Radia Extensions for Windows Installer

Radia Extensions for Windows Installer Guide

Software Version: 4.0 for the Windows operating system



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- Downloadable documentation
- Troubleshooting information
- Patches and updates
- Problem reporting
- Training information
- Support program information

Preface

About this Guide

Who this Guide is for

The Radia Extensions for Windows Installer assists everyone in your organization responsible for packaging Windows-based applications, as well as testing, integrating, deploying, troubleshooting, and managing them.

Administrators or others responsible for application integration testing greatly benefit from the Windows Installer Packaging features as well as the Install Analysis and Profile State Analysis features. End users and business units that rely on rapid application turnaround and deployment benefit by the shortened time to deployment, eliminating the time it takes to resolve conflicts between applications that are frequently the bottlenecks to deployment. These conflicts are easily isolated and resolved using the Radia Extensions for Windows Installer in conjunction with the Radia Knowledge Base Manager and Radia Configuration Analyzer.

What this Guide is about

The *Radia Extensions for Windows Installer Guide* contains step by step instructions for each Radia Extensions for Windows Installer component, including how to:

- create, install, upgrade, and manage a package using the Radia Packager for Windows Installer
- use the optional wizards, including the State Wizard, the Library Wizard, the Package Wizard, and the Install Wizard
- create and use filters
- use the Advanced Options of the Package Wizard
- create a Merge Module

I-Lab and Radia Extensions for Windows Installer Publications

Radia Extensions I-Lab users should use the Radia Extensions for Windows Installer publications for any Windows Installer packaging information they may require. Please note, however, that this document contains information for the Radia Extensions for Windows Installer, which licenses more functionality than the Radia Extensions I-Lab. The following Radia Extensions for Windows Installer features covered in this document are only licensed in the Radia Extensions I-Lab product for testing purposes within a laboratory environment:

- Advanced Features
- Application Insulation
- Application Insight

Summary of Changes

This printing of the *Radia Extensions for Windows Installer Guide* contains the following changes to product names, information, and procedures for the following chapters.

Product Name Changes

■ The Radia Advanced Publisher is now called the **Radia Packager for Windows Installer**, to reflect its main packaging function.

Note	
See the <i>Radia Publisher Guide</i> for details on the new Radia component used to publish Windows Installer based applications to the Radia Database.	

- The Radia Application Analyzer is now called the **Radia Configuration Analyzer**. See the *Radia Configuration Analyzer Guide* for installation and usage information.
- The Radia Application Knowledge Base (AKB) is now called the **Radia Knowledge Base** of the **Radia Knowledge Base Manager**. See the *Radia Knowledge Base Manager Guide* for installation and usage information.

Chapter 1: Introduction

- **4.0** Page 19, *About Packaging and Publishing with Radia*: new topic summarizing new or renamed products for packaging and publishing in Radia 4.0.
- **4.0** Page 21, *Starting Radia Packager for Windows Installer*: new topic explains how to start the product from the desktop icon or program group, and shows the new initial menu.
- **4.0** Page 21, *About the Unified Package Creation Process*: new topic discusses when to use the Typical option on the initial menu of the Radia Packager for windows Installer.
- **4.0** Page 22, *About the Custom Session Options*: new topic discusses when to use the Custom options from the initial menu of the Radia Packager for windows Installer.
- **4.0** Page 24, *About the Radia Packager for Windows Installer Process Menu*: new topic explains how to access the process-based Radia Packager for WI Menu.

Chapter 2: Creating a Package

4.0 Page 25, *Publishing a Package to Radia*: new topic refers users to the Radia Publisher as the tool needed to promote Windows Installer packages to the Radia Database. See the *Radia Publisher Guide*.

Page 28, *Creating a Package Using the Typical Session Option*: new topic and procedure to create a package. Creates a package in a single, streamlined session.

Chapter 3: Managing an Installation Package and Transforms

4.0

4.0

Chapter title was renamed from "Installing a Package" to "Managing an Installation Package and Transforms" to reflect the changed role of the Radia Install Wizard in relation to the new Radia Publisher.

Page 49, *Managing an Installation Package and Transforms*: deleted references to Radia Bundles and Package Signing Certificates. The Manage Radia Bundles and Manage Package Signing Certificate actions were removed from the Install Wizard due to diminished demand.

4.0 Page 50, *Radia Install Wizard*: deleted references to Radia Bundles and Package Signing Certificates. The Manage Radia Bundles and Manage Package Signing Certificate actions were removed from the Install Wizard due to diminished demand.

4.0 Page 75, deleted previous topics related to *Bundling* and *Package Signing*. These actions have been dropped from the Install Wizard.

Relocation Note

The Using the Radia Application Analyzer chapter has been relocated. See the Using the Radia Configuration Analyzer chapter in the Radia Configuration Analyzer Guide.

Chapter 4: Upgrading a Package

4.0

Page 78, *Packaging a New Release*: revised procedure to show access from the **Package components** option of the Radia Packager for Windows Installer.



^{4.0}

4.0 Page 88, *Packaging a New Build with a Patch Package*: revised procedure to show access from the **Package components** option of the Radia Packager for Windows Installer.

Chapter 5: Using Advanced Functions

Page 100, Using Radia State Wizard Advanced Functions: added text: 4.0 "To access these functions from the Radia Packager for Windows Installer, select the Custom option Identify resources to package." Modified all procedures in this topic to include new access to the Radia State Wizard from the Radia Packager for Windows Installer selection Identify resources to package. Page 117, Using Radia Library Wizard Advanced Functions: added text: 4.0 "To access these library functions from the Radia Packager for Windows Installer, select the Custom option Refine selected components." Modified all procedures in this topic to include new access to the Radia Library Wizard from the Radia Packager for Windows Installer selection Refine selected components. 4.0 Page 123, Figure 5.27 ~ Radia Library Wizard - Add Replacement Variable: updated to show Radia variables are now a supported replacement variable type. Page 167, Using Radia Package Wizard Advanced Functions: added text: 4.0 "To access these functions from the Radia Packager for Windows Explorer, select the custom option Package components." Modified all procedures in this topic to include new access to the Radia Package Wizard

Appendix A: About the Radia Packager for Windows Installer Settings

4.0 Page 227, *Appendix A: Radia Packager for Windows Installer Settings*: revised all figures to shown new product name. Added text:

from the Radia Packager for Windows Installer selection Package components.

"To access the configurable settings, select any **Custom** action from the Radia Packager for Windows Installer and click the **Settings** button located on the next dialog."

4.0 Page 232, *Paths (3) Tab*: the Bundling Path text box was removed from this Settings tab. Bundling is no longer supported.

Appendix B: Radia Package Wizard Advanced Options

4.0

Page 247, Appendix B: Radia Package Wizard Advanced Options, added text:

"The Radia Packager Wizard includes an **Advanced Options** menu that gives you easy access to the common settings and various types of information placed in your Windows Installer packages, as shown in Figure B.1 on page 248.

These same settings are also available from the **Windows Installer Options** dialog of the Radia Packager for Windows Installer, as shown Figure B.2 on page 248; this dialog is presented at the end of a Unified packaging session.

The only difference between the Advanced Options menu and the Windows Installer Options dialog is the grouping of the options. "

 Page 248: Appendix B: Radia Packager Wizard Advanced Options, added Figure B.2 ~ Radia Packager for Windows Installer, Windows Installer Options and Table B.1 Windows Installer Options, by Tab Location.

Editorial Improvements

In addition to the changes listed above, this version contains various editorial, organizational, and style updates to each chapter and section and the index.



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Introduction

At the end of this chapter, you will:

- Understand the tools used to package and publish applications with Radia.
- Understand the components of the Radia Extensions for Windows Installer.
- Understand the flow of building packages with the Radia Packager for Windows Installer.
- Be able to start the Radia Packager for Windows Installer and select the appropriate Typical and Custom option according to your packaging needs.
- Be aware of the alternate Radia Packager for Windows Installer Process menu.



The Radia Extensions for Windows Installer Components

The Radia Extensions for Windows Installer is comprised of many different components that you can use to create a Windows Installer package.

Radia Packager for Windows Installer

Radia Packager for Windows Installer is a suite of components that give you the tools to easily create, modify, customize, and manage Windows Installer Packages. The components installed with this product are listed below.

• Radia Packager for Windows Installer Icon, Menus, and Help

The Radia Packager for WI icon opens a quick-start menu with Typical and Custom packaging session options. The Typical option from this menu takes you to a streamlined packaging session, the Custom options take you to the appropriate State, Library or Package Wizard, based on your selection.

An alternative, process-based packaging menu is also available. To access it, select **Radia Packager for WI Menu** from the Radia Packager for Windows Installer program group.

• Radia State Wizard

Create and modify state files. Accessed from the Radia Packager for Windows Installer Custom option **Identify resources to package.**

• Radia Library Wizard

Create and modify library files. Accessed from the Radia Packager for Windows Installer Custom option **Refine selected components**.

• Radia Package Wizard

Build and modify the Windows Installer packages. Accessed from the Radia Packager for Windows Installer Custom option **Package Components.**

• Radia Install Wizard

Manage your installation packages and transforms. Accessed from the Radia Packager for Windows Installer program group.

• Radia Insulation Wizard

Use application specific resources that are isolated from other applications. Accessed from the Radia Packager for Windows Installer program group.

• Radia Merge Module Wizard

Create, modify, view, and delete merge module components (in Windows Installer .MSM format) and Merge Module Groups. Accessed from the Radia Packager for Windows Installer program group.

• Radia MSI Editor – Radia MSIEdit

Allows you direct access to the Windows Installer database tables through an easy to use interface. Accessed from the Radia Packager for Windows Installer program group.

 Radia Extensions for Windows Installer Client Components – Radia Extensions for Windows Installer requires particular components be installed on the client computer if you are going to use certain features. The client components consist of:



• Radia Advanced Features (AFSetup.exe/AFSetup.ini) – The component enables Radia Machine/User support, as well as the use of the advanced permissions available when creating Windows Installer packages.



- Radia Packager for Windows Installer Client (APSetup.exe/APSetup.ini) Enables application tracing and profiling when the Radia Packager for Windows Installer is being accessed remotely.
- **Radia Application Insight** (AISetup.exe/AISetup.ini) In a lab environment, this component monitors installed applications and assists with the troubleshooting process.

About Packaging and Publishing with Radia

Packaging is the process of identifying resources, editing those resource's installation attributes, defining how they are to be installed, and saving the resources and installation instructions in a machine-readable file format. A package typically contains one or more files and configuration settings.

Publishing is the process of importing a package and its imbedded information to the Radia Database (AKA the Radia Configuration Server Database). A package must be published before its content can be distributed and deployed into your environment.

Radia offers many different packaging and publishing options through multiple tools. Make note of the different types of resource packages you will create and publish, then choose your Radia packaging and publishing products as required.

- If you're **packaging** Windows Installer files, use this guide.
- If you're publishing Windows Installer files, use the Radia Publisher. (See the Radia Publisher Guide).
- To **package** and **publish** all other types of files and applications, use the **Radia Packager**. (See the *Radia Application Manager Guide* or the *Radia Software Manager Guide*).





Figure 1.1 ~ Radia Packaging/Publishing options.

The Radia Extensions for Windows Installer Getting Started Guide

This guide contains specific information regarding the installation and use of each tool available with the Radia Extensions for Windows Installer.



Starting Radia Packager for Windows Installer

Start Radia Packager for Windows Installer from the **Radia Packager for WI** desktop icon or by selecting **Radia Packager for WI** from the Radia Packager for Windows Installer program group.

This opens the Radia Packager for Windows Installer quick-start menu shown in Figure 1.2.



Figure 1.2 ~ Radia Packager for Windows Installer, Initial Menu.

The Radia Packager for Windows Installer provides Typical and Custom options for the package creation process.

About the Unified Package Creation Process

To build a package in a single, streamlined session, select the **Unified package creation process**. This mode supports both Installation Analysis and Resources Selection Methods.

To use the Installation Analysis Method:

Start by scanning the current system, install the application, and continue with a post-install after you install an application.

OR

Start with a saved system state (such as a baseline state) and compare it to the current state with the application currently installed.



■ To use the Resource Selection Method:

Start by selecting each resource to be included in the package.

Regardless of which method is used, the unified package creation process first produces a **State** file of the resources needed by the application, as shown in Figure 1.3. From this State file, the unified package creation process builds a **Library** file, and then uses the Library to create the **Windows Installer Package** for the application. The *system state* file contains resource pointers and detailed information about the resources; the *library* contains the actual binary files in addition to this information.



After setting up the appropriate filters and your template MSI (both of which are detailed in later chapters in this *Radia Extensions for Windows Installer Guide*), your packaging process may not differ much from the steps outlined in this chapter when creating a new package.

About the Custom Session Options

Use the **Custom** session options of the Radia Packager for Windows Installer to create or modify state files, library files, or package files. The custom options allow access to the settings and advanced features of Radia Packager for Windows Installer discussed in the remaining chapters of this guide.





Figure 1.4 ~ Radia Packager for Windows Installer, Custom options.

Each Custom option is described below:

- Select Identify resources to package to access the Radia State Wizard, which is used to create, combine, or manage state files. For example, use the Radia State Wizard to create a baseline machine state or change a state file description. See Using Radia State Wizard Advanced Functions on page 100 for more information.
- Select Refine selected components to access the Radia Library Wizard, which is used to create or modify library files. Many important packaging and management application functions are performed within libraries. For example, use the Radia Library Wizard to modify the target path of an installation, make file or variable substitutions, apply permissions, or compress or decompress the library files. See Using Radia Library Wizard Advanced Functions on page 117 for more information.
- Select Package components to access the Radia Package Wizard, which is used to create, modify, or upgrade packages, as well as apply Advanced Options available for Windows Installer packages.
 - See the chapter *Upgrading a Package* on page 77 for information on how to to package a new release or package a new build from a patch package.
 - See the topic *Using Radia Package Wizard Advanced Functions* on page 167 for information on rebuilding a package, upgrading multiple products, editing a package template, or setting any of the Advanced Options available for Windows Installer packages.

About the Radia Packager for Windows Installer Process Menu

Radia Packager for Windows Installer includes an alternate process-based menu, shown in Figure 1.5 below. Use the icons and buttons on this process menu to access any components of the Radia Packager for Windows Installer, as well as the Radia Configuration Analyzer, if installed.

To access this menu, select **Radia Packager for WI Menu** from the Radia Packager for Windows Installer program group.

To obtain more information on how to use this menu, click the **Help** button to access online help.



Figure 1.5 ~ Radia Packager for Windows Installer Menu with Packaging Process Flow.

To access this menu, select **Radia Packager for WI Menu** from the Radia Packager for Windows Installer program group.



Publishing a Package to Radia

After building and testing a package, use the Radia Publisher to promote your Windows Installer packages into the Radia Database. The Radia Publisher is one of the tools installed with the Radia Administrator Workstation. See the *Radia Publisher Guide* for more information.

Summary

- The Radia Extensions for Windows Installer is comprised of many components.
- Most components are part of the Radia Packager for Windows Installer.
- Additional Client Components are installed separately.
- Typical and Custom packaging sessions can be selected from the initial Radia Packager for Windows Installer menu.
- An alternate, processed based menu is also available for quick access to individual components of the Radia Packager for Windows Installer and the Radia Configuration Analyzer, if installed.



Creating a Package

At the end of this chapter, you will:

- Create a Windows Installer Package using the unified package creation process. This Typical option creates a package in a single, streamlined packaging session.
- Be able to use the Radia Packager to:
 - Apply filters to a state file or package.
 - Modify Library Installation Settings.
 - Apply Advanced Options to the Package.
- Know about the features available through the Custom options of the Radia Packager menu.

Creating a Package Using the Typical Session Option

The best way to become acquainted with the Radia Extensions for Windows Installer is to build your own Windows Installer package. This topic takes you through the steps using the Radia Packager for Windows Installer in a streamlined session.

Use the **Typical—Unified package creation process** of the Radia Packager for Windows Installer to create a package in a single, unified packaging session. This option requires minimal interaction.

Note

To complete the example below, an application must be installed after the initial scan by the Radia Packager for Windows Installer is complete. For this example, we will install the **ORCA** tool, available from Microsoft, at www.microsoft.com. ORCA is a database table editor for creating and editing Windows Installer packages and merge modules.

To create a package using the Typical Session option

1. Double-click the Radia Packager for WI shortcut on your desktop

OR

Go to **Start**, Programs, **Radia Packager for Windows Installer**, and select **Radia Packager for WI**.



Figure 2.1 ~ Radia Packager for Windows Installer, desktop shortcut.

The Radia Packager for Windows Installer menu opens.





2. Select Unified package creation process under the Typical option. The Select the Package Creation Method dialog box opens.

Radia Packager for Wir	ndows Installer	×
Radia ® Packager for Windows Installer	 Select the Package Creation Method Installation Analysis Use Current System State Application not currently installed Use Saved System State Application currently installed Resource Selection Include related shortcuts Include related COM and Shell registry keys 	
	Package Name Install Analysis of Orca	
	Back Next > Cancel Help	

Figure 2.3 ~ Radia Packager for Windows Installer – Select the Package Creation Method.

3. Select **Installation Analysis** and **Use Current System State** to begin creating a package with a scan of the machine's resources before you install a program. For this exercise, we are going to install the ORCA tool, available at www.microsoft.com.

About the Package Creation Methods

When you select an **Installation Analysis using Current System State Files**, the Radia Packager for WI performs the same functions as the Radia State Wizard to create a before installation state file of the machine. The before state file represents the state of the machine before installing the application. It will be compared to the state of the machine after you install an application to create the package for the application.

Select **Installation Analysis**, **Use Saved System State** to have the Radia Packager for WI compare current state of the machine with the application installed to a previously saved baseline state of the machine. The analysis of the differences between the current and baseline states will be used to create the application package.

Select Resource Selection to create a package from a set of known resources.

4. Enter a Package Name, such as Install Analysis of ORCA.



Note

This package name will also be applied to the state and library files created during the packaging process.

5. Click Next.

The Select the Scope of Analysis dialog box opens.

Resource Filter Files Registry	Filter Select Include Exclude Save Reset Network

Figure 2.4 ~ Radia Packager for Windows Installer – Select the Scope of Analysis.

6. Use the Resource Filter tree to select the files and registry information to include in your scan. For the purpose of this exercise, select the C drive only. Clear the check boxes for all other selected drives, as shown in Figure 2.5.

Radia Packager for Windows Installer	×
Select the Scope of Analysis	
	Filter
🕀 🐨 🗃 Local Disk (C:)	Select
⊕□ ➡ Compact Disc (D:) ⊕□ ➡ Public on 'Novahome' (E:)	Include
	Exclude
⊕ □ 🛫 Scratch on 'Novascratch' (G:) □	Save
	Reset
	Network
< Back Next > Cancel	Help

Figure 2.5 ~ Filtering Files for Radia Packager for Windows Installer – Select the Scope of Analysis.

Note

Do not *over-filter* the initial scan. You may not realize that an application places files in various directories, and if you filter that directory out, the changes will not be reflected in the final package.

If necessary, additional filtering can be applied after you run a Typical packaging session. Use the Custom menu option: **Refine selected components** to apply additional filtering to the captured State files, create a new Library, and then "repackage" the Library. For more information, see the *Filtering* chapter on page 203.

Tips

- Press **F10** on your keyboard to maximize the dialog box for easier filtering of paths, files, and registry entries. To return to the initial size, press **F10** again, or close the dialog box.
- Click the Save button to save this filter selection. You can select and apply any saved filters in later packaging sessions.

7. Click Next.

The **Installation Analysis in Progress** dialog box opens and performs the initial scan of the machine.

	Installation Analy	sis in Progress		
File Status				
C:\AIP\IE5\EN\A	ADVAUTH.CAB			
Path Count:	4	File Count:	5	Start
Registry Status-				Stop
HKCU\Software\	\description			
Key Count:	902	Value Count:	3577	

Figure 2.6 ~ Radia Packager for Windows Installer – Installation Analysis in Progress.

Note
Click Stop to halt the scan. This allows you to use Back and revise the scan filter, or use Start to restart the scan.
Click Cancel only if you want to end your current Radia Packager session altogether.

8. When the scan is finished, the **Current System State Saved** dialog box opens. This dialog box indicates it's time to install the application.



Figure 2.7 ~ Radia Packager for Windows Installer – Current System State Saved, Time to Install Application.

Important Note Remember to install a sample application at this point.

9. Click Finish.

While the Radia Packager waits for you to install the application, a Radia Packager for Windows Installer icon is added to the Windows System Tray.



