

Symantec™ Packager Implementation Guide



Symantec™ Packager Implementation Guide

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Glossary

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Introducing Symantec Packager

This chapter includes the following topics:

- [About Symantec Packager](#)
- [What you can do with Symantec Packager](#)
- [How Symantec Packager works](#)
- [Where to find more information](#)

About Symantec Packager

Symantec Packager lets you create, modify, and build custom installation packages that you distribute to target systems. Using Symantec Packager, you can tailor installations to fit your corporate environment, building packages that contain only the features and settings that your users need.

Symantec products included in installation packages are protected by copyright law and the Symantec license agreement. Distribution of packages requires a license for each user who installs the package.

Note: Symantec Packager runs on Windows NT/2000/XP Professional platforms only. However, installation packages created with Symantec Packager can be installed on all Microsoft 32-bit platforms except for Windows 95/NT 3.5x.

What you can do with Symantec Packager

Symantec Packager gives you the flexibility to select only the features that you require, letting you reduce the deployment size and the installation footprint. It also lets you tailor products to adhere to your security policy, giving users full access to all features, or limiting access where appropriate.

Customizing standard product installations

Typically a product installation lets you select standard options, such as the user and company name, installation directory, and whether the installation is compact or complete. Although these options offer some flexibility, they can hardly be considered custom installations.

Symantec Packager allows you to select only the features and options that you want your users to have, letting you create a true custom installation.

Table 1-1 Examples of product customization options

Goal	How Symantec Packager helps
Reduce deployment bandwidth and application footprint.	Symantec Packager lists optional and required features so that you can select minimal features for low-bandwidth deployments. Fewer features also decrease the application footprint and memory usage on the target system.

Table 1-1 Examples of product customization options

Goal	How Symantec Packager helps
Tailor installation to specific users.	Once you import a product in Symantec Packager, you can customize that product into as many different installations as you need. For example, for your Administrator users, you can include all features. For temporary personnel or other users who should have limited access, you can exclude the features that you do not want them to have.
Reduce installation complexity.	Relying on end users to configure product options can result in lost productivity and increased costs for support personnel. Symantec Packager lets you include preconfigured data files so that you do not have to configure the product manually after deployment.

See [“Configuring custom products”](#) on page 35.

Including custom commands with product installations

If a product that you want to deploy is not supported by Symantec Packager, you can create a custom command that contains the product installation and include that custom command in a package installation.

Examples of custom commands include running executable files, Microsoft Software Installer (.msi) files, batch files, and so on. If you can run a command from the command line, you can create a custom command for it.

In addition to running programs from the command line, you can also create a custom command that copies files to the end user’s system.

Table 1-2 Examples of custom commands

Goal	How Symantec Packager helps
Execute a command on the target system.	If the file or command that you want to execute is already on the target system, you specify the command-line argument to execute it. For example, you want to uninstall a program on the target system before installing a new version. You enter the command-line argument and switches that execute the uninstallation for that program.

Table 1-2 Examples of custom commands

Goal	How Symantec Packager helps
Copy files to the target system.	Symantec Packager lets you include files of any type in a custom command. You can also specify where to copy those files on the target system. For example, you want to roll out an updated file for an application that you use. You include the file in a custom command and specify the destination on the target system.
Copy a file and execute it on the target system.	If the file that you want to execute is not already on the target system, you include the file in the custom command, the destination location on the target system, and the command-line argument to execute that file on the target system. For example, you want to include a text file in a package so that it displays at the end of the installation. You include the text file in a custom command and specify a command-line argument that opens that text file in Notepad.

See [“Configuring custom commands”](#) on page 47.

Installing multiple products at once

Symantec Packager allows you to combine multiple product installations into one installation package, reducing installation complexity and minimizing deployment costs.

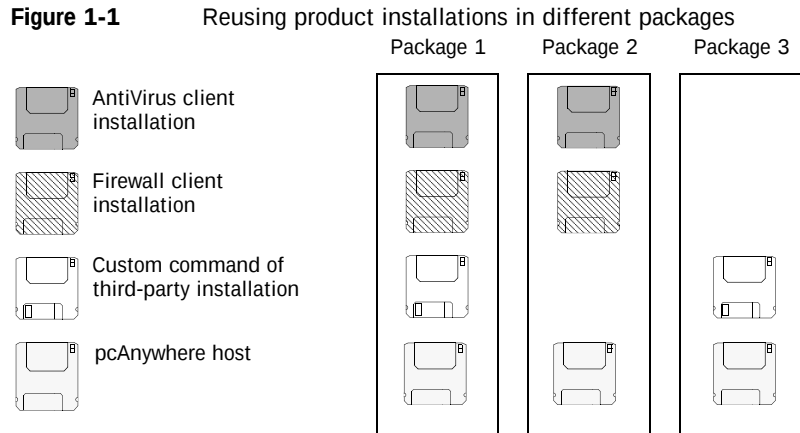
Not only does Symantec Packager let you combine multiple Symantec product installations in one package, you can also include third-party programs, command-line arguments, batch files, and so on with those Symantec product installations.

See [“Configuring installation packages”](#) on page 59.

Reusing product installations in different packages

Symantec Packager makes it possible to customize a product installation once to be used in multiple installation packages. For example, you might want to deploy a pcAnywhere host to all of your users. A subset of your client systems may also require AntiVirus and Firewall clients, and a different group of users requires that a third-party program be installed.

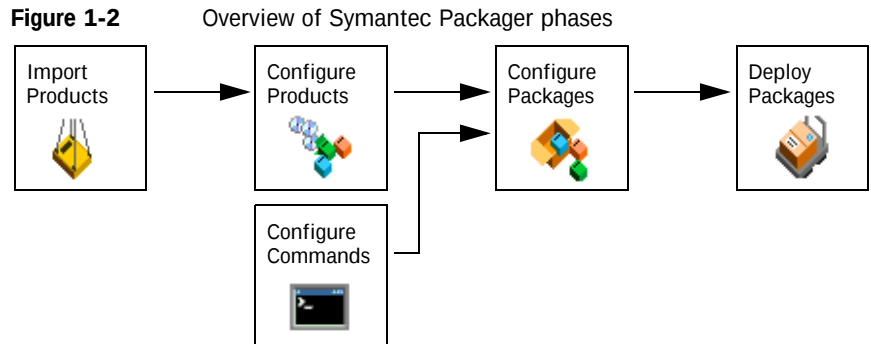
Symantec Packager lets you customize the AntiVirus client and Firewall client installations and create a custom command for the third-party program. You can create them once and include them in as many different installation packages as you require.



See [“Configuring installation packages”](#) on page 59.

How Symantec Packager works

Symantec Packager uses a phased approach for creating custom installation packages. Each phase depends on the output of the previous phase.



The following process outlines how the Symantec Packager phases build upon one another to help you create custom installation packages:

- **Import product modules into Symantec Packager.**
In the Import Products phase, you import product modules into Symantec Packager. Symantec Packager extracts the product installation binary files and the product template from the product module. The product template details the feature requirements and conflicts, making it possible to create custom installations of the product.
See [“About the Import Products phase”](#) on page 12.
- **Configure products and commands.**
In the Configure Products phase, you select the features that you want your users to have, as well as set default installation options for each product. You also have the option to create custom commands to include in a package. For example, if you want to include a third-party program or batch file in a package, you create a custom command for that program.
See [“About the Configure Products phase”](#) on page 13.
- **Configure the installation package.**
In the Configure Packages phase, you use the product configurations and custom commands that you created in the Configure Products phase and add them to a package. You further customize the package by setting package installation options, product installation order, and other settings.
When you build a package in the Configure Packages phase, Symantec Packager creates an installation file that incorporates the product, command, and package options that you specified.
See [“About the Configure Packages phase”](#) on page 15.
- **Deploy the package.**
In the Deploy Packages phase, you can deploy packages to your users via the Package Deployment Tool, the Web-based Deployment Tool, or a third-party deployment tool such as Microsoft Systems Management Server (SMS). The Deploy Packages tab holds the packages that you create.
See [“About the Deploy Packages phase”](#) on page 16.

About the Import Products phase

The Import Products phase sets up Symantec products so that you can configure them using Symantec Packager.

Symantec releases product module (.pmi) files for products that take advantage of Symantec Packager functionality. Product module files are comprised of all of the files that are required to recreate a product installation. These files include a

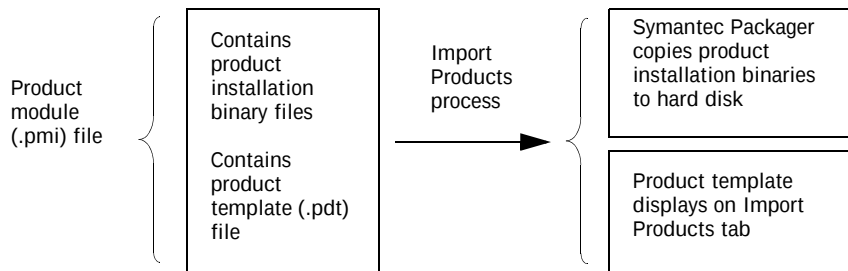
product template (.pdt) file and the installation binary files for the Symantec product. The product template contains all of the rules about product feature conflicts and dependencies. It also tracks the location of the installation binary files on your computer.

When you import a product module, Symantec Packager extracts the product template from the product module file and displays the product template file on the Import Products tab. It also copies the product's installation binary files to your hard disk. The product template files are the building blocks that all other phases reference. They make it possible to customize products and eventually build installation packages.

After you import a product in Symantec Packager, you customize that product in the Configure Products phase so that you can include it in an installation package.

Figure 1-3

Import Products process



See [“Importing products in Symantec Packager”](#) on page 31.

About the Configure Products phase

When a product is designed to take advantage of Symantec Packager, it gives you the flexibility to select the features that you want your users to have. It also lets you preconfigure installations with the settings that best match your software deployment needs.

If you want to install a product that was not designed to be used with Symantec Packager, you can still include that product in an installation package by creating a custom command. You create custom products and custom commands in the Configure Products phase.

After completing the Configure Products phase, the products and commands that you customize are available to be included in installation packages. You configure installation packages in the Configure Packages phase.

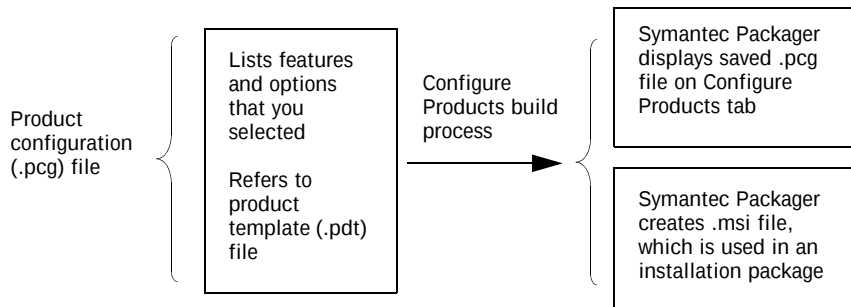
Overview of custom products

During the Configure Products phase, you customize a product so that it contains only the features and options that you want to include. To do this, you create product configuration (.pcg) files.

On the Configure Products tab, you create a new product configuration file that is based on a product that you imported in the Import Products phase. After you select the product features and options that you want to include and specify a file name, Symantec Packager saves this file as a product configuration file. The product configuration file, which displays on the Configure Products tab, references its corresponding product template file on the Import Products tab.

When you build the product configuration file, Symantec Packager creates a Microsoft Software Installer (.msi) file, which is used in an installation package. Unlike the product configuration file, the product .msi file does not reference and is not dependent upon any Symantec Packager files.

Figure 1-4 Configure Products process for custom products



See [“Configuring custom products”](#) on page 35.

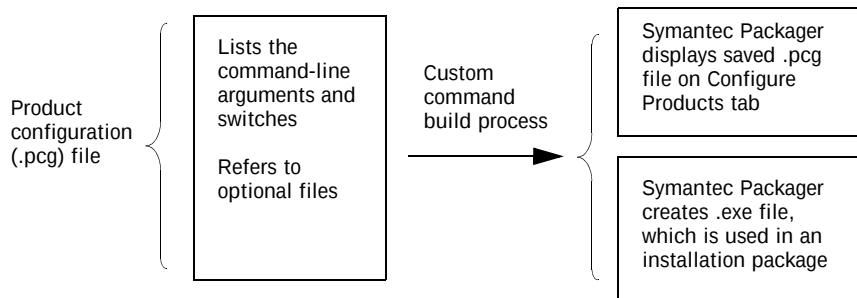
Overview of custom commands

During the Configure Products phase, you can create custom commands that let you further customize your installation packages. To do this, you create command configuration files. A command configuration file is the same as a product configuration (.pcg) file except that the command configuration file does not reference a product template (.pdt) file.

On the Configure Products tab, you create a new custom command and specify its parameters. Like a product configuration file, Symantec Packager saves this file with a .pcg extension. The command configuration file, which displays on the Configure Products tab, lists the command-line arguments for the custom command and references the locations of any files that you included in the custom command.

When you build the command configuration file, Symantec Packager creates a self-extracting executable (.exe) file, which is used in an installation package. Unlike the command configuration file, the command .exe file does not reference and is not dependent upon any Symantec Packager files.

Figure 1-5 Configure Products process for custom commands



See [“Configuring custom commands”](#) on page 47.

About the Configure Packages phase

During the Configure Packages phase, you select the products and custom commands that you want to include in an installation package. To do this, you create package definition (.pkg) files.

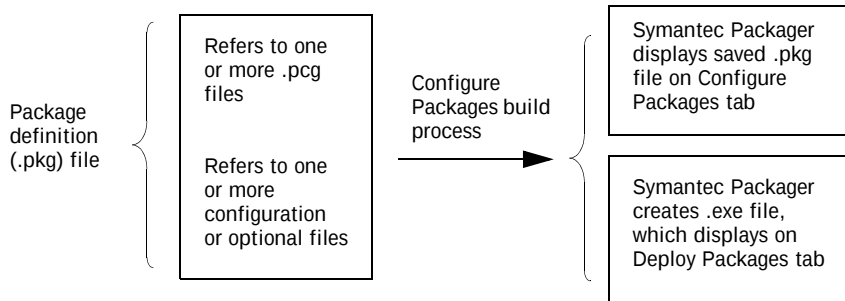
If your product supports .msi deployment and you are configuring a single product installation, package creation is optional. However, a package definition gives you more options for customizing the installation such as configuring restart and rollback options and adding custom support information. Symantec Packager supports deployment of pcAnywhere .msi files only.

