately below `[ServerList]`:

```
[ServerList]
  masterservername 9012
```

where *masterservername* is the host name of the master iFS server. If this line does not appear, insert a new line directly below `[ServerList]` and add the master iFS server host name.

- 3 Immediately below *masterservername* 9012, ensure that each slave iFS server appears on a line by itself. If it does not, type the host name of each slave iFS server followed by 9012; for example:

```
  slaveservername1 9010
  slaveservername2 9010
```

Adding all the slave iFS servers to this DAT file lets the master iFS server communicate with the slaves.

The completed file should appear similar to the following example:

```
[ServerList]
  masterservername 9012
  slaveservername1 9010
  slaveservername2 9010
  slaveservername3 9010
  slaveservername4 9010
```

- 4 Save the file.

- 5 Restart the slave iFS server.
- 6 Repeat steps 1 through 5 for each slave iFS server, always using the computer name and not the IP address.

Additionally, the DAT file on a slave iFS server may have to be set to read-only to avoid being overwritten by the DAT file on the master iFS server.

Communicating with the Master File Server

Once you have configured the master and slave iFS system and they are functioning correctly, the agfmnetwork.dat file is copied from the master iFS server to each slave iFS server every 20 minutes. This maintains a list of all slave servers and iFS activity. You must restart the master iFS server and then each slave iFS server after editing the agfmnetwork.dat file so that any changes made to the master iFS server are propagated to the slave iFS servers.

Configuring a Windows Client for a Specific iFS Server

Once you have configured a slave iFS server and have your iFS system working correctly, you need to change the configuration of each Agile Windows client that will be accessing a specific slave iFS server.

To configure a Windows client for a specific iFS server:

- 1 Choose **Start | Run**.
- 2 In the **Open** field of the Run dialog box, type `regedit` or `regedt32`.
The Registry window opens.
- 3 Open **My Computer | HKEY_LOCAL_MACHINE | SOFTWARE | Agile Advantage** and select **AgileNetwork**.
- 4 In the right pane, double-click **iFS_Hostname**.
The **Edit String** dialog box appears.
- 5 Replace the **Value data** field with the name of the local slave iFS server. Click **OK**.
- 6 After changing the iFS host name, close the registry.

Securing the Storage Area

The area where Agile Advantage stores file attachments and images must be protected from deletion or modification by unauthorized users. Agile recommends allowing only Add and Read permissions for all users except administrators of Agile Advantage.

To change the permissions on Windows Server 2003 Standard Edition:

- 1 Go to \\Program Files\Agile Advantage 2006\iFS and select the **Files** folder.
- 2 Right-click and choose **Sharing and Security** from the shortcut menu.
- 3 The **File Properties** dialog box appears. Select **Share this folder** and then change the **Share name** field to Agile Advantage iFS Files.
- 4 Click **Permissions**.
- 5 Add specific users, such as Administrators and others system-level authority, and then give these users **Full Control**.

Note If you restrict access by modifying the **Everyone** group without first specifying certain users, you may permanently lock administrators out of the disk area.

- 6 Select **Everyone** and change the access to **Read** and **Change** only.
- 7 Close the Properties dialog box.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

Validating Your Distributed iFS System

To test your distributed iFS system, you need to verify that attachments are available from both local and remote master and slave iFS servers. If you need information about checking in and checking out files, refer to “Checking In and Checking Out Attachments” on page 5-14. You can also use the **Get** command to test connectivity, as described on page 5-15.

To store an attachment on a local slave iFS server:

- 1 Log in to the Agile Advantage Windows client.
- 2 Create a new Item.
- 3 Go to the **Attachments** tab.

- 4 Add an attachment.
- 5 Save the new Item.
- 6 Close the new Item.

To retrieve an attachment on a local slave iFS server:

- 1 Log in to the Agile Advantage Windows Client.
- 2 Reopen the Item from the previous test.
- 3 View the attachment.

To retrieve an attachment on a remote master iFS server:

- 1 Log in to the Agile Advantage Windows Client.
- 2 Open an Item on the remote master iFS server that includes an attachment.
- 3 View the attachment.

To retrieve an attachment from a remote slave iFS server:


- 1 Log in to the Agile Advantage Windows Client.
- 2 Open an Item on a remote slave iFS server that includes an attachment.
- 3 View the attachment.

Checking In and Checking Out Attachments

By default, only you, a change analyst, or a component engineer can check in a file or cancel a checkout. However, your Agile administrator can alter the privilege masks so that anyone can check in a file. When a file is checked out to a shared location on the network (such as a shared drive or folder), anyone with access to that shared location can check in the file. If you have questions about your privilege masks, consult with your Agile administrator.

Checking In Files

To check in a file:

- 1 Open the **Attachments** tab in an Item or Change window.
- 2 Add an attachment.
- 3 Click **Check In**  .

The information disappears from the Checkout User, Checkout Date, and Checkout Folder columns. The attachment is checked in and is now available to be checked out by others with sufficient privileges.


Checking Out Files

When you check out a file, the Agile Advantage Windows Client places a copy of the attachment in the folder of your choice.

To check in and check out from different client computers, you must check out the file to a folder that is accessible through your network. Files checked out to a folder on your computer that is not a shared folder must be checked in from that same computer. See your Microsoft documentation for more information about shared folders.

Notes You cannot check out a file from an Item that has been incorporated. It can be once it's unincorporated by a user with such a privilege. You cannot check out a URL.


To check out a file:

- 1 Open the **Attachments** tab in an Item or Change window.
- 2 Select the file to check out.
- 3 Click **Check Out** .
The Check Out Location dialog box appears.
- 4 Select a folder where you want the attachment to be copied.
- 5 Click **OK**.
The file is checked out, or copied, into the folder you selected.

Getting a File

You can copy a file to the folder of your choice. This is called “getting” a file.

To get an attachment:

- 1 Select the file on the **Attachments** tab.
- 2 Click **Get** .
The Get Location dialog box appears.
- 3 Browse to locate the folder where you want to place the copy.

4 Click **OK**.

Agile Windows client copies the attachment to the selected folder.

Checking Port Usage

To check port usage on a computer:

1 Open a Command Prompt window.

2 At the prompt, type the following: **netstat -n**

If you do not include **-n**, you should see AgileiFS instead of the numeric port 9012 (refer to the “Configuration Settings Worksheet” in Appendix E to use the particular settings of your Agile Advantage installation).



Installing Agile Advantage Web Server

This chapter describes the basic process for installing Agile Advantage Web Server. This chapter includes:

- ❑ *Overview*
- ❑ *Installing the Agile Advantage Web Server*
- ❑ *Testing the Agile Advantage Web Server Installation*
- ❑ *Configuring Microsoft Internet Explorer to Support Agile View & Markup*
- ❑ *Login with the Agile Advantage Web Client*
- ❑ *Customizing Agile Advantage Web Server Components*
- ❑ *You can also change the color scheme, font sizes and styles. However, the field descriptors are set in a fixed-width area, and changes can result in odd spacing or cropped letters.*

Note This chapter provides directions for installing the Agile Advantage Web Server. If you are installing more than the Agile Advantage Web server component, go to the appropriate chapter for configuration instructions.

If you are providing access from outside your network, it is recommended that you install the Agile Advantage Web server in the DMZ. For more information on how to deploy the Agile Advantage Web server in the DMZ, contact your Agile Solutions Consultant.

Overview

The Agile Advantage Web client is a fully functional Web interface that allows Agile-enabled manufacturers to securely provide internal users and trusted supply chain partners access to Agile Advantage.

The Agile Advantage Web server must be installed on a machine that connects to one eHub–iFS pair in the same manner as all other eHub clients. Multiple Agile Advantage Web servers can be active at the same time, all connected to the same or different eHub–iFS pair.

Note This chapter provides information for installing Agile Advantage Web server.

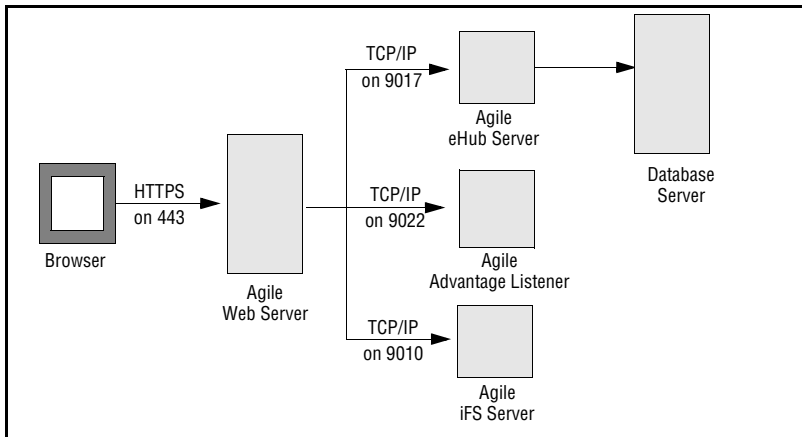
Secure access is maintained using SSL encryption with HTTP or HTTPS, although HTTPS is recommended for the Internet. Standard firewall configurations are supported by the Agile Advantage Web server.

Agile Internet Security

A Web browser can use the Agile Advantage Web server to communicate with the Agile Advantage eHub and Agile Advantage iFS servers over the Internet using the HTTPS protocol, which uses the Secure Sockets Layer (SSL) protocol. SSL is a standard Internet connection-based protocol for secure communications.

Figure 6-1 shows the Agile Advantage Web server connections.

Figure 6-1: Agile Advantage Web Server connections



SSL

Secure Sockets Layer (SSL) is a secure communications protocol built on top of the Internet standard TCP protocol. SSL is used to secure communications between Web browsers such as Microsoft Internet Explorer and Web servers such as Apache Web Server. SSL provides the following basic functionality:

- ❑ Data encryption and decryption by using cipher
- ❑ Prevention of unauthorized modification of data during transmission by using a hash function (such as CRC and message digest)
- ❑ Identity checking using private and public keys

SSL uses public key cryptography to provide privacy between two communicating parties. To use public key cryptography, each user generates a pair of keys:

- ❑ A private key that only the user knows
- ❑ A public key that is made available to anyone who wishes to communicate with the user

The person sending the data encrypts it using the intended recipient's public key. The recipient decrypts the data using the private key. Public key encryption is generally used for exchanging secret keys between the communicating parties.

Public key encryption is also used for authenticating a digital signature, which is created when a user creates a hash or message digest for the data and then encrypts it using the private key. This allows the recipient to verify the sender's identity by decrypting the digital signature using the sender's public key, regenerating the message digest for the data, and then comparing it to the decrypted digest. A match of the data verifies the authenticity of the sender.

For additional information about SSL, go to the following Web sites:

<http://wp.netscape.com/eng/ssl3/ssl-toc.html>

<http://support.agilesoft.com/>

Certificates

Public key cryptography uses a data structure called a *certificate*, which associates a person with a public key and other information. Certificates are issued by a trusted third party called a certificate authority (CA). The CA signs each certificate it issues with its private key. A user then uses the CA's public key to verify that the certificate was actually issued by the CA.

A class 2 CA requires a person's email address to issue a certificate to a person. Higher classes of CAs require more stringent identification, such as a picture ID presented to a CA administrator. Also, each certificate is assigned a serial number, a time period for which the certificate is valid, and a fingerprint that uniquely identifies the certificate.

For additional information about certificates, go to the following Web site:

<http://support.agilesoft.com/>

Web Browser and Server Use of SSL

A Web server can be configured to allow browsers that use SSL when communicating with the Web server. The Web server uses a different port number for SSL than for normal, unencrypted TCP traffic. The Web server must have a key pair (generated during Web server configuration) and a certificate (obtained from a CA and installed through the Web server management interface).

SSL Server supports communication over HTTPS (which encrypts Internet communication using SSL) or HTTP (which does not encrypt Internet communications).

HTTPS

HTTPS is an HTTP protocol based on SSL. The HTTPS protocol is well-recognized by most firewalls.

The Web server can be configured to require the browser to use HTTPS when communicating with the Web Server. This can be set at 40-bit or 128-bit encryption. The Web server defaults to port 80 for HTTP or port 443 for HTTPS.

Server Authentication

To use SSL, a browser connects to the Web server using the secure HTTPS protocol (rather than the standard HTTP protocol if encryption is not specified). In response to the SSL connection request, the Web server sends the browser the resident certificate. The browser checks to see if the issuer of the certificate appears in the list of known CA certificates and associated keys. If the issuer is found, the browser validates that the Web server certificate was issued by the CA. If it is not found, the browser requests that the user accept or deny the certificate from the unknown CA. Browsers are shipped with an initial list of common CAs, including VeriSign and CyberTrust.

Encryption

Once the browser determines that the Web server certificate is valid, it retrieves the public key from the certificate. The browser then generates a session encryption key that is used for communication between it and the Web server. The browser encrypts the session key using the public key and sends an encrypted session key back to the Web server. The server decrypts the session key with its private key.

When the browser and the Web server each have a session key, they exchange data encrypted with the session key. During this interaction, only the Web server has a public-private key pair and a certificate. This allows any user with an SSL-enabled browser to use the HTTPS protocol to connect to the Web server without first obtaining a certificate. The client is also anonymous to the Web server, unless the Web server requests authentication.

Client Authentication

SSL is also used to authenticate the browser to the Web server. This is called *client certificate authentication*. The browser user has a personal certificate and public-private key pair. When establishing an SSL connection, the browser sends the server a client certificate and some authentication data that is signed with the user's private key. The Web server checks that the client certificate was issued by a valid CA, then uses the CA public key to verify that the client certificate is valid. The Web server uses the public key from the client certificate to verify the user's signature on the authentication data.

Security Considerations

If you have enabled HTTPS, communication flowing between a browser and the Agile Advantage Web server is encrypted. The connection between these clients and the Agile services is very similar to a Virtual Private Network (VPN). This is similar to the technology used by PPTP (Point-to-Point Tunneling Protocol).

Communication between the Advantage Web server and Agile Advantage eHub or Agile Advantage iFS is encrypted with a 56-bit encryption algorithm (by default).

Note The actual net encryption level is determined on connection as the highest common encryption ability shared by the two sides. If you need to use several different encryption levels, contact Agile Technical Support for recommendations.

Agile's protocols are single purpose in design and do not have any add-on or extension mechanisms to allow unauthorized programs to execute or fake clients to gain access to other resources of the physical computers on which the Agile Advantage eHub or Agile Advantage iFS resides. This characteristic provides the safety a proxy server might provide for other more general-purpose protocols such as HTTP, SMTP, and FTP. Figure 6-3 on page 6-8 shows the typical topology for an Agile Advantage installation.

Note The Agile Advantage Web server has its own internal security mechanisms and does not use HTTP to communicate with the Agile Advantage eHub.