Figure 2.8 ~ Icon in Windows System Tray to Restart Radia Packager Installation Monitor.

10. Install the application to be packaged. For this exercise, we are using ORCA, available at www.microsoft.com.



About the After and Delta State Files

After you install the application, the Radia Packager runs a post-installation scan to create **after** and **delta** state files. This phase of the installation analysis obtains a full and accurate view of the resources required and used by the application.

- **11.** After you install the application, double-click the **1** icon in the system tray to restart the packaging session.
 - A Radia Packager dialog box asks if the installation finished successfully.

	Radia Packager Installation Monitor
	Did the installation finish successfully?
	Yes No
Figure 2.9 ~ Radia Pack	kager prompt after double-clicking the system tray icon.

12. If the installation finished successfully, click **Yes** to confirm and begin the post-install analysis of the system state files.

Note
If the installation did not finish successfully, click No when prompted. Selecting No restores the Radia Packager for WI icon to the system tray so you can finish the installation.

The Radia Packager continues with a post-installation scan of the machine. It will also perform a *Combination Analysis* of the scans captured before and after the application was installed.

Figure $2.10 \sim \text{Radia Packager}$ for Windows Installer – (After) Installation Analysis in Progress, below, shows File Status of "Combination Analysis Complete", but the analysis of the registry keys is still in progress.

File Status				
Combination Analy	vsis Complete			
Path Count:	8	File Count:	10	Start
Registry Status				Chan
HKLM\Software\.	\{AFED5DD0-	0694-11D4-A934-001	05A088F	Stop
Key Count:	27	Value Count:	14	

Figure 2.10 ~ Radia Packager for Windows Installer – (After) Installation Analysis in Progress.

When the scans and analyses are complete, the Radia Packager for Windows Installer **Select the Paths, Files and Registry Entries to Include** dialog box opens.

The Radia Packager is ready to create a library from the state file. The system state file contains resource pointers and detailed information about the resources; the library contains the actual binary files in addition to this information.


Radia Packager for Windows Installer	×
Select the Paths, Files and Registry Entries to Include	
Library Filter	Filter
	Select
🗄 – 🐷 🏘 Registry	
	Include
🚊 🖉 🔄 SOFTWARE	Exclude
🚊 🗹 🔁 Classes 👘 🗖	
🕂 🗹 🦲 .msi	Save
🕂 🖓 🔁 .msm	
🗄 🖓 🔁 CLSID	Reset
🕂 🖓 🔁 Installer	
<back next=""> Cancel</back>	Help

Figure 2.11 ~ Radia Packager for Windows Installer – Select the Library Filter Paths, Files and Registry Entries to Include.

13. Use this dialog box to filter items from the library before creating the package. To help determine what items to filter, the directories, files, and registry keys are denoted as added, changed, or removed.

Note

If necessary, additional filtering can be applied after you run a Typical packaging session. Use the Custom menu options: **Refine selected components** and **Package Components** to apply additional filtering to the Library resources. For more information, see the *Filtering* chapter on page 203.

14. Click Next.

The Radia Packager performs a quick analysis of the files to include in the library. The **Modify Library Installation Settings** dialog box opens.

Creating a Package

Radia Packager for Windows Installer	×
Modify Library Installation Settings	
Install Analysis of Orca □	
	[
< Back Next > Cancel Help	

Figure 2.12 ~ Radia Packager for Windows Installer – Modify Library Installation Settings.

When packaging your own applications, use this dialog box to modify the Library Installation Settings. This is a very important and powerful dialog box. The information set here determines properties for individual files, directories, and registry settings upon installation from a Windows Installer package created with the Radia Packager or Radia Extensions for Windows Installer. You can also add and remove resources from the library here.

To obtain the menu of library modifications available, select a resource, then click right. Figure 2.13 shows a sample File resource menu.



Radia Package	er for Windows Installer		×
	Modify Library Insta	llation Settings	
Install /	Analysis of Orca		
□ □ ☆ Re □ ☆ Re □ ★	Directory List File List Module File List Ini File List Shortcut List Text File List		
	Ini File Section List Ini File Entry List Ini File Data List Changed Ini File Data List		
	Add Directory Add File	Cancel Help	
	Permissions Substitutions		

Figure 2.13 ~ Radia Packager for Windows Installer – Sample Modify Library Installation Settings menu for Files.

Click the online **Help** button for more information.

OR

See Using Radia Library Wizard Advanced Functions on page 117 for more information.

15. Click Next.

The **Library File Copy in Progress** dialog box opens while all files and registry settings are copied into the library.

After the Library file is saved, the Radia Packager is ready to package the library. The next dialog asks you to **Select the Packaging Option**.

About Radia Packages for MSI Applications

The Radia Packager for Windows Installer creates a Windows Installer Package (MSI) that contains the information and files necessary to install an application. The MSI package maintains installation information in a relational database. Actual binary files are stored compressed within the package itself or in an external .cab file.

Radia Packago	er for Windows Installer	
	Select the Package Creation Mode	
	• Add to a New Product	
	 Add to an Existing Product Add a New Build Add a New Release Add a New Version 	
	< Back Next > Cancel Help	

Figure 2.14 ~ Radia Packager for Windows Installer – Select the Packaging Option.

16. Select Add to a New Product, and then click Next.

The **Enter the Product Name, Version, Release and Build Numbers** dialog box opens. Use the information in this dialog box to track the name and version of Acrobat Reader that this package installs, while also removing older versions of the application when installing new releases.

- 1	2
-4	U

Radia Packager	for Windows Installer	×
Ent	er the Product Name, Version, Release and Build Numbers	
Name:	Orca	
Version:	1	
Release:	0	
Build:	0	
	< Back Next > Cancel Help	

Figure 2.15 ~ Radia Packager for Windows Installer – Select the Product Name, Version, Release and Build Numbers.

17. In the Name text box, type a unique name for the product, such as ORCA.



- **18.** Type the version in the **Version** text box.
- **19.** Type the release number in the **Release** text box.
- **20.** Type the build number in the **Build** text box.

Note

You can easily track the version of third party applications by filling in their version information as the release and build numbers of your repackaged application. For example, Acrobat 6.0 becomes 1.6.0. When you create the upgrade Package to Acrobat Reader 7.0, the new Package will be 1.7.0.

21. Click Next.

22. The **Windows Installer Options** dialog box opens. When creating your own packages, use this dialog box to modify the many information and installation settings embedded in your Windows Installer package. The tabs on this dialog allow you to access the same Windows Installer Options that are available from the Radia Packager Wizard Advanced Options dialog. See *Appendix B: Radia Package Wizard Advanced Options* starting on page 247 for more information.

		-
	Windows Installer Options	
Prerequisites Insta	allation Execution Information Extended	
	Hardware Requirements	
	Platform Requirements	
	Software Bequirments	
	<back next=""> Cancel</back>	Help

Figure 2.16 ~ Radia Packager for Windows Installer – Windows Installer Options.

23. Click Next.

The Radia Packager performs a quick analysis of the files to include in the package.

40	
27	1

	Package Crea	ation in Prog	iress	
Package Creat	ion Status			
Package Creati	on Complete			Start
				 Stop

Figure 2.17 ~ Radia Packager for Windows Installer – Package Creation in Progress.

Note

If there are any issues with the package, the **Package Creation Exceptions** dialog box opens. Review any exceptions and click **Next** to continue

The **Package creation is complete** dialog box opens.

Radia ® Packager for Windows Installer	The Package creation is complete. Select Finish to save the new Package files. Orca\WinNT\1.0.0	
	: Back Finish Cancel Help	

Figure 2.18 ~ Radia Packager for Windows Installer – Package creation is complete.

24. Click Finish to complete the packaging session.

Viewing the Product

Now that you have created your first package, you should understand the files that are created when you build your package, and how these files are organized. The package is located in a subdirectory of the **product** directory defined in the default settings.

To see how products, packages, and files are organized

- 1. Open Windows Explorer.
- 2. Navigate to the **Product Path** defined in the Radia Extensions for Windows Installer Settings, Paths(1) tab. By default, this location is *SystemDrive*:\Program Files\Novadigm\AdvPub\Product.
- **3.** In the Product directory, open the directory with the name of your product. In this directory, you will find a folder based on the operating system (Win9x or WinNT, both if you have created a package for each operating system) and a state file, Product.ISState. This state file contains general information for creating update packages for any operating system.

4	4



- 4. Open the WinNT or Win9x folder.
- **5.** Open the folder named with your versioning information, such as **1.0.0**. This folder contains another state file used to update packages for the specific operating system. This folder will contain multiple versions of an application as you upgrade to new releases and apply bug fixes to your packages.



Figure 2.19 ~ Product folder.

The folder named with version information contains five files:

- Package.Cab
 - The binary files installed by the Windows Installer package in compressed form.
- Package.ISState

A state file that contains detailed information on the files that are installed with your package. This file can be imported into the Radia Application Knowledge Base for historical reference and comparison with other applications.

• Package.Msi

The Windows Installer database.

• **Setup.Exe** An executable file that calls MSIEXEC to install the package for you.



• Setup.Ini

The information and parameters used by Setup.Exe to install the package. You can modify this file to perform different tasks.

To view the MSI package after the Radia Packager Session

To view the packaged application, you can run the **Radia MSIEdit** program available from the Radia Extensions for Windows Installer program group.

 Go to Start, Programs, Radia Packager for Widows Installer, and select MSIedit. The MSIedit window opens.





2. Use the **File Open** menu command to open the Package.msi file for the package just created in your Typical packaging session.

The *.msi package will be located in the **Product\<package** name>\<platform>\<version> folder of where Radia Extensions for Windows Installer was installed. By default, this is:

C:\Program Files\Novadigm\AdvPub\Product\ <Package Name> \<Platform>\<Version>



For example, the ORCA.msi package created in the previous session will be found in the ProductORCAWinNT1.0.0 folder of the installation directory of Radia Extensions for Windows Installer.

Package.Msi - MSIedit		
Package.Msi		Product Summary
	Title:	Installation Database
	Author:	Hewlett-Packard
	Subject:	ORCA
	Comments:	ORCA
	Keywords:	Installer, Radia Packager
	Platform:	Intel
	Languages:	1033
	Product ID:	{D217086E-01CF-4A1B-B97E-92F739527503}
	Schema:	0110
	Security:	read only recommended
	Source Filename (length):	long
	Source Filename (compressed):	yes 💌
	Source Filename (Admin Image):	no 💌
	4	
r Ready	<u></u>	NUM

Figure 2.21 ~ Radia MSIEdit window.

3. Use **MSIedit** to view or modify the MSI file configurations and settings for the package you just created.



4. Exit the MSIedit session.

	-
4	1
	-

Summary

- The Radia Packager for Windows Installer streamlines the process of creating a Windows Installer package.
- The **Unified package creation process** creates a Windows Installer Package in a single, streamlined session.
- Select **Installation Analysis** to create a package from the resources identified by comparing scans before and after the installation of an application.
- After the initial scan, the Radia Packager for Windows Installer prompts you to run the install for the application to be packaged, places an icon in the system tray, and then resumes execution to complete the Post-Installation Analysis.
- Following the before and after installation scans, the Radia Packager for Windows Installer creates a library from the installation analysis state file. You can modify the library settings to adjust resource properties and the library contents before the package is built.
- After modifying the library settings, the Radia Packager for Windows Installer creates a Microsoft Windows Installer package from the library. Use the Advanced Options dialog box of the Radia Package Wizard to modify the common settings and information placed into your Windows Installer Packages.
- Finally, you have the options to validate and view the finished package after the package is built.



Managing an Installation Package and Transforms

At the end of this chapter, you will:

- Be able to manage the packages created by the Radia Packager for Windows Installer.
- Be able to copy packages to alternate distribution points.
- Be able to manage a package's Administrative Install Point (AIP).
- Be able to add Radia Package Management to an existing package, with or without Machine/User support.
- Be able to create and manage a transform file to customize the installation of a package.



Radia Install Wizard

For tasks that extend beyond the realm of basic packaging, use the Radia Install Wizard. When you have a package that needs to be modified, the Radia Install Wizard provides the tools to manage the package, and create and modify transform (MST) files.

Manage Package Transforms

Figure 3.1 ~ Radia Install Wizard – Select an Install Action.

- Manage Installation Packages Manage packages for installation.
- Manage Package Transforms Manage package transform files.

Managing Installation Packages

Use the **Manage Installation Packages** features of the Radia Install Wizard to promote a package to an alternative distribution point for deployment, or to copy the package's state file to a location so you can import it into the Radia Configuration Analyzer.

When you are using the Radia Install Wizard to promote a package, you have the option of adding Radia Package Management to the package, if it does not already exist. Radia Package Management can be added with or without Machine/User Support, either directly to the package, or to a separate transform file.

The Manage Installation Packages features of the Radia Install Wizard also lets you manage the Administrative Install Point (AIP) of a package.



Publishing a Packaged Application to a Distribution Point

After you have packaged an application, you may want copy or store it at an alternative distribution point. Use these procedures if you are not using Radia deployment to distribute the package.

Also use this procedure to add Radia Management to an existing package, either with or without Machine/User Support. Radia Management can be added to the package itself, or as a separate transform.

To publish a packaged application to a distribution point

1. From the **Radia Packager for Windows Installer** program group, start the **Radia Install Wizard**.

The Select an Install Action dialog box opens.

INSTALL WIZARD	Select an Install Action Manage Installation Packages Manage Package Transforms Settings.	
	<back next=""> Cancel Help</back>	

Figure 3.2 ~ Radia Install Wizard – Select an Install Action.

- 2. Select Manage Installation Packages.
- 3. Click Next.

The Select a Package Management Action dialog box opens.





Figure 3.3 ~ Radia Install Wizard – Select a Package Management Action.

- 4. Select Promote a Package.
- 5. Click Next.

The Windows Installer Package file name dialog box opens.



tadia Install Wiz	ard X
File Name:	Enter the Windows Installer Package file name
,	Browse for a Package File Browse Radia Packages
	< Back Next > Cancel Help



- **6.** Type the name of the Windows Installer package file name, or click one of the **Browse** buttons to manually locate the file.
 - Browse for a Package File will locate any MSI files on the local computer or network.
 - **Browse Radia Packages** will open the Product directory as defined in the Radia Packager for Windows Installer settings.
- 7. Click Next.

The Select the Package Promotion Options dialog box opens.

- 8. Select a package promotion option, and click Next.
 - Select **Copy Package Files to a Production Directory** if you are deploying the package to a non-Radia distribution point.

Note

Use the Radia Publisher to promote Windows Instalelr Cu'CSSwpackages to the Radia Database for deployment by Radia. See the *Radia Publisher Guide* for more information.

OR

• Select **Copy Package State to an Import Directory** to make the package available for import by the Radia Configuration Analyzer and the Radia Knowledge Base Manager.

9. Click Next.

The Select the Package File Copy Method dialog box opens.

a	Select the Package File Copy Method
	Copy all files with no changes
	C Extract all embedded .Cab files
	C Decompress all .Cab files
	C Compress all files into .Cab files
	C Embed all files into the Msi file

Figure 3.5 ~ Select the Package File Copy Method dialog.

10. Select **Copy all files with no changes** and click **Next**.

The Package File Search begins.

	Package File Si	earch Completed		
– Package Fil Package File	e Search Status e Search Complete			Start
Package F	iles: 161	Additional Files:	0	Stop

Figure 3.6 ~ Radia Install Wizard – Package File Search.

-	. 1
2	4
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11. When the **Package File Search** is finished, click **Next**. The **Select Additional Files** dialog box opens.

adia Install Wizard Select Additional Files in the Package Directory to Include		×
InstWiz.exe InsulWiz.exe IsulWiz.exe		
Image: MsPatchC.dll Image: PackWiz.exe Image: PkgMenu.exe Image:	▼ Help	

Figure 3.7 ~ Select Additional Files in the Package Directory to Include.

12. Select any additional files to include and click **Next**.

The Radia Package Management dialog box opens.



Figure 3.8~ Radia Package Management.

- **13.** Select the check box if you'd like to add Radia Package Management to the package. If you select to add Radia Management, you must then select whether you'd like to embed Radia Package Management in the package or if you'd like to create a Radia Package Management Transform.
- 14. Click Next.

If you selected Radia Management, the **Radia Machine/User Support** dialog box opens. If you did not select Radia Management, the **Enter the Package promotion path** dialog box opens. Skip ahead to the section *Enter the package promotion path* on page 58.



	Radia Machine/User Support
	Publish this package with support for Machine/User Installations This option will automatically generate a new User Msi package that will be used to manage Machine/User component installs
I	Enable shortcuts when the User Msi package is installed
I	Enable HKCR registry values when the User Msi package is installed
	Enable private Exe execution when the User Msi package is installed
	Enable private DII execution when the User Msi package is installed

Figure 3.9 ~ Radia Install Wizard – Radia Machine/User Support.

Note

Radia Machine/User support is not supported in Radia versions below 3.x.

15. Select this check box if you would like to enable Radia machine/user support. A new user MSI package will be created and used to manage machine/user component installations. See *Enabling Machine/User Support* on page 200 for more information on this feature.

16. Click Next.

The Enter the Package promotion path dialog box opens.

Managing an Installation Package and Transforms

Radia Install Wizard	
Enter the Package promotion path	
Production Distribution Root	
	-
Remember this path name Browse	T.
Promoted Package Directory	_
Copy files using short file names	
< Back Next > Cancel Help	



17. Enter the product distribution root and the promoted package directory information and click **Next**.

The Package analysis begins.



	Package Analysis Completed	
Package Pron	notion Status	Start
Package Anal	vsis Complete	Stop
['		
	<back next=""></back>	Cancel Help

Figure 3.11 ~ Package analysis.

18. When the package analysis is complete, click **Next**. The promotion process is complete dialog box opens.



Figure 3.12 ~ Promotion process complete.

19. Click Finish.

You have successfully published your package and it is now ready for installation.

Basic Data Management

MSI Basic Mode

In contrast to Radia Advanced Package Management, where Radia provides on-going management of the components of an MSI package, Basic Package Management is used for packages that:

- Do not support administrative installation.
- The administrator does not want Radia to manage components with the exception of simply installing and uninstalling the application (No component verification or repair capability will be instrumented through the Radia Client).

Packages created with the Radia Packager for Windows Installer have a connection to the **MSIBASIC** class in the Radia Database. When the New Application Wizard is used to create a service from an application with one of these connections, you have the opportunity to define the MSI basic behavior methods.



Rew Application for I	Dan's Office 2000 Test Package	? ×
Service Name and Oper	ating System	
Service Name (32):	OFFICE_2000	
	(Unique Radia application instance name)	
I Target Operating System	Operating Systems WinXP (Windows XP) Win2000 (Windows 2000) WinNT (Windows NT) Win98 (Windows 98) Win95 (Windows 95) MacOS	
Note: If Target Operation	ng System is not selected, the service will be available for all platforms	
MSI Basic Behaviors	Create Method msiexec /i data1.msi	<u> </u>
C Setup based install	Verify Method msiexec /fvomus data1.msi	-1
 MSI based install 	Update Method msiexec /i data1.msi REINSTALL=AL	L REI
C Custom	Delete Method msiexec /x (00000409-78E1-11D2-86	0F-00
	Next > 0	Cancel
Enter service name and sel	lect target OS. 6/27/2002 10:45 AM	1

Figure 3.13 ~ Radia Install Wizard – New Application Wizard with MSI Basic Behaviors section.

Packages that cannot be administratively installed will default to Basic Package Management without all of the manageability features enabled in Radia.

Transforms

Transform (MST) – Transform files are used to modify existing Windows Installer applications to customize the installation to meet your needs.

Creating a Transform

If you already have a vendor supplied existing MSI to customize, it is recommended that you create a Windows Installer Transform (MST) with the Radia Install Wizard. When you create a transform with the Radia Install Wizard, you can do as little as modifying a property or as much as modifying pieces of the installation. The following exercise walks you through the creation of a user response transform for Microsoft Office 2000.

To create a user-response transform for a vendor-supplied Windows Installer package

1. From the Radia Packager for Windows Installer Program Group, start the **Radia Install Wizard**.



Figure 3.14 ~ Radia Install Wizard – Select an Install Action.

- 2. Select Manage Package Transforms.
- 3. Click Next.



Radia Install Wizard	Select a Transform Action Create a Transform Modify a Transform
< Back	Next > Cancel Help

Figure 3.15 ~ Radia Install Wizard – Select a Transform Action.

- 4. Select Create a Transform.
- 5. Click Next.

The Enter the name of the Windows Installer Package file dialog box opens.