On the Configure Packages tab, you create a new package definition file by selecting from the product configuration files and custom commands that you customized during the Configure Products phase.

After you select the products and custom commands that you want to include in the installation package and specify a file name, Symantec Packager saves this file as a package definition (.pkg) file. The .pkg file, which displays on the Configure Packages tab, references the .pcg files that it contains.

When you build the .pkg file, Symantec Packager creates an .exe, which is stored in the deployment folder that is specified in Symantec Packager Preferences. It also displays the .exe on the Deploy Packages tab.

Figure 1-6 Configure Packages process



See [“Configuring installation packages”](#) on page 59.

About the Deploy Packages phase

During the Deploy Packages phase, you select the installation packages that you want to deploy to your users. To do this, you copy the necessary files from the Deploy Packages tab for use with deployment tools that you already use. You can also deploy installation packages directly from the Deploy Packages tab using a Symantec-supplied deployment tool.

The package .exe files built during the Configure Packages phase appear automatically on the Deploy Packages tab. The command .exe files that Symantec Packager creates as part of the Configure Products build process are not supported for deployment and therefore do not appear on the Deploy Packages tab. (They are for testing purposes only.)

Product .msi files that Symantec Packager creates as part of the Configure Products build process can be used for testing purposes. Product .msi files are not supported automatically for deployment (only Symantec pcAnywhere .msi files are automatically supported for deployment), but you can configure Symantec Packager to list supported product .msi files on the Deploy Packages tab.

See [“Listing supported product .msi files on the Deploy Packages tab”](#) on page 28.

The package .exe files that appear on the Deploy Packages tab do not reference and are not dependent upon any Symantec Packager files.

See [“Deploying installation packages”](#) on page 79.

Where to find more information

If you need more information about Symantec Packager, you can access the online Help. In addition, more information about Symantec Packager may be available on the Symantec Web site.

For product-specific information about using Symantec Packager to create or deploy a custom product installation, see your Symantec product documentation.

Accessing online Help

The Symantec Packager online Help system has general information and step-by-step procedures to help you create installation packages.

To get help using Symantec Packager

- ◆ Do one of the following:
 - In the Symantec Packager main window, on the Help menu, click Help Topics.
 - Anywhere in Symantec Packager, press F1.

Accessing the Symantec technical support Web site

If you are connected to the Internet, you can visit the Symantec technical support Web site for additional information about Symantec Packager.

To access the Symantec technical support Web site

- ◆ In your Internet browser, type the following Web address:
<http://www.symantec.com/techsupp>

Installing Symantec Packager

This chapter includes the following topics:

- [System requirements](#)
- [Installing Symantec Packager](#)
- [Uninstalling Symantec Packager](#)

System requirements

Before you install Symantec Packager, ensure that your computer meets the system requirements. Review the Readme file on the installation CD for any known issues.

System requirements for Symantec Packager

Symantec Packager runs only on Microsoft 32-bit operating systems and has the following system requirements:

- Supported operating systems:
 - Windows NT Workstation 4.0/Server 4.0 with Service Pack 6a
 - Windows 2000 Professional/Server with Service Pack 2
 - Windows XP Professional
- Microsoft Internet Explorer 5.5 or later
- Windows Installer 2.0
If Windows Installer 2.0 is not present, Symantec Packager installs it during installation.
- Pentium II 300-MHz processor (or faster)
- 64 MB RAM (128 MB recommended)
- 60 MB disk space
- CD-ROM or DVD-ROM drive

System requirements for installation packages

Although Symantec Packager runs only on Windows NT/2000/XP, packages that you create using Symantec Packager can be installed on the following operating systems:

- Windows NT 4.0 with Service Pack 6a
- Windows 98
- Windows Millennium Edition (Me)
- Windows 2000
- Windows XP Home Edition/Professional Edition

Packages that contain only custom commands might run on additional operating systems. However, installed packages are supported on Microsoft 32-bit systems only.

The specific system requirements for packages depend on the package contents and options. The hardware requirements for installation packages vary depending on the package contents.

User rights requirements

Symantec Packager requires administrator rights for installation on Windows NT/2000/XP.

Windows XP restricts users who are assigned to limited user or guest accounts from installing or uninstalling software, changing system-wide settings, or adding, editing, or deleting user accounts. For optimal performance, log on as a user with administrator rights when you run Symantec Packager on Windows XP.

Installing Symantec Packager

The Symantec Packager installation program checks for the required software and hardware resources, lets you select the installation folder, updates registry settings, and copies the required files to your hard disk. The installation program also checks for Windows Installer 2.0. If Windows Installer 2.0 is not installed, the Symantec Packager installation program installs it.

When the installation is complete, Symantec Packager automatically imports any product modules that it finds on the installation CD.

Installing Symantec Packager from the installation CD

When you insert the CD that contains the Symantec Packager installation program into your CD-ROM drive, an installation window displays the products that you can install.

If the installation screen does not appear automatically after you insert the installation CD, run the setup program manually, then continue with the installation process.

See [“Starting the Symantec Packager installation program manually”](#) on page 23.

You should close any applications that are open before you start the installation process.

To install Symantec Packager from the installation CD

- 1** Insert the installation CD into the CD-ROM drive.
- 2** Do one of the following:
 - In the installation window that appears, click **Install Symantec Packager**.
 - If **Install Symantec Packager** is not in the main window, click **Install Administrator Tools**, then click **Install Symantec Packager**.
- 3** In the **Welcome** window, click **Next**.
- 4** In the **Customer Information** window, type a user name and organization name, then click **Next**.
- 5** In the **License Agreement** window, click **I accept the terms in the license agreement**, then click **Next**.
- 6** In the **Destination Folder** window, do one of the following:
 - To use the default destination folder, click **Next**.
 - To change the destination folder, click **Change**, specify a new location, click **OK**, then click **Next**.
- 7** In the **Ready to Install the Program** window, click **Install**.
Symantec Packager copies files to the destination folder that you specified.
- 8** In the **LiveUpdate** window, do one of the following:
 - To check for Symantec Packager updates, click **Next**.
Click **Finish** when LiveUpdate finishes scanning for updates.
 - Click **Cancel** to skip LiveUpdate.
You can run LiveUpdate later on the Symantec Packager Help menu.
- 9** In the **Installation Complete** window, click **Finish**.
The installation program automatically imports any product modules that it finds.
- 10** If you do not want to import product modules at this time, click **Cancel**.
You can import product modules manually at any time.
See [“Importing product modules”](#) on page 32.

Starting the Symantec Packager installation program manually

You can start the installation program manually if the installation window does not appear automatically after you insert the installation CD.

To start the Symantec Packager installation program manually

- 1 Insert the installation CD into the CD-ROM drive.
- 2 On the Windows taskbar, click Start > Run.
- 3 In the Run dialog box, type the letter that designates your CD-ROM drive, followed by `: \Packager\setup.exe`
For example:
`D:\Packager\setup.exe`
- 4 Click OK.
- 5 Install Symantec Packager.
See [“Installing Symantec Packager”](#) on page 21.

Uninstalling Symantec Packager

The Symantec Packager uninstallation program removes the files and registry settings that it copied to your hard disk during installation. You uninstall Symantec Packager using the Add/Remove Programs option in the Windows Control Panel. Once the removal process begins, you cannot cancel it.

Symantec Packager automatically deletes the product template files on the Import Products tab. Symantec Packager prompts you to remove the files in the Symantec Packager data folders. This includes all product configuration files, custom command files, package definition files, and installation packages. If you want to keep these files, click No when prompted to delete Symantec Packager data files.

To uninstall Symantec Packager

- 1 Close Symantec Packager if it is open.
- 2 On the Windows taskbar, click Start > Settings > Control Panel.
- 3 In the Control Panel window, double-click Add/Remove Programs.
- 4 In the Add/Remove Programs window, in the Currently installed programs list, click Symantec Packager.
- 5 Click Remove.

- 6** When you are prompted to remove Symantec Packager data files, do one of the following:
 - Click Yes to remove all Symantec Packager data files from the listed locations.
 - Click No to leave the data files on your computer.
Note the file location so that you can delete the data files at a later time.
- 7** In the Add/Remove Programs window, click Close.

Symantec Packager basics

This chapter includes the following topics:

- [Opening Symantec Packager after installation](#)
- [Updating Symantec Packager](#)
- [Changing Symantec Packager Preferences and view options](#)
- [Accessing commands in Symantec Packager](#)

Opening Symantec Packager after installation

Symantec Packager is installed in the Windows Program Files folder by default. During installation, Symantec Packager automatically places a program icon on the Windows Start menu from which you can open the program.

During installation, Symantec Packager automatically imports any product module (.pmi) files that it finds. If no products appear on the Import Products tab when you open Symantec Packager, you need to import product modules manually.

See [“Importing product modules”](#) on page 32.

To open Symantec Packager after installation

- ◆ On the Windows taskbar, click Start > Program Files > Symantec Packager.

Updating Symantec Packager

You can receive software updates associated with your version of Symantec Packager by connecting to the Symantec LiveUpdate server and selecting the updates that you want to install.

To update Symantec Packager

- 1 On the Windows taskbar, click Start > Program Files > Symantec Packager.
- 2 On the Help menu, click LiveUpdate.
- 3 Follow the on-screen instructions.

Changing Symantec Packager Preferences and view options

Symantec Packager lets you configure its data folders and view options.

The following options are configurable in Symantec Packager Preferences:

- Specify the folder locations in which Symantec Packager stores its data files.
- List supported product .msi files on the Deploy Packages tab.
See [“Listing supported product .msi files on the Deploy Packages tab”](#) on page 28.

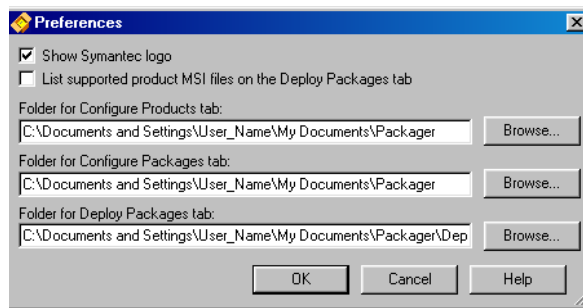
- Show or hide the Symantec logo on the Symantec Packager tabs.

You can also specify the size and layout of the information that appears on the tabs in the Symantec Packager main window.

Changing Symantec Packager data folders

Symantec Packager saves its data in the folders that are specified in Symantec Packager Preferences. You can use the default folders or specify new folder locations in the Preferences dialog box.

Figure 3-1 Preferences dialog box



To change Symantec Packager data folders

- 1 Open Symantec Packager.
- 2 In the Symantec Packager window, on the Edit menu, click Preferences.
- 3 Do any of the following:
 - Under Folder for Configure Products tab, type a new path or click Browse to navigate to a new folder.
Symantec Packager stores product configuration files, command configuration files, and testable product .msi and command .exe files in this folder.
 - Under Folder for Configure Packages tab, type a new path or click Browse to navigate to a new folder.
Symantec Packager stores package definition files in this folder.
 - Under Folder for Deploy Packages tab, type a new path or click Browse to navigate to a new folder.
Symantec Packager stores deployable installation packages in this folder.
- 4 Click OK.
- 5 If you are prompted that a folder does not exist, click Yes to create it.

Listing supported product .msi files on the Deploy Packages tab

You can configure Symantec Packager to list supported product .msi files on the Deploy Packages tab.

Note: Only Symantec pcAnywhere .msi files are supported for deployment. For more information, see the Symantec pcAnywhere product documentation.

To list supported product .msi files on the Deploy Packages tab

- 1 Open Symantec Packager.
- 2 In the Symantec Packager window, on the Edit menu, click Preferences.
- 3 In the Preferences dialog box, check List supported product MSI files on the Deploy Packages tab.
This option is not checked by default.
- 4 Click OK.

Showing or hiding the Symantec logo

Symantec Packager lets you customize your display by showing or hiding the Symantec logo that appears on each tab.

To show or hide the Symantec logo

- 1 Open Symantec Packager.
- 2 In the Symantec Packager window, on the Edit menu, click Preferences.
- 3 In the Preferences dialog box, check or uncheck Show Symantec logo.
If you uncheck Show Symantec logo, the logo does not display on the Symantec Packager tabs. This option is checked by default.
- 4 Click OK.

Changing the appearance of icons in Symantec Packager

You can change the appearance of the icons that appear in Symantec Packager by changing the view setting. When you change the view setting, it affects the appearance of all tabs.

These options are also available on the toolbar and on the right-click menu.

To change the appearance of icons in Symantec Packager

- 1** Open Symantec Packager.
- 2** In the Symantec Packager window, on the View menu, select one of the following:
 - **Large Icons:** Displays file names and 32 x 32 pixel icons in rows from left to right.
 - **Small Icons:** Displays file names and 16 x 16 pixel icons in rows from left to right.
 - **List:** Displays file names and 16 x 16 pixel icons in columns from top to bottom.
 - **Details:** Displays file names and 16 x 16 pixel icons in columns from top to bottom. Also displays additional details when details are available. These details include the date that the file was last modified, when the file was built, the description, and so on. The details vary by tab.

Accessing commands in Symantec Packager

Most Symantec Packager commands are accessible in multiple ways to suit your computing style.

You can access commands using the following:

- **Toolbar**
- **Menu structure**
- **Right-click menu**

The toolbar, menu, and right-click menu options change depending on which tab you select.

When there are multiple ways to complete a step or procedure, the *Symantec Packager Implementation Guide* details the menu structure.