Web Server Requirements

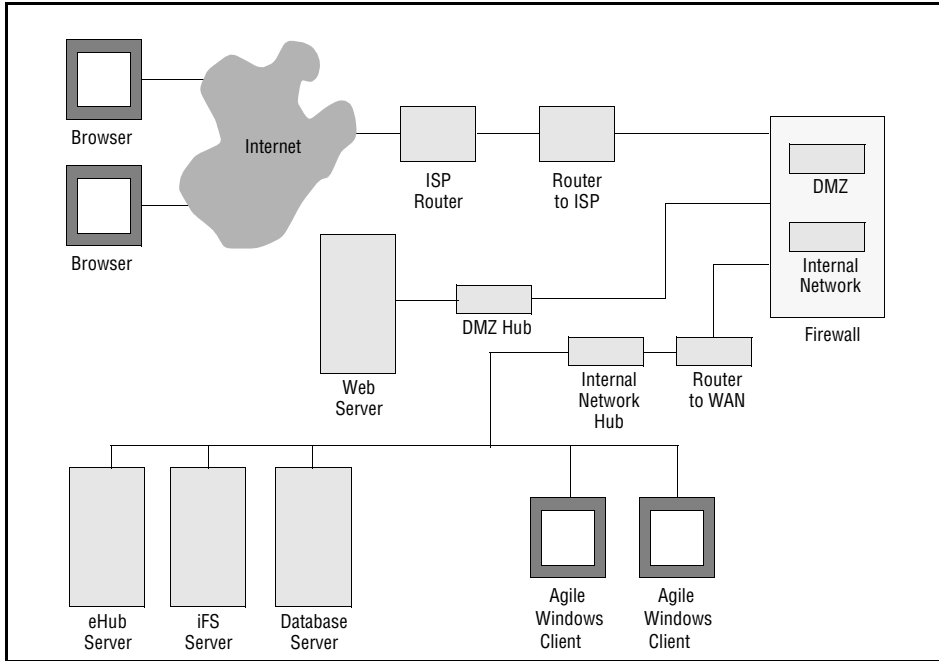
Before you install Agile Advantage Web server, ensure that no other Web server is installed on the same computer. The Agile Advantage Web server installation procedures include installing the Apache Tomcat Web Server.

Firewall Configuration

A user typically runs Agile Advantage Web Client in a browser from behind a corporate firewall. This communicates over the Internet to the Agile servers behind another corporate firewall.

If you want to use HTTPS, each Agile Web client user's firewall must be configured to allow outgoing HTTPS connections from the user's browser to the Internet. Figure 6-2 shows the Agile Advantage Web server configuration.

Figure 6-2: Agile Advantage Web Server configuration



The corporate firewall on the Agile Advantage application side must be configured to allow:

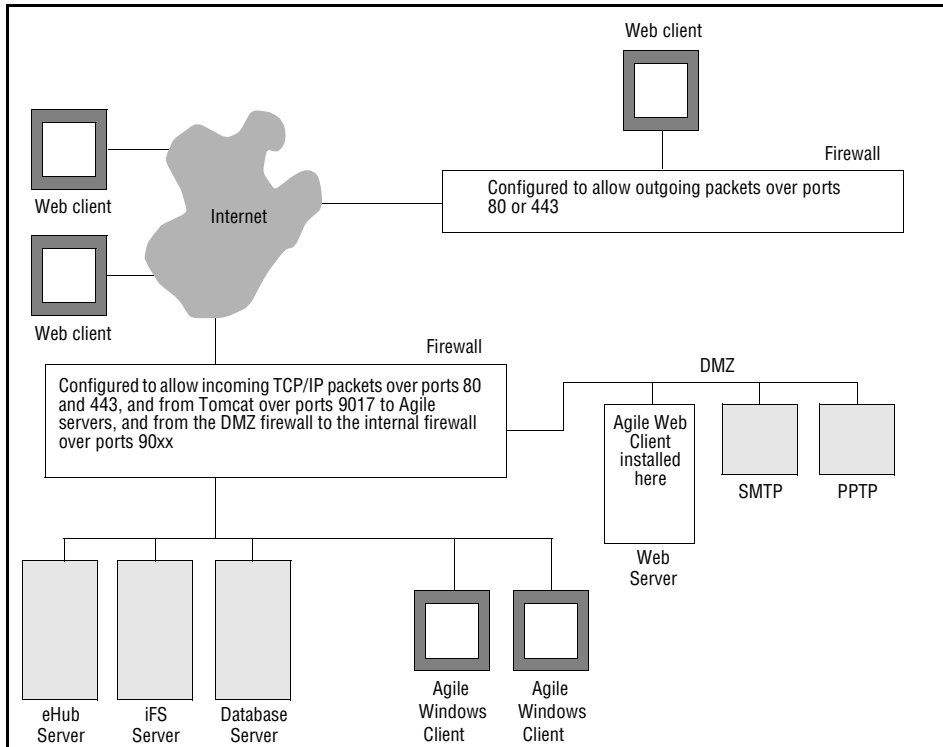
- ❑ Incoming HTTPS connections from the Internet to the Web server.
- ❑ Outgoing TCP/IP connections from the Web server to the eHub on ports 9017 and IFS on port 9010 (Refer to the “Configuration Settings Worksheet” in Appendix E to use the particular settings of your Agile Advantage installation).

Note The firewall administrator should set separate rules for each port and should not specify the range for the port numbers.

Note For information about ServerIron load balancing, contact Agile Technical Support.

The following figure shows a possible installation scenario or topology.

Figure 6-3: Typical topology



Firewall Considerations for Clusters

In any cluster architecture that uses one or more firewalls, it is critical to identify all Tomcat Web server instances using publicly available DNS names, rather than IP addresses. Using DNS names avoids problems associated with address translation policies used to mask internal IP addresses from untrusted clients. However, most security policies involve hiding (and denying access to) internal IP addresses.

For example, a firewall can translate external IP requests for a subnet “xxx” into internal IP addresses having a subnet “yyy”. A client performing a JNDI lookup would receive a denied connection because the client has requested a restricted, internal IP address, rather than the publicly-available address of the server. If there was no translation between external and internal IP addresses, the firewall would pose no problems to the client.

To avoid problems in all cases, bind Tomcat server instances to DNS names and use the same DNS names both inside and outside the firewall. An alternative to using DNS names is to use identical IP addresses inside and outside of the firewall. However, publicizing IP addresses is not recommended as it may compromise the security of the Web application.

Deployment Scenarios in the DMZ

Agile Advantage may be deployed in the DMZ using a variety of scenarios. For more information on these types of deployments, please consult your Agile Solutions Consultant.

Installing the Agile Advantage Web Server

Use these instructions for installing Agile Advantage Web Server on a server.

Important Disable virus protection, if you are using it. Components used in the installer can be falsely identified as being infected and lock up the installation. You can turn the virus protection on after the installation completes.

You should also close any other open applications, including Microsoft Outlook.

To install Agile Advantage Web Server:

- 1 Log in to the computer using a login with local Administrator permissions.
- 2 Download Agile Advantage 2006 following the instructions in your “Agile Advantage Customer Support Welcome Email”.
- 3 Locate and double-click the **Setup.exe** icon.
After a few moments, the **Welcome** screen appears.
- 4 Read and follow the recommendations, then click **Next**.

- 5 The **Software License Agreement** dialog box appears. Click **Yes** to accept the terms of the license agreement and proceed.
- 6 The **Customer Registration** dialog box appears. Type your User Name, Company Name, and Agile Serial Number (contact your Agile administrator for your serial number), then click **Next**.
- 7 The **Select Components** dialog box appears. Make sure Agile Advantage Web Server and Agile ADK are checked. In the **Choose destination Location**, the destination folder can be changed by selecting the **Browse** button. The default is C:\Program Files\Agile Advantage 2006. Please consult with your internal server-systems management department for preferred application installation locations. Click **Next**.
- 8 In the **Server Hostname and Server Port Number** window, type the **Server Hostname** where you are installing the Agile Advantage Web Server (use the short version of the computer name, e.g. `Myserver`, not `Myserver.domainname`). Accept the default port **9022** for the **Server Listen Port**. Click **Next**.
- 9 The **Database Schema and Password** dialog box appears. Enter the Net ServiceName. The default entries for the Username and Password are `agile` and `tartan`, but others could be used (refer to the “Configuration Settings Worksheet” in Appendix E to use the particular settings of your Agile Advantage installation). Click **Next**.
- 10 The **Agile Advantage iFS Secure Word** dialog appears. Enter the Secure Word you used during the Agile Advantage iFS installation. Click **Next**.
- 11 The **Tomcat Installation Location** dialog box appears. Find the **Tomcat 5.5.20** folder on your Web Server or accept the default. Click **Next**.

Note If you have not purchased or installed APM and/or PRM, enter `apm` as the user name and `tartan` for the password. Thus, if you do acquire an APM license, this step would have already been completed.
- 12 The **Agile Program Management Database Schema Information** window appears. Enter the Host Name (Database Host Name), Oracle Listener Port, SID (Oracle SID) and APM Vault Name. Click **Next** to start the installation.
- 13 The Web server Installation completes. Click **Finish**.
- 14 It is recommended to restart you machine after the installation is complete.

If you are installing APM you will need to add the URL under the **Preferences\General** node in Agile Administrator:

- 1 Open Agile Administrator 2006 and explode the **Preferences\General** node.
- 2 Add the URL using the following format, under **Program Management URL**:
`http://localhost:<TomcatPortNo>/PM_<Company Name>/index.jsp` (e.g. `http://nighthawk01:8010/PM_agile/index.jsp`)
Note The URL is case sensitive.
- 3 Close **Agile Administrator**.
- 4 Verify the installed URL for APM matches the URL in **Admin\Program Management URL**:
 - a Go to your Tomcat directory
 - b Open the following Tomcat files: **init-config.properties**, **context.properties**, **pfConnect.properties** to verify that the URL is correct.
 - For **context.properties** and **pfConnect.properties** look in `..\Tomcat 5.5.20\webapps\PM_<Company Name>\WEB-INF\classes`
 - For **init-config.properties** look in `..\Tomcat 5.5.20\webapps\Everest_<Company Name>\WEB-INF`
 - c Update these files as needed to meet your Domain management scheme.
- 5 Restart Tomcat.

Manual Configuration of the Agile Advantage Web Server

You may manually configure the Agile Advantage Web Server settings and parameters.

Note The Agile Advantage Web Server is installed in the directory **TOMCAT_HOME\webapps**. The files are stored in a directory named **Everest_<Company Name>**.

If you wish to modify the **eHub Hostname** and **iFS Hostname**, open the properties file named **init-config.properties**, which is located in the **TOMCAT_HOME\webapps\Everest_<Company Name>\WEB-INF** directory.

Note **Company Name** is the company name you entered when you installed the Agile Advantage Web Server.

Important The **Company Name** value will be used in a URL. You must remove space and period characters from the company name value if you included them during the installation process (e.g. replace “Agile Software Corporation” with “AgileSoftwareCorporation”; replace “Agile.inc” with “AgileInc”).

6 Change the following entries as necessary:

```
eHubHostname=My_eHub_Machine_Name
eHubPort=9017
ifshostname=My_IFS_Machine_Name
ifsport=9010
ListenerHostName=My_Listener_Machine_Name
ListenerPort=9022
```

After you modify these entries, save the configuration file, then restart Tomcat.

Setting Up the Agile Advantage Web Client Access in Agile Administrator

Access to the Agile Advantage database is controlled through the roles and privileges you grant users in Agile Administrator. Before allowing any external access to your Agile Advantage servers, you must first consider who needs access and what they need to access.

The list of potential external users may include, but is not limited to:

- Contract manufacturers
- Suppliers
- Customers
- Licenses
- Remote manufacturing facilities
- Field service personnel
- Traveling employees

Allowing access to third-party companies, such as contract manufacturers, may require special consideration. Most likely, you do not want these users to have access to *all* of your product information. Instead, you may want to grant them access to only a small subset of your data. For instance, they may need access only to data about products that they build for you.

Agile recommends that you create a role in Agile Administrator for each different type of external user. Once the role is defined, users can be assigned to the role. All users assigned to the role will inherit the privileges that are assigned to the role.

Agile Administrator ships with a role called Example - Subcontractor that can be used as a template for setting up access for external users. For more information, see the *Agile Administrator 2006 User Guide*.

You can take this one step further, and create a **Page Two** field on all Items and Changes called External User. This field can be filled with any external user names that are allowed to access each Item or Change. A privilege can then be created for each role that allows access only to objects based on the value of this field. For instance, privileges can be created and granted so that Acme CEM employees can read only objects that have the value Acme in the **External User** field.

Configuring Your Firewall

Most likely, your Agile servers are located behind your corporate firewall. An important part of system security is allowing incoming connections from the Agile Advantage Web Server to Agile Advantage eHub, Agile Advantage iFS and Agile Advantage Listener, while restricting access to other parts of your system.

Tomcat makes TCP/IP connections to Agile Advantage iFS and Agile Advantage eHub using ports 9017, so you must configure your firewall to allow incoming TCP/IP communications over these ports.

Note Agile recommends that you allow incoming traffic *only* over port 9010 to access the computer running the Agile Advantage iFS process. Additionally, Agile recommends that you allow incoming traffic *only* over port **9017** to access the computer running the Agile Advantage eHub process and *only* port **9022** for the Agile Advantage Listener.

If the computers with Agile Advantage Listener, Agile Advantage eHub and Agile Advantage iFS servers do not have registered IP addresses, the firewall will most likely have to do some sort of IP address translation.

Testing the Agile Advantage Web Server Installation

You can now test the connection over the specified ports to the Tomcat server where Agile Advantage Web Server is installed.

Important It is important that you do not provide users with this URL. Port 8010 (or the port you specified) is not standard and should not be used by external or remote users of the Agile Advantage Web client. This URL is a direct connection to the Tomcat server, and it should be used only for testing and troubleshooting purposes.

The Tomcat server is set up as a service for **Automatic** start up.

- 7 Open your browser and use the following URL to test the Agile Advantage Web Server and Tomcat Web Server setup:

```
http://localhost:<TomcatPortNo>/Everest_<Company Name>/  
HcmServlet
```

<TomcatPortNo> is the port number you entered for Tomcat during the installation process (e.g. 8010).

<Company Name> is the company name you entered when you installed the Agile Advantage Web Server.

Important If you had entered spaces in the company name during the installation process, replace them by an underscore _ character for the URL to work. For example, if the Company Name was “Agile Software Corporation” replace it with “Agile_Software_Corporation”.

Note The URL is case-sensitive. Refer to the “Configuration Settings Worksheet” in Appendix E to use the particular settings of your Agile Advantage installation.

A login window appears.

Important If you get an HTTP Status 500 error, make sure you’ve set up the J2SDK environment variable as described in “Setting J2SE Development Kit 1.5 Environment Variable” in Chapter 1 on page 1-1.

- 8 If the Login Window appears, proceed to step 11 below. If not, and if you have already set up the J2SDK environment variable as described in “Setting J2SE Development Kit 1.5 Environment Variable,” in Chapter 1 on page 1-1, and you are still getting an HTTP Status 500 error, then perform the following:

- 9 Copy the **tools.jar** file from the **lib** sub-directory under the directory path to the J2SE DK location e.g. `C:\Program Files\Java\jdk1.5_09\lib` to the `\\<My_Tomcat_Directory>\common\lib` directory.

`<My_Tomcat_Directory>` is the directory where you installed Apache Tomcat Web Server.

- 10 Restart the Tomcat Web Server and return to step 7 above.
- 11 If you have not added Agile users, type **administrator** for the user and **agile** for the password.
The first time a user logs in to the Agile Advantage Web client, it may take a moment to load the information.
- 12 If the Agile Advantage login page appears, then you have confirmation that the Tomcat Web Server was properly installed and configured.

Configuring Microsoft Internet Explorer to Support Agile View & Markup

In order to be able to use the Agile View & Markup product with the Agile Web client, you must configure the Microsoft Internet Explorer with the appropriate security parameters. For detailed information on how to perform these steps, please refer to “Configuring Microsoft Internet Explorer to Support Agile View & Markup” on page 7-6.