Radia Install Wizard	×
Enter the name of the Windows Installer Package file	
E:\DATA1.MSI	
Browse for .MSI Files Browse Radia Packages	
< Back Next > Cancel Help	

- 6. Browse to the DATA1.MSI included in the Office 2000 setup files.
- 7. Click Next.

The **Enter the name of the directory where you want to save the Transform file** dialog box opens.

R	adia Install Wizard
	Enter the name of the directory where you want to save the Transform file
	D:\Transforms
	Browse
	(Back Next) Cancel Help
	Codok Honey Concor Holp

Figure 3.17 ~ Radia Install Wizard – Enter the name of the directory where you want to save the Transform file.

- **8.** Enter the location where you would like to save the transform file, or click **Browse** to manually find the location.
- 9. Click Next.

The Enter a unique name for the Transform dialog box opens.

Radia Install Wizard		×
	Enter a unique name for the Transform	
Name:		
	< Back Next > Cancel Help	

Figure 3.18 ~ Radia Install Wizard – Enter a unique name for the Transform.

- **10.** Enter a unique name for the transform file.
- 11. Click Next.

The Add existing Transforms to combine or edit with the Transform dialog box opens.

Transform	ns				
	/ Back	Nevts	Cancel	l Help	

Figure 3.19 ~ Radia Install Wizard – Add existing Transforms to combine or edit with this Transform.

6	5
υ	υ

- **12.** Select any other transforms to apply. These transforms will be combined into the final transform created.
- 13. Click Next.

The Modify Transform Settings dialog box opens.

	Modifu Tran	sform Settings	
	modily fran	sionin o skangs	
🔶 Office2kComple	ete		
🔤 🗖 🛱 Features			
Component	s		
Files			
🛛 🎆 Registry	μ.		
Environ	iment		
Actions			
Icons Binaries			
lcons Binaries			
lcons Binaries			
Froperties	< Back Ne	xt > Cancel	l Helo

Figure 3.20 ~ Radia Install Wizard – Modify Transform Settings.

14. Right-click on the transform name at the top of the Modify Transform Settings dialog box, and select **Execute User Interface** from the shortcut menu. This will start the user interface portion of the Office 2000 setup to gather information.

提 Microsoft Office 2000 Setup	
	Welcome to Microsoft Office 2000
	This is the Installation Wizard for Microsoft Office 2000 SR-1 Premium. It will guide you through the installation process.
SETUP	
Customer Information	
License and Support Information	
Ready to Install	
Installing Office	Preparing to install Microsoft Unice 2000 SR-1 Premium
	Help Cancel

Figure 3.21 ~ User interface portion of Office2000 Setup.

15. The Radia Install Wizard starts the user interface for the MSI application. Note that the installation package itself is not being executed at this point, simply the user interface.

Proceed through the interface, selecting the information you would install for your end users until you reach the end of the interface.

	Modify Transform Settings	
C Office2KC	Complete	
📄 🗖 🕻 Featu	res	
📄 🧰 Al	waysInstalled	
	InternetExplorerSetupAddToMin	
📗 🖻 💼 M	icrosoft Office	
- <u>-</u>	Microsoft Word for Windows	
İ	🖂 🔲 Wizards and Templates	
	- 🔁 Reports	
	- 🔁 More Wizards	
	More Templates and Macros	-1
	Can Tand mile I america Commedian	

Figure 3.22 ~ Radia Install Wizard – Modify Transform Settings.



16. When the interface is finished, you can see the changes you made in the transform, and continue to modify them as necessary. Usually you will see changes made to the feature installation state or properties.

17. Click Next.

The Suppress the following errors when applying the Transform dialog box opens.

	Supress the following errors when applying the Transform
Ŀ	Allow the Transform to add a table that exists in the Package
R	$ ilde{\epsilon}$ Allow the Transform to delete a table that does not exist in the Package
R	Allow the Transform to add a row that exists in the Package
R	${m \check{\epsilon}}$ Allow the Transform to update a row that does not exist in the Package
k	$ar{\epsilon}$ Allow the Transform to delete a row that does not exist in the Package
R	Allow the Transform and Package code pages to be different

Figure 3.23 ~ *Radia Transform Wizard* – *Suppress the following errors when applying the Transform.*

18. Select the type of changes you would like to allow this transform to make.

19. Click Next.

The **Perform the following validation tests when applying the Transform** dialog box opens.



Perform the following validati	on tests when applying the Transform
The Transform and Pac	kage Product Code must be the same
The Transform and Pack	kage Upgrade Code must be the same
The Transform and Pack	kage language must be the same
Version Matching	Version Relationship
Do not check versions	Transform < Package

Figure 3.24 \sim Radia Transform Wizard – Perform the following validation tests when applying the Transform.

- **20.** Select the information you want to use to validate that the transform applies to the package.
- 21. Click Next.
- **22.** Wait for the transform analysis to finish.
- 23. Click Finish and exit the wizard.

Modifying a Transform

Radia Packager for Windows Installer gives you the ability to modify a transform, as well as add and modify the files and other resources in a package through a transform.

For example, Microsoft Office does not install the main template, **normal.dot**, for Word when the program is installed. Instead, the template is generated the first time Word is run. To include your own customized template in the Microsoft Office install of Word, you can add the template to your transform.

To modify a transform to include a custom template file

1. From the **Radia Packager for Windows Installer** program group, start the **Radia Install Wizard**.

Managing an Installation Package and Transforms

Radia Install Wizard	Select an Install Action Manage Installation Packages Manage Package Transforms Settings.	
< Blan	ck Next > Cancel Help	

Figure 3.25 ~ Radia Install Wizard – Select an Install Action.

- 2. Select Manage Package Transforms.
- 3. Click Next.

The Select a Transform Action dialog box opens.

Select a Transform Action Create a Transform Modify a Transform	×
< Back Next > Cancel Help	

Figure 3.26 ~ Radia Install Wizard – Select a Transform Action.

- 4. Select Modify a Transform.
- 5. Click Next.
- 70

The Enter the name of the Windows Installer Package file dialog box opens.

Radia Install Wizard	×
Enter the name of the Windows Installer Package file	
I	
Browse for .MSI Files Browse Radia Packages	
< Back Next > Cancel Help	

Figure 3.27 ~ Radia Install Wizard – Windows Installer package file name.

- **6.** Enter the name and location of the MSI file for which the transform you would like to modify was created. Or use one of the **Browse** buttons to manually locate the file.
- 7. Click Next.

The Enter the name of the Transform file to modify dialog box opens.

adia Install Wiz	ard		×
	Enter the name of the Transform file to modify		
I		Browse	
	< Back Next > Cancel	Help	1

Figure 3.28 ~ Radia Install Wizard – Enter the name of the Transform file to modify.

- **8.** Enter the name of the transform file to modify.
- 9. Click Next. The Modify Transform Settings dialog box opens.

Conflice2kComplete Components Component	
Cons	

Figure 3.29 ~ Radia Install Wizard – Modify Transform Setting.

Right-click and select Add a File from the shortcut menu.
 The Enter the new target file information dialog box opens.


Enter the new target file information
Path Name:
File Name:
Remove this file when installing the Package
Browse Local Files
OK Cancel Help

- 11. Enter the target information for the file. The Normal.dot file is normally found in the Application Data folder under the Microsoft\Templates subdirectories. The Office installation already installs information to the Application Data folder (denoted as AppDataFolder by Windows Installer), which can be selected from the Path Name drop-down menu. Add \Microsoft\Templates to complete the path. Enter Normal.dot as the target file name.
- **12.** Click **OK**.

Set the v	alues to assign to this	file when the Transfo	orm is applied
Folder:	AppDataFolder\Micro	soft\Templates	
File Name:	Normal. dot		
File Installation	Settings		
Source File:			
			Browse
Attributes	_	-	
Read Or	ly 🗌 Hidden	System	🔲 Vital
Critical R	esource stall this file when inst	alling the Package	jVita
	ОК	Cancel	Help

Figure 3.31 ~ Radia Install Wizard – File Installation Settings.

13. Browse for the location of the file you want to use as the source.

Ma	difu Transform Sa	ttings	
MU	Juliy Hansionn Se	aangs	
Office2KComplete			
		\square	
Besources		2	
E Files			
E AppDataEolde	er		
Microsoft			
	lates		
<u>і</u> попр	ormal dot		
	Dinetall - File, 56	304BC8E259742E	78EBB30
l and the second s			
			<u> </u>

Figure 3.32 ~ Radia Install Wizard – Modify Transform Settings.

_	• *
	21
	-

Your file is added to the transform.

20. Click **Next** to continue the transform modification. The remaining steps are the same as the creation of a transform.

When you add files to a transform, a .cab file is generated with the transform to contain the files. The name of this .cab file is generated to be unique. An informational text file is created with the same name as the MST to identify this .cab file.

Note

Windows Installer guidelines dictate that this .cab file (and therefore the transform) needs to be in the same directory as the MSI.

Summary

- Use the Radia Install Wizard to promote a package to a non-Radia distribution point, to manage the package's AIP, or to add Radia Management to the package with or without Machine/User Support.
- Create or modify Package Transforms using the Radia Install Wizard.



Upgrading a Package

At the end of this chapter, you will:

- Be able to package a new release for an existing product.
- Be able to package a new build with a Patch Package.

Upgrading a Package

The Radia Extensions for Windows Installer simplifies the process of upgrading applications and tracking versions. Different versions of an application are maintained within a container called a *Product*. Each version of the application has its own Package within the Product. The Radia Extensions for Windows Installer maintains and organizes new versions of a Product to ease your management tasks.

Packaging a New Release

A **release** is a significant update that typically contains compiled code fixing bugs, and adds or removes product functionality, such as with a service pack. Packages created for new releases upgrade older release and build levels. When the newer release is installed, it replaces the older release, and any unused components are removed. New releases are not shipped as Patch Packages since they completely replace older releases.

Prerequisites

- A clean machine that has nothing but the operating system installed.
- Create your state file and library for the application update using the Radia State Wizard and the Radia Library Wizard.

To create a new release for the product

1. Start the Radia Packager for Windows Installer and select the Custom option, **Package components**.







The Radia Package Wizard opens.



Figure 4.2 ~ Radia Package Wizard – Select an Action.

- **2.** Select **Create a Package**.
- 3. Click Next.

The Select the Packaging Option dialog box opens.

PACKAG E WIZ ARD	Select the Packaging Option Add to a New Product Add to an Existing Product
< Back	Next > Cancel Help

Figure 4.3 ~ Radia Package Wizard – Select the Packaging Option.

- 4. Select Add to an Existing Product.
- 5. Click Next.

The **Select the Product to Update** dialog box opens.

	Select the Product to Update	
Name	Description	Man
🧟 Adobe Acrobat	Adobe Acrobat	noad
🦧 Orca	Orca	noad
•		Þ

Figure 4.4 ~ Radia Package Wizard – Select the Product to Update.

0	2
a	()
v	~

- 6. Select the product that you want to update, such as Acrobat Reader.
- 7. Click Next.

The Select the Library from which the Package will be created dialog box opens.

	nom mior the raditage r	
Name	Description	Cre
🦧 Install Analysis of Orca	Install Analysis o	iOrca 200
👍 Install Analysis of Adobe /	Acrobat Install Analysis of	Adobe Acrobat 200

Figure 4.5 ~ Radia Package Wizard – Select the Library from which the Package will be created.

- **8.** Select the library that you created, which will be used to create your new package release, such as Acrobat Reader 4.05.
- 9. Click Next.

The Product Upgrade Mode dialog box opens.

WIZARD	 Product Upgrade Mode Create a New Build Prior builds are automatically upgraded using a full install or a patch package Create a New Release Prior releases are automatically upgraded using a full install. Create a New Version Prior versions are not automatically upgraded. 	

Figure 4.6 ~ Radia Package Wizard – Product Upgrade Mode.

- **10.** Select **Create a New Release**. This removes Acrobat Reader 3.01 when Acrobat Reader 4.0.5 is installed.
- 11. Click Next.

The **Select the Product Release and Build Numbers** dialog box opens. The **Release** is automatically incremented. You can also modify the release or build numbers.

Select the Product Build Number	
Select the Product Build Number	
Version: 1	
Release: 4	
Build: 5	
Build: 5	





12. Click Next.

The **Advanced Options** dialog box opens. Use this dialog box to modify different information and installation settings embedded in your Windows Installer package. See *Using Radia Package Wizard Advanced Functions* on page 167 for more information.

	Advanced Options	
Hardware Requirements	Platform Requirements	Software Requirements
Product Information	Package Information	User-Defined Properties
Installation Options	Reinstallation Options	Upgrade Options
Add/Remove Options	Services	Admin Install Options
Custom Actions	Setup.Exe Options	Insulation Options

Figure 4.8 ~ Radia Package Wizard – Advanced Options.

13. Click Next.

The Radia Package Wizard performs a quick analysis of the files to include in the package.

Upgrading a Package

Package Analysis Complete
ackage Analysis Complete
Path Count: 34 File Count: 8
Package Registry Status
Package Analysis Complete
Key Count: 168 Value Count: 11

Figure 4.9 ~ Radia Package Wizard – Package Analysis Completed.

14. When the analysis is finished, click **Next**.

The **Package Results** dialog box opens. This dialog box displays all of the files and information included in the Package, and highlights the files, registry settings, etc. that will be added, removed or modified when your Windows Installer package is installed.

Acrobat Reader Packages ⊕	
Er∰ Registry Er∰ HKCU Er∰ HKLM	

Figure 4.10 ~ Radia Package Wizard – Package Results.

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×	4
v	

15. Click Next.

The Package File Options dialog box opens.

Cabinet File Creation Create the cabinet file Imbed the cabinet file in the MSI file Patch Package Options		Package File Options	
Create the cabinet file Imbed the cabinet file in the MSI file Patch Package Options	Cabinet I	File Creation	
Patch Package Options	Cre	ate the cabinet file	
Patch Package Options		Imbed the cabinet file in the MSI file	
 Create a .MSP file that upgrades all prior builds Upgrade using entire file Upgrade using bit level differences only 	Patch Package I Create a . Upgr Upgr	Dptions MSP file that upgrades all prior builds ade using entire file ade using bit level differences only	

Figure 4.11 ~ Radia Package Wizard – Package File Options.

- **16.** Leave **Create the cabinet file** checked. In most cases, you will want to create the cabinet file.
- **17.** Click **Next** to create the Windows Installer package.
- 18. Click Next again.

The package creation is complete dialog box opens.

Radia Package Wizard	The package creation is complete. Select Finish to save the new package files. Acrobat Reader\WinNT\1.4.0 Validate Package I Launch Package Editor	X
<	Back Finish Cancel Help	

Figure 4.12 ~ Radia Package Wizard – Package creation is complete.

- Click Validate Package to check the package.
- If you would like to open the MSI file in the default MSI editor on your computer (**Radia MSIEdit** is the default editor after installation of Radia Extensions for Windows Installer) leave **Launch Package Editor** selected.
- 19. Click Finish.
- **20.** Use Windows Explorer to see that the new package is added to the Product directory structure. Notice how the Package files are organized by: Version, Release, and Build number, for easy management.





Figure 4.13 ~ Product directory structure.

Packaging a New Build with a Patch Package

A **build** is a small update or bug fix. Packages created for new builds upgrade older build levels. When the newer build is installed, the older build is updated and any unused components are removed, if necessary. New builds can be shipped as patch packages to minimize the amount of data shipped during the installation process to only the necessary changes.

For example, if an update for Acrobat Reader 4.0 is available you will want to create a new build that updates your users to Acrobat Reader 4.05.

Prerequisites

• Create your state file and Library for the updated package using the Radia State Wizard and the Radia Library Wizard.

To create an update with a Patch Package

1. Start the Radia Packager for Windows Installer and select the Custom option **Package components**.



Figure 4.14 ~ Radia Packager for Windows Installer – Package components option.

The Radia Package Wizard opens.

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Figure 4.15 ~ Radia Package Wizard – Select an Action.

- **2.** Select **Create a Package**.
- 3. Click Next.

The Select the Packaging Option dialog box opens.



Figure 4.16 ~ Radia Package Wizard – Select the Packaging Option.

4. Select Add to an Existing Product.



Upgrading a Package

5. Click Next.

The Select the Product to Update dialog box opens.

	Select the Produc	ct to Update	
Name	Description	Manufacturer	Updated Or
🖉 Acrobat Reader	Acrobat Reader	Novadigm, Inc.	2002/05/03
	Acrobat Reader	inovadigm, inc.	2002/05/
•			

Figure 4.17 ~ Radia Package Wizard – Select the Product to Update.

- **6.** Select the product to update, such as **Acrobat Reader**.
- 7. Click Next.

The Select the Library from which the Package will be created dialog box opens.



Name		Description
🧟 Install	Analysis of Adobe Acrobat 5.0	Install Analysis of Adobe Acrobat 5.0
🧟 Install	Analysis of Adobe Acrobat 4.0	Install Analysis of Adobe Acrobat 4.0
🦧 Install	Analysis of Orca	Install Analysis of Orca
•		

Figure 4.18 ~ Radia Package Wizard – Select the Library from which the Package will be created.

- **8.** Select the new library that you created, which will be used to create your new package release.
- 9. Click Next.

The **Product Upgrade Mode** dialog box opens.

WIZARD	 Product Upgrade Mode Create a New Build Prior builds are automatically upgraded using a full install or a patch package Create a New Release Prior releases are automatically upgraded using a full install. Create a New Version Prior versions are not automatically upgraded.
--------	--

Figure 4.19 ~ Radia Package Wizard – Product Upgrade Mode.

- **10.** Select Create a New Build.
- 11. Click Next.

The Select the Product Build Number dialog box opens.

Radia Package Wizard	
Select the	Product Build Number
Version:	1
Release:	4
Build:	5
< Back	Nevt Cancel Help

Figure 4.20 ~ Radia Package Wizard – Select the Product Version, Release and Build Numbers.

12. Click Next.

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ч	
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The Radia Package Wizard automatically updates the build number of the newest release. In this example, change the build number to 5.

13. Click Next.

The Advanced Options dialog box opens.

	Advanced Options	
lardware Requirements	Platform Requirements	Software Requirements
Product Information	Package Information	User-Defined Properties
Installation Options	Reinstallation Options	Upgrade Options
Add/Remove Options	Services	Admin Install Options
Custom Actions	Setup.Exe Options	Insulation Options

Figure 4.21 ~ Radia Package Wizard – Advanced Options.

14. Click Next.

The Package Analysis Completed dialog box opens.

Upgrading a Package

	Package Anal	ysis Completed		
– Package File Stat	us			1
Package Analysis	Complete			
Path Count:	37	File Count:	84	Ctor
- Package Registry	Status			
Package Analysis	Complete			Stop
Key Count:	161	Value Count:	107	
Key Count.		value Count.		

Figure 4.22 ~ Radia Package Wizard – Package Analysis Completed.

15. Click Next.

The Package Results dialog box opens.

	1	Package Hesults		
Acrobat Re Packa P	ader jes DAB8CC-F26F-4 y CU LM	F5F-9537-58CC2	2E63D84C}	

Figure 4.23 ~ Radia Package Wizard – Package Results.

16. Click Next.

The **Package File Options** dialog box opens.

_	۰.	4
۰.	12	1
	•	

Package File Options	
Cabinet File Creation	
Create the cabinet file	
☐ Imbed the cabinet file in the MSI file	
Patch Package Options Create a .MSP file that upgrades all prior builds Upgrade using entire file Upgrade using bit level differences only	
<pre> < Back Next > Cancel</pre>	Help

Figure 4.24 ~ Radia Package Wizard – Package File Options.

- **17.** Select **Create an .MSP file that upgrades all prior builds**. An .MSP file is a Patch Package.
- **18.** Select **Upgrade using the entire file**.
- 19. Click Next.

The package is created.

	Package Creation Co	ompleted	
Package Crea	ation Status		
Package Crea	ition Complete		Start
			Stop

Figure 4.25 ~ Radia Package Wizard – Package Creation Status.

20. Click Next.

Validate Package

Figure 4.26 ~ Radia Package Wizard – Package creation is complete.

- Click Validate Package to check your package.
- If you would like to open the MSI file in the default MSI editor on your computer (**Radia MSIEdit** is the default editor after installation of Radia Extensions for Windows Installer), leave **Launch Package Editor** checked.

21. Click **Finish** to save the new package.

In the new build's directory, there is a Patch Package (.MSP) and a full Package (.MSI). This combination allows you to apply the patch to machines that already have 1.4.0 installed or to install the full package to machines that don't have the application installed.