Importing products in Symantec Packager

This chapter includes the following topics:

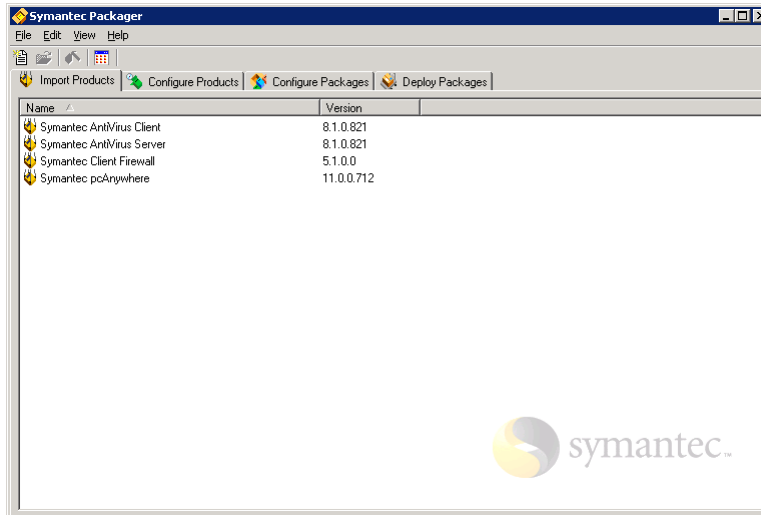
- [About importing products](#)
- [Importing product modules](#)
- [Deleting products from Symantec Packager](#)

About importing products

During the Import Products phase, Symantec Packager extracts the product template and the production installation binaries from the product module (.pmi) file. Product templates outline the required and optional features and options that are available for each product. The installation binary files are used by Symantec Packager to create custom installation packages.

The products that appear on the Import Products tab may vary. If no products appear on the Import Products tab, you need to import product modules manually.

Figure 4-1 Import Products tab



Importing product modules

Product modules are the building blocks for creating packages. They contain all of the files that you need to build custom installations.

During installation, Symantec Packager automatically imports any product modules that it finds. If no products appear on the Import Products tab when you open Symantec Packager, you need to import product modules manually.

To import a product module in Symantec Packager

- 1** In the Symantec Packager window, on the Import Products tab, on the File menu, click **Import New Product**.
- 2** In the Open dialog box, navigate to the folder that contains the product module that you want to import.
 Product modules are stored in the Packager\Products folder on the installation CD. If you copied the product modules to your hard drive, navigate to that folder location.
- 3** Select the product module, then click **Open**.
 Symantec Packager imports the product module and returns you to the Import Products tab. Depending on the size and complexity of the product module, the registration process may be lengthy.

Symantec Packager creates a default product configuration file that you can customize on the Configure Products tab, and a default package definition file that you can customize on the Configure Packages tab.

See [“Configuring custom products”](#) on page 35.

See [“Configuring installation packages”](#) on page 59.

Deleting products from Symantec Packager

When you delete a product from the Import Products tab, Symantec Packager removes the product template (.pdt) file from the Import Products tab and the product installation binary files from your system. The Configure Products and the Configure Packages phases reference these files, so all product configuration files and package definition files related to the product that you delete will not function. However, packages that have been built and stored on the Deploy Packages tab are not affected.

To delete products from Symantec Packager

- 1** In the Symantec Packager window, on the Import Products tab, select the product that you want to delete.
- 2** On the Edit menu, click **Delete**.
- 3** When you are prompted to delete the product module, click **Yes**.

Configuring custom products

This chapter includes the following topics:

- [About configuring custom products](#)
- [Working with custom products](#)
- [Configuring custom products](#)
- [Building and testing custom products](#)

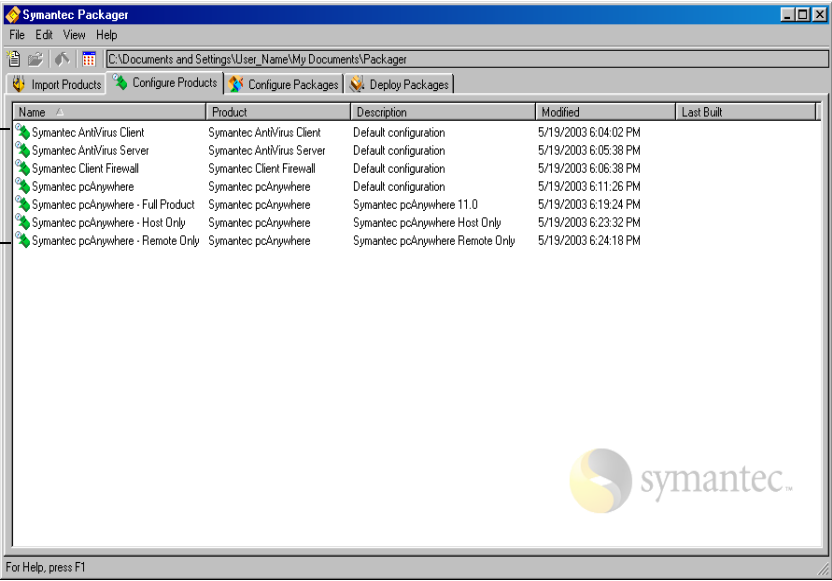
About configuring custom products

During the Configure Products phase, you create product configuration (.pcg) files. You begin this process by selecting the features and options that you want to include for each product. This information is saved in a product configuration file, which is used in the Configure Packages phase to create packages.

The Configure Products phase depends on the successful completion of the Import Products phase. You can only create custom products for which a product definition (.pdt) file exists. The build process for custom products creates a Microsoft Software Installer (.msi) file, which can be tested prior to inclusion in a package.

Figure 5-1 Configure Products tab

Product configuration
(.pcg) files



Creating a custom product involves the following process:

- Creating a new custom product
See [“Creating custom products”](#) on page 37.
- Specifying the product features that you want to include in the installation
See [“Selecting product features”](#) on page 40.
- Configuring the installation options for the product
See [“Setting product installation options”](#) on page 41.

- Including additional configuration files, if necessary
See [“Adding or removing configuration files”](#) on page 42.
- Building the custom product
See [“Building custom products”](#) on page 44.
- Testing the product before deploying it
See [“Testing custom products”](#) on page 45.

The Configure Products phase also lets you create custom commands to further customize your packages.

See [“Configuring custom commands”](#) on page 47.

Working with custom products

In the Symantec Packager main window, the Configure Products tab lists the product configuration files that you have created and provides information about when they were last modified and built. In this window, you can create, edit, and delete product configuration files and view details. The Configure Products tab displays the product and command configuration files that are stored in the Configure Products folder that is specified in Symantec Packager Preferences.

The Configure Products tab might be empty if you have not imported any product modules. When you import a product module, Symantec Packager creates a default product configuration file and places it on the Configure Products tab.

See [“Importing product modules”](#) on page 32.

Creating custom products

The first step in creating a custom product is to create a product configuration file. This opens the Product Editor dialog box, which lets you configure and build the custom product.

Table 5-1 Overview of the Product Editor dialog box tabs

Tab	Description	For more information
Features	Lets you customize product installations by including the features that you want and removing the features that you do not need	See “Selecting product features” on page 40.

Table 5-1 Overview of the Product Editor dialog box tabs

Tab	Description	For more information
Installation Options	Lets you specify product installation options, such as the target installation location, and other installation options that vary by product	See “Setting product installation options” on page 41.
Configuration Files	Lets you preconfigure data or configuration files so that your users do not have to make configuration changes during or after installation	See “Adding or removing configuration files” on page 42.

Each phase of Symantec Packager relies on the output from previous phases. If you edit a custom product, all built packages that include the product do not change until you rebuild them.

This procedure details the minimum steps required to create a product configuration file. You can customize the product configuration file when you first create it or at a later time.

To create a custom product

- 1

In the Symantec Packager window, on the Configure Products tab, on the File menu, click New Product Configuration.
- 2

In the Product Selection dialog box, select the product that you want to configure, then click OK.

If no products appear in the Product Selection dialog box, you need to import a product module in Symantec Packager. Click Cancel and return to the Import Products tab.

See [“Importing product modules”](#) on page 32.
- 3

In the Product Editor dialog box, click OK.
- 4

In the Save As dialog box, type a name for the custom product, then click Save.

The product configuration file appears on the Configure Products tab.

Viewing product details

Symantec Packager lets you view the details of a product configuration file without opening the file. A summary of all product configuration details is available using the Display Details option.

To view product details

- 1 In the Symantec Packager window, on the Configure Products tab, select the product configuration file whose details you want to view.
- 2 On the File menu, click **Display Details**.
- 3 Click **OK** to close the Details window.

Deleting custom products

The Configure Packages phase relies on the output from the Configure Products phase. If you delete a product configuration that is referenced in a package definition file, that package definition file will not work. However, built packages that are stored on the Deploy Packages tab are not affected.

To delete a custom product

- 1 In the Symantec Packager window, on the Configure Products tab, select the custom product that you want to delete.
- 2 On the Edit menu, click **Delete**.
- 3 When you are prompted to delete the file, click **Yes**.
Symantec Packager removes the product configuration file from the Configure Products tab.

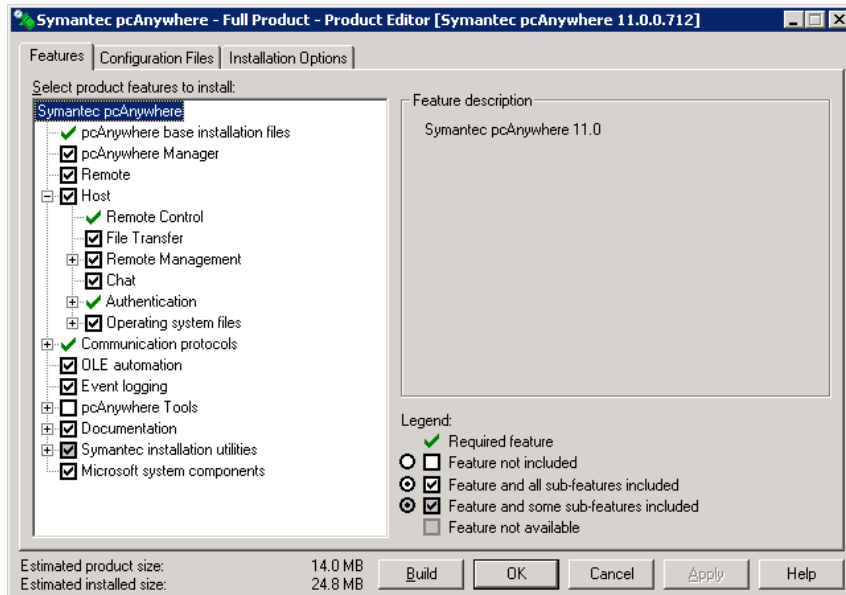
Configuring custom products

You create a custom product by creating a product configuration file, customizing product settings, then building the product configuration file. The product configuration file contains information about the features and installation options that Symantec Packager requires to build a custom product. Symantec Packager uses this information to construct installation packages.

Selecting product features

Symantec Packager lets you customize product installations by including the features that you want and removing the features that you do not need. The product size and installed size change depending on the features that you choose. If your goal is to reduce the product size and installed size by as much as possible, include as few features as possible.

Figure 5-2 Product Editor dialog box: Features tab



To select product features

- 1 In the Symantec Packager window, on the Configure Products tab, do one of the following:
 - Create a new product configuration.
 - Double-click an existing product to edit it.
- 2 In the Product Editor dialog box, on the Features tab, do any of the following:
 - Check the product features that you want to include in the custom product.
 - Uncheck the features that you do not want to include.
 - Click the plus sign next to a feature to select or remove its subfeatures.

- 3 Do one of the following:
 - Click OK to save your changes and close the Product Editor dialog box.
 - Click Apply to save your changes and continue configuring the product configuration.
- 4 If prompted, type a file name, then click Save.

Setting product installation options

Symantec Packager lets you specify product installation options, such as the target installation location and other installation options that vary by product.

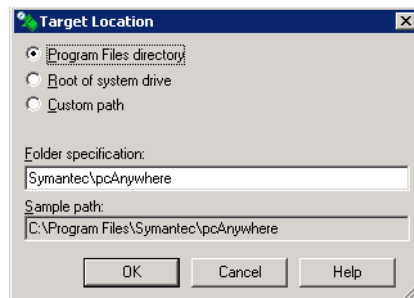
There are other installation options that you can control at the package level. These include restart, logging, rollback, and other installation options.

See [“Setting package installation options”](#) on page 66.

Setting the product installation location

Symantec Packager lets you configure the installation folder on the target system. This includes the directory location, such as the Windows Program Files directory or the root of the system drive, as well as the folder in which the product is installed.

Figure 5-3 Target Location dialog box



To set the product installation location

- 1 In the Symantec Packager window, on the Configure Products tab, do one of the following:
 - Create a new product configuration.
 - Double-click an existing product to edit it.
- 2 In the Product Editor dialog box, on the Installation Options tab, double-click Target location.

- 3 In the Target Location dialog box, select one of the following:
 - Program Files directory: Installs the product in the Windows Program Files directory
 - Root of system drive: Installs the product at the root of the system drive
 - Custom path: Installs the product in the specified path
- 4 Under Folder specification, type a folder name to use in conjunction with the selection that you chose in step 3.
Symantec Packager previews the target location under Sample path.
- 5 Click OK.
- 6 In the Product Editor dialog box, do one of the following:
 - Click OK to save your changes and close the Product Editor dialog box.
 - Click Apply to save your changes and continue configuring the product configuration.
- 7 If prompted, type a file name, then click Save.

Setting product-specific installation options

Installation options can vary widely by product. For example, the AntiVirus client has additional installation options, such as specifying the server from which it receives virus definitions. These options vary by product.

For more information about configuring these installation options, see the documentation for the specific Symantec product.

Adding or removing configuration files

Symantec Packager lets you preconfigure data or configuration files so that your users do not have to make configuration changes during or after installation.

The Configuration Files tab lists required files. You cannot remove these files, but you can replace them with configuration files that you edit. Symantec Packager does not supply a means to edit configuration files.

For more information about editing configuration files, see the documentation for the product that you are customizing.

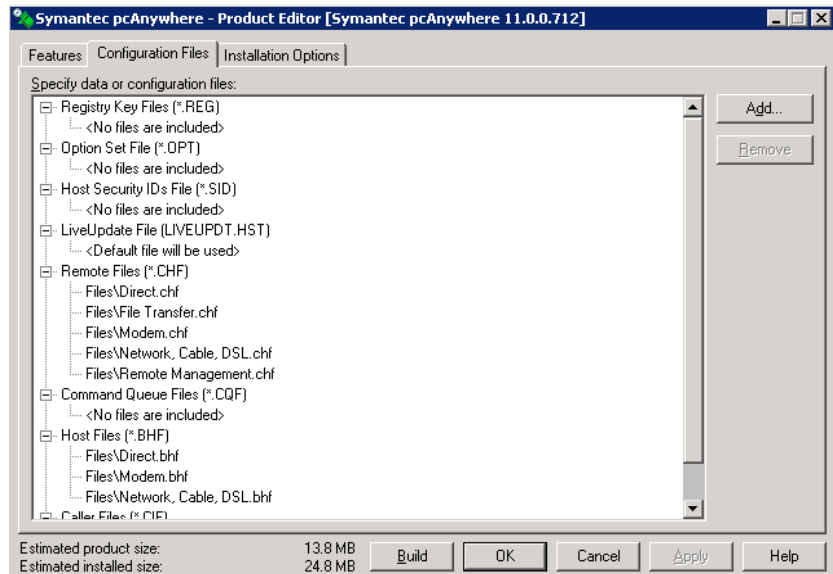
If the Configuration Files tab lists a required file and you choose not to preconfigure the file, the product configuration file uses a default data file provided by Symantec.