Login with the Agile Advantage Web Client

Use the following URL to test the Agile Advantage Web Server setup:

- 1 Open the Services dialog box and make sure that both the Agile Advantage eHub and the Tomcat Web Server are running.
- 2 Close the Services dialog box.

Note The virtual path is the name you specified in step 7 on page 6-14. The location must have a public IP address that is externally accessible.

```
http://localhost:<TomcatPortNo>/Everest_<Company Name>/HcmServlet
```

`<TomcatPortNo>` is the port number you entered for Tomcat during the installation process (e.g. 8010).

<**Company Name**> is the company name you entered when you installed the Agile Advantage Web Server.

Important If you had entered spaces in the company name during the installation process, replace them by an underscore _ character for the URL to work. For example, if the Company Name was “Agile Software Corporation” replace it with “Agile_Software_Corporation”.

Note The URL is case-sensitive.

- 3 If the Agile Advantage login page appears, then you have confirmation that the Agile Advantage Web Server was properly installed and configured.
- 4 Ensure that the **eHub** is running, and that the **eHub Hostname** and **Listen Port** you entered are correct.
- 5 At the Login Screen, enter a valid **Username** and **Password** pair, then click the **Login** button. If the login is successful, you will see the user’s Agile Advantage Home Page.
- 6 The first time a user log in with the Agile Advantage Web client, he is prompted for additional user profile information.
The User Profile page includes a Locale Information section. A user can select a date format, time format, time zone, and daylight savings time adjustment specific to his location. If the user needs to change locale information, he can click **Settings** in the Agile Advantage Web client.
- 7 After making any changes or modifications to this information, the user clicks **Save** and continues with the Agile Advantage Web client.

Refer to the *Agile Advantage 2006 Web Client User Guide* for additional information.

Note If you need to stop the Tomcat Web server, from the Windows taskbar, proceed to the task manager tray, right click **Apache Tomcat** then select **Shutdown: Tomcat5**. from the shortcut menu. This will shutdown the Tomcat Web Server gracefully.

Customizing Agile Advantage Web Server Components

You can customize several components that make up the Agile Advantage Web interface to include your own corporate logo, information, or links to your Web site.

Important Before you customize files, backup and rename the files in question. In the event you modify an incorrect file or corrupt the structure, you can replace the file with the original, backed-up version. Also, do not change the structure or any filenames within this structure.

The following sections provide the details for the components that can be customized.

Configuring the Top Frame

The top frame in the Agile Advantage Web client uses the Agile banner and logo. You can change these graphics, but should use the same filename, size, and resolution.

The properties for the two files are:

Filename	Dimensions WxH	Pixels per inch
agilebanner.gif	1600x30 pixels	96
agilelogo.gif	70x25 pixels	96

To replace the agilebanner.gif and agilelogo.gif files:

- 1 Navigate to their location and replace them. Its default directory is:

```
\\<My_Tomcat_Directory>\webapps\  
Everest_<Company Name>\images
```

<My_Tomcat_Directory> is the directory where you installed Apache Tomcat Web Server.

<Company Name> is the company name you entered when you installed the Agile Advantage Web Server.

Important If you had entered spaces in the company name during the installation process, replace them by an underscore _ character for the URL to work. For example, if the Company Name was “Agile Software Corporation” replace it with “Agile_Software_Corporation”.

- 2 Restart the Tomcat Web Server so that your changes would take place.

Note If your graphics do not use the same dimensions or resolution, you may see some distortion. If you want to use different file names or dimensions, the **LogoiInclude.jsp** file contains the specifications for the two files. The JSP file can be opened with a text editor such as NotePad.

The **LogoiInclude.jsp** file is located in the directory:

```
\\<My_Tomcat_Directory>\webapps\Everest_<Company  
Name>\default\includes\
```

Configuring the Style Sheet

The style sheet allows you to control the colors used in the Agile Advantage Web client. The color specifications are stored in the **agileEverest.css** file.

To edit the agileEverest.css file:

- 1 Navigate to its location and open it. Its default directory is:

```
\\<My_Tomcat_Directory>\webapps\Everest_<Company Name>\
```

<My_Tomcat_Directory> is the directory where you installed Apache Tomcat Web Server.

<Company Name> is the company name you entered when you installed the Agile Advantage Web Server.

Important If you had entered spaces in the company name during the installation process, replace them by an underscore _ character for the URL to work. For example, if the Company Name was “Agile Software Corporation” replace it with “Agile_Software_Corporation”.

- 2 Open the CSS file using a text editor such as Notepad.
- 3 Make your changes then save and exit Notepad.
- 4 Restart the Tomcat Web Server so that your changes would take place.

Note You can also change the color scheme, font sizes and styles. However, the field descriptors are set in a fixed-width area, and changes can result in odd spacing or cropped letters.



Installing and Updating Client Components

This chapter describes how to install Agile client components and keep them up to date. It includes the following topics:

- ❑ *Before Starting Client Installation*
 - ❑ *Installing Client Components*
 - ❑ *Installing Agile Administrator on a Client Computer*
-

Before Starting Client Installation

Before starting any type of client installation, you must perform several steps to ensure that the client computer will operate properly.

- 1** Verify that Agile Advantage eHub is installed and available on the network. The default folder for these components is `\\Program Files\Agile Advantage 2006`.

The remainder of these installation instructions assume that server components were installed in the default folder.

- 2** Create an installation folder on the Agile Advantage eHub server by creating a folder—for example, Agile Advantage 2006 Setup—and copying the contents from the Agile Advantage Installation folder into it. It must be shared for all client users before client installation can proceed.

- 3 If you want to use custom bitmaps in the Agile Advantage Windows Client folder of all client computers, prepare them for distribution to the individual client machines. For details, see “Preparing Custom Graphics and Other Shared Files for Installation” on page 7-2.
- 4 Ensure that each client computer has a drive mapping for the drive and folder containing Agile Advantage eHub.
- 5 Ping the Agile Advantage eHub host computer to ensure that each client computer can communicate with it. Alternatively, you can ping each client from the computer where Agile Advantage eHub is installed. For instructions, see “Checking Your TCP/IP Connection” on page A-9.
- 6 Before users of client computers can log in to Agile Advantage, they must first have an account in Agile Administrator with appropriate privilege levels. See the *Agile Administrator 2006 User Guide* for details.
- 7 For optimal performance, use the Scandisk utility to check client hard disk drives *before* installing Agile Advantage. In cases of severe fragmentation, you will not be able to complete the installation. Use a defragmenting utility to clear contiguous disk space, which will allow for proper performance.

To install Agile Administrator on a client computer, see page 7-5.

Preparing Custom Graphics and Other Shared Files for Installation

If you have custom status stamps and logos to copy to the **AgileClient** folder of all client computers, you can follow these steps to prepare them for copying:

- 1 Locate the files you want to copy. You will find the files in the **AgileClient** folder under the main folder where you installed Agile Advantage (for example, `\\Program Files\Agile Advantage 2006\AgileClient`).
- 2 Copy the files to the Custom folder in the installation folder where you had copied the Agile Advantage installation files (specified in step 2 on page 7-1)—for example, `C:\Agile Advantage 2006 Setup\Custom`.

Note To use your own graphics, you must rename them to overwrite the existing files. A graphic must also be the same format as the one you are replacing. If your graphic has a different extension, you must convert the file to the same format (just changing the file extension does not change the file format). You must also copy the graphics to each client system.

Pre-installation Requirements for Agile Advantage Clients

Before you can install the Agile Advantage Windows Client and other client components, you must know:

- ❑ The host names of the computers where the Agile Advantage eHub (the data management service) and Agile Advantage iFS (the file management service) are installed.
- ❑ The serial number supplied by Agile.

Important The client computer must be restarted immediately after any Agile software is installed.

Installing Client Components

Before you can install Agile Advantage, you must first have successfully installed Oracle, Agile Advantage eHub and Agile Advantage iFS on one or more network servers. Other installation prerequisites are listed in “Before Starting Client Installation” on page 7-1.

You can have users perform their own installations from the Agile Advantage Installation folder created on the computer where the Agile Advantage eHub is installed. This installation is interactive; each client installation can include different components.

Performing a Client Installation

This section provides instructions for installing Agile Advantage components on client computers.

To install Agile Advantage client components:

- 1 Log in to the computer using a login with local Administrator permissions.
- 2 Download Agile Advantage 2006 following the instructions in your “Agile Advantage Customer Support Welcome Email”.
- 3 Locate and double-click the **Setup.exe** icon.
After a few moments, the **Welcome** screen appears.
- 4 Read and follow the recommendations, then click **Next**.
- 5 The **Software License Agreement** dialog box appears. Click **Yes** to accept the terms of the license agreement to proceed.

6 The **Customer Registration** dialog box appears. Type your User Name, Company Name, and the Agile Advantage Serial Number (contact your Agile administrator for your serial number), then click **Next**.

7 The **Select Components** dialog box appears.

The components listed in this dialog box are determined by the serial number you typed in the **Customer Registration** dialog box, and should reflect the components for which you are licensed.

Important If you are upgrading or reinstalling Agile client components, you must select at least the same components as those that were previously installed. Refer to the *Agile Advantage 2006 Upgrade Guide* for additional upgrade information.

Although the values listed in the **Select Components** dialog box provide an estimate of the space required to install Agile components, you should allow additional space for future expansion.

Select the components you want to install.

8 You should determine the correct drive and folder to install. The default is C:\Program Files\Agile Advantage 2006, however it is recommended you consult with your internal systems management team for the proper installation drive/folder. Selecting the **Browse** button will allow you to change this setting. Click **Next**.

9 You are prompted to enable the Agile Client Software Update (ACSU) program. This enables easy updates when new Agile components are available. Click **Next**.

10 The **Server Hostname and Server Port Number** dialog box appears. Type the Server Hostname and the Server Listen Port for the computer where Agile Advantage eHub is installed. Use the short version of the computer name (e.g., Myhost, not Myhost.domainname). The default Listen Port is 9022. Click **Next**.

Important It is especially important to be sure that you specify ports that are not used by other applications running on the same Hostname.

The Setup process will begin at this stage and continue until its completion. The **Install Wizard Complete** dialog box appears.

- 11 The Agile Advantage installer asks if you would like to have Agile application shortcuts created on your Windows desktop. Click **Yes** (recommended) to receive the shortcuts on your desktop. If you click **No**, shortcuts will appear in the Windows **Programs** menu but not on your desktop.

Note Do not attempt to create shortcuts manually. It is recommended that you click **Yes** to create the shortcuts and then move or delete them later. Agile components (such as the Agile Client Software Update program) store information about shortcuts only when the Agile Advantage installer creates them.

- 12 You are prompted to restart the computer. Choose **Yes** and click **Finish** to complete the installation and reboot your computer now.

If an Agile service pack has been set up for installation with clients, you will be prompted to install it when the Agile Advantage installation is complete. Respond **Yes** to install the service pack.

Important The client computer must be restarted immediately after any Agile Advantage software is installed.

Installing Agile Administrator on a Client Computer

You might prefer to install Agile Administrator on a Windows client computer so you can administer Agile Advantage without needing to work on a server. This can be on a local computer in your office, or on a slave file computer at a remote site.

You can install Agile Administrator as described on page 7-3. You should also install the Agile Windows client so you can test any modifications you make in Agile Administrator.

Note If you install Agile Administrator at multiple sites on your network, only one system administrator can log in at any time.

After you complete the installation, you need to use Agile Administrator to set up users and assign appropriate roles and privileges to permit access to the data. You also need to provide the appropriate **LicenseKey** value from the property view of the **AgileDatabase** node.

For more information, see the *Agile Administrator 2006 User Guide*.

Note If there are any updates available, when you double-click any of the client components, an ACSU popup message will prompt: “The Agile Client Software Update program has detected a maintenance package. This must be installed prior to running Agile products. Would you like to install the package at this time?”. If you click **No**, The ACSU popup message will prompt the following: “You have selected not to install the required software updates at this time. As a result, you may not be able to successfully run some Agile applications. If this is the case, you will need to install the software updates”. If you click **Yes**, the Automated Client Software Update dialog box appears and the download process starts. After download is complete, click **Finish** and reboot your computer.

Configuring Microsoft Internet Explorer to Support Agile View & Markup

In order to be able to use the Agile View & Markup product with the Agile Web client, you must configure the Microsoft Internet Explorer with the appropriate security parameters to accept ActiveX controls.

To configure the Security Settings of Microsoft Internet Explorer 6.0 Service Pack 1 or later:

- 1 Launch Microsoft Internet Explorer.
- 2 Select **Tools | Internet Options**.
- 3 Select the **Security** tab and click on the **Local Intranet** icon.
- 4 Click the **Custom Level** button.
- 5 Scroll to **Initialize and Script ActiveX controls not marked as safe** and set this to **Enable**.
- 6 Scroll to **Run ActiveX controls and plug-ins** and set this to **Prompt**.
- 7 Click the **OK** button. When asked whether you wish to save these changes, click the **Yes** button.
- 8 Click the **OK** button, and close all instances of Microsoft Internet Explorer.

The next time you login to Agile Advantage with the Web Client, you will be able to view and mark up attachments.



Agile System Maintenance

This appendix contains the following tips for maintaining and using your Agile Advantage system:

- ❑ *Changing Passwords*
 - ❑ *Administrator User Permissions*
 - ❑ *Using the Server as a Client*
 - ❑ *Updating Windows Service Packs*
 - ❑ *Restarting Servers Periodically*
 - ❑ *Color Settings*
 - ❑ *Dynamic Versus Static IP Addresses*
 - ❑ *Adding Storage Folders*
 - ❑ *Using VaultUtility2006.exe*
 - ❑ *Moving Agile ChangeCAST*
 - ❑ *Troubleshooting Browser Connections*
-

Changing Passwords

Anytime you change the FileServicePassword property in the **Agile Database** node in Agile Administrator, you must update the Password entry in the registry of each iFS server in your distributed iFS environment located in **HKEY_LOCAL_MACHINE | Software | Agile Advantage | Agile Advantage iFS | Password**.

Administrator User Permissions

Agile Administrator supports the ability to change all users' license properties. In the event that a user reduces the default Administrator user's permissions to anything other than full permissions before logging out, the default Administrator user will not be able to log in with the appropriate permissions. If you encounter this situation, contact your Agile Account Executive or Agile Support for assistance.

Using the Server as a Client

After installation, test Agile Advantage on the server to make sure that client systems can start Agile products. You may also need to test Agile Administrator modifications as well. For best results, apart from this testing, do *not* use the Agile Advantage server to perform data-related tasks such as creating and modifying Items and Changes.

Updating Windows Service Packs

The Windows operating system is updated with Service Packs that address defects in the original release. This version of Agile Advantage has been tested with Windows Server 2003 Standard Edition, Windows XP Professional (Service Pack 1 or Service Pack 2) and Windows 2000 Professional Service Pack 4, available from Microsoft through the Internet (www.microsoft.com).

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

Restarting Servers Periodically

Arrange for servers to be restarted occasionally. In some environments, Windows machines should not be left running for prolonged periods. Network or client problems can cause memory problems on the server that lead to poor performance and ultimately to server errors.

Agile recommends restarting once a week, which should be more than sufficient for most environments. However, you may wish to experiment to see if your servers can benefit from being restarted more frequently.

Color Settings

For best support of the current Agile color-coded user interface, set client computers to either 16-bit or 32-bit color quality.

Dynamic Versus Static IP Addresses

You can use dynamic IP addresses with “long-term lease” assignments, as well as static addresses, for Oracle systems. For best results, do not change the host name of computers in the system, and use static addresses for Windows servers.