Summary

- Use the **Package components** option of the Radia Packager for Windows Installer to package a new release or package a new build with a patch package.
- This Package components option launches the Radia Package Wizard.

Upgrading a Package



Using Advanced Functions

At the end of this chapter, you will be able to:

- Combine and manage state files.
- Modify a library.
- Create permissions.
- Use substitutions.
- Rebuild a package.
- Edit a package template.
- Use Radia Advanced Features Machine/User support

Note to I-Lab Users

Radia Advanced Features are only licensed in the Radia Extensions I-Lab product for testing purposes within a laboratory environment.

Using Radia State Wizard Advanced Functions

The Radia Extensions for Windows Installer provides you with a front-end for performing many different state file tasks, ranging from creating state files to combining states to deleting states. This chapter covers the functions of the Radia State Wizard that have not been previously introduced in the earlier chapters on creating packages. To access these functions from the Radia Packager for Windows Installer, select the Custom option **Identify resources to package**.

Combining States

The Radia State Wizard allows you combine two state files together to create one of the following combined states:

- Delta State
 Includes only the different resources between two states.
- Intersection State

Includes only the resources common to both states. Create an Intersection State to identify potential resource conflicts between applications.

Union State

Includes all the resources of both states, regardless of whether the resources are shared between the two states. Typically, union state files are created using an impact and profile state of the same application.

After you create a combined state file, you have many options:

- View this state file using the Manage States option in the Radia State Wizard.
- Import this state file into the Radia Application Knowledge Base using the Radia Configuration Analyzer Administrator's console.
- Export the state file into .csv format and view with another spreadsheet package.
- Use this state file to create another state file.

To combine two state files

Note

In this procedure, you will create a union state. To create the union state, an initial Install Analysis must exist as well as a second installation analysis created after modifying a few of the application's settings.

1. Start the Radia Packager for Windows Installer and select the Custom option, **Identify resources to package**.

OR

From the Radia Packager for Windows Installer Program Group, select State Wizard.



Figure 5.1 ~ Select the Custom option: Identify resources to package.

The Select an Action dialog box of the Radia State Wizard opens.

C Manage Scan Filters	Manage States Manage Scan Filters
-----------------------	---------------------------------------

Figure 5.2 ~ Radia State Wizard – Select an Action.

2. Select Combine Two States.

3. Click Next.

The Select Combined State Creation Technique dialog box opens.



Figure 5.3 ~ Radia State Wizard – Select Combined State Creation Technique.

- 4. Select Include All Resources
- 5. Click Next.

The Select the First State to be Combined dialog box opens.



Created On	Completed
	Completed
2002/06/04 10:58:16	2002/06/0
2002/06/03 15:14:02	2002/06/0
	2002/06/03 15:14:02

Figure 5.4 ~ Radia State Wizard – Select the First State to be Combined.

- **6.** Select the first State to be combined.
- 7. Click Next.

The Select the Second State to be Combined dialog box opens.

Using Advanced Functions

	Select the Second Stat	e to be Combined	
Description		Created On	Complete
🖉 Install Analy	sis of Acrobat Reader 4.05	2002/06/03 15:14:02	2002/06/
•			
		_	
	<back next=""></back>	Cancel	Help

Figure 5.5 ~ Radia State Wizard – Select the Second State to be Combined.

- **8.** Select the second state to be combined.
- 9. Click Next.

The **Description** dialog box opens.

Radia State Wizard	×
Enter a description for the combined resource state.	
Description: Install Analysis of Adobe Acrobat and Install Analysis of Acrobat Re	
<back next=""> Cancel Help</back>	

Figure 5.6 ~ Radia State Wizard – Enter a Description.

- **10.** In the **Description** text box, type a description for the combined state file.
- 11. Click Next.

The states are combined.

12. When the combination analysis is done, click **Next**.

The State Data Collection Results dialog box opens.

Radia State Wiza	a			
	State Data	a Collection Res	ults	
Install Ana	usis of Adobe Acrob	at and Install An	alusis of Acrobat B	eader 4.09
Files				
⊡∰ Regist ⊕⊕ Hk	у :СU			
	LM			
•				
, <u> </u>				
	< Back	Next>	Cancel	Help

Figure 5.7 ~ Radia State Wizard – State Data Collection Results.

13. Click Next.

14. Click Finish.

Managing States

With the Radia State Wizard, you can also perform basic state management tasks such as deleting or viewing states. You can access the Radia State Wizard by selecting the Radia Packager for Windows Installer Custom option, **Identify resources to package**, or from the Radia Packager for Windows Installer program group.

To view states files

1. Start the Radia Packager for Windows Installer and select the Custom option, **Identify resources to package**.

OR

From the Radia Packager for Windows Installer Program Group, select **State Wizard**. The **Select an Action** dialog box of the Radia State Wizard opens.

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Radia State Wizard	Select an Action Create an Installation Analysis State Create an Execution Analysis State Create a Machine Analysis State
	 Convertor a state Combine Two States Manage States Manage Scan Filters
	Settings
< Bac	k Next > Cancel Help

Figure 5.8 ~ Radia State Wizard – Select an Action.

- 2. Select Manage States.
- 3. Click Next.

The Select a State Management Action dialog box opens.

Radia State Wizard	Select a State Management Action View a State Change a State Description
<pre></pre>	© Delete a State Next > Cancel Help

Figure 5.9 ~ Radia State Wizard – Select a State Management Action.



- 4. Select View a State.
- 5. Click Next.The Select the State to be Managed dialog box opens.

Select the State	to be Manage	ed	
Description			
a Install Analysis of Adobe Acrobat an	d Install Analy:	sis of Acrobat	Reader 4.05
🕼 Install Analysis of Adobe Acrobat			
🖌 🧔 Install Analysis of Acrobat Reader 4.	05		
I			Þ
•			Þ
•			Þ
•			<u>}</u>

Figure 5.10 ~ Radia State Wizard – Select the State to be Managed.

Shortcut Tip
On any state selection dialog box, right-click the state that you want to view and from the shortcut menu, select View .

6. Click **Next** to view the state.

1	08	
1	00	
Radia State Wizard	×	
--	------	
State Data Collection Results		
Install Analysis of Acrobat Reader 4.05		
E I Files I I I I I I I I I I I I I I I I I I I		
🖾 🎲 Registry		
<back next=""> Cancel H</back>	lelp	

Figure 5.11 ~ Radia State Wizard – State Data Collection Results.

- 7. Click Next.
- **8.** Click **Finish** to exit the Radia State Wizard.

Changing a State Description

You may find the need to change a state description. This description is used by both the Radia State Wizard and the Radia Configuration Analyzer to describe the state.

To change the description of a state file

1. Start the Radia Packager for Windows Installer and select the Custom option, **Identify resources to package**.

OR

From the Radia Packager for Windows Installer Program Group, start the **Radia State Wizard**.

The Select an Action dialog box opens.

 Create an Execution Analysis State Create a Machine Analysis State Convert to a State Combine Two States Manage States Manage Scan Filters
Settings

Figure 5.12 ~ Radia State Wizard – Select an Action.

- **2.** Select Manage States.
- 3. Click Next.

The Select a State Management Action dialog box opens.



Figure 5.13 ~ Radia State Wizard – Select a State Management Action.



- 4. Select Change a State Description.
- 5. Click Next.

The Select the State to be Managed dialog box opens.

	Select the State to	be Managed	
Description		Created On	Completed
🕼 Install Analysis (of Acrobat Reader 4.05	2002/05/04 21:08:23	2002/05/0
🧟 Install Analysis (of Acrobat Reader 4.0	2002/05/04 20:28:05	2002/05/0
🧟 Install Analysis (of Acrobat Reader 3.01	2002/05/03 12:28:50	2002/05/0
•			Þ

Figure 5.14 ~ Radia State Wizard – Select the State to be Managed.

- 6. Select the state for which you would like to change the description.
- 7. Click Next.

The **Description** dialog box opens.

Radia State Wiz	ard			
	Ente	a new state desc	ription.	
Description:	Install Analusis of	Acrobat Beader /	105 bu Jane Smith	
	mstali Analysis or	Actubal Header -	.05 by tarie smith	

Figure 5.15 ~ Radia State Wizard – Enter a Description.

- **8.** In the **Description** text box, type a new description.
- 9. Click Next.

The Select Finish to change the description for the selected state dialog box opens.





Figure 5.16 ~ Radia State Wizard – Select Finish to change the description for the selected state.

10. Click **Finish** to save your change.

Deleting a State

To delete a state

1. Start the Radia Packager for Windows Installer and select the Custom option, **Identify resources to package**.

OR

From the Radia Packager for Windows Installer Program Group, start the **Radia State Wizard**.

The Select an Action dialog box opens.

STATE	Select an Action C Create an Installation Analysis State C Create an Execution Analysis State C Create a Machine Analysis State C Convert to a State C Combine Two States Manage States Manage Scan Filters
	Settings

Figure 5.17 ~ Radia State Wizard – Select an Action.

- **2.** Select Manage States.
- 3. Click Next.

The Select a State Management Action dialog box opens.

Radia State Wizard	Select a State Management Action © View a State © Change a State Description @ Delete a State
< Back	Next > Cancel Help

Figure 5.18 ~ Radia State Wizard – Select a State Management Action.

- **4.** Select **Delete a State**.
- 5. Click Next.

The Select the State to be Managed dialog box opens.

Select the State to	be Managed	
Description	Created On	Complete
🕼 Install Analysis of Acrobat Reader 4.05	2002/05/04 21:08:23	2002/05/
🧟 Install Analysis of Acrobat Reader 4.0	2002/05/04 20:28:05	2002/05/
🦧 Install Analysis of Acrobat Reader 3.01	2002/05/03 12:28:50	2002/05/
4		

Figure 5.19 ~ Radia State Wizard – Select the State to be Managed.

Shortcut Tip
On any state selection dialog box, right-click the state that you want to delete and from the shortcut menu, select Delete .

6. Click **Finish** to delete the state.

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Using Radia Library Wizard Advanced Functions

Many important packaging and application management functions are performed within a library by the Radia Library Wizard. To access these library functions from the Radia Packager for Windows Installer, select the Custom option **Refine selected components.**

Modifying a Library

Modifying Installation Settings

When Acrobat Reader was installed for analysis, it was installed to **C:\Acrobat**. If you want to allow the user to enter the location for Acrobat upon installation, you can modify the target path for an application so that the user can enter it. To do this you will modify the installation settings so that the path for Acrobat Reader will be substituted with information entered by the user.

To modify the target path of an application installation

1. Start the Radia Packager for Windows Installer and select the Custom option, **Refine** selected components.

OR

From the Radia Packager for Windows Installer Program Group, start the **Radia Library** Wizard.

The Select an Action dialog box opens.



Figure 5.20 ~ Radia Library Wizard – Select an Action.



- **2.** Select **Modify a Library**.
- **3.** Click Next. The Select the Type of Modification dialog box opens.

in the Library C Add or Replace Resources Add or replace Resources from a State, Library, or Package C Modify Included Merge Modules Select the Merge Modules that are included in the Library
--

Figure 5.21 ~ Radia Library Wizard – Select the Type of Modification.

- 4. Select Modify Installation Settings.
- 5. Click Next.

The Select the Library to Modify dialog box opens.



	Select the Library	v to Modify
Name		Description
🧔 Install Analy	sis of Acrobat Reader 4.05	Install Analysis of Acrobat Reader
🧟 Install Analy	sis of Acrobat Reader 4.0	Install Analysis of Acrobat Reader
🖉 Install Analy	sis of Acrobat Reader 3.01	Install Analysis of Acrobat Reader

Figure 5.22 ~ Radia Library Wizard –Select the Library to Modify.

- Select the library that you want to modify, such as Install Analysis of Acrobat Reader 3.01.
- 7. Click Next.

The Modify Library Installation Settings dialog box opens.

tadia Library Wiz	ard	
	Modify Library Installation	n Settings
🚺 Install Ana	lysis of Acrobat Reader 3.01	
	Directory List File List Module File List Ini File List Shortcut List Text File List	
	Ini File Section List Ini File Entry List Ini File Data List Changed Ini File Data List	
	Add Directory Add File	Cancel Help
	Permissions	

Figure 5.23 ~ Radia Library Wizard – Modify Library Installation Settings.

 Right-click the name of the library, and then select Substitutions from the shortcut menu. The Substitutions dialog box opens.



Set the Desired Substitutions	- Substitution-
Arget Pat Target Path List C: Upc Set Target Path List C: \Documents and Settings\Administrator\Neth C: \Documents and Settings\All Users.WINNT C: \Documents and Settings\All Users.WINNT\ C: \Program Files	Load Add Save Reset

Figure 5.24 ~ Radia Library Wizard – Substitutions.

9. Right-click **Target Paths**, and then from the shortcut menu select **Set Target Path**. The **Set Target Path** dialog box opens.

Radia Library Wizard - Set 1	Target Path		×
Select the P	ath Name to Set to a	Target Path	
C:\Acrobat3			
OK	Cancel	Help	

Figure 5.25 ~ Radia Library Wizard – Set Target Path.

10. Select the path that you want to modify.

11. Click OK.

The Edit Target Path dialog box opens.

Enter the target pat	h replacement criteria
Path Name: C:\Acrobat3	
C Windows Installer Property	Replacement Variable
Windows Installer Property	Replacement Variable
AdminToolsFolder	•
	Add a Replacement Variable
OK Ca	ncel Help

Figure 5.26 ~ Radia Library Wizard – Edit Target Path.

For this example, you will replace the target path with a replacement variable.

- **12.** In the **Replace path name with** area, select **Replacement Variable**.
- Click Add a Replacement Variable to create a replacement variable. The Add Replacement Variable dialog box opens.



Radia Library Wizard - Add Replacement Variable Select the variable type and enter a unique name Variable Type Registry Value Ini File Value Environment Value Environment Value Conditional Formatted NDS Attribute Radia Variable	<u>د</u>
Name: Acrobat3Path	
OK Cancel Help	

Figure 5.27 ~ Radia Library Wizard – Add Replacement Variable.

- **14.** In the Variable Type area, select User Interface.
- **15.** In the **Name** text box, type the name for your path.
- **16.** Click **OK**. A message box prompts you that the variable name must be in all uppercase letters. This adjustment will be made automatically for you.

The Edit User Interface Variable dialog box opens.

Using Advanced Functions

– User Interface Field Type		
C List Box	C Combo Box	C Radio Button
C Edit	Path Edit	C Check Box
C Masked Edit		
Field Attributes	Edit Input Mask	Volume Types
Variable D	escription Displayed by the U	ser Interface
Where would you like to in	stall Acrobat Reader 3?	
	Default Value	
C:\Acrobat 3		
Predefined Values		

Figure 5.28 ~ Radia Library Wizard – Edit User Interface Variable.

- **17.** In the **User Interface Field Type** area, select **Path Edit**. This allows the user to browse for an installation location for the application.
- **18.** In the **Variable Description Displayed by the User Interface** text box, type instructions to the user.
- **19.** In the **Default Value** text box, type a default value.
- **20.** Click **OK** to return to the **Edit Target Path** dialog box.

1	2	4
	_	T

ry Wizard - Edit Target Path	×
Enter the target path replacement criter	
ame: C:\Acrobat3	
place path name with: Windows Installer Property © Repla	ement Variable
Vindows Installer Property Replands DisFolder ACROBAT3PATH Add a Repland	ment Variable ement Variable
OK Cancel H	lp

Figure 5.29 ~ Radia Library Wizard – Edit Target Path.

21. Verify that the path you indicated earlier is set as the Replacement Variable.

22. Click **OK** to return to the **Substitutions** dialog box.

stitutions sired Substitutions and Settings\All Users.WINNT\ and Settings\All Users.WINNT\ ss stem32 iteria bles TH Properties OK Help	Radia Library Wizard - Substitutions Set the Desired Substitu C:\Documents and Settings C:\Documents and Settings C:\VINNT C:\VINNT\System32 C:\WINNT\System32 C:\WINNT\System
--	--

23. Click **OK**.

24. Click Next.

The Library modification is complete dialog box opens.

Radia Libra	ary Wizard	The library Select Finis You must rebuild a inclu Install Analy	modification is comple th to save the library d iny packages using thi ide these changes. sis of Acrobat Reader	te. ata. s library to 3.01
	< E	ack Finish	Cancel	Help

Figure 5.31 ~ Radia Library Wizard – The library modification is complete.

25. Click Finish.

After modifying the library, rebuild your package with the Radia Package Wizard. See *Rebuilding a Package* on page 167 for more information on rebuilding a package.

Modifying the Installation Filter

Your Acrobat Reader 3.01 package contains files that are unnecessary after repackaging the application into Windows Installer format. You no longer need the uninstall files, because the ability to remove an application is built right into Windows Installer. In this exercise, you will learn to modify a library filter by removing the uninstall files installed by the original Acrobat Reader 3.01 installation.



To modify the installation filter

1. Start the Radia Packager for Windows Installer and select the Custom option, **Refine** selected components.

OR

From the Radia Packager for Windows Installer Program Group, start the ${\bf Radia\ Library\ Wizard.}$

The Select an Action dialog box opens.

Radia Library Wizard	 Select an Action Create a Library Modify a Library Manage Libraries Manage Library Filters Manage Permissions Manage Substitutions
< Back	Next > Cancel Help

Figure 5.32 ~ Radia Library Wizard – Select an Action.

- **2.** Select **Modify a Library**.
- 3. Click Next.

The Select the Type of Modification dialog box opens.



Figure 5.33 ~ Radia Library Wizard – Select the Type of Modification.

- 4. Select Modify the Installation Filter.
- 5. Click Next.

The Select the Library to Modify dialog box opens.

	Select the Libra	ary to Modify
Name		Description
🖉 Install Ar	halysis of Adobe Acrobat 5.0	Install Analysis of Adobe Acrobat 5.0
🕼 Install Ar	nalysis of Adobe Acrobat 4.0	Install Analysis of Adobe Acrobat 4.0
🧟 Install Ar	nalysis of Orca	Install Analysis of Orca
•		,
		-

Figure 5.34 ~ Radia Library Wizard – Select the Library to Modify.

- **6.** Select the library that you want to modify.
- 7. Click Next.

The Select Paths, Files and Registry Entries to Include dialog box opens.

S	elect the Paths,	Files and Registry Entries to Include
	frie Libr C: ⊕	Path/File Filter List Shortcut Target Filter List
	⊕ ⊠' — ⊕ ⊠' — '∰' Registry, ⊠' — HK(⊠' — HK(Exclude Resources Found in a State Exclude Resources Found in a Library Exclude Resources Found in a Package Exclude Resources Found in a Merge Module Package Exclude Resources Found in a Merge Module Group
	_	

Figure 5.35 ~ Radia Library Wizard – Select the Paths, Files and Registry Entries to Include.

Rather than expanding the information, you can also view the information in the filtering dialog box in a list format.

- 8. Right-click File Library Filter.
- From the shortcut menu, select Path/File Filter List. The Path/File Filter List window opens.

🖫 Radia Library Wizard - Path/File Filter List				_ 🗆 ×
Path/File Name	File Name	Extension	Status	File Time 🔺
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM_AlPFM	_AIPFM	.PFM	Include	2001/04/16
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM_ebpfm	_ebpfm	.pfm	Include	2001/04/16
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM_ebipfm	_ebipfm	.pfm	Include	2001/04/16
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM_eipfm	_eipfm	.pfm	Include	2001/04/16
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM_erpfm	_erpfm	.pfm	Include	2001/04/16
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM\COBPFM	COBPFM	.PFM	Include	2001/04/16
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM\COB0PFM	COBOPFM	.PFM	Include	2001/04/16
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM\COMPFM	COMPFM	.PFM	Include	2001/04/16
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM\COOPFM	COOPFM	.PFM	Include	2001/04/16
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM\SYPFM	SYPFM	.PFM	Include	2001/04/16
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM\ZDPFM	ZDPFM	.PFM	Include	2001/04/16
C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM\ZXMMM	ZXMMM	.MMM	Include	2001/04/16
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM\zxpfm	zxpfm	.pfm	Include	2001/04/16
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM\ZYMMM	ZYMMM	.MMM	Include	2001/04/16
☑ C:\Program Files\Adobe\Acrobat 5.0\Resource\Font\PFM\zypfm	zypfm	.pfm	Include	2001/04/16
☑ C:\Program Files\Common Files			Include	
⊠ C:\Program Files\Common Files\Adobe			Include	
☑ C:\Program Files\Common Files\Adobe\Acrobat 5.0			Include	
☑ C:\Program Files\Common Files\Adobe\Acrobat 5.0\NT			Include	
☑ C:\Program Files\Common Files\Adobe\Acrobat 5.0\NT\Uninst.dll	Uninst.dll	.dll	Include	2001/08/22
☑ C:\Program Files\Common Files\Adobe\Acrobat 5.0\NT\Uninst.isu	Uninst.isu	.isu	Include	2002/10/17
☑ C:\Program Files\Internet Explorer			Include	
☑ C:\Program Files\Internet Explorer\PLUGINS			Include	
☑ C:\Program Files\Internet Explorer\PLUGINS\NPDocBox.dll	NPD ocBox.dll	.dll	Include	2001/08/01
☑ C:\Program Files\Internet Explorer\PLUGINS\nppdf32.dll	nppdf32.dll	.dll	Include	2001/09/10
R CWINNT			Include	

Figure 5.36 ~ Radia Library Wizard – Path/File Filter List window.