Symantec Packager references configuration files in their original location. If you move or rename the configuration file before building a package, Symantec Packager will not be able to locate the file, which will result in a build failure.

The configuration files that can be included are limited to what the product supports. Some products may support multiple configuration file types.

See [“About configuring custom commands”](#) on page 48.

Figure 5-4 Product Editor dialog box: Configuration Files tab



To add or remove configuration files

- 1** In the Symantec Packager window, on the Configure Products tab, do one of the following:
 - Create a new product configuration.
 - Double-click an existing product to edit it.

- 2 In the Product Editor dialog box, on the Configuration Files tab, do one of the following:
 - Click Add, browse to the configuration file that you want to include, then click Open.
This replaces the default file with your preconfigured file.
 - Select the file that you want to remove, then click Remove.
This removes your preconfigured file and replaces it with the default file provided by Symantec.
- 3 Do one of the following:
 - Click OK to save your changes and close the Product Editor dialog box.
 - Click Apply to save your changes and continue configuring the product configuration.
- 4 If prompted, type a file name, then click Save.

Building and testing custom products

After you select the product features, installation options, and optional files to be included with your custom product, you can build it and test it before including it in an installation package. Symantec Packager stores testable Microsoft Software Installer (.msi) files in the folder that is specified for the Deploy Packages tab in Symantec Packager Preferences.

Building custom products

During the build process, Symantec Packager retrieves information from the product configuration file to determine which files to include in the custom product, as well as the command-line parameters, installation options, and custom settings. Symantec Packager then checks the contents of the custom product for conflicts and errors. If Symantec Packager encounters a conflict, the build process stops. You must resolve the conflict and repeat the build process.

After completing the validation process, Symantec Packager creates a Microsoft Software Installer (.msi) file, which you can use for testing purposes. Symantec Packager places the .msi file in the folder that is specified for the Deploy Packages tab. This folder is usually located in the following directory:

`\Documents and Settings\<User_Name>\My Documents\Packager\Deployment`

Symantec Packager supports installation of pcAnywhere .msi files only. You can view these files on the Deploy Packages tab if you edit the Symantec Packager preferences to list supported .msi files.

To build a custom product

- 1** In the Symantec Packager window, on the Configure Products tab, select the custom product that you want to build.
- 2** On the File menu, click Build.
A Build Status window appears, which provides information about the progress of the build and logs any problems that have occurred. If the build is successful, the last line in the Build Status window reads: Product was built successfully.
- 3** In the Build Status window, click Close.

Testing custom products

The product module files and product configuration files provided by Symantec are designed to help you create a buildable, installable product. You should test whether your feature selections and installation options are appropriate for your users. It is important that you test your custom products on all supported platforms before including them in a package or deploying them to end users.

The following applications must be installed on the test system or error messages will appear when you attempt to run the product .msi file:

- ISScript.msi
If you are using only Symantec pcAnywhere with Symantec Packager, you do not need to install ISScript.msi.
- Windows Installer 2.0

To test a custom product

- 1** On the Windows taskbar, click Start > Run.
- 2** In the Run dialog box, type the following:
explorer.exe
- 3** In Windows Explorer, navigate to the Configure Products data folder.
Data folders are listed in Symantec Packager Preferences.
See [“Changing Symantec Packager data folders”](#) on page 27.

- 4** Double-click the product .msi file that you want to test.
If you encounter error messages when you double-click a product .msi file, verify that ISScript.msi and Windows Installer 2.0 are installed on the test computer.
- 5** Follow the on-screen installation instructions to complete testing the product.
- 6** After installation, use the product to verify that your feature selections meet your user's needs.

Configuring custom commands

This chapter includes the following topics:

- [About configuring custom commands](#)
- [Working with custom commands](#)
- [Configuring custom commands](#)
- [Building and testing custom commands](#)

About configuring custom commands

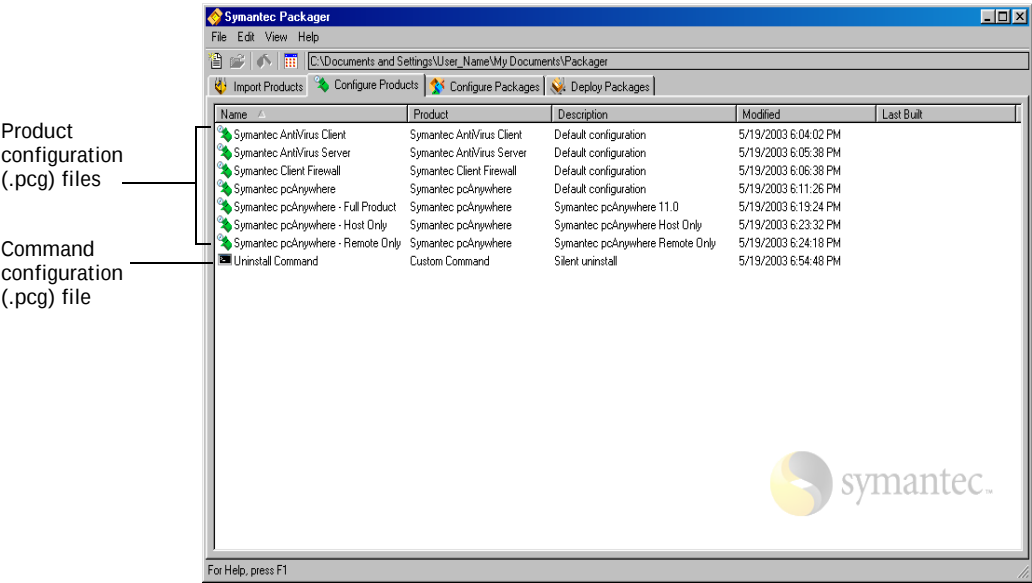
In addition to creating custom products, the Configure Products tab also lets you create custom commands to include in your packages. Examples of custom commands include batch files, third-party executables, command-line arguments, or simple file copies. Custom commands let you simplify application deployment by including multiple tasks in one package. Once defined, you can reuse custom commands in different packages.

When you create a custom command, Symantec Packager creates a command configuration file. A command configuration file is a generic product configuration file that does not reference a product template file. Therefore, custom commands do not depend on the Import Products phase. The build process for custom commands creates a self-extracting executable (.exe) file, which can be tested including it in a package.

There are three basic things that you can do with custom commands:

- Execute a command on the target computer.
- Copy files to the target computer.
- Combine these two so that you copy files to the target computer and execute a command on the target computer.

Figure 6-1 Configure Products tab showing a custom command



Creating a custom command involves the following process:

- Creating a custom command file
See [“Creating custom commands”](#) on page 49.
- Specifying command-line parameters and switches
See [“Specifying command-line parameters and switches”](#) on page 52.
- Including optional files
See [“Including files in a command”](#) on page 54.
- Selecting an operating system platform
See [“Specifying operating system support”](#) on page 56.
- Building the custom command
See [“Building custom commands”](#) on page 57.
- Testing the custom command
See [“Testing custom commands”](#) on page 58.

Working with custom commands

In the Symantec Packager main window, the Configure Products tab lists the custom commands that you have created and provides information about when they were last modified and built. In this window, you can create, edit, and delete custom commands and view details.

the Configure Products tab displays the product and command configuration files that are stored in the Configure Products folder that is specified in Symantec Packager Preferences.

Creating custom commands

The first step in configuring a custom command is to create a custom command file. This opens the Command Editor dialog box, which lets you configure and

build the custom command. Like product configuration files, custom command files are saved with .pcg file extensions.

Table 6-1 Overview of the Command Editor dialog box tabs

Tab	Description	For more information
Parameters	Lets you configure a custom command that includes a command-line argument and the required and optional switches to use when the command runs. Also lets you include additional files, such as batch files, scripts, or executable files, in a custom command.	See “Specifying command-line parameters and switches” on page 52. See “Including files in a command” on page 54.
Operating Systems	Lets you specify operating system support for the custom command.	See “Specifying operating system support” on page 56.

This procedure details the minimum steps required to create a custom command file. You can customize the command configuration file when you first create it or at a later time.

To create a custom command

- 1 In the Symantec Packager window, on the Configure Products tab, on the File menu, click New Custom Command.
- 2 In the Command Editor dialog box, on the Parameters tab, do one or both of the following:
 - Enter the command-line parameters for your custom command, then click OK.
 - Include files and specify their target locations.
- 3 In the Command Editor dialog box, click OK.
- 4 In the Save As dialog box, type a file name for the custom command, then click Save.
The command configuration file appears on the Configure Products tab.

Viewing custom command details

Symantec Packager lets you view the details of a custom command file without opening the file. A summary of the custom command specifications is available using the Display Details option.

To view custom command details

- 1 In the Symantec Packager window, on the Configure Products tab, select the custom command file that you want to view.
- 2 On the File menu, click **Display Details**.
- 3 Click **OK** to close the Details window.

Deleting custom commands

Deleting a custom command removes its configuration file, which contains the configuration settings needed to build the custom command. Deleting the command configuration file that is included in a package definition file breaks the package definition file. However, deleting a command configuration file does not affect installation packages that were previously built and stored on the Deploy Packages tab.

To delete a custom command

- 1 In the Symantec Packager window, on the Configure Products tab, select the custom command that you want to delete.
- 2 On the Edit menu, click **Delete**.
- 3 When you are prompted to delete the file, click **Yes**.
Symantec Packager removes the custom command from the Configure Products tab.

Configuring custom commands

Custom commands let you perform virtually any installation task that you could run from a command line. Example uses include adding third-party or other unsupported products to a package, adding product updates or patches (such as updated virus definitions), removing conflicting software programs, or running a clean-up utility. Symantec Packager lets you enter a specific command or add a script file that contains a series of commands.

Like custom products, the configuration information for custom commands is saved in product configuration files. However, unlike custom products, custom

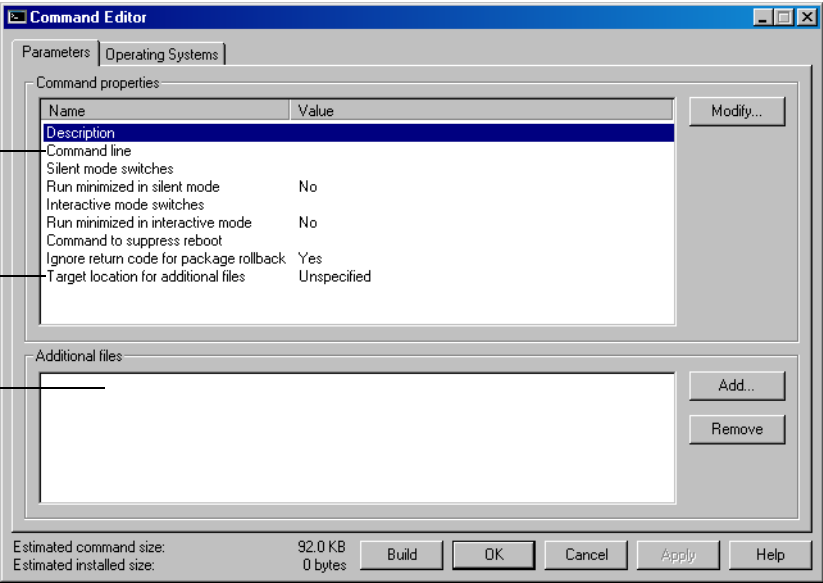
commands are not imported and do not have an associated product template file. You must specify the information that Symantec Packager requires to install and run the command. This information might include command-line switches or executable files.

Figure 6-2 Command Editor dialog box: Parameters tab

Enter a command-line argument to execute a command on the target system

Specify files and their target locations to copy files to the target system

Combine a command-line argument and additional files to deploy and execute files on the target system

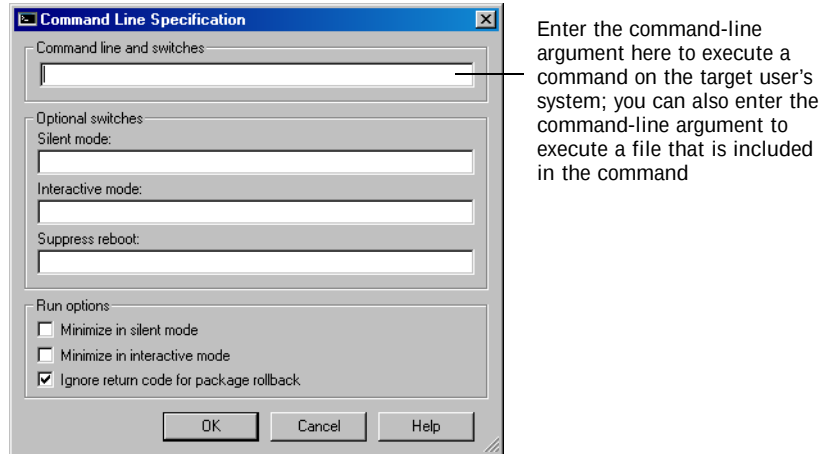


Specifying command-line parameters and switches

Symantec Packager lets you configure a custom command that includes a command-line argument and the additional switches to use when the command runs.

Symantec Packager also lets you define optional switches that can be used during a silent, passive, or interactive package installation. You must specify the information that Symantec Packager needs to install and run the command and any variables that you want to use.

Figure 6-3 Command Line Specification dialog box



To specify command-line parameters and switches

- 1** In the Symantec Packager window, on the Configure Products tab, do one of the following:
 - Create a new custom command.
 - Double-click an existing command to edit it.
- 2** In the Command Editor dialog box, on the Parameters tab, click **Command line**, then click **Add**.
- 3** In the Command Line Specification dialog box, under **Command line and switches**, type the command-line argument and switches that are required to execute the command.
- 4** Under **Optional switches**, type the optional switches for installation behavior.