Adding Storage Folders

Make sure that the disks containing the storage folders do not become full.

To add another storage folder on a different disk:

- 1 Ensure that all users have logged off.
- 2 On the computer where Agile Advantage iFS is installed, open the Control Panel window, double-click the **Services** icon, and stop the Agile Advantage iFS service.

Note The new drive must be installed on the same computer with Agile Advantage iFS.

- 3 Locate and note the name of the new folder on the new hard drive.
- 4 Open a Command Prompt window and type **regedit.exe** or **regedt32.exe**.
- 5 In the registry, open the following folder structure:

HKEY_LOCAL_MACHINE | SOFTWARE | AGILE ADVANTAGE | AgileiFS

- 6 Double-click the **StorDirs** key and add the path for a new folder on a new drive in front of the existing folder, then add a semicolon as a delimiter.
Agile Advantage iFS adds files to the first folder in this list. For example, to store files on a new G drive, you might use the following:

```
"g:\agile\A\agfile2;f:\agile\agfile1"
```
- 7 Restart the Agile Advantage iFS service using the **Services** icon in the Control Panel.

Using VaultUtility2006.exe

The VaultUtility2006.exe tool determines the existence of “dead” files in your iFS Vault and deletes them.

Note It is a good practice to execute this utility periodically to delete the “dead” files that are no longer in use.

This utility is located under the %AGILE_HOME%\Tools folder (by default, C:\Program Files\Agile Advantage 2006\Tools).

To run the VaultUtility2006.exe tool:

- 1 Open a **Command Prompt** window.
- 2 Change to the %AGILE_HOME%\Tools folder (by default, C:\Program Files\Agile Advantage 2006\Tools).
- 3 At the command prompt, type:
VaultUtility2006
then press **Enter**.
- 4 The following usage information appears:
Usage : VaultUtility2006 <ServiceName> <SchemaName> <Password>
<Enter Y if you would like to move problem vault files to another directory. Otherwise, enter N> <If moving problem files, enter the Destination>
- 5 Type the usage text in step 4 by replacing the italicized fields with their appropriate values:
 - <ServiceName>: The value entered in step 7 under the section in (e.g. AGIL).
 - <SchemaName> and <Password>: The values entered in step 11 under the section in (e.g. agile, tartan).

- Type `N` if you don't want to move the "dead" vault files to another directory.
- 6 Click **Enter**.
 - 7 Create a folder to move the "dead" vault files.
 - 8 Type `y` and the `Destination` path for the folder you have just created in step 7 above.
 - 9 Click **Enter**.
The "dead" files are placed in the created folder.

Moving Agile ChangeCAST

Agile ChangeCAST publishes released ECO objects, and the Parts, Bills of Material, and AML from Agile to up to 32 separate ERP systems. This includes both initial product releases and all changed information contained in an Agile Change object. You may need to move Agile ChangeCAST to a different server after you determine the amount of user activity.

Important Moving Agile ChangeCAST will cause a short interruption in users' ability to access ERP information. It is important that users be notified of the changeover, and also that you pick a time when the fewest users will be affected.

After sending notification of the Agile ChangeCAST changeover:

- 1 Stop all Agile ChangeCAST activity.
- 2 Stop the Agile ChangeCAST service.
- 3 Copy all data to the new Agile ChangeCAST server.
- 4 Compare all Agile ChangeCAST data on the original and new servers.
Particularly note transfer files and flags in the event that a user was able to submit information during the changeover.
- 5 Start the Agile ChangeCAST service on the new server.
- 6 Send notification that the Agile ChangeCAST is available.
- 7 Remove Agile ChangeCAST from the original server.

Setting Up Another Server

If you want to set up another computer as a replacement server or test server, perform the following steps on that computer:

- ❑ Export an existing Agile database to a DMP file (see page B-16).
- ❑ Install and configure Windows Server 2003 with the supported Service Pack (see page 2-2).
- ❑ Test the Windows Server 2003 server (see page 2-3).
- ❑ Install Oracle 10g Release 2 (see page 2-2).
- ❑ Remove any existing Agile schema and create a new Agile schema with no data.
- ❑ Copy the latest Agile schema DMP file to the new computer and import the Agile schema to the new Agile schema (see page B-17).
- ❑ Install the Agile Advantage server software (see page 4-1).
- ❑ Copy Agile files to the new computer.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

Copying Agile Files to the New Computer

After you set up Agile, you need to copy *drive:\AgFIMgr* and all subfolders and files from the server where Agile Advantage iFS was installed. If that folder already exists on the new computer, then overwrite it.

Using Regedit

Use regedit to verify the entries in the Windows registry.

To run regedit and enter your new encrypted password:

- 1 Choose **Start | Run**.
- 2 Type **regedit** in the **Open** field of the Run dialog box.
The Registry window opens.
- 3 Check the following entries:
 - Open **HKEY_LOCAL_MACHINE | Software | Agile Advantage | AgileNetwork** and verify that the directory specified for **iFS_CacheDirectory** is valid (one that exists on that computer).

- Open **HKEY_LOCAL_MACHINE | Software | Agile Advantage | AgileIFS** and verify that the directory specified for **StorDirs** is valid.
- Open **HKEY_LOCAL_MACHINE | Software | Agile Advantage | AgileeHub | <Company Name>** and check that the correct values for the host computer (**DatabaseHost**), database password (**DatabasePassword**), and user name (**DatabaseUsername**) appear.

Note The **DatabasePassword** key is encrypted. If your previous settings were different from the user name “agile” and password “tartan” defaults, your database user name appears instead of “agile” as the **DatabaseUsername** value. If you want to change the database password you provided during the installation, run DBReg to enter a new password.

- Check if the following entry exists: **HKEY_LOCAL_MACHINE | Software | Agile Advantage | Agilelistener**.

4 After you have confirmed the registry entries, choose **File | Exit**.

Using DBReg

To run DBReg and enter your new encrypted password:

- 1 Stop the Agile Advantage eHub in the **Windows Control Panel** (if running).
- 2 Open a **Command Prompt** window.
- 3 Change to the **eHub\<Company Name>** folder located in the Agile home folder.
- 4 At the command prompt, type:

```
DBReg password companyName
```

then press **Enter**.

For example, **DBReg tartan agile_software_corporation**

where:

password is your custom Oracle database password.

companyName is the company name you entered when you installed the Agile Advantage eHub.

Important If you had entered spaces in the company name during the installation process, replace them by an underscore _ character for the URL to work. For example, if the **companyName** was “Agile Software Corporation” replace it with “Agile_Software_Corporation”.

5 Start the Agile Advantage eHub.

Caution! If you have been using non default settings, failure to update these entries can cause problems with opening and using the database.

Using swdreg

The secure word can be modified only using the swdreg.exe utility located in the Agile Advantage home folder in the eHub and iFS folders. The utility does not show the current secure word. If you change the secure word on one eHub or iFS, you must change it on all eHubs or iFS servers within the same Agile Advantage system.

To run swdreg and change the secure word:

- 1 Stop the Agile Advantage eHub and Agile Advantage iFS in the **Windows Control Panel** (if running).
- 2 Open a Command Prompt window.
- 3 Change to the iFS folder located in the Agile Advantage home folder.
- 4 At the command prompt, type:

```
swdreg eHub <SecureWord> <CompanyName> (for eHub Server)  
swdreg iFS <SecureWord> <CompanyName> (for iFS Server)  
swdreg hCM <SecureWord> <CompanyName> (for Web Server)
```

Examples:

```
swdreg eHub pwd1234 Agile_Software  
swdreg iFS pwd1234 Agile_Software  
swdreg hCM pwd1234 Agile_Software
```

Troubleshooting Browser Connections

If you have difficulty connecting to Agile Advantage with your Web browser, you can use the ping utility and Agile iSniff to verify that:

- ❑ You have a TCP/IP connection to the Web server.
- ❑ You can load HTML files from the Web server.

Checking Your TCP/IP Connection

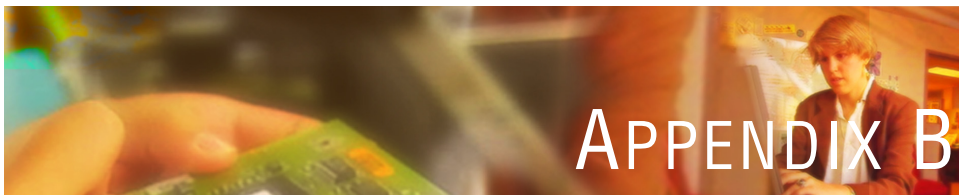
To verify that the client computer has a TCP/IP connection to the Web server:

- 1 Open a Command Prompt window.
- 2 In the Command Prompt window, ping the Web server by typing:
ping *servername*

The system returns a statement similar to the following:

```
Pinging server_name [10.1.1.160] with 32 bytes of data:  
Reply from 10.1.1.160: bytes=32 time =1ms TTL=128
```

This response verifies that your TCP/IP connection is working.



Database Management

It is important to protect your Agile data and system files from loss. This appendix describes basic backup and recovery strategies and gives specific information about applying them to your Agile Advantage system used with Oracle products.

The instructions in this chapter are for system and database administrators who need to manage the Agile Advantage database. The following topics are discussed:

- ❑ *Deleting an Instance in Oracle 10g Release 2*
- ❑ *Running Scripts*
- ❑ *Database Maintenance and Performance*
- ❑ *Defining Database Properties*
- ❑ *Backing Up the Database*
- ❑ *Exporting the Database*
- ❑ *Importing an Existing Agile Database*
- ❑ *Database Recovery*

Deleting an Instance in Oracle 10g Release 2

Before creating a new instance, you should delete the existing instance (such as ORCL).

- 1 Make sure the Oracle Listener (OracleOraDb10g_home1TNSListener) and ORCL service (OracleServiceORCL) services are running.
- 2 Choose **Start | All Programs | Oracle-OraDb10g | Configuration and Migration tools | Database Configuration Assistant**.
The welcome window appears, click **Next**.
- 3 Select **Delete a Database**, and click **Next**.
The instance you want to delete (agil) should appear in the **Available Instances** field (the default password is `oracle`).
- 4 Select the instance and click **Finish**.
- 5 You are prompted to confirm the deletion, and then a message appears confirming that the instance has been removed.
- 6 Confirm that the files in the `drive:\oracle\oradata\instance_name` folder have been deleted

Running Scripts

Important Before running a script, make sure you have a current backup (export) of your Agile Advantage database. For instructions on exporting (creating a DMP backup of your Agile Advantage database), refer to your Oracle documentation or Help system.

To run an SQL script against an Oracle database:

- 1 Copy the SQL script to the `agiltmp` folder on your Oracle server. For example, copy to `drive:\agiltmp`.
- 2 On the computer where Oracle is installed, start SQL Plus by choosing **Start | Programs | Oracle-OraDb10g_home1 | Application Development | SQL Plus**.
- 3 In the Login dialog box, type the login, password and Host String (SID) (the defaults are `agile`, `tartan` and `agil`).
- 4 Before running the script, create a spool file to record and contain the results from issuing the SQL script. At the SQL prompt, type:

```
spool d:\agiltmp\filename.lst  
(e.g., spool d:\agiltmp\averifyresults.lst)
```

Note The file with the LST extension is any filename that you want to use to identify the file that will contain these results. It is best and easiest to give the LST file the same name as the filename that is attached to the SQL file.

For example, if the SQL file to be run is oracle_averify2006.sql, then name the spool file oracle_averify2006.lst. You can also specify a drive or location other than what is shown in the previous example.

The drive and location specified are where the spool file will be saved.

- 5 Issue the command to run the SQL script by typing the following at the SQL prompt:

```
@d:\agiltmp\filename.sql  
(e.g., @d:\agiltmp\oracle_averify2006.sql)
```

Note The @ symbol must be typed directly in front of this command line.

The file with the SQL extension is the name of the specific SQL file to be issued against the database. Depending on where the SQL file is located on the server, you will also specify the drive and location, which could be something other than the d:\agiltmp shown in the example.

Notice the process of the script being executed. When it is complete, there will be an indication of “commit, complete.”

- 6 At the SQL prompt, type the following: `spool off`
- 7 Close the SQL Plus window.

Note In some cases where a change is being made to the database, you may need to stop and restart both Agile services for the change to take effect. If this is necessary, you will be advised at the time the script is provided. In the case of issuing scripts that do not make changes to the database scripts (for example, oracle_averify.sql scripts), restarting the Agile services is not necessary.

- 8 Stop and restart the Agile Advantage eHub and Agile Advantage iFS service.
For Windows Server 2003 Standard Edition:

- a Choose **Start | Settings | Control Panel | Administrative Tools | Services**.

The Services window appears.

- b Locate the Agile Advantage iFS and Agile Advantage eHub services. If either service has started, right-click and choose **Properties** in the shortcut menu.
- c In the Properties dialog box, click **Stop**.
- d After the service stops, click **OK** to close the Properties dialog box.
- e Verify that **Stopped** appears in the Status column to the right of each service.
- f Close the Services window.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

- 9 Locate and open the spool file created in step 4, if necessary.
The file can be opened within an application such as Notepad so that results can be viewed and printed, if necessary.

Database Maintenance and Performance

This section provides database usage and performance procedures.

Fine-Tuning Index Settings

Depending on your database server and the fields most frequently searched at your site, you can speed up searches by using an SQL script to create additional database indexes. If you are experiencing noticeably slow performance when searching on certain fields, contact Agile Technical Support to see if index modifications might help.

Monthly Maintenance

Plan for a regular monthly exporting and importing of your database as a maintenance measure. This process acts as a sort of defragmenter of your data records, and is also recommended as preventive maintenance.

Changing Database Passwords

When you install Agile Advantage, you will notice that the following key is an encrypted key for the Oracle password you have set in Oracle (where the default password is `tartan`):

HKEY_LOCAL_MACHINE | SOFTWARE | Agile Advantage | AgileHub | DatabasePassword

If you need to change the database password, you cannot manually edit this registry key. Instead, you must use the DBReg.exe utility in the `\Program Files\Agile Advantage 2006\ehub\<company name>` folder under your Agile Advantage home folder (where you installed Agile Advantage).

To change your database password:

- 1 From Windows Control Panel, double-click the **Services** icon and stop the Agile services.
- 2 Change your Oracle password by logging into SQL Plus and issue the following command: `alter user username identified by password`
- 3 Open a Command Prompt window.
- 4 Log in to the eHub folder under your Agile Advantage folder.
- 5 At the command prompt, type:
DBReg *password* where *password* is the new Oracle database password, and then press Enter.
- 6 Start the Agile services.

Dynamic Versus Static IP Addresses

You can use dynamic IP addresses with “long-term lease” assignments, as well as static addresses, for Oracle systems. For best results, do not change the host name of computers in the system, and use static addresses for the servers.

Defining Database Properties

Table B-1 lists the **Agile Database** properties and describes the changes you can make to these properties and how each change affects your Agile Advantage system. Changes you make to your **Agile Database** node do not take effect until you restart the Agile Advantage eHub.

Table B-1: Agile Database properties

Property	Description
Discovery Privilege	Enabling Discovery Privilege allows all Discover privilege masks for this Agile system to function. The default is Enabled. If Disabled, all Discover privilege masks are disabled. If you are not using Discovery functions, you can improve your system's performance by setting this property to Disabled.