10. In the **Path/File Filter List** dialog box, clear the check marks for

C:\WINNT\UNINST.EXE and for the shortcut C:\Documents and Settings\All Users\Start Menu\Programs\Adobe Acrobat\Uninstall Acrobat Reader 5.0.lnk. While you are there, you may also remove the shortcut to the ReadMe file if you don't want a shortcut to it in the Start Menu.

- **11.** Click **Close** to return to the **Select Paths, Files, and Registry Entries to Include** dialog box.
- 12. Click Next.

The Radia Library Wizard performs a quick analysis of the files in your filter.

Using Advanced Functions

	Library Analysi	s completed		
- Library File Status-				
Library Analysis Cor	nplete			
Path Count:	16	File Count:	60	Sta
Library Registry Sta	itus			~~~~
Library Analysis Cor	nplete			510
Key Count:	215	Value Count:	139	

Figure 5.37 ~ Radia Library Wizard – Library Analysis Completed.

13. Click Next.

The **Modify Library Installation Settings** dialog box opens. Use this dialog box to modify the installation settings of the folders, files, and registry keys in your library.



Radia Library Wizard	×
Modify Library Installation Settings	
Install Analysis of Adobe Acrobat 5.0 □ Files □ ∰ Registry □ ∰ HKCU ⊕ ∰ HKLM	
<pre></pre>	

Figure 5.38 ~ Radia Library Wizard – Modify Library Installation Settings.

14. Click Next.

The Radia Library Wizard copies any files that need to be recopied.

Radia Library Wiza	rd				
	Library File Co	opy Completed			
Library File Copy File Copy Comple	Status			Sta	art op
	< Back	Next >	Cancel	He)p

Figure 5.39 ~ Radia Library Wizard – Library File Copy Completed.

15. Click Next.

The library modification is complete dialog box opens.

Radia Library Wizard	The library modification is complete. Select Finish to save the library data. You must rebuild any packages using this library to include these changes. Install Analysis of Acrobat Reader 3.01
< B-	ack Finish Cancel Help

Figure 5.40 ~ Radia Library Wizard – The library modification is complete.

16. Click Finish.

Compressing a Library

The Radia Library Wizard allows you to compress a library for archiving or shipping purposes.

To compress a library

Note

The Radia Extensions for Windows Installer compresses libraries into .cab format. The resulting file is a .LIBCAB file.

1. Start the Radia Packager for Windows Installer and select the Custom option, **Refine** selected components.

OR

From the Radia Packager for Windows Installer Program Group, start the **Radia Library** Wizard.

The Select an Action dialog box opens.



	Select an Action Create a Library Modify a Library Manage Libraries Manage Library Filters Manage Permissions Manage Substitutions Settings
Z Pos	Mauta Canad Hala

Figure 5.41 ~ Radia Library Wizard – Select an Action.

- **2.** Select Manage Libraries.
- 3. Click Next.

The Select a Library Management Action dialog box opens.

WIZARD	Select a Library Management Action C View a Library C Rename a Library C Change a Library C Delete a Library C Compress a Library C Decompress a Library
--------	--

Figure 5.42 ~ Radia Library Wizard – Select a Library Management Action.



- **4.** Select **Compress a Library**.
- 5. Click Next.

The Select the Library to be Managed dialog box opens.

	Select the L	ibrary to be Ma	anaged		
Name		Desc	ription		
🖉 Install Ar	alysis of Acrobat Read	ler 3.01 Insta	ll Analysis of A	crobat Reader (
🦧 Install Ar	alysis of Acrobat Read	ler 4.05 Insta	ll Analysis of A	crobat Reader 4	4
🦧 İnstall Ar	alysis of Acrobat Read	ler 4.0 Insta	ll Analysis of A	crobat Reader 4	1
•				•	1
	(Deal)	Maria	Connect	1	-
	< Васк	Next>	Lancel		

- **6.** Select the library that you want to compress. For example, now that you have updated packages available for Acrobat Reader, you may want to archive the first library you created.
- 7. Click Next.

The Library Compression Completed dialog box opens.

	17 0		
	Library Compres	sion Completed	
Library Compre	ssion Status		1
Library Compres	ssion Complete		Start
			 Stop
]

Figure 5.44 ~ Radia Library Wizard – Library Compression Completed.

8. Click Next.

The Select Finish to complete compressing the selected library dialog box opens.



Radia Library Wizard	×	1
	Select Finish to complete compressing the selected library.	
	Install Analysis of Acrobat Reader 3.01	
< B	ack Finish Cancel Help	

Figure 5.45 ~ Radia Library Wizard – Select Finish to complete compressing the selected library.

9. Click Finish.

The library is now compressed into a single LIBCAB (.cab format) file in the **Library** directory.

Folders ×	Name	Size	Туре
⊡ - 🔂 Library 🔺	Install Analysis of Acrobat Reader 4.0	3,077 KB	File Folder
⊕ - 🔁 Install Analysis of A	Install Analysis of Acrobat Reader 4.05		File Folder
⊕ - 🗋 Install Analysis of A	Install Analysis of Acrobat Reader 3.01.LibCab		LIBCAB File

Figure 5.46 ~ Radia Library Wizard – LibCab file in the Library directory.

Decompressing a Library

To decompress a library

1. Perform the same steps as you did in *Compressing a Library* on page 135, but in the Radia Library Wizard, select **Decompress a Library**.

	 Select a Library Management Action View a Library Rename a Library Change a Library Description Delete a Library Compress a Library Decompress a Library
Eigure 5 47 ~ Radia Library Wizard – Se	Next > Cancel Help

2. A list of compressed libraries opens.

Radia Library Wizar	d		X
	Select the Library to	be Decompressed	
Library Name		File Name	
Install Analysis of	Acrobat Reader 3.01	D:\AdvPub\Library\Inst	all Analysis of A
			Þ
<u></u>			
_	< Back Next	t> Cancel	Help
18 ~ Radia Library Wiza	ard – Select the L	library to be Deco	ompressed.

1	4	0
•	•	-

Radia Library Wizard	×
Library Decompression Completed	
Library Decompression Status Library Decompression Complete	Start Stop
< Back Next> Cancel	Help

Figure 5.49 ~ Radia Library Wizard – Library Decompression Complete.

3. Click Next.

Library decompression is finished.

4. Click Finish.

Creating Permissions

If you are using the NTFS file system on your workstations, you may need to adjust permission settings on certain folders, files, and registry settings within your package. The Radia Library Wizard allows you to set these settings within your library.

In the following example, you will to set up permissions to give everyone in your development group full access, power users to have read and execute access, and users to have only read access.

Note

In order to use advanced permissions in the Radia Library Wizard, Radia Advanced Features for Windows Installer must be installed on the target desktop.

Creating a Lock Permission List

To create a Permission Access Control Group

 Start the Radia Packager for Windows Installer and select Refine selected components. OR

From the Radia Packager for Windows Installer Program Group, start the **Radia Library** Wizard.

2. From the Radia Library Wizard, select Manage Permissions.

			Select an Action C Create a Library Modify a Library Manage Library Manage Library Manage Permis Manage Substi	y es y Filters ssions tutions	Settings	
--	--	--	--	---	----------	--

Figure 5.50 ~ Radia Library Wizard – Select an Action.

- 3. Click Next.
- 4. The Select a Permission Management Action dialog box opens.



Radia Library Wizard	Select a Permission Management Action © Create a Permission © Modify a Permission © Delete a Permission
< Back	Next > Cancel Help

Figure 5.51 ~ Radia Library Wizard – Select a Permission Management Action.

- **5.** Select Create a Permission.
- 6. Click Next.

The **Set Desired Permissions** dialog box opens. Use this dialog box to add the Development group to the list of groups and users.

Using Advanced Functions

Set the Desired Permissions	_
Permissions	- Permission
Access Control Settings	Select
Audit Access Lists	Save
Lock Permission Lists	
Groups and Users Add Group or User	Reset
Browse for Groups or Users	;
<back next=""> Car</back>	ncel Help

Figure 5.52 ~ Radia Library Wizard – Set Desired Permissions.

 Right-click Groups and Users and select Browse for Groups or Users. The Browse Users dialog box opens.

Enter the s	erver name and I	types of acco	ounts to browse
Server:			
	Account Typ C Groups C Users C G Groups	ce Selection- : Only Only : and Users	
OK	Ca	incel	Help

Figure 5.53 ~ Radia Library Wizard – Browse Users.

- **8.** In the **Server** text box, type the name of the machine from which you would like to browse the groups and users.
- 9. In the Account Type Selection area, select Groups and Users.
The Select the Users to Add to the Permission dialog box opens.

Radia Library Wizard - Browse Users 🛛 🛛 🗙
Select the Users to Add to the Permission
Groups and Users
Developers
DnsUpdateProxy
Domain Admins
Domain Computers
Domain Controllers
Domain Guests
Domain Users
Enterprise Admins
Group Policy Creator Owners
Sales
Scheme Admine
OK Cancel Help

Figure 5.54 ~ Radia Library Wizard – Browse Users.

10. Select the groups and users you would like to add.

- To select **multiple groups and users**, hold down the **Ctrl** key on your keyboard and select the appropriate groups and users.
- To select a **range of groups and users**, hold down the **Shift** key on your keyboard.

11. Click **OK**.

The **Set the Desired Permissions** dialog box opens. The groups and users that you selected have been added to your list of available Groups and Users.



ps:and Users %USERDOMAIN]\[LogonUser] %USERDOMAIN]\Administrator %USERDOMAIN]\Everyone %USERDOMAIN]\Guest ComputerName]\[LogonUser] ComputerName]\Administrator ComputerName]\Guest [LocalSystem] [LogonUser] Account Account	Select Save Reset
A = = =k O = = = = k =	

Figure 5.55 ~ Radia Library Wizard – Set Desired Permissions.

Next you need to create a **Lock Permission List**. When you apply a Lock Permission List to a folder, file, or registry key, all permissions associated with each group in the list are applied to that resource.

12. Scroll to the top of the **Set Desired Permissions** dialog box, and right-click **Lock Permission Lists** (see below).

Set the Desired Permissions		
		- Permission
Permissions		
Access Control Settings		Select
Permission Access Lists		
		Save
Add Lock Permissio	n List	Beset
- 1 [%USEBDOMAIN1VLogonUser]		
1 [%LISEBDOMAIN]\Administrator	L.	
1 [%LISEBDOMAIN]\Everyone		
	-	

Figure 5.56 ~ Radia Library Wizard – Set Desired Permissions.

13. From the shortcut menu, select **Add Lock Permission List** from the shortcut menu. The **Add Lock Permission List** dialog box opens.

Radia Libr	ary Wiza	rd - Add Lock Pe	rmission	List 🛛	×
Enter	a unique n	ame for the new Lo	ick Permis:	sion List	
Name:					
	IK	Cancel	Н	elp	

Figure 5.57 ~ Radia Library Wizard – Add Lock Permission List.

- **14.** In the Name text box, type a unique name for the new Lock Permission List.
- **15.** Click **OK**.
- **16.** In the **Set the Desired Permissions** dialog box, right-click the name of the newly created Lock Permission List.

Using Advanced Functions

Radia Library Wizard Set the Desired Permissions	×
Permissions Access Control Settings Permission Access Lists Audit Access Lists Lock Permission Lists Develo Add Lock Permission Entry Groups and [%USE] Copy Lock Permission List [%USE] Copy Lock Permission List [%USE] Delete L	Permission Select Save Reset
< Back Next > Cancel	Help

Figure 5.58 ~ Radia Library Wizard – Set Desired Permissions.

17. Select Add Lock Permission Entry.

The Add Lock Permission dialog box opens.

Select a Group or Use	r to Assign Loc	k Permissions	
[%USERDOMAIN]\/LogonUser] [%USERDOMAIN]\/Administrator [%USERDOMAIN]\/Everyone [%USERDOMAIN]\/Guest [%USERDOMAIN]\/Guest [ComputerName]\/LogonUser] [ComputerName]\/Administrator [ComputerName]\/Guest [LocalSystem] \(LocalSystem)] \(LocalSystem)] <th></th> <th></th> <th></th>			
OK	Cancel	Help	

Figure 5.59 ~ Radia Library Wizard – Add Lock Permission.

- **18.** From the list, select a user or group to assign Lock Permissions.
- **19.** Click **OK**.

The Lock Permissions dialog box opens.

adia Library W	izard - Lock Permissions - \Users	
Generic Rights	Standard Rights File Rights Registry Rights	
	Write Access	
	Execute Access	
	OK Cancel	Help

Figure 5.60 ~ Radia Library Wizard – Lock Permissions – Generic Rights tab.

20. Select Full Access.

Click OK to return to the Set Desired Permissions dialog box.

If you would like to add Lock Permissions for multiple groups or users, repeat the previous steps.



individuals. For more information on permissions, look on the Microsoft Web site or refer to a book on Windows NT or Windows 2000.

21. Click Next.

The Set the Description for the Permission dialog box opens.



adia Library Wizard		×
	Set the Description for the Permission	
Description:		
	< Back Next > Cancel Help	

Figure 5.61 ~ Radia Library Wizard – Set the Description for the Permission.

22. In the **Description** text box, type a description for the permission file.

23. Click Next.

The final dialog box opens.

Radia Library Wizard	Select Finish to save the selected permission.	KI I
< Back	Finish Cancel Help	

Figure 5.62 ~ Radia Library Wizard – Select Finish to save the selected permission.

24. Click **Finish** to complete the creation of your Permission File.

Using Substitutions

Substitutions allow you to have more flexibility and control over the installation of an application. With substitutions you can allow an application to dynamically add or replace information in a package, give a user the ability to enter information, or even add information to a certain location in a text or INI file. You saw one use of a substitution earlier when changing the installation target path for Acrobat Reader 3.01. In this example, you will personalize the Notice to User message included with Acrobat Reader.

Creating a Substitution

To create a substitution within a package

1. Start the Radia Packager for Windows Installer and select the custom option **Refine** selected components.

OR

From the Radia Packager for Windows Installer Program Group, start the Radia Library Wizard.

2. Select Manage Substitutions from the Radia Library Wizard.

	 Create a Library Modify a Library Manage Libraries Manage Library Filters Manage Permissions Manage Substitutions
--	--

Figure 5.63 ~ Radia Library Wizard – Select an Action.

3. Click Next.

The Select a Substitution Management Action dialog box opens.



|--|

Figure 5.64 ~ Radia Library Wizard – Select a Substitution Management Action.

- 4. Select Create a Substitution.
- 5. Click Next.

The **Set the Desired Substitutions** dialog box opens. The first step is to determine what you would like to replace, and set up a search to locate this information.

Using Advanced Functions

Set the Desired	d Substitutions	
Substitutions		- Substitution
Search/Replace Criteria	Search/Replace Criteria List	Load
🗄 🧰 Windows Installer Prop	Add Search/Replace Criteria	Add
		Save Reset
< Back	Next > Cancel	Help

Figure 5.65 ~ Radia Library Wizard – Substitutions.

6. Right-click **Search/Replace Criteria** and select **Add Search/Replace Criteria**. The **Add Search String** dialog box opens.

	Radia Library Wizard - Add Search String	×
	Enter a new search string	
	String: NOTICE TO USER:	
	OK Cancel Help	
-igure 5.66 ~ Radia Libr		

- **7.** In the **String** text box, type string for which you would like to search such as **NOTICE TO USER**.
- 8. Click OK.

The **Edit Search/Replace Criteria** dialog box opens. Use this dialog box to create a replacement variable to take the place of the string **NOTICE TO USER**.

1	5	4

adia Library Wizard - Edit Sear	ch/Replace C	riteria	
Enter	r the search/rep	lace criteria	
Search String: NOTICE TO USER	ł:		
Replace search string with:			
C Windows Installer Property	Replacement	ient Variable	O Do not Replace
Windows Installer Proper	ty	Repla	icement Variable
AdminToolsFolder	T		
		Add a Rep	lacement Variable
	; Comparison Op Match case Match whole str	otions	
			1

Figure 5.67 ~ Radia Library Wizard – Edit the Search/Replace Criteria.

- 9. In the Replace search string with area, select Replacement Variable.
- **10.** Click Add a Replacement Variable.

The Add Replacement Variable dialog box opens.

Select	he variable type and enter a unique na Variable Type Registry Value Ini File Value Environment Value User Interface Conditional Formatted NDS Attribute Radia Variable	me
Name:		

Figure 5.68 ~ Radia Library Wizard – Add Replacement Variable.

- **11.** In the Variable Type area, select Formatted.
- **12.** In the Name text box, type Notice_To_User.
- **13.** Click **OK**.

The **Edit Formatted Variable** dialog box opens. You can use this dialog box to personalize the NOTICE TO USER message. To personalize this message, you will combine the text with some dynamic information, such as the identification of the user who is logged on.



Radia Library Wizard -	Edit Formatted Variable
Notice_To_User	
	Formatted Property Value
NOTICE TO USER -	
	Add Windows Installer Property
	Add Replacement Variable
	Add Formatted Path Name
	Add Formatted Referenced File
<u> </u>	Cancel Help

Figure 5.69 ~ Radia Library Wizard – Edit Formatted Variable.

14. In the Formatted Property Value text box, type NOTICE TO USER -.

15. Click Add Windows Installer Property.

The Add Formatted Property dialog box opens.

Windows Installer Property USERNAME SystemFolder TempFolder TemplateFolder Time USERNAME WindowsFolder
USERNAME SystemFolder TempFolder TempIateFolder Time USERNAME WiddeweFolder
SystemFolder TempFolder TempIateFolder Time USERNAME WiddeweEader
WindowsVolume

Figure 5.70 ~ Radia Library Wizard – Add Formatted Property.

16. In the Windows Installer Properties list, select USERNAME.

17. Click **OK** to return to the **Edit Formatted Variable** dialog box.

1	5	7

- **18.** Type a colon (:) after **[USERNAME]**.
- **19.** Click **OK**.
- **20.** Click **OK** again to return to the **Set the Desired Substitutions** dialog box. Your search/replace criteria and replacement variable are now available for use as substitutions.

Set the Desired Substitutions	Substitution Load Add Save Reset
C Back Next >	Cancel Help

Figure 5.71 ~ Radia Library Wizard – Substitutions.

- 21. Click Next.
- 22. The Set the Description for the Substitution dialog box opens.

adia Library Wizard		×
	Set the Description for the Substitution	
Description:		
		_
_	<back next=""> Cancel Help</back>	

Figure 5.72 ~ Radia Library Wizard – Set Description for Substitution.

23. In the **Description** text box, type a description of the substitution.

24. Click Next.

The final dialog box opens.

Radia Library Wizard	Select Finish to save the selected substitution.	
< Back	[Finish] Cancel Help	

Figure 5.73 ~ Radia Library Wizard – Save the selected substitution.



25. Click **Finish** to complete your substitution.

Applying a Substitution to a Text File

Now that you have created your substitution, you need to apply that Substitution to your Acrobat Reader installation.

To apply a substitution within a package

1. Start the Radia Packager for Windows Installer and select the custom option **Refine** selected components.

OR

From the Radia Packager for Windows Installer Program Group, start the Radia Library Wizard.

2. Select Modify a Library from the Radia Library Wizard.

WIZARD	Select an Action C Create a Library Modify a Library Manage Libraries Manage Library Filters Manage Permissions Manage Substitutions Settings
--------	--

Figure 5.74 ~ Radia Library Wizard – Select an Action.

- 3. Click Next.
- 4. The Select the Type of Modification dialog box opens.

16	0



Figure 5.75 ~ Radia Library Wizard – Select the Type of Modification.

- **5.** Select Modify Installation Settings.
- 6. Click Next.

The Select the Library to Modify dialog box opens.