The package installation uses the following types of switches to make the command installation mimic the package installation:

- **Silent mode:** Specify the switch that suppresses all user interaction.
- **Interactive mode:** Specify the switch that suppresses user interaction while still displaying status messages.
- **Suppress reboot:** Specify the switch that suppresses a restart after the custom command.

- 5 Under Run options, select how the command installation should appear to the user:
 - Minimize in silent mode: Lets you minimize installation screens to the Start bar.
 - Minimize in interactive mode: Lets you minimize installation screens to the Start bar.
 - Ignore return code for package rollback: Ensures that the return codes that are generated by the installation or execution of a custom command are ignored by the package installation process. The return codes that are generated by custom commands can be interpreted as errors and can trigger the package rollback functionality.

The Ignore return code for package rollback check box is selected by default. Unless you are confident that all return codes should trigger a rollback, keep this check box selected.
- 6 Click OK.
- 7 In the Command Editor dialog box, do one of the following:
 - Click OK to save your changes and close the Command Editor dialog box.
 - Click Apply to save your changes and continue configuring the command.
- 8 If prompted, type a file name, then click Save.

Including files in a command

Symantec Packager lets you include additional files, such as batch files, scripts, or executable files, in a custom command. Examples include updated virus definitions, software patches, registry keys, self-extracting executable files, or .msi files. To include an additional file, you must add the file to the custom command and specify a target location. During package installation, Symantec Packager copies the file to the specified folder on the target computer.

Symantec Packager lets you copy files in the Program Files folder, the root of the system drive, or a custom path. If you select the Program Files folder or the root of the system drive, Symantec Packager automatically completes the full path. You only have to type the subfolder name to place the files in a subfolder of the Program Files or root directory. If you select a custom path, you must type the full path.

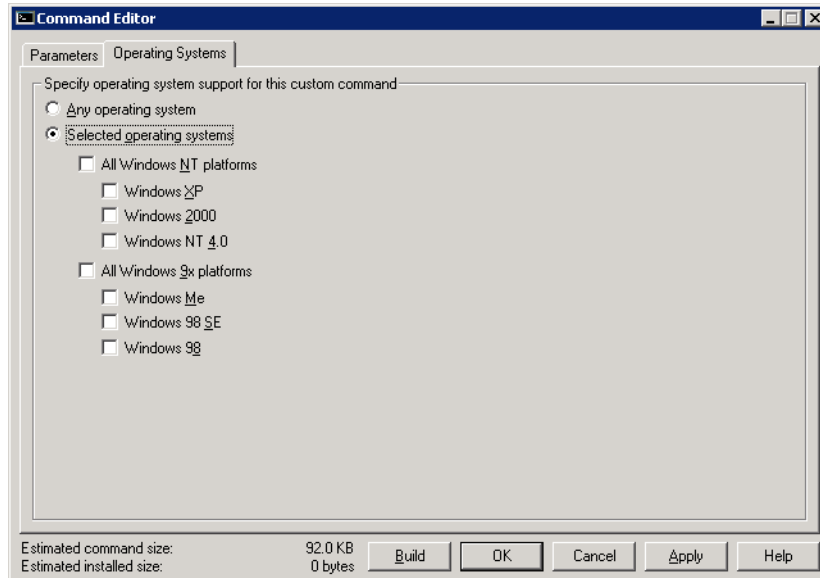
To include files in a command

- 1** In the Symantec Packager window, on the Configure Products tab, do one of the following:
 - Create a new custom command.
 - Double-click an existing command to edit it.
- 2** In the Command Editor dialog box, on the Parameters tab, click Add.
- 3** Browse to the files that you want to add to the custom command, then click Open.
Press and hold down the Ctrl key to add multiple files at once.
- 4** In the Command Editor dialog box, on the Parameters tab, click Target path for additional files, then click Modify.
- 5** In the Target path for additional files dialog box, select the location on the target computer to which you want to copy the optional files:
 - Program Files directory: Copies the files to the Windows Program Files directory
 - Root of system drive: Copies the files to the root of the system drive
 - Custom path: Copies the files to the specified path
 - Unspecified target location: Copies the files to the user's temp directory
- 6** Under Folder specification, type a folder name to use in conjunction with the selection that you chose in step 5.
Symantec Packager previews the target location under Sample path.
- 7** Click OK.
- 8** In the Command Editor dialog box, do one of the following:
 - Click OK to save your changes and close the Command Editor dialog box.
 - Click Apply to save your changes and continue configuring the command.
- 9** If prompted, type a file name, then click Save.

Specifying operating system support

Custom installation packages created with Symantec Packager can be installed on any Microsoft 32-bit platform except for Windows 95/NT 3.5x. Unless you specify otherwise, Symantec Packager installs the custom commands that you include in a package on all supported operating systems. If the custom command is limited to specific platforms, you must specify this information when configuring the custom command.

Figure 6-4 Command Editor dialog box: Operating Systems tab



To specify operating system support

- 1 In the Symantec Packager window, on the Configure Products tab, do one of the following:
 - Create a new custom command.
 - Double-click an existing command to edit it.
- 2 In the Command Editor dialog box, on the Operating Systems tab, select the operating systems on which the custom command can run.

The default selection is Any operating system. You can limit the installation by category, (for example, all Windows NT platforms), by specific operating system (for example, Windows 2000 and Windows XP), or by any combination (for example, all Windows NT platforms plus Windows 98 and Windows 98 SE).

- 3 Do one of the following:
 - Click OK to save your changes and close the Command Editor dialog box.
 - Click Apply to save your changes and continue configuring the command.
- 4 If prompted, type a file name, then click Save.

Building and testing custom commands

After you define the command-line parameters and optional files for a custom command, you must build it. When the custom command build process is complete, it is crucial that you test the custom command before you include it in an installation package. Symantec Packager stores testable self-extracting executable files in the folder that is specified for the Deploy Packages tab in Symantec Packager Preferences.

Building custom commands

During the build process, Symantec Packager retrieves information from the custom command .pcg file to determine which files to include in the custom command as well as the command-line parameters, installation options, and custom settings. Symantec Packager then performs basic error checking. If Symantec Packager encounters an error, the build process stops. You must resolve the conflict and repeat the build process.

After completing the validation process, Symantec Packager creates a self-extracting executable (.exe) file and places it in the folder that is specified for the Deploy Packages tab. The command .exe file is supplied for testing purposes and is not supported for deployment.

To build a custom command

- 1 In the Symantec Packager window, on the Configure Products tab, select the custom command that you want to build.
- 2 On the File menu, click Build.

A Build Status window appears, which provides information about the progress of the build and logs any problems that have occurred. If the build is successful, the last line in the Build Status window reads: Command was built successfully.
- 3 In the Build Status window, click Close.

Testing custom commands

Custom commands are powerful tools that let you customize a product installation beyond the confines of what a product template allows. However, with custom commands, you are responsible for defining the information that Symantec Packager requires to install and run the custom command. Because of the unlimited possibilities for which you can use a custom command, Symantec Packager does not ensure that you have typed a command correctly and does not perform error checking during the build or installation processes. Therefore, it is important that you test your custom commands on all supported platforms before including them in a package or deploying them to end users.

Note: If your custom command requires user interaction and you include that custom command in a package, the installation stops until the user responds to the prompt.

To test a custom command

- 1** On the Windows taskbar, click Start > Run.
- 2** In the Run dialog box, type `explorer.exe`
- 3** In Windows Explorer, navigate to the working directory of the Deploy Packages tab.
Data folders are listed in Symantec Packager Preferences.
See [“Changing Symantec Packager data folders”](#) on page 27.
- 4** Double-click the command .exe file that you want to test.

Configuring installation packages

This chapter includes the following topics:

- [About configuring packages](#)
- [Working with package definitions](#)
- [Configuring package definitions](#)
- [Building and testing packages](#)

About configuring packages

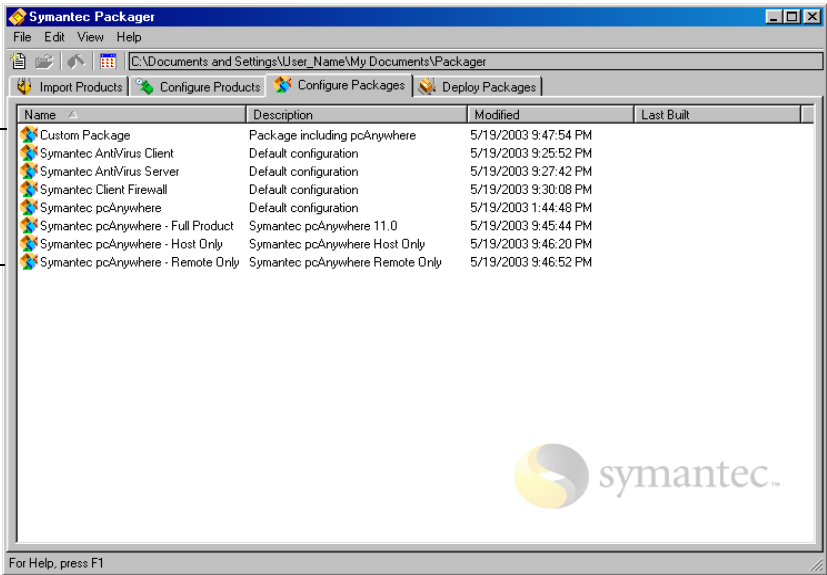
During the Configure Packages phase, you create a package, which is a single installation file that contains one or more products or custom commands. You begin this process by selecting the products and custom commands that you want to include. You then specify package installation options and other custom settings. This information is saved in a package definition (.pkg) file.

If your product supports .msi deployment and you are configuring a single product installation, package creation is optional. However, a package definition gives you more options for customizing the installation such as configuring restart and rollback options and adding custom support information. Symantec Packager supports deployment of pcAnywhere .msi files only.

The Configure Packages phase depends on the successful completion of the Import Products and Configure Products phases. You can add only products or custom commands for which a product configuration (.pcg) file exists. Symantec Packager uses the information from the product configuration and package definition files to build the package. The build process creates a self-extracting executable file, which can be tested and deployed to end users.

Figure 7-1 Configure Packages tab

Package definition
(.pkg) files



Configuring a package involves the following process:

- Creating a package definition
See [“Creating package definitions”](#) on page 62.
- Adding one or more products and custom commands
See [“Adding products and commands to a package definition”](#) on page 63.
- Specifying the installation sequence for packages that contain multiple products or custom commands
See [“Changing the installation sequence”](#) on page 65.
- Specifying package installation and logging options
See [“Setting package installation options”](#) on page 66.
- Building the package
See [“Building and testing packages”](#) on page 77.
- Testing the package before deployment
See [“Testing packages”](#) on page 78.

Working with package definitions

In the Symantec Packager main window, the Configure Packages tab lists the package definition files that you have created and provides information about when they were last modified and built. In this window, you can add, edit, rename, and delete package definition files. The Configure Packages tab displays the package definition files that are stored in the Configure Packages folder that is specified in Symantec Packager Preferences.

The Configure Packages tab might be empty for one of the following reasons:

- You have not imported any product modules.
When you import a product module, Symantec Packager creates a default package definition file and places it on the Configure Packages tab.
See [“Importing product modules”](#) on page 32.
- You have not built any product configuration files or command configuration files.
See [“Building custom products”](#) on page 44.
See [“Building custom commands”](#) on page 57.

Creating package definitions

The first step in creating a package is to create a package definition file. This opens the Package Editor dialog box, which lets you configure and build the package. As you add or remove products or custom commands, the bottom left portion of the dialog box displays the approximate size of the installation package and its installation footprint.

Table 7-1 Overview of the Package Editor dialog box tabs

Tab	Description	For more information
Product Selection	Lets you add or remove products or custom commands, change installation sequence, view product properties and requirements, and bundle the appropriate version of Windows Installer in a package	See “Adding products and commands to a package definition” on page 63. See “Changing the installation sequence” on page 65.
Installation Options	Lets you set package installation, logging, and branding options and optionally specify technical support information	See “Setting package installation options” on page 66.

This procedure creates a generic package definition file. You can customize the package definition file by adding products and custom commands to it, setting installation options, and adding your own graphics to the installation.

To create a package definition

- 1

In the Symantec Packager window, on the Configure Packages tab, on the File menu, click **New Package Definition**.

The new package definition file opens in the Package Editor dialog box. You can customize the package definition file now or edit it later.
- 2

In the Package Editor dialog box, click **OK** to save the file.
- 3

In the Save As dialog box, type a file name for the package definition file, then click **Save**.

The package definition file appears on the Configure Packages tab.

Viewing package definition details

Symantec Packager lets you view the details of a package definition file without opening the file. A summary of the package definition specifications is available using the Display Details option.

To view package definition details

- 1 In the Symantec Packager window, on the Configure Packages tab, select the package definition file that you want to view.
- 2 On the File menu, click Display Details.
- 3 Click OK to close the Details window.

Deleting package definitions

Deleting a package definition removes the package definition file, which contains the configuration settings and installation instructions needed to build a package. Deleting a package definition does not affect installation packages that are on the Deploy Packages tab.

To delete a package definition

- 1 In the Symantec Packager window, on the Configure Packages tab, select the package definition file that you want to delete.
- 2 On the Edit menu, click Delete.
- 3 When you are prompted to delete the file, click Yes.
Symantec Packager removes the package definition file from the Configure Packages tab.

Configuring package definitions

You create a custom installation package by creating a package definition file and then building the package. The package definition file contains the configuration information and installation instructions that Symantec Packager requires to build the package. Within the package definition file, you choose the products or custom commands that you want to include, installation sequences, and package installation and logging options. Optionally, a package definition file can include technical support information.