Table B-1: Agile Database properties

Property	Description
File Type (Windows Client)	The Agile file extension that is used in email attachments; you can change the default (agd) if another application in your environment uses this extension.
FileServicePassword	The password used to connect to Agile Advantage iFS; the default is AGILE . The administrator is not prompted for this password during installation. You can change this value; however, you must also change the iFS computer registry at the same time in HKEY_LOCAL_MACHINE Software Agile Advantage AgileiFS Password .
GUID*	The unique ID for your company's Agile database. This property is not editable.
LicenseKey	<p>The Agile license key that you obtained from Agile. Your license key defines many kinds of functionality purchased by your company, including eHub configuration, Agile product licenses, named user licenses, and so forth.</p> <p>New Agile customers receive a temporary license key to use during implementation and testing, and a permanent key to use after that. The temporary key is typically valid for 90 days from its issue date. The temporary key has the label TEMP KEY following your company name.</p> <p>If you change your original Agile Advantage license (by adding users or products, or upgrading your Agile Advantage software), you will receive a new license key to be entered here.</p>
MailFromDomain	Domain name for email notification; for example, agileadmin@mydomain.com.
MailFromUser	The From email address that is used in Agile email notifications. The value must be a valid email address, for example, agile@agilesoft.com.
MailServerExternal	The name of the computer running your external email server.
MailServerInternal	The name of the computer running your internal email server.
MaxClients	The maximum number of potential concurrent Agile user sessions; this value must be set before anyone can log in to Agile. The default is 1024.
Minimum Encryption Bit	The lowest level of encryption that is allowed in the system; the default is 0.
Name	The name of the highest node in Agile Administrator; the default is Agile Database.

Table B-1: Agile Database properties

Property	Description
NotificationEnabled	Whether email notifications are sent to users. Note: If this property is disabled (= No), all other email notification settings are ignored.
Schema*	Database user name (used to log in to the database).
Server*	The name of the current Agile database server.
VersionDB*	The current Agile database schema version.
* <i>The Agile administrator cannot modify these internal system properties.</i>	

Modifying a Database Property

To modify a database property:

- 1 Select **Agile Database** from the Administrator view.
- 2 Select the property you want to change.
- 3 Enter the new value or make a selection from the list.
- 4 Restart the Agile Advantage eHub to activate the change.

Backing Up the Database

You should institute routine backups of all servers. Agile recommends backing up entire disks to save both database and registry data.

Database losses are unfortunate, but they can and do occur. They can result from hardware failures, natural disasters, fire, power surges, and problems with administration and configuration. Whatever their cause, your best protection against business disruption and permanent data loss is an effective backup and recovery plan, applied as automatically as possible.

This chapter introduces several ways to back up and recover data. You will need additional information to adequately administer and protect your database. You may need to do a cost/benefit analysis to determine how often to back up critical data and to justify the labor, hardware, software, and storage costs involved.

Backup and Recovery Strategy

When you are planning a backup and recovery strategy, you need to consider the following factors:

❑ Database availability

What is the database availability requirement for business operations? Is it required for 7X24X365 availability or only during standard business hours?

According to the availability requirement, different database backup methods can be adopted. If the database cannot be shut down, a hot online backup is the only choice.

❑ ARCHIVELOG and NOARCHIVELOG mode

A database can run in ARCHIVELOG or NOARCHIVELOG mode.

When the database is in operation, all database changes are recorded in redo log files. If the database is running in ARCHIVELOG mode, these redo log files are archived in the database archive log destination and are referred to as archived redo log files. A database running in ARCHIVELOG mode provides better protection from data loss. It can be recovered up to the point of failure. To perform a hot backup, a database must be running in ARCHIVELOG mode.

The default configuration for the Agile database is NOARCHIVELOG mode. For recovery purposes, it is recommended that you change the database to run in ARCHIVELOG mode.

❑ Data loss tolerance

How much data can you afford to lose due to a database crash?

Can you afford to lose one day or one week's worth of data in the event of a database crash? Can you re-enter user data if there is a database failure?

If your database cannot tolerate data loss due to failure, then a good data protection backup method needs to be adopted, such as hot or cold backup using ARCHIVELOG mode.

❑ Recovery time

How much time can you afford to spend recovering a database in the event of a crash?

Different backup methods have different recovery times. Physical methods for backup and recovery are much faster than logical backups, and backups to disk are much faster than to tape. Recovery is also much faster from disk than from tape.

❑ Technical skills

What are the technical skills of your database or systems administrator?

Some backup methods require more database knowledge than others. Standby databases require more technical skill than cold or hot backup.

❑ Hardware or software investment

How much hardware or software investment do you want to put into the system?

Some advanced features, such as high availability, require more of an investment in hardware and software.

You can determine the safest backup method for your environment based on database requirements, database running mode, and your recovery scenario (as described in the following table). However, the final decisions about the backup and recovery strategy you use is beyond the scope of this chapter. For detailed information to help you make these decisions, see the books listed on the previous page.

Table B-2: Scenarios for backup decisions

Scenario	Backup methods
The database requires 7X24 uptime and cannot be shut down	Hot backup Export Database must be running in ARCHIVELOG mode
The database is available during regular business hours and can be shutdown	Hot backup Cold backup Export Database can be running in NOARCHIVELOG or ARCHIVELOG mode
To recover up to the point of failure	Hot backup Cold backup with ARCHIVELOG mode
To recover an individual user or table	Export
For fast recovery	Hot backup Cold backup

Implementing Backup Procedures

For best backup results, follow these guidelines:

- ❑ Schedule online backups when there is minimal database access.
- ❑ Have a fixed schedule for online backups so users can plan for database slowdowns.
- ❑ Test your backup strategy to see if it is effective; make changes if any area is weak.
- ❑ Plan to save at least one version back; choose to retain enough versions for your business needs.
- ❑ Perform database consistency checks just before export or after import.
- ❑ Back up the master database before and after it is altered; if you save the original database creation scripts, you can use the same scripts to recreate it.
- ❑ For a distributed system, plan on coordinating backup procedures so each site can be backed up individually without destroying the integrity of the data at other sites.
- ❑ Oracle recommends that you export and re-import the database on a monthly basis to maintain optimum performance.

Useful Information for Backup and Maintenance Tools

If you use Oracle tools such as SQL Plus or third-party backup tools, you need to enter information about the Oracle database installation. Table B-3 lists default data; these names might differ if custom names were used instead of the defaults. Refer to the “Configuration Settings Worksheet” in Appendix E to use the particular settings of your Agile Advantage installation.

Table B-3: Oracle default field data

Oracle Field	Default Data
Internal Oracle password	<i>oracle</i>
Oracle database logon	<i>system</i>
Oracle database password	<i>manager</i>
Oracle database Agile schema user name	<i>agile</i>
Oracle database Agile schema password	<i>tartan</i>
Oracle database TNS alias	Agile Advantage database server host name
Oracle database host name	Agile Advantage server host name
Oracle database instance	<i>agil</i>

Types of Backups

This section describes the following types of backups:

- ❑ Registry file backups
- ❑ System backups
- ❑ Standby database backups
- ❑ Standard database backups

System administrators often perform the first two types of backups, and database administrators (DBAs) perform the last two types of backups.

The last three types of backups should include backing up the Agile server files located at \\Agile Advantage. These are the files needed to run Agile and the attachments to the Agile Advantage database. They should also include backing up the Oracle files located in the D:\oracle\oradata*instance_name* folder.

Third-party backup procedures, such as Cheyenne Software's ArcServe, are not described in this chapter. However, if you are using one, see "Useful Information for Backup and Maintenance Tools" on page B-11 for the default user name and other Oracle database information.

Recovery procedures are discussed in "Database Recovery" on page B-19.

Common Backup Methods

The most common method of backing up all the required files and data is:

- 1 Back up the registry files (see "Performing Registry File Backups").
- 2 Back up the oracle files and all the files below the Agile Advantage iFS folder using the standard database backup (see "Performing Standard Database Backups" on page B-14).
- 3 Back up the database using the Oracle Export facility (see "Exporting the Database" on page B-15).

Performing Registry File Backups

Registry files keep track of the locations of Agile Advantage files.

To back up the registry files:

- 1 In a Command Prompt window, type **regedit** or **regedt32**.
- 2 Choose **File | Export**.
- 3 Select a destination folder in the **Save In** field.
- 4 Type the destination filename in the **File name** field.
Note Include the date in the filename.
- 5 Click **Save**.

Performing System Backups

You typically perform a system backup on a small system. You bring down the entire system, including all the programs, data files, and log files. Typically, a system backup is run each night.

To perform a system backup, shut down the system, start it up again in single-user or maintenance mode, then copy system files to tape, as follows:

- 1 Shut down active applications.
- 2 Shut down the Oracle relational database.
- 3 Stop the Agile Advantage eHub process.
- 4 Bring the system back in single-user (maintenance) mode.
- 5 Back up all disks to tape with a suitable utility.
- 6 Start the Agile Advantage eHub process.
- 7 Start the system in multi-user mode.
- 8 Restart the database.
- 9 Restart applications as needed.

Performing Standby Database Backups

Typically, a standby database backup is run on a large system. The standby database feature maintains a duplicate database of your primary online database at the same location or at a remote site. Both the standby database and the primary database must be running on the same hardware platform, operating system, and Oracle patch release. A standby database acts as a backup when it resides locally, and is implemented as part of a database disaster recovery strategy when it resides at a remote site. The standby database has the following features:

- ❑ It is copied from the primary or current production database onto a system residing locally or remotely.
- ❑ It is mounted, but not open, and is in constant recovery mode.
- ❑ Redo log files generated from the primary database can be transported to the standby database, and the standby database can apply these logs to recover the database.
- ❑ In the event of a disaster, a standby database can be activated and fully functional as a new production database.

A standby database takes time to set up and configure. For more information, see the references suggested in “Backing Up the Database” on page B-7.

Performing Standard Database Backups

Typically, you run a standard database backup daily. Databases backups can be:

- ❑ Cold or offline, where the database is shut down before copying database-related files: control files, data files, redo log files, initial parameter file (initagil.ora), and password file (pwdagil.ora). A database running in ARCHIVELOG or NOARCHIVELOG mode can be backed up by a cold backup (NOARCHIVELOG mode permits only cold backups).
- ❑ Hot or online, where a backup is performed while the database is open and users are accessing it. To perform a hot backup, a database must be running in ARCHIVELOG mode. When performing a hot backup, the database tablespace must first be put in backup mode, then the data file can be copied by the operating system. Once the data file has been copied, the database tablespace can be placed online again. This allows the database to be backed up tablespace by tablespace.
- ❑ A logical backup creates logical copies of database objects in a binary export file. Logical backups use the database utilities EXP and IMP. When performing logical backups, a database must be open and running.

For best results, you should timestamp backups and generate scripts to perform them automatically using the operating system task schedule command.

Performing Cold Backups

Cold backups should be done on all the database-related files, including data files, control files, redo log files, the initial parameter file (iniagil.ora), and the password file (pwdagil.ora).

To perform a cold backup on all database-related files:

- 1 Shut down the database.
- 2 Use the operating system copy command to copy all of the database data files, the control file, the initial parameter file, the password file, and the archived redo log file (if the database is running in ARCHIVELOG mode) to the backup destination.
- 3 Restart the database.

For details, see the references suggested in “Backing Up the Database” on page B-7.

Performing Hot Backups

Hot backups require a setup procedure, after which a backup is created every day. For instructions, see the references suggested in “Backing Up the Database” on page B-7.

Exporting the Database

For maximum data security, you should export both the full Oracle database and the Agile Advantage schema as separate DMP files. The full database export is for backup only. You will import the Agile Advantage schema DMP file whenever you need to restore a database or replicate it on another computer.

When you are ready to restore the Agile Advantage schema, you can restore to the same computer or another computer:

- ❑ If you are restoring the Agile Advantage schema on the computer where the previous database was installed, proceed to “Database Recovery” page B-19.
- ❑ If you are copying or moving the Agile Advantage schema to another computer, you need to set up the computer before importing the Agile Advantage schema.

Exporting the Full Oracle Database

When you perform a full export, you export all schemas in the Oracle database.

Note If you are prompted for the service name or host string, you must provide the fully qualified computer name.

To export the full Oracle database:

- 1 Ensure that all system users are logged off. The easiest way to do this is to disconnect the server from the network.
- 2 Open a **Command Prompt** window.
- 3 At the prompt, type the following text (do not press **Enter** until you have typed the whole text string):

```
exp system/manager full=y
file=drive:\agiltmp\exp_filename.dmp
log=drive:\agiltmp\exp_filename.log
statistics=none
```

Note Agile recommends naming the export file `expfull.dmp`. Replace *italics* in the above syntax with the actual information, for example:

```
exp system/manager @<Database Service Name (by default,
AGIL)> full=y file=d:\agiltmp\expfull.dmp
log=d:\agiltmp\expfull.log
statistics=none
```

The database export takes a while. When it completes, open the log file and see if the export was successful. If there were problems, call Agile Technical Support.

You can copy the successful export of `expfull.dmp` to another secure computer as a backup.

Exporting the Agile Schema from Oracle

You can export only the Agile Advantage schema. This is much faster than exporting the full database.

Note If you are prompted for the service name or host string, you must provide the fully qualified computer name.

To export only the Agile Advantage schema (only Agile data):

- 1 Ensure that all users are logged off. The easiest way to do this is to disconnect the server from the network.

Note The following commands use the D drive. If you have installed `agiltmp` or Oracle on another drive, specify that drive letter.

- 2 Open a Command Prompt window, and type the following:

```
d:
cd \oracle\product\10.2.0\admin\agil\create
```

- 3 Before exporting the database, you can set export parameters by modifying the `agilexp.par` text file, which contains the following parameters:

```
file=agilexp.dmp log=agilexp.log owner=agile
```

where:

`file` is the file to export.

`log` is the export log file.

`owner` is the user account that contains data to export.

- 4 To export the database, type the following:

```
agilexp.bat
```

The database export takes awhile. When it is complete, open the log file and see if the export was successful. If there were problems, call Agile Technical Support.

You can copy the successful export of expdat.dmp to another secure computer as a backup.

Importing an Existing Agile Database

To import an existing Agile Advantage database:

- 1 Log in to the computer using a login with local Administrator permissions.
- 2 Download Agile Advantage 2006 following the instructions in your “Agile Advantage Customer Support Welcome Email”.
- 3 Locate and double-click the **DB.exe** icon. The **Preparing Setup** dialog box appears.
- 4 After a few moments, the **Database Setup** dialog box appears. Click the **Import Existing Agile Database** radio button, then click **Next**.
- 5 A popup window appears. If you want to support the **Advanced Search**, click **Yes**.

Note This import functionality only supports importing Agile Advantage 2006 schemas. Do not attempt to import schemas from prior versions of Agile.

The **Enter DBA Account** dialog appears.

- 6 Enter the UserName and Password of an Oracle account with DBA privilege. The default is System/Manager, and should not be changed if you accepted the default system user name and password when going through the Configure Database Instance process. For ServiceName, enter the SID of the Oracle database installed. Click **Next**.

The **Database Schema and Password** dialog appears.