	Select the Library	to Modify	
Name		Description	
🧟 Install Analysis of A	Acrobat Reader 3.01	Install Analysis of Acrobat	Reader 3
🕼 Install Analysis of A	Acrobat Reader 4.05	Install Analysis of Acrobat	Reader 4
세덴 Install Analysis of A	Acrobat Reader 4.0	Install Analysis of Acrobat	Header 4
	Back Nevts	Cancel	Help

Figure 5.76 ~ Radia Library Wizard – Select the Library to Modify.

- **7.** Select the library to modify.
- 8. Click Next. The Modify Library Installation Settings dialog box opens.

Radia Library Wizard		2
Modify Lib	rary Installation Settings	
Install Analysis of Acrobat Rea	ader 4 of Directory List	
	File List	
Benistru	Module File List	
	Ini File List	
	Shortcut List	
	Text File List	
	Ini File Section List	
	Ini File Entry List	
	Ini File Data List	
	Changed Ini File Data List	
	Registry Key List	
	Registry Value List	
< Back	Registry Data List	

Figure 5.77 ~ Radia Library Wizard – Modify Library Installation Settings.

- **9.** Right-click the name of the library you selected. (For this example, we selected **Install Analysis of Acrobat Reader 4.05**).
- **10.** From the shortcut menu, select **File List**.

The **File List** dialog box opens. Before you can apply your substitution, you will verify that the file is being installed as a Text File and not a Data File.



🏽 🖁 Radia Library Wizard - File L	ist	_ 🗆 🗡
File Name	Path Name	▲
• (c)Adobe.txt + _apfb + _abpfm + _abpfm + _abipfm + _abipfm + _abipfm + _abipfb + _ebpfb + _ebipfb	File Type File Attributes Permission Selection Uninstall Mode Add File Copy File Move File Replace File Delete File Properties	Tobat 4.0\Resource\Font Tobat 4.0\Resource\Font
+ _ebipfm + _eipfb	C:\Program Files\Adobe\Ad C:\Program Files\Adobe\Ad	crobat 4.0\Resource\Font crobat 4.0\Resource\Font

Figure 5.78 ~ Radia Library Wizard – File List.

11. Right-click the text file, for example **(c)**Adobe.txt, and select **File Type** from the shortcut menu.

The **File Type** dialog box opens.

tadia Library Wizard - File Type C:\Program Files\Adobe\Acrobat 4.0\Reader\(c)Adobe.txt	×
Select the File Type	
 Data File The file will be created by writing the file with no substitutions. 	
 Text File The file will be created by writing the file with substitutions. 	
 Ini File The file will be installed by Ini File sections, entries, and values. 	
OK Cancel Help	

Figure 5.79 ~ Radia Library Wizard – Select the File Type.

- **12.** In the **Select the File Type** area, select **Text File**. This allows you to apply your substitution to the file.
- **13.** Click **OK** to return to the **File List** dialog box.
- 14. Right-click (c)Adobe.txt, and select Substitution Selection.

The **Substitution Selection** dialog box opens. The Radia Library Wizard searches the text document for the Search/Replace Criteria set.

Radia Library Wizard - Subs	stitution Selection
Select the searc	ch strings to substitute in this text file
File Name: C:\Program File	es\Adobe\Acrobat 4.0\Reader\(c)Adobe.txt
	Open
Ma	atching Search Strings
Search String	Replacement Variable
D NOTICE TO USER	Notice_to_User
[Substitutions
ОК	Cancel Help

Figure 5.80 ~ Radia Library Wizard – Substitution Selection.

15. Select the check box next to the Search String that you want to replace the text with.**16.** Click **OK**.



Radia Library Wizard	The library modification is complete. Select Finish to save the library data. You must rebuild any packages using this library to include these changes. Install Analysis of Acrobat Reader 4.05
< B	ack Finish Cancel Help

Figure 5.81 ~ Radia Library Wizard – The library modification is complete.

17. Click **Finish**. Now, you must rebuild your package before you can install your package with the substitution. See *Rebuilding a Package* on page 167 for more information.

After rebuilding and installing your package, you will see the changes applied to the text in the text file.



Figure 5.82 ~ Changes reflected in Adobe.txt file.

Using Radia Package Wizard Advanced Functions

The Radia Package Wizard provides you with an easy interface to work with all of the different built-in features of Windows Installer and more. In nearly all cases, the Radia Packager for Windows Installer removes the need for a manual package-editing tool and for learning about the Windows Installer database table structure.

To access these functions from the Radia Packager for Windows Explorer, select the custom option **Package components.**

Rebuilding a Package

In some situations, you may need to rebuild a package. For example, if you make changes to a library after creating a package, you must rebuild the package for the changes to take effect.

To rebuild a package for which the library has been modified

1. Start Radia Packager for Windows Installer and select the custom option **Package** components

OR

From the Radia Packager for Windows Installer Program Group, start the **Radia Package Wizard**.

The **Select an Action** dialog box opens.

PACKAGE	
	Select an Action C Create a Package Modify a Package Upgrade Multiple Products Manage Packages Manage Custom Actions
	Settings
< Back	Next > Cancel Help

Figure 5.83 ~ Radia Package Wizard – Select an Action.



- **2.** Select **Modify a Package**.
- **3.** Click **Next**. The **Package Modification Action** dialog box opens.

Radia Package Wizard	Package Modification Action Rebuild a Package Rebuild a Patch Package C Change Advanced Options
< Bac	k Next > Cancel Help

Figure 5.84 ~ Radia Package Wizard – Package Modification Action.

- 4. Select Rebuild a Package.
- 5. Click Next.

The Select the Product to Modify dialog box opens.



Radia Package Wizard				×
	Select the Pr	oduct to Modify		
Name	Description	Manufacturer	Updated On	
🕼 Acrobat Reader	Acrobat Reader	Novadigm, Inc.	2002/05/03 15:58:	21
•				ъ
				_
	KBack Ne	ext > Ca	ancel Help	

Figure 5.85 ~ Radia Package Wizard – Select the Product to Modify.

6. Select the appropriate product, then click Next.The Select the Package to Modify dialog box opens.

		onago to n	loany	
roduct Name	Description	Platform	Version	Comment
Acrobat Reader	Acrobat Reader	WinNT	1.4.5	Install Analysis of A
Acrobat Reader	Acrobat Reader	WinNT	1.4.0	Install Analysis of A
Acrobat Reader	Acrobat Reader	WinNT	1.3.1	Install Analysis of A
[Þ

Figure 5.86 ~ Radia Package Wizard – Select the Package to Modify.

Using Advanced Functions

7. Select the appropriate package, and then click Next.

The Select the Library from which the Package will be created dialog box opens.

	Select the Library from which I	the Package will be created
Name		Description
4 Insta	Analysis of Adobe Acrobat 5.0	Install Analysis of Adobe Acrobat 5.0
🖌 🖉 İnsta	I Analysis of Adobe Acrobat 4.0	Install Analysis of Adobe Acrobat 4.0
🖌 🖉 İnsta	II Analysis of Orca	Install Analysis of Orca
•		

Figure 5.87 ~ Radia Package Wizard – Select the Library from which the Package will be created.

- **8.** Select the name of the library that you modified.
- 9. Click Next.

The Advanced Options dialog box opens.



	Advanced Options	
Hardware Requirements	Platform Requirements	Software Requirements
Product Information	Package Information	User-Defined Properties
Installation Options	Reinstallation Options	Upgrade Options
Add/Remove Options	Services	Admin Install Options
Custom Actions	Setup.Exe Options	Insulation Options

Figure 5.88 ~ Radia Package Wizard – Advanced Options.

10. Make any necessary modifications to the Advanced Options.

11. Click Next.

The Package Analysis Completed dialog box opens.

- Parkana Fila Statu				
Package Analysis C	, omplete			
Path Count:	37	File Count:	84	Start
– Package Registry S	tatus			
Package Analysis C	omplete			Stop
Key Count:	161	Value Count:	107	

Figure 5.89 ~ Radia Package Wizard – Package Analysis Completed.

12. Click Next.

The **Package Results** dialog box opens.

a <mark>t Reader</mark> ckages I {FBE2A931-5959-	4541 0004 40513		
as C: gistry HKCU HKLM	4341-80064-1464	(419AB10)	
es IC gis IH IH	: .try IKCU IKLM	: .try IKCU IKLM	: /try IKCU IKLM

Figure 5.90 ~ Radia Package Wizard – Package Results.

13. Click Next.

The Package File Options dialog box opens.



Radia Package Wizard	×
Package File Options	
Cabinet File Creation	
Create the cabinet file	
Embed the cabinet file in the MSI file	
Patch Package Options Create a .MSP file that upgrades all prior builds Upgrade using entire file Upgrade using bit level differences only	
< Back Next > Cancel	Help

Figure 5.91 ~ Radia Package Wizard – Package File Options.

- 14. Leave Create the cabinet file selected.
- **15.** Select **Create a .MSP file that upgrades all prior builds** and make sure **Upgrade using entire file** is selected.

The option Create a .MSP file that upgrades all prior builds is only available when working with updates (new builds) of packages.	Note
	The option Create a .MSP file that upgrades all prior builds is only available when working with updates (new builds) of packages.

16. Click Next.

The package is created.



Using Advanced Functions

Radia Package Wizard		
Package Creation Completed		
Package Creation Status		
Package Creation Complete		Start
		Stop
< Back Next>	Cancel	Help

Figure 5.92 ~ Radia Package Wizard – Package Creation Completed.

17. Click Next.

Radia Package Wizard	The package modification is complete. Select Finish to save the update package files. Acrobat Reader\WinNT\1.4.5 Validate Package Launch Package Editor
<	Back Finish Cancel Help

Figure 5.93 ~ Radia Package Wizard – The package modification is complete.

18. Click Finish.

Using Advanced Options

The **Radia Package Wizard Advanced Options** dialog box is a portal to all Windows Installer Options available. In this exercise, you will set the Advanced Options to:

- Confirm that WRITE.EXE exists on the target machine before installing the Acrobat Reader Package.
- Install the Acrobat Reader package for all users of the machine.

To set a software requirement

1. Start Radia Packager for Windows Explorer and select the custom option **Package components**.

OR

From the Radia Packager for Windows Installer Program Group, start the **Radia Package Wizard**.

The Select an Action dialog box opens.



Figure 5.94 ~ Radia Package Wizard – Select an Action.

- 2. Select Modify a Package.
- 3. Click Next.

The Package Modification Action dialog box opens.



Radia Package Wizard	Package Modification Action Rebuild a Package Rebuild a Patch Package Change Advanced Options
< Back	Next > Cancel Help

Figure 5.95 ~ Radia Package Wizard – Package Modification Action.

- 4. Select Change Advanced Options.
- 5. Click Next.

The Select the Product to Modify dialog box opens.

	Select the Pr	oduct to Modify	
Name	Description	Manufacturer	Updated On
⊿ Acrobat Read	ler Acrobat Reader	Novadigm, Inc.	2002/05/03 15:5
•			

Figure 5.96 ~ Radia Package Wizard – Select the Product to Modify.

6. Select the appropriate product, and then click Next.The Select the Package to Modify dialog box opens.

	Select the Par	скаде (о м	oairy		
Product Name	Description	Platform	Version	Comment	
💼 Acrobat Reader	Acrobat Reader	WinNT	1.4.5	Install Analysis of A	
🧟 Acrobat Reader	Acrobat Reader	WinNT	1.4.0	Install Analysis of A	
🧟 Acrobat Reader	Acrobat Reader	WinNT	1.3.1	Install Analysis of A	
4				Þ	

Figure 5.97 ~ Radia Package Wizard – Select the Package to Modify.

 Select the appropriate package, and then click Next. The Advanced Options dialog box opens.

Using Advanced Functions

	Advanced Options	
Hardware Requirements	Platform Requirements	Software Requirements.
Product Information	Package Information	User-Defined Properties.
Installation Options	Reinstallation Options	Upgrade Options
Add/Remove Options	Services	Admin Install Options
Custom Actions	Setup.Exe Options	Insulation Options

Figure 5.98 ~ Radia Package Wizard – Advanced Options.

8. Click Software Requirements.

The Package Software Requirements dialog box opens.

Radia Package Wizard	×
Package Software Requirements	
Software Requirements	_
Product Requirements	
Add File Requirements	
	-
UK Cancel Help	

Figure 5.99 ~ Radia Package Wizard – Package Software Requirements.

1	78

9. Right-click **File Requirements**, and select **Add File Requirement**. The **Add File Requirement** dialog box opens.

ia Package Wizard	- Add File Requirement	×
Enter the	name of the required file	
File Name: C:\WINNT\:	system32\write.exe	
Bro	wse this Package	
Brow	ise Radia Packages	
Brov	wse Radia Libraries	
	Browse for Files	
ОК	Cancel He	elp

Figure 5.100 ~ Radia Package Wizard – Add File Requirement.

- **10.** Click **Browse for Files** and navigate to **WINNT\system32\write.exe**.
- 11. Click OK.
- 12. Click OK again.

The Edit File Requirements dialog box opens.

Enter the Required State for this File				
W	rite.exe			
File State This file m This file m	ust be installed ust not be installed			
Search Type: Start with the path in th	e Search Path field 📃 💌			
Search Path: C:\WINNT\system32				
Search in 0 subdirecto	ories below the starting search path.			
File Size	File Version (x.x.x.x)			
6416 6416	Minimum Maximum 5.0.2134.1 5.0.2134.1			
File Time (yyyy/mm/dd hh:mm:ss)	Manimum			
2000/07/26 17:00:00	2000/07/26 17:00:00			
ОК	Cancel Help			

Figure 5.101 ~ Radia Package Wizard – Edit File Requirements.

13. In the **File State** area, select **This file must be installed**.

The Radia Package Wizard pre-fills the remaining information for WRITE.EXE based on the version that exists on the machine.

14. Click **OK** to return to the **Package Software Requirements** dialog box. WRITE.EXE is listed as a software requirement for the package. If it does not exist on the target machine, the package will not be installed.

1	0	\mathbf{n}
1	n	"
	~	•
Radia Package Wizard	×	
--	---	
Package Software Requirements		
Software Requirements Product Requirements File Requirements write exe Registry Requirements		
OK Cancel Help		

Figure 5.102 ~ Radia Package Wizard – Package Software Requirements.

15. Click **OK** again to return to the **Advanced Options** dialog box.

	Advanced Options	
Hardware Requirements	Platform Requirements	Software Requirements
Product Information	Package Information	User-Defined Properties
Installation Options	Reinstallation Options	Upgrade Options
Add/Remove Options	Services	Admin Install Options
Custom Actions	Setup.Exe Options	Insulation Options

Figure 5.103 ~ Radia Package Wizard – Advanced Options.

16. Click Installation Options.

The Installation Options dialog box opens.

Select	the Installation Options for th	nis Package
🔲 Set Default User Interface	to Basic 🔽 Ex	ecute ODBC Driver Setup DIIs
Advertisement Mode Shortcuts and Registry	C Shortcuts Only C Re	egistry Only 🛛 C Do Not Advertis
Install Mode	Per Machine Install	C Record on Lloss Authority
Reboot if Necessary	C Always Reboot	C Suppress Reboots
Windows Installer Execution Op	tions Disable Rollback	No Advertised Shortcuts
File Replacement Mode	C If Equal or Older	C If Different C Always

Figure 5.104 ~ Radia Package Wizard – Installation Options.

- **17.** In the **Install Mode** area, select **Per Machine Install**. This option installs the application for all users. When another user runs the application on the same machine, only the user specific settings will be installed.
- **18.** Click **OK**.
- 19. Click Next.

The Select Finish to change the package information dialog box opens.



Radia Package Wizard	×
PACKAGE WIZARD	Select Finish to change the package information. Acrobat Reader\WinNT\1.4.5 Validate Package
	Launch Package Editor
<	Back Finish Cancel Help
Figure 5.105 ~ Radia Package Wiza	ard – Select Finish to change the package informatic

20. Click **Finish** to complete the package.

Upgrading Multiple Products

Sometimes you need to update a certain resource in several products, and you do not want to sort through all your products to find the applications that use the resource. The Radia Package Wizard will find the packages that use a resource, and update the resource in any of these products. To upgrade multiple products, you will need multiple Products to upgrade and a Library that contains the resources you wish to update.

To upgrade multiple products

1. Start Radia Packager for Windows Explorer and select the custom option **Package components**.

OR

From the Radia Packager for Windows Installer Program Group, start the **Radia Package Wizard**.

The Select an Action dialog box opens.

Select an Action Create a Package Modify a Package Upgrade Multiple Products Manage Packages Manage Custom Actions	PACKAGE WIZARD
---	-------------------

Figure 5.106 ~ Radia Package Wizard – Select an Action.

- **2.** Select **Upgrade Multiple Products**.
- 3. Click Next.

The Select the Products to Search for Packages with Matching Files dialog box opens.

1	8	4

Name	Description	Manufacturer
🧟 Acrobat Reader	Acrobat Reader	Novadigm, Inc
🗐 Another Acrobat Reader	Another Acrobat Reader	Novadigm, Inc
🖉 Yet Another Acrobat Reader	Yet Another Acrobat Reader	Novadigm, Inc

Figure 5.107 ~ Radia Package Wizard – Select the Products to Search for Packages with Matching Files.

Select the products to search for files to upgrade and then click Next.
 The Select the Library that will Upgrade the Product(s) dialog box opens.

idia Package Wi	zard		×
	Select the Library that will Upgra	ade the Product(s)	
Name	D	escription	
🛛 🧟 Install Analy	sis of Acrobat Reader 3.01 In	stall Analysis of Acrobat	Reader 3
🕼 Install Anal	sis of Acrobat Reader 4.05 In	stall Analysis of Acrobat	Reader 4
🖌 🕼 Install Anal	sis of Acrobat Reader 4.0 In	istall Analysis of Acrobat	Reader 4
4			Þ
	< Back Next >	Cancel	Help

Figure 5.108 ~ Radia Package Wizard – Select the Library that will Upgrade the Products.

- **5.** Select a library from which the products will be upgraded.
- 6. Click Next.

The **Set the Package Search Options** dialog box opens. Use this dialog box to set limits on the Search Criteria.

	Catula D	I C I-	0-1-		
	Set the P	ackage Search	Uptions		
- Pac	kage Search Criteria				
V	Limit search to libra	ry's operating sy	stem platform		
V	Limit search to the I	atest version of	a product		
	Limit search to the I	atest release of	each product ver	sion.	
No	te: Only the latest bu	uild is upgraded.	within a product re	elease	
_ File	Comparison Criteria-				
0	Compare file and ta	rget path name:	\$		
•	Compare file names	only			
	(-	1	

Figure 5.109 ~ Radia Package Wizard – Set the Package Search Options.

- 7. In the Package Search Criteria area, select Limit the search to library's operating system platform.
- 8. In the File Comparison Criteria area, select Compare file names only.
- 9. Click Next.

The Radia Package Wizard searches for matching files to upgrade.



P	ackage Search	1 Completed		
Package Search St	atus			Start
Products:	npiete 2	Packages:	2	Stop

Figure 5.110 ~ Radia Package Wizard – Package Search Completed.

10. Click Next.

The **Select the Packages and Files to Upgrade** dialog box opens. You are given the ability to select which files to upgrade in the packages.

Select the Packages and Files to Upgrade	
Products Another Acrobat Reader WinNT_1.4.0 Yet Another Acrobat Reader WinNT_1.4.0 WinNT_1.4.0	
< Back Next > Cancel Help	_

Figure 5.111 ~ Radia Package Wizard – Select the Packages and Files to Upgrade.

11. Select the packages and files to upgrade.



12. Click Next.

The Package File Options dialog box opens.

Radia I	Package Wizard	×
	Package File Options	
	Patch Package Options ✓ Create a .MSP file that upgrades all prior builds ✓ Upgrade using entire file ✓ Upgrade using bit level differences only	

Figure 5.112 ~ Radia Package Wizard – Package File Options.

13. Click **Next** to upgrade the product.





Radia Package Wizard	×
Product Upgrade Completed	
Product Upgrade Status	
Product Upgrade Complete	Start
< Back Next> Cancel	Help

Figure 5.113 ~ Radia Package Wizard – Product Upgrade Completed.

- **14.** Click **Next** when the product update is complete.
- **15.** Click **Finish** to exit the Radia Package Wizard.
- **16.** Use Windows Explorer to view the upgrade packages within the product.



Figure 5.114 ~ Upgrade packages within a product.