Adding products and commands to a package definition

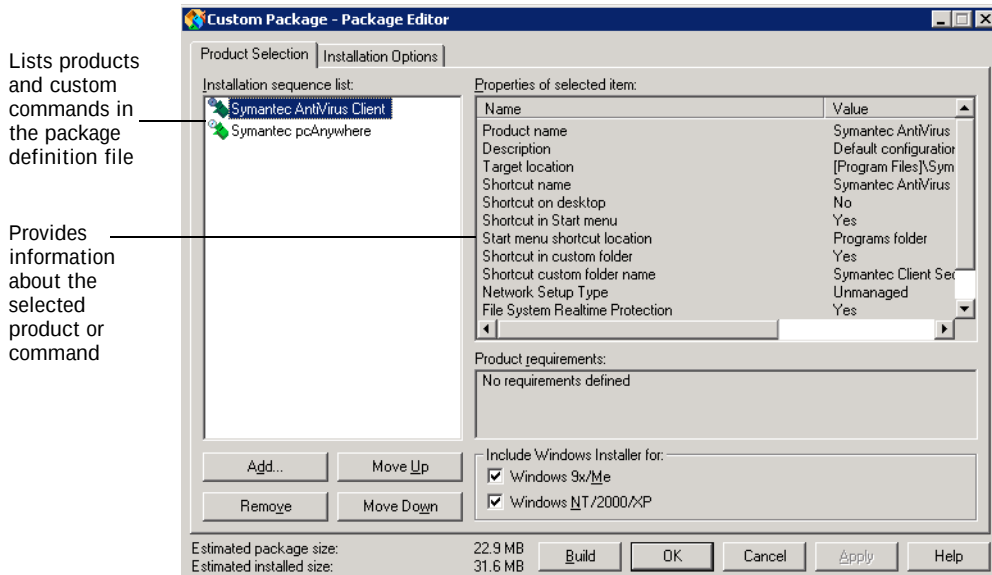
Symantec Packager lets you create a custom installation package that includes one or more products or custom commands. As you add an item to a package definition file, its properties, as defined in the product configuration file, are displayed in the Package Editor dialog box, as well as any product requirements or conflicts. For example, to avoid product conflicts, Symantec AntiVirus restricts you from including both the client and server versions in the same package. A

product configuration file is required for each product or custom command that you want to include.

See “Configuring custom products” on page 35.

See “Configuring custom commands” on page 47.

Figure 7-2 Product Editor dialog box: Product Selection tab



To add products and commands to a package definition

- 1 In the Symantec Packager window, on the Configure Packages tab, do one of the following:
 - Create a new package definition.
 - Double-click an existing package definition to edit it.
- 2 In the Package Editor dialog box, on the Product Selection tab, click Add.
- 3 In the Open window, select the product or custom command (.pcg) file that you want to add.
- 4 Click Open.

The Estimated package size in the bottom left portion of the dialog box changes to reflect the product or command that you include.
- 5 Repeat steps 2 through 4 to add more products or custom commands.

- 6 In the Package Editor dialog box, do one of the following:
 - Click OK to save your changes and close the Package Editor dialog box.
 - Click Apply to save your changes and continue configuring the package definition.
- 7 If prompted, type a file name, then click Save.

Changing the installation sequence

The products included in a package definition file are installed in the order in which they appear on the Product Selection tab. By default, each product that you add to a package definition is automatically added to the end of the installation sequence. Some products require other products to install and function properly. If a product in your package definition requires another product, ensure that the products are listed in the correct sequence. You can change the order in which a product is installed by moving it up or down in the installation sequence list.

To change the installation sequence

- 1 In the Symantec Packager window, on the Configure Packages tab, do one of the following:
 - Create a new package definition.
 - Double-click an existing package definition to edit it.
- 2 In the Package Editor dialog box, on the Product Selection tab, under Installation sequence list, select the product for which you want to change the installation sequence.
- 3 Select one of the following to move the product or command to the desired location in the list:
 - Move Up: Moves the selected product or command to an earlier position in the installation sequence
 - Move Down: Moves the selected product or command to a later position in the installation sequence
- 4 Do one of the following:
 - Click OK to save your changes and close the Package Editor dialog box.
 - Click Apply to save your changes and continue configuring the package definition.
- 5 If prompted, type a file name, then click Save.

Setting package installation options

Symantec Packager lets you specify installation options at the product and package level. Package installation options let you control the level of user interaction required during installation, specify restart and logging options, and include user-specific or company-specific information such as a technical support Web address. Optionally, your package can include the appropriate version of Windows Installer for users who need it.

Including Windows Installer

Many products require Windows Installer 2.0 for installation. If the computer to which you are deploying a package does not have Windows Installer or has an earlier version, you can include it in your package. When users install the package, Windows Installer is installed first. During installation, Symantec Packager checks the target computer to determine if Windows Installer is already installed. Symantec Packager installs Windows Installer only if the target computer does not have Windows Installer or has an earlier version.

To include Windows Installer

- 1** In the Symantec Packager window, on the Configure Packages tab, do one of the following:
 - Create a new package definition.
 - Double-click an existing package definition to edit it.
- 2** In the Package Editor dialog box, on the Product Selection tab, under Include Windows Installer for, select any of the following:
 - Windows 9x/Me: Includes the version of Windows Installer that is appropriate for Windows 9x/Me computers
 - Windows NT/2000/XP: Includes the version of Windows Installer that is appropriate for Windows NT/2000/XP computers
- 3** Do one of the following:
 - Click OK to save your changes and close the Package Editor dialog box.
 - Click Apply to save your changes and continue configuring the package definition.
- 4** If prompted, type a file name, then click Save.

Selecting an installation mode

Symantec Packager lets you control the level of user interaction required for installations. Silent installations provide no user interface or status information.

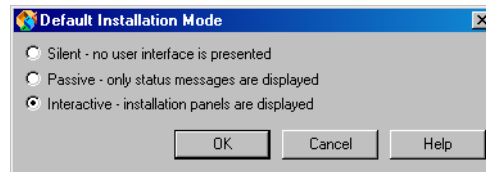
Passive installations provide progress indicators and other status information, but do not provide a way for a user to accept or cancel an action. When choosing either of these installation options, ensure that the package installation automatically handles situations that might require user interaction, such as required computer restarts and unclosed applications.

See [“Setting restart options”](#) on page 68.

Interactive installations provide a user interface that steps users through the installation. You can further customize an installation by adding a brand name or replacing product-specific installation graphics with custom graphics.

See [“Customizing optional installation panels”](#) on page 74.

Figure 7-3 Default Installation Mode dialog box



To select an installation mode

- 1** In the Symantec Packager window, on the Configure Packages tab, do one of the following:
 - Create a new package definition.
 - Double-click an existing package definition to edit it.
- 2** In the Package Editor dialog box, on the Installation Options tab, double-click **Default Installation Mode**.
- 3** In the Default Installation Mode dialog box, select one of the following:
 - **Silent:** Package installs with no user interface.
 - **Passive:** User sees only status messages during installation.
 - **Interactive:** Package installation includes installation screens, which require user interaction
- 4** Click **OK**.
- 5** In the Package Editor dialog box, do one of the following:
 - Click **OK** to save your changes and close the Package Editor dialog box.
 - Click **Apply** to save your changes and continue configuring the package definition.
- 6** If prompted, type a file name, then click **Save**.

Setting restart options

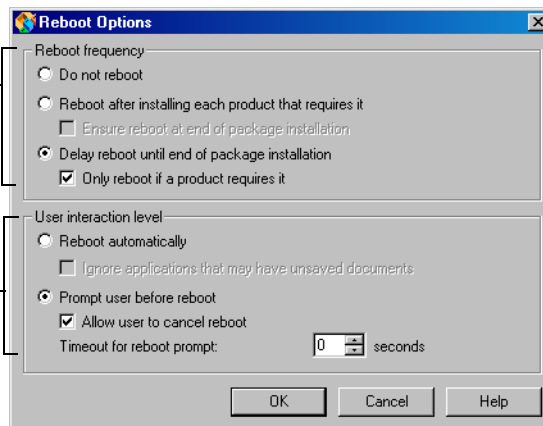
Products that include changes to operating system files might require users to restart their computers so that the changes are written to the appropriate areas of the system. Product restart requirements are specified in the product modules. If a package contains multiple products that require a restart, Symantec Packager lets you choose a restart option for the entire package. This suppresses individual product settings.

You can configure a package to not restart the computer, to restart after installing each product that requires it, or to delay the restart until the entire package is installed. You can also configure the package to restart the computer automatically or to prompt the user. The option that you choose depends on how interactive you want the installation to be. If you want to let users cancel the restart, specify a timeout period for responding to the prompt.

Figure 7-4 Reboot Options dialog box

Configure how
Symantec
Packager deals
with product and
command reboots

Configure the level
of user interaction
allowed when
reboots occur



To set restart options

- 1 In the Symantec Packager window, on the Configure Packages tab, do one of the following:
 - Create a new package definition.
 - Double-click an existing package definition to edit it.
- 2 In the Package Editor dialog box, on the Installation Options tab, double-click Perform reboot(s).

- 3 In the Reboot Options dialog box, under Reboot frequency, select one of the following:
 - Do not reboot: Installs the package without restarting the computer or prompting the user to restart. This option overrides product restart settings.
 - Reboot after installing each product that requires it: Restarts the computer upon installation of each product that requires a restart. This option preserves product restart settings. If you select this option, also specify whether the computer restarts automatically or prompts the user before restarting.

You can optionally click **Ensure reboot at end of package installation** to add a restart at the end of the package installation if one does not already exist.
 - Delay reboot until end of package installation: Overrides product restart settings and saves the restart until the end of the package installation.

You can optionally click **Only reboot if a product requires it** to restart at the end of the package installation only if a product in the package requires it.
- 4 Under User interaction level, select one of the following:
 - Reboot automatically: Restarts the computer, but first displays messages if applications have files open.

You can optionally click **Ignore applications that may have unsaved documents** to force a restart.
 - Prompt user before reboot: Displays a message that informs the user that a restart is going to occur.

You can optionally click **Allow user to cancel reboot** and specify the amount of time that the user has to respond to the message.
- 5 Click OK.
- 6 In the Package Editor dialog box, do one of the following:
 - Click OK to save your changes and close the Package Editor dialog box.
 - Click Apply to save your changes and continue configuring the package definition.
- 7 If prompted, type a file name, then click Save.

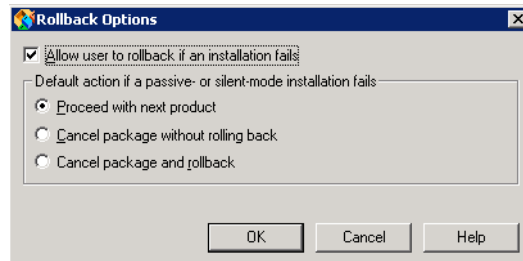
Setting installation rollback options

Symantec Packager lets you restore, or roll back, a target computer to its original, preinstallation configuration if any part of the package installation fails. During

the rollback, Symantec Packager removes the files that were installed, including drivers and configuration files, and restores registry settings.

Installation rollback does not apply to custom commands that might be included in the package.

Figure 7-5 Rollback Options dialog box



To set installation rollback options

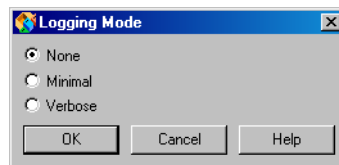
- 1 In the Symantec Packager window, on the Configure Packages tab, do one of the following:
 - Create a new package definition.
 - Double-click an existing package definition to edit it.
- 2 In the Package Editor dialog box, on the Installation Options tab, under Package properties, click Allow option to rollback if an installation fails.
- 3 Click Modify.
- 4 In the Rollback options dialog box, check Allow user to rollback if an installation fails.
 This is not selected by default.
- 5 Under Default action if a passive- or silent-mode installation fails, select one of the following to specify how installation is to proceed in the case of an installation error:
 - Proceed with next product.
 - Cancel package without rolling back.
 - Cancel package and rollback.
- 6 Click OK.

- 7 In the Package Editor dialog box, do one of the following:
 - Click OK to save your changes and close the Package Editor dialog box.
 - Click Apply to save your changes and continue configuring the package definition.

Logging installation information

Symantec Packager lets you record information about the installation in a log file. Upon deployment of a package, the log file is written to the system temp environment (%windir%\temp). For a local installation, the log file is written to the temp environment of the logged-in user. This information helps you determine whether the package installed successfully or identify errors during installation. The log file is generated at the end of the package installation and is saved as a text file on the target computer in the user's temp directory.

Figure 7-6 Logging Mode dialog box



To log installation information

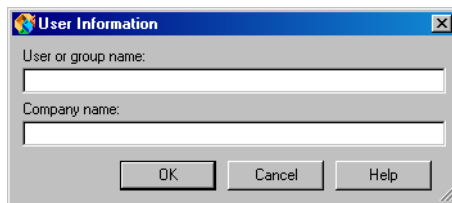
- 1 In the Symantec Packager window, on the Configure Packages tab, do one of the following:
 - Create a new package definition.
 - Double-click an existing package definition to edit it.
- 2 In the Package Editor dialog box, on the Installation Options tab, double-click Logging mode.
- 3 In the Logging Mode dialog box, select one of the following:
 - None: Disables logging on the target computer
 - Minimal: Captures errors only
 - Verbose: Captures all log information
- 4 Click OK.

- 5 In the Package Editor dialog box, do one of the following:
 - Click OK to save your changes and close the Package Editor dialog box.
 - Click Apply to save your changes and continue configuring the package definition.
- 6 If prompted, type a file name, then click Save.

Preconfiguring user information

During an interactive package installation, users are prompted for a user or group name and a company name. Symantec Packager lets you preconfigure this information in the package definition file so that it automatically appears on the optional installation panels.

Figure 7-7 User Information dialog box



To preconfigure user information

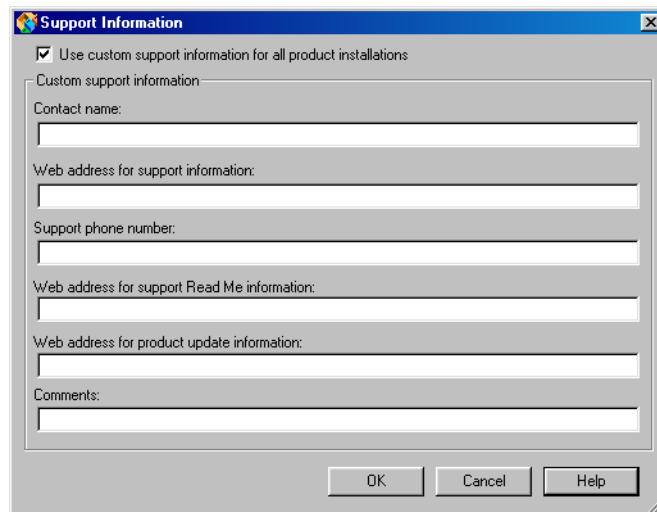
- 1 In the Symantec Packager window, on the Configure Packages tab, do one of the following:
 - Create a new package definition.
 - Double-click an existing package definition to edit it.
- 2 In the Package Editor dialog box, on the Installation Options tab, double-click User or group name.
- 3 In the User Information dialog box, under User or group name, type the user name or group name that will appear on the Customer Information screen during installation.
- 4 Under Company name, type the company name that will appear on the Customer Information screen during installation.
- 5 Click OK.