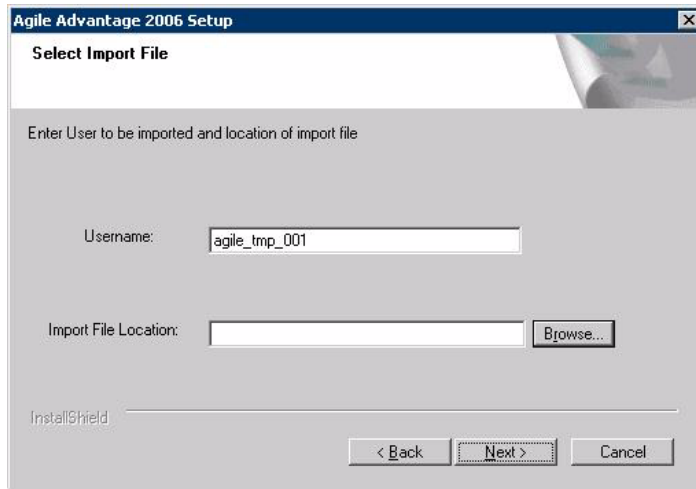
- 7 Enter the user name and password of the schema you would like to create. Do not use an existing schema as this process must create a new schema and will delete an existing schema with the same name. This is the schema where the data from your import file will be imported. Click **Next**.

The **Select Import File** dialog appears.

- 8 Enter the name of the user data to be imported from the import file. Click on the **Browse** button and locate the directory where the import file is located. Click **Next**.

Note If this is the first import after the database upgrade process, then enter the name of the user data (**agile_tmp_001**) to be imported from the import file.

Figure 7-1: Select Import File Dialog Box



The **Select DMP File Location** dialog appears.

- 9 Select the import file that you wish to import and click **Next**.

A **Command Prompt** window opens and the import scripts will execute. After the execution is completed, click **OK**.

Important If you encounter an error while trying to import the DMP file, and the resulting log file contains the following entry:

```
ERROR at line 1: ORA-01940: cannot drop a user that is currently connected
```

To release the currently connected user, you should stop both the Agile Advantage eHub and the Apache Tomcat services.

- 10 The **InstallShield Wizard Complete** dialog will appear. Click **Finish**.

Note If errors are reported during the import process, verify the log files in the `c:\agile temp\db_config` folder.

Note Database imports should not be performed directly using Oracle's import tools. At the time a database is imported, there are additional script operations that must be performed in order for the system to run properly. These script are run automatically as part of the import process described above.

Database Recovery

In the case of failure, database recovery uses a previous database backup to recreate a database that is as complete, accurate, and up-to-date as possible. Database recovery depends on the database backup method. Two backup methods are standard backup and logical backup.

- For standard backup, including cold and hot backup, database recovery requires the use of the operating system copy command to restore backed up data files.
 - If the database is running in NOARCHIVELOG mode, there are no backed up archive log files. Recovery is to restore a previously backed up data file, control file, initial parameter file, and password file. No redo log files are applied and no database roll forward is needed. In this scenario, a database can be recovered up to the last backup.
 - If the database is running ARCHIVELOG mode, database recovery is to restore previously backed up database files up to the last archived log files. When recovering a database, these archived log files are applied and the database roll forward. In this scenario, a database can be recovered up to the point of database failure.
- For a logical backup, a database recovery involves importing the database or schema from a previous export DMP file. For a logical backup, there is no roll forward involved.

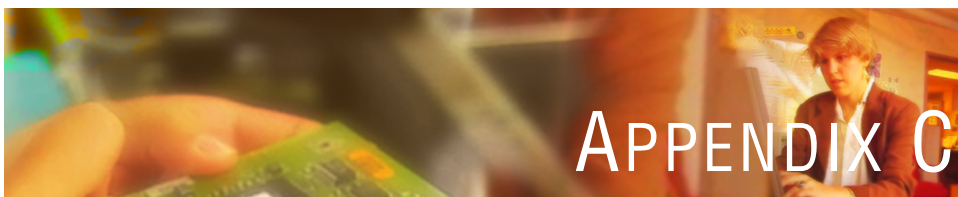
Database recovery can be performed in Server Manager or using Oracle Recovery Manager. For more database recovery information, see the references suggested in “Backing Up the Database” on page B-7.

Using Oracle Recovery Manager

You can use the Oracle Recovery Manager to perform an automatic recovery, restore the full database, restore a data file, or restore a control file.

The major advantage for Oracle Recovery Manager (RMAN) is that it can perform incremental database backup and recovery. Incremental backup and recovery is much faster than a full database backup and recovery, especially for large database systems. RMAN is more complicated to setup compared with a standard backup.

For more information about RMAN, see the references suggested in “Backing Up the Database” on page B-7.



Agile Email Integration

This appendix contains information about how Agile Advantage products can be integrated with various email systems. It includes the following information:

- ❑ *Protocols*
 - ❑ *Configuring a Server*
 - ❑ *User Configuration*
 - ❑ *Using Telnet to Test an SMTP Gateway*
 - ❑ *Settings for Agile Program Management (APM) E-mail*
-

Protocols

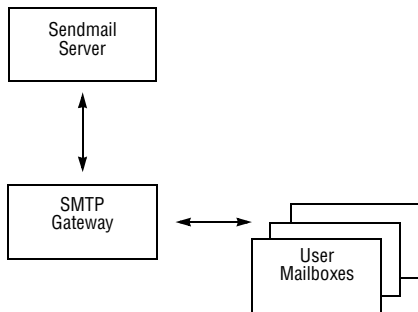
There are many different PC LAN-based email systems. Many are based on the X.400 messaging standard. However, the rapid expansion and acceptance of Internet mail means that nearly all these systems have available Internet mail gateways. Internet mail is essentially UNIX-based mail using the SMTP (Simple Mail Transfer Protocol).

Agile Advantage eHub sends email messages using SMTP. This means that it will work with any email system based on SMTP or using an SMTP gateway. While Agile has not tested all email systems, Agile believes this includes all major PC LAN-based email systems. To determine if a particular email system will work, confirm whether or not the system can be configured to receive Internet mail.

Configuring a Server

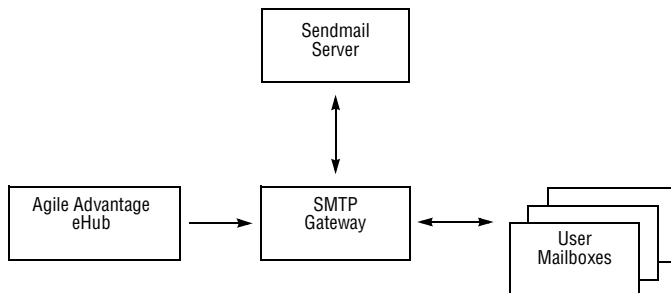
Figure C-1 shows typical PC LAN-based email system with an Internet mail gateway.

Figure C-1: Typical PC LAN with Internet gateway



The Sendmail server runs on a computer at the ISP (Internet service provider), while the SMTP gateway runs on a computer on the LAN. These two systems use SMTP to communicate with each other. If the LAN email system is also SMTP-based (for example, Netscape mail) then the SMTP gateway can simply be another Sendmail server. Otherwise, it is a component of the proprietary mail system (for example, Microsoft Exchange). Figure C-2 shows how Agile Advantage eHub fits into this system.

Figure C-2: Typical Agile Advantage e-mail system



Note Agile Advantage eHub only sends e-mail; it does not receive e-mail.

The connection to the Sendmail server is required only if Agile Advantage eHub needs to send mail to users outside the LAN. The system can still be used if there is no ISP, as long as the SMTP gateway exists.

Changing a Server Configuration

This section describes system configuration changes that may be required.

Incoming Connections

Some SMTP gateways can be configured to allow incoming connections from only one location (for example, from the ISP). These must be re-configured to also allow incoming connections from Agile Advantage eHub.

Outgoing Connections

If there is a firewall between the SMTP gateway and the Sendmail server, it may be configured to allow outgoing SMTP connections only when they originate from the SMTP gateway. This must be re-configured to allow outgoing connections on port 25 (the standard SMTP port) that originate from Agile Advantage eHub.

Using Mail Server Names

Agile Advantage eHub needs to be configured with the names of the internal mail server (the computer running the SMTP gateway) for internal mail and the external mail server (the computer running the Sendmail server) for external mail.

If there is no external computer (for example, there is no ISP), then set it to the same name as the internal computer (in which case the mail will be sent to the internal mail system, which may attempt to handle it.)

It is also possible to set both the internal and the external mail server to the name of the external computer. This works because the Sendmail program redirects all internal mail back to the internal mail system. In most cases this is not an ideal solution because it unnecessarily routes internal mail to the ISP and then back again. However, it may be necessary if there is no SMTP gateway (for example, companies receiving all incoming Internet mail via UUCP or some other non-SMTP mechanism).

Using Internal Domain and “From” Names

Agile Advantage eHub also must be configured with the internal domain name (for example, agile.com) so that it can distinguish between internal and external mail and can be configured with a mail address to be used as the “From” user. The “From” user is the mail account that receives returned mail if there is a mail delivery problem. It is also the account that receives any replies from other users. This should be a full SMTP mail address, including the domain name (for example, admin@agile.com).

Note A user needs to be in Agile Advantage when replying to a sign-off request for the reply to be directed to the right person. Otherwise, the reply is delivered to the account set up for mail delivery problems.

User Configuration

Agile Advantage eHub can send mail messages only to users who are registered in the Agile Advantage database. Set up each user with an email address and an attachment type. The email address should be the full SMTP (Internet) address of the user, including the domain name (for example, john.smith@agile.com.)

Note Make sure mail notification is set to **Yes** when you create users. The default setting is **No**.

Email Attachments

Some mail systems allow a user to start another application from within the mail reader to view attached files. If a system is configured correctly and Agile Advantage is installed, the user can start the Agile Advantage Web client or a Web browser from the mail system and go directly to the Change or Item attached to the email. Within Agile Advantage, the attached file contains a pointer to a storage location in the Agile Advantage database.

The attachment type can be either Windows Client, Web Client, or None, and the attachment encoding mechanism can be either MIME or UUENCODE. This needs to be configured for each user according to which Agile Advantage client software he is using (Windows or Web) and according to the capabilities of the user’s mail software. Most current mail software can typically decode MIME or UUENCODE attachments, although some older mail systems can decode only UUENCODE attachments or none at all.

Configuring Agile for Web Email Attachments

In order to receive Email Attachments to launch the Agile Advantage Web client, the Web client link must be configured in Agile Administrator 2006.

Please do the following

- 1 Log into Agile Administrator.
- 2 Go to the Agile Advantage Web Servers node.
- 3 Select File, New to add a new definition for a web server.
- 4 Type in the name of the web server. For example, if your web server for Agile Advantage is agileweb then type in agileweb. This would be the first part of the address you need when you launch the web client.
- 5 **Type in the starting URL for your web client** http://<web server machine name>.agile.agilesoft.com:8010/Everest_<company name>/HcmServlet.
- 6 Restart the Agile eHub.
- 7 Test by sending notifications to a user that has the web client link specified. You can read more about this node in the Administrator's guide.

Using Telnet to Test an SMTP Gateway

You can use the following procedure to test an SMTP gateway. This can be useful if the Agile Advantage email connection does not seem to be working. You connect to the email port of the SMTP gateway using Telnet, send commands and check for acceptable responses to them, and send a test email message directly through the server.

Connecting to an SMTP Gateway

Telnet to port 25 of the computer running the SMTP gateway.

To connect to an SMTP gateway using Windows Telnet:

- 1 From the **Start** menu, select **Run**.
- 2 In the **Run** dialog box, type **telnet**, and then click **OK** or press **Enter**.
- 3 Type **set localecho**.

- 4 Type **open <MailServerName> 25**.
<MailServerName> is equal to either the **MailServerInternal** or the **MailServerExternal** parameters listed in Agile Administrator 2006.
- 5 Type “Hello” then follow the Telnet commands in Table C-1 to send a test message.

Testing Commands and Responses

When the server sends a response, the response always starts with a number and then generally includes some kind of text message. The text message is often helpful for debugging purposes, but the important thing is the number. If the number does not match what is expected, then Agile Advantage eHub considers this to be an error.

Normally, responses are single line. However, if the fourth character in the response (the one immediately following the number) is a hyphen instead of a space, this indicates that the response continues on the next line. This may be a little confusing if your Telnet program is wrapping long lines of text at the same time.

Typing Telnet Commands

If you have selected **Local Echo** in your Telnet program terminal preferences, you should see your commands as you type in the terminal window. However, depending on the SMTP gateway operating system, you may not be able to use Backspace or Delete to correct mistakes.

Sending a Test Message

Type the following sequence of commands immediately after the initial 220 response. Replace parentheses and the values in parentheses with the appropriate data. Verify that the server returns the expected response after you type each command. The end of this process sends a message to (verified full SMTP email address).

Table C-1: Telnet Commands

Command	Expected response	Commands
HELO (<i>MailFromDomain</i>)	250	(<i>MailFromDomain</i>) as displayed in the Agile Database node property view and configured in Agile Advantage eHub installation.
MAIL From: (<i>MailFromUser</i>)	250	(<i>MailFromUser</i>) as displayed in the Agile Database node property view and configured in Agile Advantage eHub installation.
RCPT To: (<i>a verified email address</i>)	250	(<i>a verified email address</i>) is a full SMTP email address. The test message will be sent to this address.
DATA	354	
From: (<i>MailFromUser</i>)	none	
To: (<i>a verified email address</i>)	none	
Subject: This is a test		
	none	Blank line (important).
This is the body of the message	none	
	none	Blank line.
.	250	Period.
QUIT	221	Telnet will probably disconnect.

Verifying Test Message Receipt

If the test message is received by the addressee, the SMTP gateway is functioning properly.

If There Is a Problem

If the SMTP gateway did not return expected responses, or if the test email message was not received:

- ❑ Make sure that you used the correct values for (*MailFromDomain*), (*MailFromUser*), and the test (*a verified email address*).
- ❑ Run the test again, making sure that you typed the correct values.

If the SMTP gateway is still not responding correctly, contact the server administrator.

If email has been working properly but the mail server must be shut down, email will back up in the queue. After you fix the problem, restart the mail server, then restart Agile Advantage eHub and Agile Advantage iFS services to start the email moving again.

Settings for Agile Program Management (APM) E-mail

To Setup the APM e-Mail Configuration do the following actions:

- 1 Edit the **context.properties** file located under `\Program Files\Apache Software Foundation\Tomcat 5.5\webapps\PM_<Company Name>\WEB-INF\classes\` set the following values for your location:

```
##
```

```
# SMTP Server and messaging info
```

```
##
```

```
com.productfactory.keys.messaging.active=yes (yes = notification on)
```

```
com.productfactory.keys.messaging.smtp.server=smtp.agilesoft.com (replace this with your company's e-mail server)
```

```
com.productfactory.keys.messaging.smtp.from=agile@agilesoft.com  
<mailto:com.productfactory.keys.messaging.smtp.from=agile@agilesoft.com>  
(replace this with your mail-from user email address)
```

```
com.productfactory.keys.messaging.mailerDaemonSleepTime=60000 (Set to 1  
minute polling)
```

```
##
```

```
# Alerts settings
```

##

com.productfactory.keys.emailalert.forteam.active=yes (yes=team notifications on)

com.productfactory.keys.alert_dir=email

com.productfactory.keys.alert_master=master_template

- 2 Save the context.properties file.
- 3 Restart the Apache Tomcat Service and eHub service or just reboot the system.
- 4 For each user existing in APM Admin, check to ensure the receive e-mail checkbox is selected. To do this, login to the APM client with as the Administrator account, click on **Admin | users** and verify each user has the **Receive HTML email** selected.
- 5 Each user must set the Alert Settings for each of his/her Programs in APM. To set a Program alert setting, click **Workspace\inbox**, click **Actions\view Alerts** setting and select the Program you want to set the email alerts for. On the **Set Alerts** page for this Program, set the conditions for email alerts to be sent regarding this Program. Do this for each Program for which the user is defined as an owner, and then click **Submit**.