Editing a Package Template

You can use package templates to create packages that contain the same basic information. If you are using any kind of user interface, you can also modify that to give your packages a common appearance. In this section, you will modify a copy of the existing Radia Package Template.

To modify a package template

1. Start Radia Packager for Windows Explorer and select the custom option **Package components**.

OR

From the Radia Packager for Windows Installer Program Group, start the **Radia Package Wizard**.

The Select an Action dialog box opens.

Radia Package Wizard PACKAG E WIZARD	X
	Select an Action C Create a Package Modify a Package Upgrade Multiple Products Manage Packages Manage Custom Actions
	Settings
< Back	Next > Cancel Help

Figure 5.115 ~ Radia Package Wizard – Select an Action.

- 2. Select Manage Packages.
- 3. Click Next.

The Package Management Action dialog box opens.

Radia Package Wizard	Package Management Action View a Package Delete a Package Delete a Product Manage Package Templates
< Bac	k Next > Cancel Help

Figure 5.116 ~ Radia Package Wizard – Package Management Action.

- 4. Select Manage Package Templates.
- 5. Click Next.

The Select the Package Template File to be Managed dialog box opens.

R	Adia Package Wizard Select the Package Template File to be Managed Package Templates Edit this Template Rename this Template Delete this Template Delete this Template	
	<pre> Cancel He</pre>	p

Figure 5.117 ~ Radia Package Wizard – Select the Package Template File to be Managed.

6. Right-click **Templates** and select **Copy this Template**. If you want to edit an existing template, right-click the template and select **Edit this Template**.

The **Copy Template** dialog box opens.

Radia Package Wizard - Copy Template	×
Enter the description of the copied package template file	
Custom Template	
OK Cancel Help	
e 5 118 ~ Radia Package Wizard – Conv Template	

- **7.** In the text box, type a description for the new template.
- 8. Click OK.

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-----	--

The Edit Template dialog box opens. See the following procedures for more information.

To modify a bitmap



1. In the **Modify the Package Template settings** dialog box, right-click the name of the bitmap image that you want to modify, such as **bannrbmp**.

Custom Template
Bannib View this Bitmap dlgbmp Import a new Baynap File ARPHE Export Bitmap to a File ARPHELPTELEPHONE BannerBitmap ButtonText_Back ButtonText_Cancel View this Bitmap

Figure 5.119 ~ Radia Package Wizard – Edit Template – modify package template settings.

Note

If you want to preview the bitmap, right-click the name of the bitmap and select **View this Bitmap**. Click the close button to exit the preview of the image.

2. Select **Export Bitmap to a File**.

The **Bitmap Export** dialog box opens.

1	a	2
1	3	J

Radia Pa	ckage Wizaro	l - Bitn	nap Export		
	En	ter the (exported bitm	ap file	name
			bannrbmp		
D:\Inst	tallBMP\InstallB	Exp anner.B	oorted File Na Imp	me	
,					Browse
	ОК		Cancel		Help

Figure 5.120 ~ Radia Package Wizard – Bitmap Export.

- **3.** In the **Exported File Name** text box, type the path and filename for the file that you want to export.
- 4. Click OK.
- **5.** Leave the Radia Package Wizard open and use an image editor, such as Paint, to modify the bitmap.
- **6.** Save the file when you are done with your changes.
- **7.** Go back to the Radia Package Wizard, where the **Modify the package template settings** dialog box is open.

Mod	ify the package template settings	
Custom Template	View this Bitmap Import a new Bitmap File Export Bitmap to a File TELEPHONE nap t_Back _Browse t_Cancel	
	Canad L Hala	_

Figure 5.121 ~ Radia Package Wizard – Edit Template – Modify the package template settings.

- **8.** Right-click the name of the bitmap that you want to modify, such as **bannrbmp**.
- 9. Select Import a new Bitmap File.

The **Bitmap Import** dialog box opens.

	_				
Enter the imported bitmap file name					
bannrbmp					
Imported File Name	,				
D:\InstallBMP\InstallBanner.Bmp					
Browse]				
OK Cancel Help					

Figure 5.122 ~ Radia Package Wizard – Bitmap Import.

- **10.** Click **Browse** and select the bitmap that you modified.
- **11.** Click **OK** to return to the **Modify the package template settings** dialog box.

To modify a property



1. In the **Modify the package template settings** dialog box, right-click the name of the property that you want to modify, and click **Edit this Property**.

Radia Package Wizard - Edit Template Modify the package template settings	×
Custom Template Bitmaps bannrbmp dlgbmp Properties ARPHELPLINK ARPHELPTEL Delete this Property BannerBitmap ButtonText_Back ButtonText_Browse ButtonText_Cancel	•
OK Cancel Help	

Figure 5.123 ~ Radia Package Wizard – Edit Template – Modify the package template settings.

The Edit property dialog box opens.



Radia Package Wiza Enter	rd - Edit Property the desired property	value	X
		1340	
Property: ARPHELPLINK			
Value: http://sup	oport.product.com		
	Coursel	1	
UK	Lancel	Help	



- 2. Type the value that you want included in this property for all of your packages.
- 3. Click OK.

To add a property

Note	
See the procedure <i>To modify a package template</i> on page 190 for instructions on how to access the Modify the package template settings dialog box.	

1. In the **Modify the package template settings** dialog box, right-click **Properties**. The **Edit Template** dialog box opens.

Using Advanced Functions

Radia Package Wizard - Edit Template Modify the package template settings	x
Custom Template Bitmaps bannrbmp digbmp Custom Template bannrbmp digbmp Custom Template Bannrbmp ARPHAdd a Property ARPHAdd a Property ARPHAdd a Property ARPHAdd a Property BannerBitmap Button Text_Back Button Text_Back Button Text_Cancel	
OK Cancel Help	

Figure 5.125 ~ Radia Package Wizard – Edit Template.

- **2.** Select Add a Property.
- 3. The Add Property dialog box opens.

Enter the new Property Name Property Packager
Property: Packager

Figure 5.126 ~ Radia Package Wizard – Add Property.

4. Type a name for the property.

5. Click OK.

The Edit Property dialog box opens.

Radia Package Wizard - Edit Property	×
Enter the desired property value	
Property: Packager	
Value: Jane Smith	1
,	
OK Cancel Help	



- 6. Type the value that you want in this property for all your packages.
- 7. Click OK.
- 8. Click OK again to close the Edit Template dialog box.
- 9. In the Radia Package Wizard, click Next.
- **10.** Click **Finish** to exit the Radia Package Wizard.



Figure 5.128 ~ Radia Package Wizard – Exiting the Wizard.

Enabling Radia Advanced Features Machine/User Support

In order to take advantage of the Radia Advanced Features machine/user support, the Client Components of the Radia Extensions for Windows Installer must be installed on your client computers. Refer to the *Radia Extensions for Windows Installer Getting Started Guide* for more information.

Note to I-Lab Users

Radia Advanced Features are only licensed in the Radia Extensions I-Lab product for testing purposes within a laboratory environment.

Prerequisites

Machine/user support requires the following prerequisite components:

- Radia Client version 3.1 or above
- Radia Administrator Workstation version 3.1 or above

Enabling Machine/User Support

To Publish a Package to Radia with Machine/User support enabled

- **1.** Publish a package to Radia using the Radia Publisher (refer to the *Radia Publisher Guide* for details).
- **2.** At the **Radia Machine/User Support** window, select the check box. This will enable the four previously unavailable check boxes (notice the first three check boxes are selected by default this is the recommended configuration for enabling machine/user support). An explanation of each check box option follows.
 - Enable shortcuts when the User MSI package is installed. During the machine install, all shortcuts are removed from the All Users profile. Then during the user connect or install these shortcuts are placed in the user's profile.
 - Enable HKCR registry values when the User MSI package is installed. During the machine install, all HKEY_CLASSES_ROOT registry information is removed from the Local Machine (HKLM) hive. During the user connect, this information is placed in the Current User (HKCU) hive. This enables features such as right-click options available only when the package is installed.
 - Enable private Exe execution when the User MSI package is installed. Permissions will be placed on non-shared Exe files in the package to deny access to all



non-administrators (administrators can change permissions, so no restriction is given to them). When the user install is run, these deny permissions will be removed. This prevents direct access to the executable.

- Enable private Dll execution when the User MSI package is installed. This is the same as the previous option, except for Dlls. Shared Dlls are not denied access to prevent issues with other applications that might use the resource.
- 3. Finish promoting the package as you would normally.
- **4.** Once the package is promoted to the Radia Database, use the Radia System Explorer to create a new Service (see the *Radia System Explorer Guide* for details).
 - Create the new Service with the Application Target Type set to Application Manager.
 - After the Service is created, make sure the ZSYSACCT is set to N. It should not be set to Y. If the ZSYSACCT is set to Y, you will not be able to deploy the user portion of the install.
 - Make sure the Service's ZSVCMODE is set to MU. This will enable Machine/User installations of the Service.
- **5.** Use the System Explorer to attach the new Service to a policy instance. The next time a client connect takes place, the appropriate files will be installed.
 - When the client computer connects using the **Machine** context, the machine portion of the application is installed. At this point, the application is not yet available to any users on the machine.
 - When a connection is made in **User** context, the application is enabled for the user designated.

Summary

- Use the Radia State Wizard advanced functions to combine and manage state files.
- Use the Radia Library Wizard advanced functions to compress or decompress a library.
- Use the Radia Package Wizard advanced functions to rebuild a package, upgrade multiple products, or edit a package template.
- Select the Custom option **Identify resources to package** from Radia Packager for Windows Installer to open the Radia State Wizard.
- Select the Custom option **Refine selected components** from Radia Packager for Windows Installer to open the Radia Library Wizard.
- Select the Custom option **Package components** from the Radia Packager for Windows Installer to open the Radia Package Wizard.





Filtering

At the end of this chapter, you will:

- Be able to set default filters.
- Be able to view filters.
- Be able to create filters.
- Be able to use filters.

Filtering

Filters are one of the most important ingredients in building application installation packages. You can define filters that allow you to limit the amount of data gathered during a machine scan or that are written to a Radia library and installation package. Filters allow you to include or exclude the following:

- A specific drive or set of drives, including network drives
- A specific directory or set of directories
- Specific files
- A specific Windows registry key or set of keys

When running the Radia Packager for Windows Installer Unified package creation process, as well as the Radia State Wizard or Radia Library Wizard, you can create a new filter, apply additional inclusion or exclusion filters to the existing filter settings, save your filter, reset the filter to the last saved or selected filter, or load a previously saved filter.

Using Default Filters

The Radia Packager for Windows Installer provides default filters. Installations can select their own default filters on the **Radia Packager for Windows Installer Setting** dialog box. On the **Install Analysis**, **Machine Scan**, and **Library** tabs of this Setting dialog box, a **Default Installation Filter File** entry specifies installation-defined default filtering options for the various types of processes. If you do not define an installation filter, a default filter is applied.

For example, you can build a base machine default scan filter that excludes network directories from being scanned when performing an install analysis, since no resources are to be installed to network locations.

The dialog box used to view and modify the filter allows you to expand/collapse the branches or the filter and select/remove an item from the filter set.

Viewing Filters

You can use standard Windows Explorer techniques to expand and collapse the branches of the path, files, and registry tree:

- E Click on a collapsed branch indicator to expand the first level below the item.
- **E** Right-click on a collapsed branch indicator to fully expand all levels below the item.
- E Click on an expanded item indicator to collapse it to that level.

Including Resources in a Filter

A check box to the left of an entry indicates whether the entry, and any of its children, will be included in the scan.



- A check mark in a white box indicates the entry will be included in the scan. For entries with children, a check mark in a white box indicates all children of the entries are included in the scan.
- A gray box with a check mark indicates that the entry and at least one, but not all, of the children of the entry are selected.
- A gray box without a check mark indicates that the entry itself is not included in the scan, but at least one of its children is selected.
- A white box indicates the entry is not included; nor are any of its children.

Creating Filters

Filters can be created and modified in both the Radia State Wizard and Radia Library Wizard. You can manually create filters or dynamically create them from other States, Libraries, or Packages. Filters can also be created during the State or Library creation process, as well as during the Typical Unified package creation process.

To manually create filters

1. Start the Radia Packager for Windows Installer and select the custom option **Identify resources to package**.

OR

From the Radia Packager for Windows Installer Program Group, start the ${\bf Radia\ State\ Wizard}.$

The Select an Action dialog box opens.

Radia State Wizard
Select an Action Create an Install Analysis State Create an Execution Analysis State Create a Machine Analysis State Convert to a State Combine Two States Manage States Manage States Manage States Analysis State

Figure 6.1 ~ Radia State Wizard – Select an Action.

- 2. Select Manage Scan Filters.
- 3. Click Next.

The Select a Filter Management Action dialog box opens.

Figure 6.2 ~ Radia State Wizard – Select a Filter Management Action.

4. Select **Create a Filter**.

5. Click Next.

The Select the Filter Source dialog box opens.



Figure 6.3 ~ Radia State Wizard – Select the Filter Source.

- 6. Click From the Default Filter.
- 7. Click Next.

The Select the Filter Type dialog box opens.

Radia State Wizard	Select the Filter Type Install Analysis Filter Machine Scan Filter
<	Back Next > Cancel Help

Figure 6.4 ~ Radia State Wizard – Select the Filter Type.

- 8. Select Install Analysis Filter.
- 9. Click Next.

The Select the paths, files and registry entries to scan dialog box opens.

Scan Filter Filter File Scan Filter Select Include Exclude Save Reset Network Network

2	n	C
2	υ	o

10. Modify the filter using the following techniques to select/remove entries from the scan.



- Select a collapsed branch to include all children of an entry in the scan.
- To select individual entries in a branch, expand the branch and select each entry to be included in the scan.
- Click **Include** or **Exclude** to select one or more filters from which to add or subtract resources from the current filter. This is an extremely powerful feature for eliminating known resources from a state, library, or package file if the resources already exist on the workstations where the packaged software is to be installed. For example, you may have an OLE filter and an MDAC filter to eliminate resources from being included into distribution packages, if these resources are already on the machine.

11. Click Next.

The Set the Description for the Filter dialog box opens.

Radia State Wizaro	1		×
	Set the Description for the I	Filter	
Description:			
	< Back Next >	Cancel	Help

Figure 6.6 ~ Radia State Wizard – Set the Description for the Filter.

- **12.** In the **Description** text box, type in a description, and then click **Next**.
- **13.** Click **Finish** to save the filter.



Filtering

To create a filter from a library

1. Start the Radia Packager for Windows Installer and select the custom option **Refine** selected components.

OR

From the Radia Packager for Windows Installer Program Group, start the **Radia Library** Wizard.

The **Select an Action** dialog box opens.

	 Create a Library Modify a Library Manage Libraries Manage Library Filters Manage Permissions Manage Substitutions 	Settings
--	--	----------

Figure 6.7 ~ Radia Library Wizard – Select an Action.

- 2. Select Manage Library Filters.
- 3. Click Next.

The Select a Filter Management Action dialog box opens.



Radia Library Wizard	Select a Filter Management Action © Create a Filter © Modify a Filter © Delete a Filter
< Back	Next > Cancel Help

Figure 6.8 ~ Radia Library Wizard – Select a Filter Management Action.

- **4.** Select **Create a Filter**.
- 5. Click Next.

The Select the Filter Creation Mode dialog box opens.

	Select the Filter Creation Mode C Create from a State C Create from a Library C Create from a Package C Create from a Merge Module Group
--	--

Figure 6.9 ~ Radia Library Wizard – Select the Filter Creation Mode.

6. Select **Create from a Library**.

Filtering

7. Click Next.

The Select the Library to Create the Filter From dialog box opens.

Select the Library to Create the Filter From Name Description Install Analysis of Adobe Acrobat Install Analysis of Adobe Acrobat Install Analysis of Acrobat Reader 4.05 Install Analysis of Acrobat Reader 4.05	tadia Library W	izard		
Name Description Install Analysis of Adobe Acrobat Install Analysis of Adobe Acrobat Install Analysis of Acrobat Reader 4.05 Install Analysis of Acrobat Reader 4.05		Select the Library to	Create the Filter Fro	m
a Install Analysis of Adobe Acrobat Install Analysis of Adobe Acroba a Install Analysis of Acrobat Reader 4.05 Install Analys	Name		Description	
🖟 Install Analysis of Acrobat Reader 4.05 Install Analysis of Acrobat Read	👍 Install An	alysis of Adobe Acrobat	Install Analysis	of Adobe Acrobat
	🕼 İnstall An	alysis of Acrobat Reader 4.	.05 Install Analysis	of Acrobat Reade
	<u>ا</u>			

Figure 6.10 ~ Radia Library Wizard – Select the Library to Create the Filter from.

- 8. Select the library from which you want to create the filter.
- 9. Click Next.

The Select the Paths, Files and Registry Entries to Include dialog box opens.



tadia Library Wizard Select the Paths, Files and Registry Entries to Include	×
Library Filter - Install Analysis of Adobe Acrobat	Filter Select Include Exclude Save Reset
< Back Next > Cancel	Help

Figure 6.11 ~ Radia Library Wizard – Select the Paths, Files and Registry Entries to Include.

- **10.** If necessary, modify the filter. See *Using Filters* on page 214 for more information.
- 11. Click Next.
- **12.** The **Set Description for the Filter** dialog box opens.

dia Library Wizard	×
Set the Description for the Filter	
Description: Install Analysis of Adobe Acrobat	_
< Back Next > Cancel	Help

Figure 6.12 ~ Radia Library Wizard – Set the Description for the Filter.

2	1	3

Filtering

- **13.** In the **Description** text box, type a description of the filter.
- 14. Click Next.
- **15.** Click **Finish** to exit the Radia Library Wizard.

Using Filters

When creating or modifying a filter using the Radia State Wizard or the Radia Library Wizard, you will notice a set of buttons on the right side of the **Select Paths, Files and Registry Entries to Include** dialog box. This section describes how to use these buttons.

Radia Library Wizard Select the Paths, Files and Registry Entries to Include Library Filter - Install Analysis of Adobe Acrobat	Filter Select Include Exclude Save Reset
< Back Next > Cancel	

Figure 6.13 ~ Radia Library Wizard – Filter buttons in the Radia Library Wizard.

Table 6.1 ~ Filter buttons		
Button	Description	
Select	Click Select to select and load a previously saved filter from those listed in the Filter Directory. This will clear all other applied filters.	
	Note: The Filter Directory is specified on the Paths dialog box of the Radia Default Settings dialog box, launched from the Settings button from any Radia Wizard.	
Include	Click Include to include a previously saved filter's resources from those listed in the Filter Directory. The resources selected in the inclusion filter are selected for the current filter. If filters are multi-selected at the same time, they are applied in the order listed.	

Table 6.1 ~ Filter buttons		
Button	Description	
Exclude	Click Exclude to exclude a previously saved filter's resources from those listed in the Filter Directory. The resources selected in the exclusion filter are cleared from the current filter. If filters are multi-selected, they are applied in the order listed.	
Save	Click Save to save or replace the current filter with a user-assigned description. Note: Click OK to save the filter to the location specified as the Filter Directory in the Radia Settings. If the filter name is the same, it replaces the filter with the given name.	
Reset	Click Reset to reset the current scan filter to the last saved or selected filter.	
Network (available in the Radia State Wizard)	From the Radia State Wizard, click Network to select an external path on the Network to add to a state filter. Click Network to add remote paths to the File Scan Filter list. You can access any path available through Windows Network Neighborhood. Use the Browse Folder dialog box to locate the desired path. Click on the selected path (the item will be highlighted), and then click OK to add the path to the list of File Scan Filter locations. Add one path a time.	

Resetting to a Default, Previously Selected, Saved Filter

Click **Reset** to reset to the last saved, selected, or default filter for the analysis type.

Click **Select** to apply a previously saved filter from the list of filters saved to the **Saved Filter path**, as set in the **Default Settings** dialog box. Load a saved filter to ensure the same filter is used for a given analysis.

Saving Filters

Click **Save** to save the current filter to its own file, with a description you enter. Filters may also be created from the **Manage Scan Filters** or **Manage Library Filters** options of the Radia State and Radia Library Wizards, respectively.

Deleting Filters

To delete individual filters, click **Select** to view the list of filters. Then, right-click and select **Delete** from the shortcut menu.

Filters may also be deleted from the **Manage Scan Filters** or **Manage Library Filter** options of the Radia State and Radia Library Wizards, respectively.

Filtering

Summary

- Use the Radia State Wizard to create filters. The Radia State Wizard opens when you select **Identify resources to package** from the Radia Packager for Windows Installer.
- Use the Radia Library Wizard to apply filters. The Radia Library Wizard opens when you select **Refine selected components** from the Radia Packager for Windows Installer.