- 6 In the Package Editor dialog box, do one of the following:
 - Click OK to save your changes and close the Package Editor dialog box.
 - Click Apply to save your changes and continue configuring the package definition.
- 7 If prompted, type a file name, then click Save.

Including custom support information

Symantec Packager lets you specify a Web address, phone number, and other custom support information. This feature, for example, lets value-added resellers (VARs) and original equipment manufacturers (OEMs) create custom installation packages that include their own Web addresses or support phone numbers. This information is displayed on the optional installation panels during the package installation; therefore, the package definition must use Interactive installation mode.

Figure 7-8 Support Information dialog box

The image shows a Windows-style dialog box titled "Support Information". At the top, there is a checkbox labeled "Use custom support information for all product installations" which is checked. Below this, the text "Custom support information:" is followed by several input fields: "Contact name:", "Web address for support information:", "Support phone number:", "Web address for support Read Me information:", "Web address for product update information:", and "Comments:". Each field has a corresponding text box. At the bottom right of the dialog box are three buttons: "OK", "Cancel", and "Help".

To include custom support information

- 1 In the Symantec Packager window, on the Configure Packages tab, do one of the following:
 - Create a new package definition.
 - Double-click an existing package definition to edit it.

- 2 In the Package Editor dialog box, on the Installation Options tab, double-click Use custom support information.
- 3 In the Support Information dialog box, check Use custom support information for all product installations.
- 4 Under Custom support information, type the support information as you would like it to appear on the screen.
For example, to add a custom Web address for technical support, in the Web address for support information box, type the URL as you would like it to appear on the screen. For example:
`http://www.symantec.com`
- 5 Click OK.
- 6 In the Package Editor dialog box, do one of the following:
 - Click OK to save your changes and close the Package Editor dialog box.
 - Click Apply to save your changes and continue configuring the package definition.
- 7 If prompted, type a file name, then click Save.

Customizing optional installation panels

Symantec Packager lets you customize the optional installation panels that the user sees during an interactive installation. This only applies to generic installation panels, such as the Welcome and Installation Complete panels, not the installation panels that are associated with specific Symantec products. The package must be configured to install in Interactive mode to use custom installation graphics.

You can customize the following settings on optional installation panels:

- Whether optional installation panels display during a package installation
- Whether an installation panel with technical support information displays
- The package title that appears on the Welcome and Installation Complete panels
- The graphics that display on the Welcome and Installation Complete panels

Symantec Packager provides installation graphics or you can use your own custom graphics. If you use a custom bitmap that does not adhere to the size and color specifications, the installation program will stretch or shrink the bitmap to the appropriate size. This does not affect how the package installation functions, but it does impact the look of the panels.

Use these specifications if you create your own custom graphics:

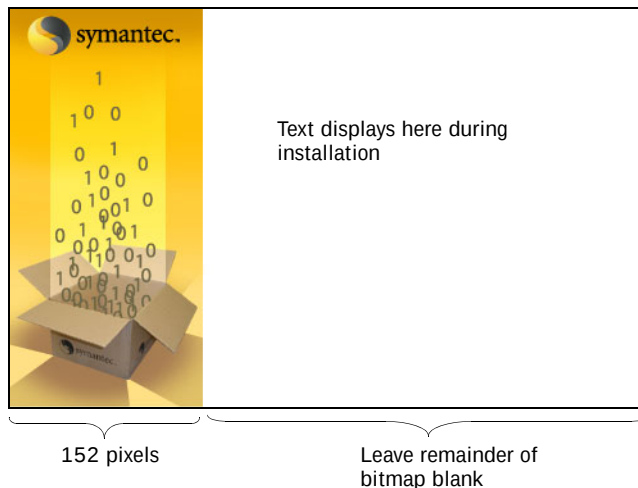
- The top and background bitmaps are limited to 256 colors.
- The top bitmap measures 500 pixels wide by 58 pixels high. However, installation text is configured to appear in the middle of the top graphic, so you should use a similar layout.

Figure 7-9 Example of a top bitmap



- The background bitmap measures 500 pixels wide by 312 pixels high. However, the graphic is limited to the first 152 pixels going from left to right. Leave the remainder of the bitmap blank so that the graphic does not obscure installation text.

Figure 7-10 Example of a background bitmap



To customize optional installation panels

- 1 In the Symantec Packager window, on the Configure Packages tab, do one of the following:
 - Create a new package definition.
 - Double-click an existing package definition to edit it.
- 2 In the Package Editor dialog box, on the Installation Options tab, double-click Display optional installation panels in interactive mode.

- 3** In the Installation Panel Options dialog box, check Display optional installation panels in interactive mode.
A preview of the Symantec Packager graphics appears in the top bitmap and background bitmap preview areas. If this option is unchecked, optional installation panels do not display during installation.
- 4** In the Package title field, type a package title.
The package title appears on the optional installation panels during package installation.
- 5** Click Include installation panel for displaying technical support information.
- 6** Click Customize.
- 7** In the Support Information window, click Use custom support information for all product installations.
- 8** Type contact information in the text boxes.
- 9** Click OK.
- 10** To replace the graphic that appears at the top of the optional installation panels, check Use custom top bitmap.
- 11** Click Browse, select the custom top bitmap, then click Open.
A preview of the graphic appears in the Installation Panel Options dialog box.
- 12** To replace the background bitmap for the optional installation panels, check Use custom background bitmap.
- 13** Click Browse, select the custom background bitmap, then click Open.
A preview of the graphic appears in the Installation Panel Options dialog box.
- 14** Click OK.
- 15** In the Package Editor dialog box, do one of the following:
 - Click OK to save your changes and close the Package Editor dialog box.
 - Click Apply to save your changes and continue configuring the package definition.
- 16** If prompted, type a file name, then click Save.

Building and testing packages

After you define the contents and installation options for a package, you must build it. This is the final step in creating the installation package. The build process uses the information from the package definition file and product configuration files to create an installation file that can be deployed to end users. As the package builds, Symantec Packager provides status information, so you can determine whether the package was built successfully.

Building packages

During the build process, Symantec Packager retrieves information from the package definition file and product configuration files to determine what products to include in the installation file as well as the product features, installation instructions, and custom settings. Symantec Packager then checks the contents of the package for product conflicts. If Symantec Packager encounters a product conflict, the build process stops. You must resolve the conflict, and then repeat the build process.

After checking for product conflicts, Symantec Packager verifies that product requirements are met. This includes verification that all required products are included in the package definition file. If Symantec Packager encounters an error, the user receives an error message; however, the build process continues.

After completing the validation process, Symantec Packager creates a self-extracting executable file and places it on the Deploy Packages tab for testing and distribution to licensed users.

See [“Deploying installation packages”](#) on page 79.

To build a package

- 1 In the Symantec Packager window, on the Configure Packages tab, select the package definition file that you want to build.
- 2 On the File menu, click Build.
The Package Build Status window appears, which provides information about the progress of the build and logs any problems that have occurred. If the package build is successful, the last line in the Package Build Status window reads: Package was built successfully.
- 3 In the Package Build Status window, click Close.

Testing packages

It is important to test packages before deploying them to end users to ensure proper functionality. Although some error checking occurs during the build process, some errors cannot be detected until installation. This is especially true if the package includes a product that requires a third-party product or if the package includes a custom command.

During installation, Symantec Packager checks for product conflicts and verifies that required products are present on the target computer. The installation fails if Symantec Packager encounters a conflict that it cannot resolve. Test packages to verify that product requirements are met and that the installation sequence is correct.

You should open each installed program to ensure that it functions correctly. Ensure that the features that you want are present. This step is especially important if you customized a product to reduce the installation footprint. Product testing ensures that you have not overlooked an important feature. Once you thoroughly test the package, you can deploy it to end users.

See [“Deploying installation packages”](#) on page 79.

Deploying installation packages

This chapter includes the following topics:

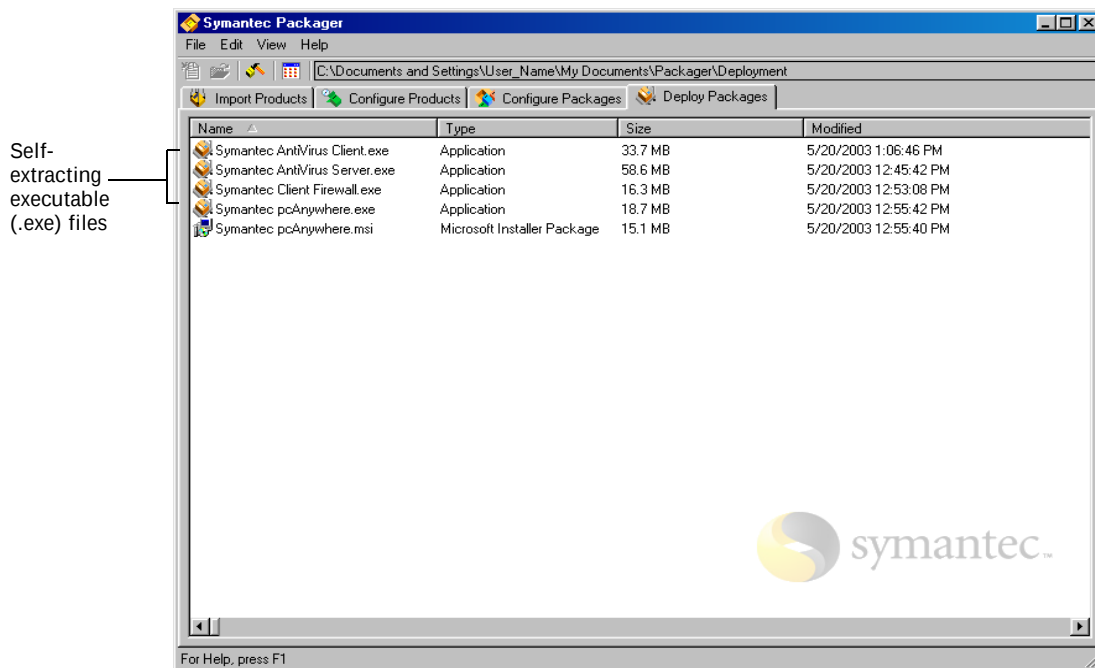
- [About deploying packages](#)
- [Installing packages on the local computer](#)
- [Using the Package Deployment Tool](#)
- [Deploying packages with other programs](#)

About deploying packages

When you are ready to deploy packages to your users, the self-extracting executable (.exe) files that you created using Symantec Packager are stored on the Deploy Packages tab.

The Deploy Packages tab lets you do the following:

- Install a package on the local computer.
See [“Installing packages on the local computer”](#) on page 81.
- Deploy one or more packages to one or more computers using the Package Deployment Tool.
The Package Deployment Tool supports deployment to Microsoft 32-bit computers only (for example Windows NT/2000/XP). To deploy to other operating systems, use another Symantec deployment tool or a third-party deployment tool.
See [“Using the Package Deployment Tool”](#) on page 82.
- Copy deployable files from the Deploy Packages tab for use with other deployment programs.
See [“Deploying packages with other programs”](#) on page 91.

Figure 8-1 Deploy Packages tab

Installing packages on the local computer

When you deploy a package locally, you open the self-extracting executable (.exe) file on the Deploy Packages tab. This installs the package on the local computer. Package installations are supported on Microsoft 32-bit systems only (for example, Windows NT/2000/XP).

Symantec Packager lists product .msi files on the Deploy Packages tab if they are supported and if you configured the Symantec Packager Preferences to show supported .msi files. Symantec Packager supports local installation of pcAnywhere .msi files only.

To install a package on the local computer

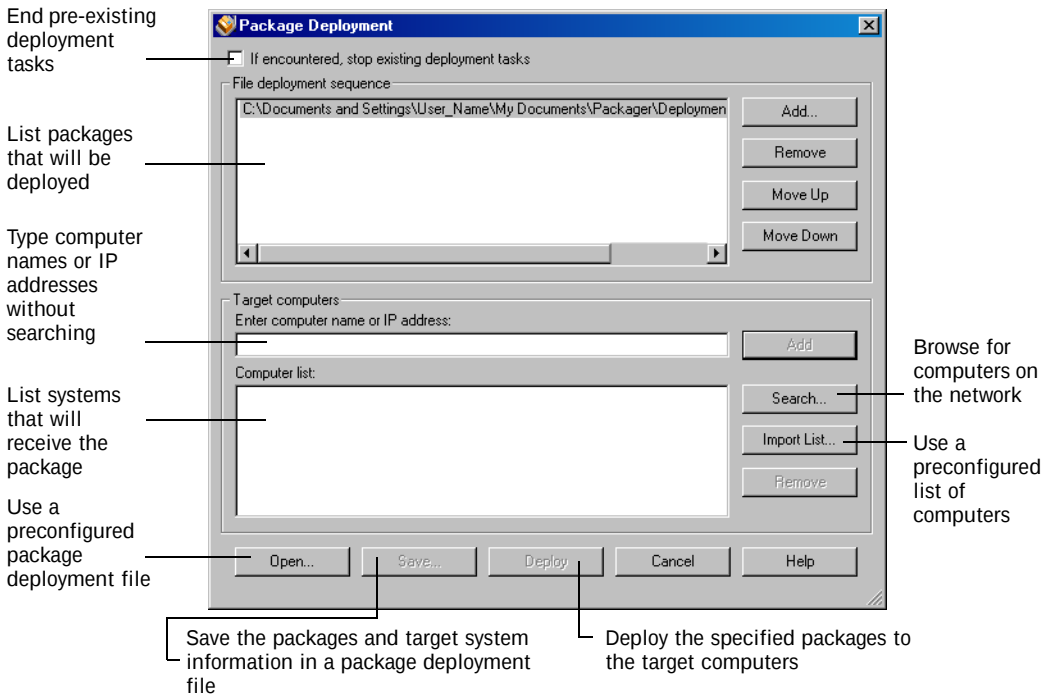
- 1 In the Symantec Packager window, on the Deploy Packages tab, select the package that you want to deploy on the local computer.
- 2 On the File menu, click Install.
The package installation begins on the local computer.

Using the Package Deployment Tool

The Package Deployment Tool makes it possible to deploy one or more packages to one or more Windows NT/2000/XP computers on your network.