Using Agile FileLoad 2006

The instructions in this appendix are for users who use Agile FileLoad 2006 to load legacy attachment files directly from a target system into the Agile Advantage database. It includes the following topics:

- ❑ *Overview*
 - ❑ *Installing Agile FileLoad 2006*
 - ❑ *Process Outline*
 - ❑ *Stage 1: Preparing the Index File*
 - ❑ *Stage 2: Processing the Attachments*
 - ❑ *Stage 3: Evaluating the Results*
 - ❑ *Stage 4: Revising and Reloading Rejected Attachments*
 - ❑ *Error Messages*
-

Overview

Agile FileLoad 2006 helps load legacy attachment files into the Agile Advantage database and attach them to the appropriate Agile Advantage objects. Files can be attached to the following Agile Advantage object types:

- ❑ Items
- ❑ Changes
- ❑ Manufacturers
- ❑ Manufacturer Parts

Agile FileLoad 2006 uses an attachment Index file that you prepare to identify the files to be loaded as attachments, and to identify the Agile Advantage objects to which they will be connected. Agile FileLoad places the attached files into Agile's vault and updates the Agile Advantage database.

Installing Agile FileLoad 2006

Agile FileLoad 2006 is installed when you install Agile Advantage 2006, provided you have the required serial number. If you do, Agile FileLoad is available to select during installation; be sure that **Agile FileLoad** is checked.

Agile FileLoad 2006 can be installed on a client system running Windows Server 2003 Standard Edition (Service Pack 1), Windows XP Professional (Service Pack 2), or Windows 2000 Professional Service Pack 4.

Note Agile Advantage is not certified or tested on Microsoft Windows OS x64 Editions.

Process Outline

The Agile FileLoad process can be broken down into the following stages (the stages are discussed in detail in the sections that follow):

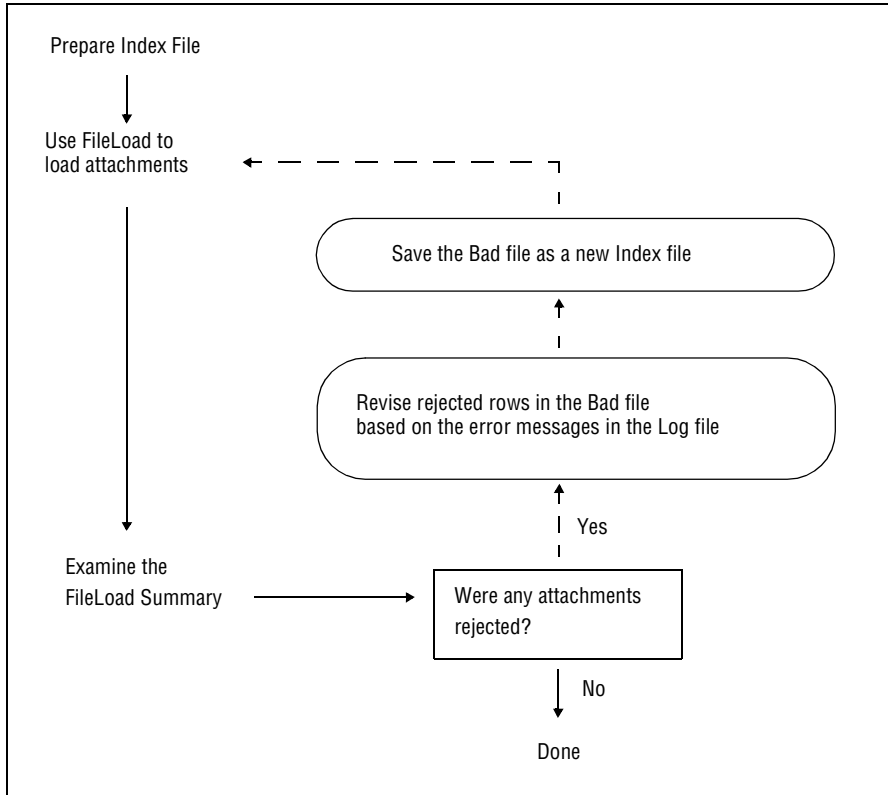
- ❑ **Stage 1: Preparing the Index File** (page D-3) — Prepare an attachment Index file.
- ❑ **Stage 2: Processing the Attachments** (page D-10) — Use Agile FileLoad and the Index file to process the attachments.

Note A Full user license is required to log in and start FileLoad.

- ❑ **Stage 3: Evaluating the Results** (page D-13) — Evaluate the results. If any attachments were rejected, open the Agile FileLoad log file and view the error messages.
- ❑ **Stage 4: Revising and Reloading Rejected Attachments** (page D-15) — Revise the rejected attachment rows in the Bad file. Save the Bad file as a new Index file, and load it.

Repeat Stages 3 and 4 until all attachments are loaded successfully.

Figure D-2: Process Outline



Stage 1: Preparing the Index File

The first stage in batch-loading attachments with Agile FileLoad is to prepare an attachment Index file. The Index file is a text file in which each row describes one file to be loaded as an Agile attachment.

Each row that is updated must have at least six entries separated by commas. To support uploading information to the flex fields, additional entries can be provided.

Index File Structure

Each row must have the following structure:

```
ObjectType, PrimaryKey, SecondaryKey, Path/Filename, AttachType,  
Description [,attrib:value [,attrib:value [...]]]<CR>
```

Note FileLoad includes a new delimiter (a colon) to separate pairs of attribute names and attribute values in the flex fields, as shown in the previous example. A colon is the default separator for these attributes, but it can be redefined.

In addition to the new Attribute Name-Value Separator field, you can also specify a text qualifier character and a multilist delimiter.

- ❑ The text qualifier allows you to use any separator as part of an attribute name or value.
- ❑ The multilist delimiter separates the different entries for an attribute of type MultiList.

The following is an example of a line of a new Index file:

```
ITEM,P00010,,C:\temp\logo_color.bmp,FILE,"Fileload,  
Test",Date01:12/12/00, List01:Select1,  
MultiList01:"Select1;Select2", Text01:"Test_Fileload",  
Text02:DFSF<CR>
```

To make sure the line is interpreted correctly:

- ❑ The value for the Description attribute is "Fileload, Test". Quotes are included around the text containing a comma so that it is not interpreted as an entry separator.
- ❑ The entries for the MultiList01 attribute are separated by semicolons and surrounded by quotes. Since the values do not contain any of the separators, the quotes are not required.

Primary Key and Secondary Key field content requirements depend on the attachment Agile object type. The specific requirements for each object type are described in "Attachment Index Row Content Requirements" on page D-6. Some general notes on Index file structure are as follows:

- ❑ All attachment flex fields must be activated from Agile Administrator; otherwise, FileLoad reports an error.

- ❑ Each field must be separated by a delimiter character, such as a comma. The same delimiter character must be used throughout the Index file. For more information about delimiter options, see page D-12.
- ❑ The flex field attributes and values must be separated by a different delimiter from the delimiter used for the rest of the index row.
- ❑ Doubled delimiters identify a blank field. In comma-delimited files, a blank field is specified by two commas, with no space between them, like this: , ,
- ❑ Each row must always have a minimum of six delimited fields.
- ❑ Each attachment row must end with a carriage return.
- ❑ Short Index files of 100 to 200 lines can help you monitor what is going on and correct any problems more easily.
- ❑ Agile Advantage does not change the incorporation date on the target object.
- ❑ To accommodate temporary files, Agile FileLoad requires twice as much disk space as the size of the attachments being loaded by each Index file. If you do not have room to load all attachments at once, try using more Index files with smaller total attachment sizes to reduce the space required for each one. The temporary files are automatically deleted after the loading process is done.
- ❑ The maximum attachment row length is 512 characters. The maximum file name length is 255 characters, the Maximum Description field value is 100 characters, and the maximum allowed total of all other field values is 157 characters.
- ❑ Successful attachments are logged in the **History** tab for the object.

Sample Index File

The following lines are from a sample comma-delimited Index file:

```
ITEM,1000-02,6,http://www.agilesoft.com/,FILE,Torque  
Widget  
CHANGE,25000,,d:\dwg\0021c.dwg,FILE,Torque Widget  
CHANGE,23450,,d:\dwg\0021c.dwg,FILE,Torque Widget  
MFR,MFR_TEST1,,d:\dwg\0021c.dwg,FILE,Torque Widget  
MFR_PART,MFR_PART1,MFR_TEST1,D:\dwg\0021c.dwg,FILE,Torque  
Widget  
CHANGE,25000,,d:\Projects\Walkthrough.html,FILE,Project  
Tour
```

This table shows valid content types for each object type and attachment row field.

Note File attachment types can be either a URL or path or filename.

Table D-1: Valid content types

Valid field content for each object type				
Object-type	Primary key	Secondary key	Pathname/filename	Attachment type
ITEM	item number	revision	path/filename or URL	FILE
CHANGE	change number	blank	path/filename or URL	FILE
MFR	mfr name	blank	path/filename or URL	FILE
MFR_PART	mfr part number	mfr name	path/filename or URL	FILE

Attachment Index Row Content Requirements

These tables describe the specific field content requirements for each object type.

Item Rows**Example**

ITEM, 1000-02, 6, D:\dwg\0021c.dwg, FILE, Torque Widget

Table D-2: Item row fields

Field	Field content	Required?
ObjectType	ITEM The object must already exist in the Agile database.	Required
PrimaryKey	A valid Agile item number The item number of the Agile Item to receive the attachment.	Required
SecondaryKey	A valid Agile revision identifier, or a blank delimited field, depending on whether the revision level exists in the Agile Advantage database.	See page D-12
Pathname/ Filename	The fully qualified path and filename of the file to be attached, accessible from the client while Agile is running, <i>or</i> a URL.	Required
AttachType	FILE	Required
Description	Automatically generated from the filename if the field is empty. You may enter a description value of up to 100 characters. If the filename is longer than 100 characters, the last 100 characters are used for the description.	

Change Rows**Example**

CHANGE, 25000, , D:\dwg\0021c.dwg, FILE, Torque Widget

Table D-3: Change row fields

Field	Field content	Required?
ObjectType	CHANGE The object must already exist in the Agile database.	Required
PrimaryKey	A valid Agile Change number. The Change number of the Agile object to receive the attachment.	Required

Table D-3: Change row fields (Continued)

Field	Field content	Required?
SecondaryKey	Blank Leave this field blank, as identified by a double set of delimiter characters. See “Sample Index File” on page D-6.	
Pathname/ Filename	The fully qualified path and filename of the file to be attached, accessible from the client while Agile FileLoad is running, or a URL.	Required
AttachType	FILE	Required
Description	Automatically generated from the filename if the field is empty. You may enter a description value of up to 100 characters. If the filename is longer than 100 characters, the last 100 characters are used for the description.	

Manufacturer Rows**Example**

MFR,MFR_TEST1,,D:\dwg\0021c.dwg,FILE,Torque Widget

Table D-4: Manufacturer row fields

Field	Field content	Required?
ObjectType	MFR The object must already exist in the Agile database.	Required
PrimaryKey	A valid Agile manufacturer name. The manufacturer name of the manufacturer to receive the attachment.	Required
SecondaryKey	Blank Leave this field blank, as identified by a double set of delimiter characters. See “Sample Index File” on page D-6.	
Pathname/ Filename	The fully qualified path and file name of the file to be attached, accessible from the client while Agile is running, or a URL.	Required
AttachmentType	FILE	Required

Table D-4: Manufacturer row fields (Continued)

Field	Field content	Required?
Description	Automatically generated from the filename if the field is empty. You may enter a description value of up to 100 characters. If the filename is longer than 100 characters, the last 100 characters are used for the description.	

Manufacturer Part Rows

Example

MFR_PART, MFR_PART1, MFR_TEST1, D:\dwg\0021c.dwg, FILE, Torque Widget

Table D-5: Manufacturer part row fields

Field	Field content	Required?
ObjectType	MFR_PART The object must already exist in the Agile database.	Required
PrimaryKey	A valid Agile Manufacturer Part number. The Manufacturer Part number together with the Manufacturer name must exist in combination in the Agile database.	Required
SecondaryKey	A valid Agile Manufacturer name	Required
Pathname/ Filename	The fully qualified path and file name of the file to be attached, accessible from the client while Agile FileLoad is running, <i>or</i> a URL.	Required
AttachType	FILE	Required
Description	Automatically generated from the filename if the field is empty. You may enter a description value of up to 100 characters. If the filename is longer than 100 characters, the last 100 characters are used for the description.	

Multiple-Page File Attachments

Agile Advantage supports files (FILE) with multiple sheets when the files are listed one after the other in the Index file. For example, the second and third lines in the following sample result in one file description and one file attachment for 2063P1.tif and 2063P2.tif.

```
ITEM,76-1060,,C:\load\fileload\1060.doc,FILE,  
ITEM,76-2063,D,C:\load\fileload\2063P1.tif,FILE,  
ITEM,76-2063,D,C:\load\fileload\2063P2.tif,FILE,  
ITEM,76-3088,,C:\load\fileload\3088.dwg,FILE,
```

Viewing that file loads a two-page TIF file into the viewer. If two separate file descriptions and two separate file attachments are required, separate two similar lines in the Index file by placing a line for another attachment between the two lines with the same *PrimaryKey*.

Stage 2: Processing the Attachments

After you have created your attachment Index file, you can start Agile FileLoad and process the attachments.

Logging In with Agile FileLoad

To start Agile FileLoad:

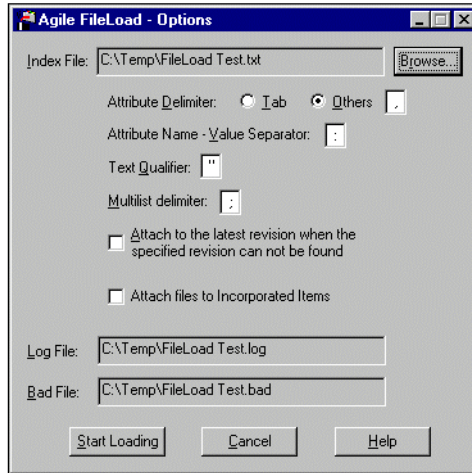
- 1 Choose **Start | Agile Advantage 2006 | Agile FileLoad 2006**.
- 2 The Agile FileLoad Login dialog box appears. Enter your user name and password, and click **OK**.

Note To use Agile FileLoad, you must have the same privilege level as you would need if you were working in Agile with that object and status.

Setting Agile Advantage Options

The Agile FileLoad Options dialog box allows you to select the attachment Index file and specify options.

Figure D-3: Agile FileLoad - Options Window



The **Index File**, **Log File**, and **Bad File** fields appear empty when the Options dialog box first appears.

- **Index File** — Click **Browse** to locate and select the attachment Index file. The path and filename of the attachments Index file is displayed. Note that LOG and BAD are not valid filename extensions for the Index file.

After you locate and select the Index file, Agile FileLoad automatically creates the **Log File** and **Bad File** entries:

- **Log File** — The Log file is automatically generated based on the Index file name, but with the LOG file extension. Agile FileLoad writes each rejected Index file attachment row, together with an error message, to the Log file.
- **Bad File** — The Bad file is automatically generated based on the Index file name, but with the BAD file extension. Agile FileLoad writes all rejected Index file attachment rows to the Bad file, without error messages. After running the load, you can edit this file, save it as a new Index file, and reload it.