You can deploy packages to multiple computers by browsing for computers from the user interface, using a preconfigured list of target computers, or using a preconfigured package deployment (.dpl) file.

Figure 8-2 Package Deployment window



The process of deploying packages through Symantec Packager involves these steps:

- Specifying the packages that you want to deploy
See [“Specifying the packages that you want to deploy”](#) on page 83.
- Selecting the target computers that will receive the package
See [“Selecting target computers”](#) on page 84.

- Entering the deployment authentication information
See [“Entering deployment authentication information”](#) on page 87.
- Viewing deployment status information
See [“Viewing deployment status information”](#) on page 88.

Package Deployment Tool requirements

The Package Deployment Tool requires the following before you test a deployment or perform an actual deployment:

- Ensure that you are in a networked environment with the target computers.
- All target computers must run Microsoft 32-bit operating systems (for example, Windows NT/2000/XP).
- You must have an administrator user name and password on the target computers, and the administrator user name and password must be the same for all target computers.

The easiest way to accomplish this is for all target computers to be in the same domain and for you to use a domain administrator user name and password.

- An administrator share must be enabled on the target computers.

See [“Entering deployment authentication information”](#) on page 87.

Specifying the packages that you want to deploy

The Package Deployment Tool lets you deploy one or more packages to one or more computers at a time.

To specify the packages that you want to deploy

- 1 In the Symantec Packager window, on the Deploy Packages tab, on the File menu, click Deploy.
- 2 In the Package Deployment window, under File deployment sequence, click Add.
- 3 Browse to the package that you want to deploy, then click Open.
- 4 Repeat steps 2 and 3 if you would like to add other packages.
- 5 Under Target computers, select the target computers that will receive the package.

See [“Selecting target computers”](#) on page 84.

Selecting target computers

The Package Deployment Tool lets you select the target computers in the following ways:

- Selecting the target computers in the user interface, either by typing the computer names or IP addresses or by browsing for computers
- Using a preconfigured list of target computers
- Using a preconfigured package deployment file

Selecting target computers in the user interface

If you know the computer names or IP addresses of the computers to which you want to deploy packages, enter the information in the Package Deployment window. You can also search across domains.

Note: All computers in your Network Neighborhood appear in the browse list regardless of their operating systems. This deployment tool supports only Microsoft 32-bit operating systems (for example, Windows NT/2000/XP). If you select a computer that has another operating system, deployment to that computer will fail.

To select target computers in the user interface

- 1 In the Package Deployment window, add the package or packages that you want to deploy.
See [“Specifying the packages that you want to deploy”](#) on page 83.
- 2 Under Target computers, do one of the following:
 - In the Enter computer name or IP address field, type the computer name or IP address of the target computer, then click Add.
 - Click Search to browse for computers, select them, then click OK.
It may take a few moments for the Select Computers dialog box to appear.
- 3 In the Package Deployment window, click Deploy.
- 4 In the Deployment Credentials dialog box, type the authentication credentials required to access the target computers.

Importing a preconfigured list of target computers

If you have a preconfigured list of target computers, you can import that list in the Package Deployment window. The preconfigured list can include either the computer names or the IP addresses of the target computers. Each computer must be listed on its own line.

To import a preconfigured list of target computers

- 1 In the Package Deployment window, add the package or packages that you want to deploy.
See [“Specifying the packages that you want to deploy”](#) on page 83.
- 2 Under Target computers, click Import List.
- 3 Browse to the preconfigured target computer list, then click Open.
- 4 In the Package Deployment window, click Deploy.
- 5 In the Deployment Credentials dialog box, type the authentication credentials required to access the target computers.

See [“Entering deployment authentication information”](#) on page 87.

Using package deployment files

Symantec Packager lets you deploy packages using a preconfigured package deployment (.dpl) file. You can create this file yourself or set it up through the Package Deployment Tool.

The package deployment file tracks the domain, computer name or IP address, the package that will be deployed and its location on the local computer, the command-line argument to execute the package installation, and the status of the deployment.

Figure 8-3 Package deployment file data

```
{  
Domain=TESTSERVER  
Machine=TESTUSER1210  
Package=PCANYWHERE.EXE  
LocalPath=C:\Documents and Settings\User_Name\My Documents\Packager\Deployment  
CommandLine="PCANYWHERE.EXE"  
Status=Not Started  
}
```

Saving a package deployment file

You can save the information in the Package Deployment window as a package deployment file at any time by clicking Save Log.

See [“Viewing deployment status information”](#) on page 88.

To save a package deployment file

- 1 In the Deployment Status dialog box, click Save Log.
- 2 Type a file name for the package deployment file, then click Save.

Importing a preconfigured package deployment file

If you preconfigure a package deployment file, you can import that file into the Package Deployment Tool. If you deploy to the same set of computers on a regular basis, you can edit the package deployment file to reflect the appropriate package file name and path instead of browsing for the computers through the user interface.

To import a preconfigured package deployment file

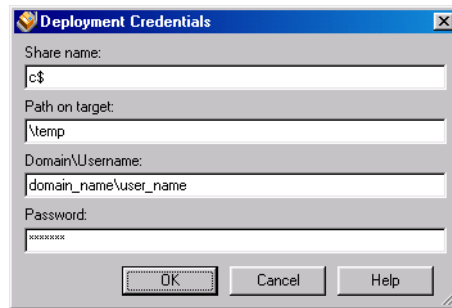
- 1 In the Package Deployment window, click Open.
- 2 Browse to the package deployment file, then click Open.
The details of the package deployment file populate the fields in the Package Deployment window.
- 3 In the Package Deployment window, click Deploy.
- 4 In the Deployment Credentials dialog box, type the authentication credentials required to access the target computers.

Entering deployment authentication information

The Package Deployment Tool requires that you authenticate to the target computer or the domain in which the target computers are located. You must have administrator rights on the target computers to deploy packages using the Package Deployment Tool.

See “[Package Deployment Tool requirements](#)” on page 83.

Figure 8-4 Deployment Credentials dialog box



To enter deployment authentication information

- 1 In the Package Deployment window, add the package or packages that you want to deploy.
- 2 Under Target computers, select the target computers that will receive the package.
- 3 In the Package Deployment window, click Deploy.
- 4 In the Deployment Credentials dialog box, in the Share name box, type the drive letter for the administrator share on the target computer.
The default share is C\$.
- 5 In the Path on target box, type a temporary location to which the deployment tool saves the package before installation.
The default folder is \\temp on the specified share.
- 6 In the Domain\\Username box, type the domain to which the target computer authenticates and the administrator user name for the target computer.
You can leave this box blank if your current credentials satisfy the authentication requirements.

- 7
- In the Password box, type the administrator password for the target computer.
You can leave this box blank if your current credentials satisfy the authentication requirements.
- 8
- Click OK.
Deployment status information displays.

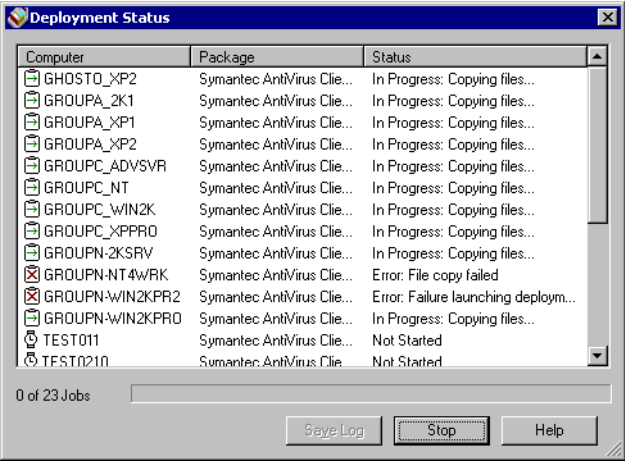
Viewing deployment status information

In the Deployment Status dialog box, the Package Deployment Tool displays the computer name, the name of the package being deployed, and the status of the deployment task.

In the Deployment Status dialog box, you can do the following:

- View the status of deployment tasks and interpret the results.
- Skip the processing of status information for a deployment task.
- Stop a deployment task.
- Save deployment status information in a log file.

Figure 8-5 Deployment Status dialog box



Interpreting deployment status information

The Package Deployment Tool displays status information as it processes deployment tasks.

[Table 8-1](#) details the status messages that the Package Deployment Tool displays.

Table 8-1 Deployment status messages

Icon	Status	Details
	Pending	The package deployment has not started.
	In Progress	The package deployment is in progress. Additional details include: ■ Authenticating ■ Copying files ■ Executing
	Error	The deployment task experienced an error. When possible, the tool displays details about the error. Additional details include: ■ Failure launching deployment mechanism ■ Authentication failure ■ File copy failed ■ Unable to install remote service ■ Unable to start remote service ■ Failure executing ■ User interrupted
	Unknown	The status of the package deployment is unknown. If you skip the status on a deployment task, the tool displays Unknown: User interrupted. This means that the status was interrupted, not the deployment task.
	Complete	The package deployment completed successfully. If a product or command in the package is configured to display a return code, the deployment tool displays that code. For more information about specific return codes, see the documentation for the product or command.

Skipping deployment tasks

The Package Deployment Tool displays status information about each deployment task as it is processed. The tool tracks the file copy to the target computer and the progress of the package installation.

By default, the Package Deployment Tool processes 10 threads at once. If a deployment task is taking a long time and you want to free up the thread so that another deployment task can start, you can skip viewing the status information without ending the task.

When you skip a deployment task, the Package Deployment Tool continues processing the task on the target computer, but stops displaying status information in the Deployment Status dialog box.

The Package Deployment Tool also lets you cancel deployment tasks.

See [“Stopping deployment tasks”](#) on page 90.

To skip a deployment task

- ◆ In the Deployment Status dialog box, right-click the deployment task that you want to skip, then click **Skip Status**.
The Package Deployment Tool updates the Deployment Status dialog box to reflect that the status of the deployment task is unknown.

Stopping deployment tasks

The Package Deployment Tool lets you configure a deployment so that it ends any preexisting deployment task that it encounters. It also lets you stop a specific task or stop all pending tasks.

Stopping preexisting deployment tasks

When you deploy packages to target computers, some deployment tasks might not process as expected. For example, if the package is set up to install in interactive mode, the deployment task stays open until a user interacts with it.

The Package Deployment Tools lets you preconfigure deployments to end preexisting deployment tasks that it encounters.

To stop preexisting deployment tasks

- 1 In the Package Deployment window, check **If encountered, stop existing deployment tasks**.
- 2 Configure the remaining deployment details, then click **Deploy**.

Stopping a specific deployment task

If a deployment task cannot continue, the Package Deployment Tool lets you stop or cancel the task. When you stop a deployment task, the task ends immediately on the target computer.

To stop a specific deployment task

- ◆ In the Deployment Status dialog box, right-click the deployment task that you want to stop, then click End Task.
The Package Deployment Tool stops the task on the target computer and displays an error in the Deployment Status dialog box.

Stopping pending deployment tasks

The Package Deployment Tool lets you stop all pending tasks before they start. All open threads continue to process until the deployment tasks are complete.

To stop pending deployment tasks

- 1 In the Deployment Status dialog box, click Stop.
The Stop button changes to a Close button when the tasks are complete.
- 2 Click Close.

Saving deployment status information

The Package Deployment Tool lets you save the deployment log as a package deployment (.dpl) file. You can edit the package deployment file to remove the successful deployments and import the file to redeploy packages.

See [“Using package deployment files”](#) on page 85.

To save deployment status information

- 1 In the Deployment Status dialog box, click Save Log.
- 2 Type a file name for the log, then click Save.

Deploying packages with other programs

The Deploy Packages tab displays the packages created with Symantec Packager. These files are self-extracting executable (.exe) files that can be deployed through Symantec Packager or other deployment tools that support deploying .exe files.

Symantec Packager lists product .msi files on the Deploy Packages tab if they are supported and if you configured the Symantec Packager Preferences to show

supported .msi files. Only Symantec pcAnywhere .msi files are supported for deployment.

You can use the Web-based Deployment Tool that is supplied by Symantec or an industry-standard, third-party deployment tool to deploy the pcAnywhere .msi file. The Symantec Packager Deployment Tool does not support deployment of .msi files.

For explicit deployment instructions, see the documentation for your deployment tool.

Glossary

command configuration (.pcg) file	A file that tracks the details of a custom command. It is the same as a product configuration file except that it does not reference a product template. See also product configuration (.pcg) file , product template (.pdt) file .
deployment	The process of installing packages on target computers.
installation package	See package .
installed size	The estimated disk footprint of an installed package. See also packaged size .
interactive installation	An installation that prompts for input from the user by displaying options in installation panels. See also passive installation , silent installation .
Microsoft Software Installer (.msi) file	A file that you install using Windows Installer. See also Windows Installer .
package	An installation file that contains one or more Symantec products or custom commands.
package definition (.pkg) file	A file that tracks the contents of an installation package. The package definition file references product configuration files and command configuration files. See also command configuration (.pcg) file , product configuration (.pcg) file .
package deployment (.dpl) file	A file that can be imported into the Package Deployment Tool to assist in package deployment. The file details the domain, computer name or IP address, the package to be deployed and its location on the local computer, the command-line argument to execute the package installation, and the status of the deployment.
packaged size	The estimated file size of a deployable package. See also installed size .
passive installation	An installation that displays only status messages. See also interactive installation , silent installation .
product configuration (.pcg) file	A file that details the features and components of a customized product. The product configuration file references the product template. See also product template (.pdt) file .
product module (.pmi) file	A file that contains all of the files required to customize a Symantec product installation. When you import a product module, Symantec Packager extracts the product template and creates a default product configuration file and package definition file based on that product. See also, package definition (.pkg) file , product configuration (.pcg) file , product template (.pdt) file .

product template (.pdt) file	A file that dictates the selectable features, components, and installation options for a Symantec product that is supported by Symantec Packager. See also product configuration (.pcg) file .
silent installation	An installation in which the user sees no indication that the installation is occurring. The user is not prompted to enter any information and the user does not see status messages. See also interactive installation , passive installation .
switch	A command, that when applied to a command-line argument or executable, changes the behavior of the command-line argument or executable.
Windows Installer	A program that processes Microsoft Software Installer (.msi) files. See also Microsoft Software Installer (.msi) file .
package definition (.pkg) file	A file that tracks the contents of an installation package. The package definition file references product configuration files and command configuration files. See also command configuration (.pcg) file , product configuration (.pcg) file .

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