- ❑ **Attribute Delimiter** — Select the delimiter used in the Index file. You may select **Tab**, or select **Others** and enter another delimiter in the text box. Use only standard characters, not special characters that require pressing ALT+keypad combinations to create them. Do not use alphabet or number characters. Allowed delimiter characters include the s and spaces, and , . \ | ; ' [] ' < > ? " { } ~ ! @ # \$ % ^ & * () _ + - = <space>
- ❑ **Attribute Name - Value Separator** — Select the delimiter used in the flex fields. This delimiter must adhere to the same rules listed for attribute delimiters, but cannot duplicate the choice for any other delimiter.
- ❑ **Text Qualifier** — The delimiter used to specify a text string within the Index row. It is recommended that this be set to quotes, but it can be set to any valid delimiter. This delimiter must adhere to the same rules listed for attribute delimiters, but cannot duplicate the choice for any other delimiter.
- ❑ **Multilist delimiter** — This delimiter is used to separate sub-fields in a multilist field. The default is the semicolon, but it can be set to any valid delimiter. This delimiter must adhere to the same rules listed for attribute delimiters, but cannot duplicate the choice for any other delimiter.
- ❑ **Attach to latest revision when the specified revision cannot be found** — Select this option if you want Index file attachment rows for Items containing revision values that do not exist in the Agile database to be attached to the latest revision of the Item in Agile. The *SecondaryKey* holds the revision indicator of the Item to receive the attachment.

The attachment is rejected and written to the Bad file and Log file under the following conditions:

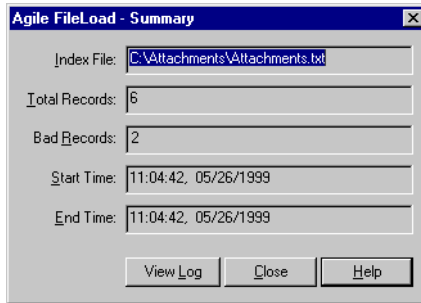
- If you do not select this option, the Index file attachment rows for Items containing revision values that do not exist in the Agile are rejected and written to the Bad file and the Log file for later troubleshooting.
- If an Item *has* an assigned revision in the Agile database, but the *SecondaryKey* field is blank in the Index file, and you did not select the **Attach to latest revision** option, then the file is rejected; if no revision exists in the Agile database, then the file is attached.
- If **Attach to Latest Revision** is checked, the file is attached to the latest revision of the object; if the Object is in the Preliminary state, it is attached to the Preliminary revision.

- ❑ **Attach Files to Incorporated Items** — Check this box if you want to allow attachments to be added to incorporated Items (assuming appropriate privileges). If this box is not checked, and Agile FileLoad attempts to attach files to an Item that has been incorporated, you may see the message “The table is read only.”
- ❑ **Start Loading** — Click **Start Loading** to start the attachment validating and loading process. Agile FileLoad starts reading the Index file and processing attachments. Clicking **Cancel** closes Agile FileLoad. The **Cancel** button does not allow you to stop the loading process if you have already clicked the **Start Loading** button.

Stage 3: Evaluating the Results

The Summary dialog box appears after Agile FileLoad has finished processing the Index file attachments.

Figure D-4: Agile FileLoad - Summary Window



Attachment loading results are shown in the Summary dialog box.

- ❑ **Index File** — Displays the path and filename of the Index file used for the attachment load.
- ❑ **Total Records** — The total number of attachments processed.
- ❑ **Bad Records** — The number of attachments not loaded. Each rejected row from the Index file is written to the Bad file.
- ❑ **Start Time** — The time the load was started.
- ❑ **End Time** — The time the load finished.
- ❑ **View Log** — Clicking **View Log** opens both the Log file and the Bad file in Windows WordPad.
- ❑ **Close** — Closes Agile FileLoad.

Sample Log File Output

Each rejected Index file row in the Bad file is also written to the Log file with an explanatory error message:

```
CHANGE,23450,,D:\dwg\0021c.dwg,FILE,Torque Widget  
< Can not find the file to be attached. >
```

```
ITEMBAD,1000-02,666,D:\dwg\0021c.dwg,FILE,Torque Widget  
< Not an Agile class. Should be ITEM, CHANGE, MFR, or  
MFR_PART. >
```

```
MFR,MFR_TEST1,,D:\dwg\0031e.dwg,FILE,Cap Widget  
< Object not found. >
```

Stage 4: Revising and Reloading Rejected Attachments

Each rejected row from the Index file is written to both the Bad file and the Log file.

- ❑ The Bad file contains only the rows rejected from the Index file.
- ❑ The Log file is the same as the Bad file, but also includes an explanatory error message for each rejected attachment row.

Use the error messages in the Log file as a guide to revising the rejected rows in the Bad file. See page D-15 for information about the error messages.

To work with the Log and Bad files:

- 1 Click **View Log**. The Bad file and Log file open in separate WordPad windows.
- 2 Revise the rejected attachment rows in the Bad file, using the error messages in the Log file.
- 3 Save the revised Bad file as a new Index file, with a TXT file extension instead of BAD. You may want to add a number to the filename to avoid overwriting the original Index file, thus maintaining an archive of processed Index files.
- 4 Select and process the new Log file with Agile Advantage. Refer to the instructions in “Setting Agile Advantage Options” on page D-10.
- 5 Repeat this revision and reloading process until no more bad records appear on the Agile FileLoad Summary window.

Error Messages

This section lists the error messages you may see, with explanations:

Cannot create Dictionary.

This indicates a memory failure due to low system resources. Try closing some applications and retry the load.

Cannot find the file to be attached.

Revise and correct the path and spelling of the attachment file name in the Index file entry. If you attached a URL, note that the supported protocols are FTP, HTTP, file, and HTTPS; there is no verification of the address.

Cannot find object <primary key>.

The target object to receive the attachment cannot be located in the Agile Advantage database. The object is the combination of the first three row fields:

ObjectType, PrimaryKey, SecondaryKey. Verify that the values for these fields are entered correctly in the Bad file and that an object of that name exists in the Agile Advantage database. Add the object or modify the Index file, as necessary.

Cannot find specified revision.

The Item revision identifier in the Index file does not exist in the Agile Advantage database, and **Attach to latest revision** was not selected in the Agile FileLoad Options dialog box. See “Setting Agile Advantage Options” on page D-10.

Cannot find WordPad to view the file.

Make sure Microsoft WordPad is installed and is working properly. You may need to re-install WordPad.

Error of unknown type.

Similar to previous error message. Make sure the object exists in the Agile Advantage database, check the Index file entry, and retry.

Failed to attach files.

Reason for rejection unknown or the result of multiple errors. Make sure the object exists in the Agile Advantage database, check the Index file entry, and retry. Make sure that you have the Creator role.

Incorrect number of fields.

Each Index file row must have exactly six delimited fields. Empty fields must be marked by a double set of delimiter characters.

Note When using the tab as the delimiter, be sure there is no tab after the last field in each row.

Line longer than 512 characters.

The attachment row is longer than 512 characters.

Multiple pending revisions exist.

More than one revision level exists for a given Item, or more than one object of the same revision exists for one Agile Advantage object, for example, an ECO and an MCO.

Not a legal attachment type. Must be FILE.

The AttachType (attachment type) field value must be FILE.

Not an Agile class. Should be ITEM, CHANGE, MFR, or MFR_PART.

Be sure the Index file entry starts with either ITEM, CHANGE, MFR, or MFR_PART.

Primary key (2nd) field empty.

The second field, the *PrimaryKey*, is always required. It must always contain, depending on *ObjectType*, a valid Agile Item number, change number, Manufacturer Part number, or Manufacturer name. See “Attachment Index Row Content Requirements” on page D-6.

The attribute fieldname was not found in the Attachments tab.

This message indicates that the specified flex field is not visible from Agile Administrator. Flex fields must be marked visible through Agile Administrator.

Too many files.

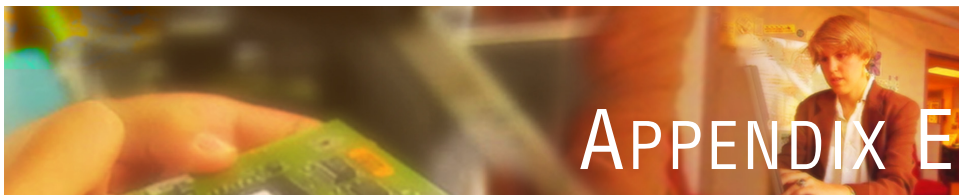
Over 1000 attachment files required long filename truncation resulting in similar names. Long attachment filenames requiring truncation and numbering may result in attachment filenames differing only in the automatically applied number, 1 through 1000. If more than 1000 file truncations result in these similar names, their Index file attachment rows are rejected.

Unable to connect to eHub server.

Make sure that the Agile Advantage eHub server is running and that you log in as a user with the Checkin privilege.

Unable to load attachment because the table is read-only.

The attachment table is read-only either because the Item is incorporated or it has been released by an MCO. To add attachments to incorporated Items, make sure **Attach Files To Incorporated Items** is checked in the Agile FileLoad Options dialog box.



Installation Checklist and Serial Numbers

This appendix is intended to provide a checklist and worksheet that can be used during the Agile installation.

- ❑ *Installing and Configuring Oracle*
 - ❑ *Installing Agile Advantage Server Software*
 - ❑ *Installing Windows Client Software*
 - ❑ *Customization*
 - ❑ *Configuration Settings Worksheet*
 - ❑ *Administrator Serial Numbers and Key*
 - ❑ *Client Serial Numbers*
-

Installing and Configuring Oracle

For installation details, refer to Chapter 1, “Overview of Agile Advantage 2006 Installation” and Chapter 2, “Installing and Configuring Oracle”.

- ❑ Java 2 Software Development Kit (J2SDK) 1.5 (“Downloading and Installing the J2SE Development Kit 1.5” on page 1-17)
- ❑ Apache Tomcat 5.5.20 Web Server (“Downloading and Installing the Tomcat Web Server 5.5.20” on page 1-18)
- ❑ Oracle 10g Release 2 Database (Chapter 2, “Installing Oracle 10g Release 2 Database” on page 2-8)
- ❑ Oracle 10g Release 2 Companion (Chapter 2, “Installing Oracle 10g Release 2 Companion” on page 2-11)
- ❑ Agile Database Instance via Agile Advantage Installer (Chapter 2, “Creating and Configuring the Agile Database Instance” on page 2-15)
- ❑ APM and/or PRM databases (Chapter 2, “Installing Agile Advantage Starter Database (Optional)” on page 2-23)
- ❑ Full Text Search (Chapter 2, “Configuring Oracle Full Text Search” on page 2-25)
- ❑ Oracle Enterprise Manager (Chapter 2, “Test Environment Specifications” on page 2-27)

Installing Agile Advantage Server Software

For installation details, see Chapter 4, “Installing Agile Advantage Servers”.

- ❑ Agile Advantage eHub (Chapter 4, “Installing Agile Advantage eHub, iFS and Listener”, on page 4-3)
- ❑ Agile Advantage iFS (Chapter 4, “Installing Agile Advantage eHub, iFS and Listener”, on page 4-3)
- ❑ Agile Advantage Listener (Chapter 4, “Agile Services Dependencies and Delay”, on page 4-8)
- ❑ Agile Advantage Web Server (Chapter 4, “Installing Agile Advantage Web Server” on page 4-11)
- ❑ Agile Reports (Chapter 4, “Installing Report Templates” on page 4-12)
- ❑ Setup Active Directory (Chapter 4, “Configuring Active Directory Integration (Optional)”, on page 4-14)

Installing Windows Client Software

For installation details, refer to Chapter 7, “Installing and Updating Client Components”.

- ❑ Agile Advantage Clients (Chapter 7, “Installing Client Components” on page 7-3)

Customization

- ❑ Create global queries.
- ❑ Create custom lifecycle stages, if necessary.
- ❑ Create Page Two or Page Three, if necessary.
- ❑ If you are using the Agile Manufacturer Management module, define fields on the Manufacturer and Manufacturer Parts objects.

For additional information about customization, refer to the *Agile Administrator 2006 User Guide*.

Configuration Settings Worksheet

The configuration settings worksheet on the following page provides a form that shows default and variable values. The values that can be changed are noted during the installation, and also appear in italics in the table. The information shown in this table may be requested during the installation.

Table E-1: Agile Advantage Configuration Settings Worksheet

Settings	Default Values	Actual Values
Hostnames		
eHub Hostname	<None>	
iFS Hostname	<None>	
iFS Secure Word	<None>	
Agile Advantage Listener	<None>	
Web Server Hostname	<i>localhost.agile.agilesoft.com</i>	
Tomcat Administrator Username	<i>Admin</i>	

Table E-1: Agile Advantage Configuration Settings Worksheet

Settings	Default Values	Actual Values
Tomcat Administrator Password	<None>	
Database		
Oracle Internal/Sys Password	<i>oracle</i>	
Oracle Database Logon	<i>system</i>	
Oracle System Password	<i>manager</i>	
Oracle Database Hostname	<i>Machine Hostname</i>	
Oracle Database TNS Alias	<i>Same as Oracle Database Hostname</i>	
Oracle Net Service Name	<i>Same as Oracle Database Hostname</i>	
Oracle Service Name	<i>Same as Oracle Database Hostname</i>	
Oracle Host String	<i>Same as Oracle Database Hostname</i>	
Oracle Database Agile Advantage Schema Username	<i>agile</i>	
Agile Advantage Schema Username	<i>Same as Oracle Database Agile Schema Username</i>	
Oracle Database Agile Advantage Schema Password	<i>tartan</i>	
Oracle Database SID (8-character ID)	<i>agil</i>	
Oracle Database Instance	<i>Same as Oracle Database SID</i>	
Port Numbers		
eHub Listen Port Number	<i>9017</i>	

Table E-1: Agile Advantage Configuration Settings Worksheet

Settings	Default Values	Actual Values
Agile Advantage Listener Port Number	9022	
iFS Port Number	9010	
iFS HTTP Port Number	9090	
Tomcat Web Server Port Number	8010	
Administrative Domain Port Number	5 digits required	
Oracle Database Port Number	1521	1521 (Do Not Change)
Suffix and Domain		
Agile Domain Name	Agile	
Windows Server Administrator Username		
Windows Server Administrator Password		
Directory Manager DN	cn=Directory Manager	
Directory Server Administrative Domain		
Directory Server Suffix	dc=agile,dc=agilesoft,dc=com	
Company Name		
URLs		
Tomcat URL	http://tomcat_hostname:8010	
Directories		
J2SE DK Directory	c:\Program Files\Java\jdk1.5.0	
Tomcat Directory	C:\Program Files\Apache Software Foundation\Tomcat 5.5	

Administrator Serial Numbers and Key

Use the following Administrator serial numbers to install Agile Advantage server and client software.

Temporary Server Serial
Number:

--

Permanent Server Serial
Number:

--

Administrator License
Key:

--

View & Markup Serial
Number:

--

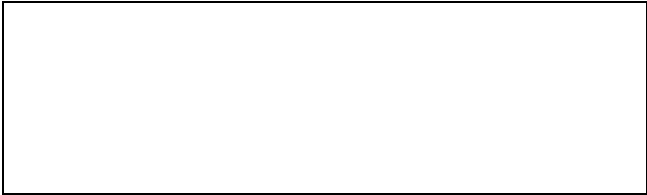
Client Serial Numbers

Use the following serial numbers for client installation. If you need additional serial numbers to restrict client installation options, contact Agile Technical Support.

Client Serial Number:

--

View & Markup Serial
Number:



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