Merge Modules

At the end of this chapter, you will:

- Understand Merge Modules.
- Know how to create a Merge Module.
- Know how to create a Merge Module Group.

Merge Modules

Merge Modules are simplified Windows Installer packages that cannot be installed on their own, but are instead installed by merging them with a complete MSI. These simplified packages are designed to install shared components. Ideally, no two packages would install the same component. Instead, that component would be installed from one resource shared between them. This allows Windows Installer to always properly increment the resource counter for the component. If a component is identified by two different unique identifiers, then the reference count will not be properly incremented when the second application's dll overwrites the first application's.

Radia packages are built in such a way that this does not become a problem, but you may want to work with pre-existing Merge Modules or to create your own to pass to other administrators on your team. The Radia Merge Module Wizard provides you with a familiar interface (the process is very similar to the Radia Package Wizard) to create and maintain your Merge Modules.

HP supplies a group of basic Windows 2000 Merge Modules with the Radia Packager for Windows Installer installation. These Merge Modules and ones you create are easily applied to your packages through the Radia Library Wizard. Through this chapter, you will learn some of the basics for working with Merge Modules.

Creating a Merge Module

Merge Modules, just as packages, are created from libraries. In a fashion similar to Packages, Merge Modules are created in Merge Module Products. Within a Merge Module Product you might have several different versions of Merge Module packages. Use the Radia Merge Module Wizard to create Merge Modules. To launch the Radia Merge Module Wizard, select it from the Radia Packager for Windows Installer Program Group.

Merge Module Groups

To be integrated into a library, a Merge Module must first be part of a Merge Module Group. Merge Module Groups help to organize Merge Modules and provide a single location from which the modules are referenced.

Analyzing a Merge Module

If you receive a pre-built Merge Module, you will need to analyze it and create a Radia Merge Module product for it before you are able to include it in your libraries and packages.

Applying a Merge Module

Because Merge Modules deal with resources and how they are used in your package, they are integrated through the Radia Library Wizard. You may recall seeing a dialog box requesting

Merge Module information when creating a library. That is where Merge Module information is displayed (including Merge Modules that match resources in your library) and you are permitted to select Merge Modules to include in your final package. You can also add Merge Modules by modifying a library.

To apply a merge module

1. Start the Radia Packager for Windows Installer and select the custom option **Refine** selected components.

OR

From the Radia Packager for Windows Installer Program Group, start the **Radia Library** Wizard.

Settings		Select an Action C Create a Library Modify a Library Manage Libraries Manage Library Filters Manage Permissions Manage Substitutions	Settings
----------	--	--	----------

Figure 7.1 ~ Radia Library Wizard – Select an Action.

- **2.** Select **Modify a Library**.
- 3. Click Next.

The Select the Type of Modification dialog box opens.



Figure 7.2 ~ Radia Library Wizard – Select the Type of Modification.

- 4. Select Modify Included Merge Modules.
- 5. Click Next.

The Select the Library to Modify dialog box opens.

	Select	the Library to Mor	lifu	
	56600	ine cibialy to Mot	шу	
Name		Descr	iption	
🖌 🖉 Install Ar	alysis of Acrobat Re	ader 4.05 Install	Analysis of Acrob	at Reade
•				j
•				
•	C Back	Nevts	Cancel	Heli

Figure 7.3 ~ Radia Library Wizard –Select the Library to Modify.



6. Select the library to modify and click Next.

The Select the Merge Module Packages to include in the Library dialog box opens.

Adia Library Wizard Select the Merge Module Packages to include in the Library Merge Modules Commended Merge Modules to Include Commended Merge Merge Modules to Include Commended Merge	X
< Back Next > Cancel Help	-

Figure 7.4 ~ Radia Library Wizard – Select the Merge Module Packages to include in the Library.

Right-click on Merge Modules and select Select Merge Module Group.
 The Select the Merge Module Group that contains the Merge Module to include dialog box opens.

dule Group Ado.	be Acrobat Merge M	odule Grou



8. Select the Merge Module Group with which you want to work. A default Merge Module group can be selected in the Radia Packager for Windows Installer Settings and recommended Merge Modules will be displayed automatically with every library you create.

The Radia Library Wizard quickly determines which Merge Modules in your Merge Module Group contain matching resources with your library and recommends Merge Modules to include. The exact matching resources are displayed to allow you to make an informed decision on whether or not to include the module.

9. Click OK.

The Select the Merge Module Packages to include in the Library dialog box opens.



erge Modules	-				1
Recommended	Merge Modul	es to Include	100		
-⊔ 🔐 Install Ar ⊕-, — Matchir	naiysis of Adoi na Files	De ACIODA(-	1.0.0		
🗄 🎯 Matchin	ng Registry				
🖻 🦲 Merge N	vlodule Resou	irces			
🕀 💼 File:	S				
⊞ ∰ Re <u>c</u> ⊞ ∰ Msr	jistry n Files				
	erge Modules Recommended Install Ar Install Ar Matchin Matchin Merge N Rec Rec Merge N Merg	erge Modules Recommended Merge Modul Matching Files Matching Registry Matching Registry Files Files Marge Module Resou Merge Module Resou Merge Module Resou Marge Module Resou Marge Module Resou	erge Modules Recommended Merge Modules to Include □ Install Analysis of Adobe Acrobat - 1 □ - Matching Files □ - Marching Registry □ - Files □ - Files	erge Modules Recommended Merge Modules to Include □ Install Analysis of Adobe Acrobat - 1.0.0 □ Install Ana	erge Modules Recommended Merge Modules to Include □ Install Analysis of Adobe Acrobat - 1.0.0 □ Install Ana

Figure 7.6 ~ Radia Library Wizard – Select Merge Module Packages to include in Library.

10. Select the check the box next to the modules you wish to include.

11. Click Next.

Radia Library Wizard	×
Library Merge Module Analysis Completed	
Library Merge Module Analysis Status Merge Module Analysis Complete	Start
< Back (Next>) Cance	I Help

Figure 7.7 ~ Radia Library Wizard – Library Merge Module Analysis Completed.

Merge Modules

The Radia Library Wizard performs a quick analysis to adjust the library to accommodate the Merge Module and its resources.

12. Click Next.

	The Library modification is complete. Select Finish to save the Library data. You must rebuild any Packages using this Library to include these changes. Install Analysis of Acrobat Reader
--	---

Figure 7.8 ~ Radia Library Wizard – The library modification is complete.

13. Click **Finish** to return to the Radia Packager for Windows Installer.

The Radia Library Wizard is finished. Next you need to build (or rebuild, as appropriate) your package. This process is the same as detailed in previous chapters with the exception of the **Package Results** dialog box, where you will see the included Merge Module.



Daskassa	in the gene	odules		
(BDC2B8B)	6-B3E5-4E	DD-8A3C-4A1	8FF451EB8)	
File:				
Registry				
HKCU				
Merge Module I	Packages			
🛃 İnstall Analı	psis of MTF	RT.MSM 6.0.8	324 on Win 2K \$	SP0
,	Fotokogus - ∰ (BDC2B88)) Files 	Packages → (BDC28886-B3E5-4E → Files → Registry → HKCU → HKCU → HKLM Merge Module Packages → Instal Analysis of MTF	Factages	Factages

Figure 7.9 ~ Radia Library Wizard – Package Results dialog box with included Merge Module.

You will also notice some extra files in the Packages directory. Most of these files are for reference. If you are promoting a package or moving it to another location, the only additional files you will need to include are the **Merge#.Cab** files.



Figure 7.10 ~ Additional files in the package directory.

Summary

- Use the Radia Merge Module Wizard to create a Merge Module.
- Launch the Radia Merge Module Wizard from the Radia Packager for Windows Installer Program Group.
- In order to apply Merge Modules, they must belong to a Merge Module Group.
- Use the Radia Library Wizard to apply a Merge Module.



Radia Packager for Windows Installer Settings

To make your job easier, the Radia Packager for Windows Installer provides a way to set default filters, paths, and other settings. This appendix provides an overview of the different configurable settings.

To access the configurable settings, select any **Custom** action from the Radia Packager for Windows Installer and click the **Settings** button located on the next dialog.

The **Settings** button is also available on the Radia Packager for Windows Installer (Process) Menu and on the first dialog box of all Wizards.

Paths (1) Tab

Radia Packager for Windows Installer Settings	:
Package Merge Modules Validation Promotion State Desc Se	ettings Files
Paths (1) Paths (2) Paths (3) Install Analysis Machine Scan	Library
Local State Path	
C:\Program Files\Novadigm\AdvPub\State B	rowse
, Saved State Path	
C:\Program Files\Novadigm\AdvPub\State B	rowse
Baseline State Path	
C:\Program Files\Novadigm\AdvPub\State\Baseline B	rowse
Library Path	
C:\Program Files\Novadigm\AdvPub\Library B	rowse
Product Path	
C:\Program Files\Novadigm\AdvPub\Product B	rowse
,	
OK Cancel	Help

Figure A.1 ~ Radia Packager for Windows Installer Settings – Paths (1) tab.

The **Paths (1)** tab contains the default location for each of the paths. By default, each path points to the local C drive.

М	ote	
	ULE	

When in a lab environment where machines are frequently reset to a new base, click **Browse** to redirect the path settings to permanent locations on an enterprise server.

■ Local State Path

Specifies the location of temporary state files when running the Radia State Wizard.

- Saved State Path
 Specifies the location where state files are saved by the Radia State Wizard.
- Baseline State Path Specifies the location of baseline state files (reusable "before states").
- Library Path Specifies the location of Radia libraries.

|--|

Product Path

Specifies the location of Radia Extensions for Windows Installer products. Packages are created with the following directory structure under the product path:

Product Path / product_name / platform (WinNT or Win9x) / version number
/ Package

Note

Paths can be designated with UNC names or mapped drives.

Paths (2) Tab

Deckson	1	ili Tvicale	u I Dunisti	L Chata David	L como ra
паскауе	Dellar (2)				s poettings File
Paths (1	Faths (2)	Paths (3)	Install Analysi	s Machine	Scan Librar
		Template F	Path		
C:\Pro	gram Files\Nova	adigm\AdvPub	o∖Template		Browse
,		Filter Pat	h		
C:\Pro	gram Files\Nova	adigm\AdvPub)\Filter		Browse
		Permission	Path		
C:\Pro	gram Files\Nova	adigm\AdvPub	\Permission		Browse
,		Substitution	Path		
C:\Pro	gram Files\Nova	adigm\AdvPub	\Substitution		Browse
,		Custom Actio	n Path		
C:\Pro	gram Files\Nova	adigm\AdvPub	Custom Action	n	Browse
			OK 1	Cancel	Halo

Figure A.2 ~ Radia Packager for Windows Installer Settings – Paths (2) tab.

The **Paths (2)** tab contains the default location for each of the paths. By default, each path points to the local C drive.

Note

When in a lab environment where machines are frequently reset to a new base, click **Browse** to redirect the path settings to permanent locations on an enterprise server.

Template File Path

Specifies the location of Windows Installer package template (*.MSI) file, used with the Radia Package Wizard. Two subdirectories of the template path are used to locate configuration files for the Radia Package Wizard: User Properties and Admin Properties on the **Package** tab.

Filter Path

Specifies the location of filter files, used with the Radia State Wizard and the Radia Library Wizard.

Permission Path

Specifies the location of permission files, used with the Radia Library Wizard.

200

Substitution Path

Specifies the location of substitution state files, used with the Radia Library Wizard to customize an installation through powerful search and replace functions.

Custom Action Path

Specifies the location of your Custom Action files, if any, used with the Radia Package Wizard.

Paths (3) Tab

Radia Packa	iger for Wind	lows Instal	er Settings		
Package	Merge Modu	les Validati	on Promotion	State Desc	Settings Files
Paths (1)	Paths (2)	Paths (3)	Install Analysis	Machine Sc	an 📔 Library
	Mer	ae Module Pr	oduct Path		
C:\Progr	am Files\Nova	- diam\AdvPut	Merge Module F	Product	Browse
					5101130
	Me	rge Module G	roup Path		
C:\Progr	am Files\Nova	adigm\AdvPul	o\Merge Module (àroup	Browse
,					
			0K	Concol L	Holo

Figure A.3 ~ Radia Packager for Windows Installer Settings – Paths (3) tab.

The **Paths (3)** tab contains the default location for each of the paths. By default, each path points to the local C drive.

Note
When in a lab environment where machines are frequently reset to a new base, click Browse to redirect the path settings to permanent locations on an enterprise server.

Merge Module Product Path

Specifies the location of Radia Extensions for Windows Installer Merger Module products. Merge Module packages are created with the following directory structure under the Merge Module product path:

Merge Module Product Path \ mergemodule_name \ platform (WinNT or Win9x) \
 version number \ Merge Module

Merge Module Group Path Specifies the location of Merge Module Groups. Merge Modules are then applied to a library from a Merge Module Group.

```
232
```

Install Analysis Tab



Figure A.4 ~ Radia Packager for Windows Installer Settings – Install Analysis tab.

The **Install Analysis** tab contains defaults that apply when the Radia State Wizard is used to create an install analysis. For creating an install analysis, you can specify:

- the default filter file
- a scan option to **add imported DLLs** referenced by included module files
- a scan option to **add shortcuts** that reference included files
- a scan option to add COM and Shell registry keys related to included files

The defaults specified on the **Install Analysis** tab can always be overridden by selecting a different filter or set of scan options when creating an install analysis.

Machine Scan Tab

Radia Paci Pati	Packager for Windows Installer Settings
1.00	Default Scan Filter File
Γ	Browse
	Include File Types: Directories with no included files Data Files Exe Files Files Registered Only (Local Server) Only Files Conly include Windows File Protection files Add COM and Shell registry keys related to included files
	OK Cancel Help

Figure A.5 ~ Radia Packager for Windows Installer Settings – Machine Scan tab.

The **Machine Scan** tab contains default options that apply when you create a Machine Scan from the Radia State Wizard.

Default Scan Filter File

Browse for the filter to be used when creating a machine scan.

■ Scan Options area

Use the Scan Options area to set defaults for including or excluding various file types from a machine scan. The default settings can be overridden whenever a machine scan is run.



Library Tab



Figure A.6 ~ Radia Packager for Windows Installer Settings – Library tab.

The **Library** tab contains installation or session defaults to be applied when building a Radia library. You can specify:

- a **Default Library Filter File**, to be used when creating a library
- **a Default Permission File**, to be used when assigning permissions to library resources
- a **Default Substitution File**, to be used to assign a default set of substitutions to the library for installation customization, but does not enable any of the resource substitutions

Package Tab

Radia Packa	iger for Window	vs Installe	r Settings		د
Paths (1)	Paths (2)	aths (3) 📔 I	nstall Analysis	Machine S	ican Library
Package	Merge Modules	Validation	Promotion	State Desc	Settings Files
	Templa	ite Msi Datab	base File		
					Browse
	Us	er Properties	File		
					Browse
	Adn	nin Propertie:	s File		
					Browse
🗖 Er	nbed Cab file in M	si File			
Patch F	Packages				
	eate Patch Packa	ages 			
	byraue using bit le	wei uilferend	e only		
			ОК	Cancel	Help

Figure A.7 ~ Radia Packager for Windows Installer Settings – Package tab.

The Package tab contains set installation or session packaging defaults.

■ Template MSI Database File (required)

Set the *template.msi* database to be used for packaging. The first time a package is created, or if a template is not available, a default template is generated automatically.

■ User Properties File (optional)

You can define an .ini file that contains user-defined properties that are to be included into the .msi package. User-defined properties are a very good way to include useful and consistent information in each package. For example, you can designate that inventory and chargeback properties be included in each package. User-defined properties can be edited during the packaging process. A template of the properties and their default values are defined in an .ini file. A sample *SampleUser.ini* file is contained in the **Novadigm\AdvPub\Template\User**

Properties directory. Use this file as a model to create your specific overrides. Place your .ini file in the **\Novadigm\AdvPub\Template\UserProperties** directory, or the template directory you defined. This directory is scanned when **Browse** is clicked. Choosing an .ini file automatically embeds the user-defined properties into the .msi package.

■ Admin Properties File (optional)

If the package is going to be installed as an administrative installation to a server from which end users will install the product, you can define an .ini file that contains *administrative property overrides* that are to occur when the end user installs the product from the



administrative installation copy. A sample *SampleAdmin.ini* file is contained in the **Novadigm\AdvPub\Template\AdminProperties** directory. Use this file as a model to create your specific overrides. Place your .ini file in the

NovadigmAdvPub\Template\AdminProperties directory. This directory is scanned when Browse is clicked. Choosing an .ini file automatically embeds the AdminProperty overrides into the .msi package.

■ Embed Cab file in MSI File

You can select **Embed the package.cab file in the .msi file** as the default on the **Package File Options** dialog box. This option is generally used for packages that are going to be administratively installed to a server.

Patch Packages Options

When creating a new build for existing products, these options set the defaults presented to the user on the **Package File Options** dialog box of the Radia Package Wizard for creating patch packages (.msp files). Users can override the default. Note that patch packages are created *in addition to* full .msi files.

Select **Create Patch Packages** as the default. When patch packages are selected, you can have the upgrade default set to **Upgrade using bit-level difference only** (as opposed to **Upgrade using entire file**).

Merge Modules Tab

Radia Pack	ager for Window	s Installer !	Settings			
Paths (1)	Paths (2) Pa	ths (3) 🕴 In	stall Analysis	Machine S	can Libr	rary
Package	Merge Modules	Validation	Promotion	State Desc	Settings F	Files
🗖 Use N	1erge Modules					
	Default M	erge Module I	Group		Browse	
					D104436	

Figure A.8 ~ Radia Packager for Windows Installer Settings – Merge Modules tab.

- Select whether or not to use Merge Module by selecting Use Merge Modules.
- Define the location of the default Merge Module Group when using Merge Modules in the Default Merge Modules Group text box.



Validation Tab

Radia Packager for Windows Installer Settings
Paths (1) Paths (2) Paths (3) Install Analysis Machine Scan Library Package Merge Modules Validation Promotion State Desc Settings Files
Package Validation CUB File
C:\Program Files\Novadigm\AdvPub\Validation\darice.cub Browse
Merge Module Validation CUB File
C:\Program Files\Novadigm\AdvPub\Validation\mergemod.cub Browse
Validation Level Show Errors Only Show Warnings and Errors Show all Messages
Create a log file
OK Cancel Help

Figure A.9 ~ Radia Packager for Windows Installer Settings – Validation tab.

Windows Installer packages may be validated using an installation-defined validation file after the package has been created. Validation files can be customized by the administrator to enforce installation-specific validation criteria.

■ Package Validation CUB File

This is the default validation file name and path for validating packages such as, Installation_Default_Ice.cub. This file will be used for validation when you click **Validate Package** in the **Radia Package Wizard Completion** dialog box (see Figure A.10 on page 240).



	Radia Package Wizard	The Package creation is complete. Select Finish to save the new Package files. Install Analysis of Orca\WinNT\1.0.0 Validate Package
--	----------------------	---

Figure A.10 ~ Radia Package Wizard – Package creation is complete.

■ Merge Module Validation CUB File

The default validation file name and path. This file will be used for validation when you click **Validate Merge Module** in the **Merge Module Wizard Completion** dialog box.



Radia Merge Module Wizard	×
The Select	Merge Module Package creation is complete. Finish to save the new Merge Module Package Install Analysis of Orca\WinNT\1.0.0 Validate Merge Module Launch Merge Module Editor
< Back	Finish Cancel Help

Figure A.11 ~ Radia Merge Module Wizard – Merge Module Package creation is complete.

Validation Level

Select the type of messages that you want to see during the validation process:

- Errors only
- Warnings and errors only
- All messages
- Create a log file check box
 Creates a log file in the same directory where the .MSI file resides, and is named validate.log.

Promotion Tab

Paths (1)	Paths (2) Paths (3) Install Analysis Machine Scan Libra
Package	Merge Modules Validation Fromotion State Desc Settings Fi Set the Promotion Paths and Template Name
Pron	motion Faths Distribution Paths Application Analyzer Import Paths Administrative Install Paths
TemplateN	Name: [[ProductName]_[ProductVersion]

Figure A.12 ~ Radia Packager for Windows Installer Settings – Promotion tab.

Use the **Promotion** tab to set default Distribution Paths and Radia Configuration Analyzer Import Paths. These default entries create drop-down selection lists for the corresponding entry in the Radia Install Wizard promotion functions, from which the user can choose a path. Setting default paths are optional.

TemplateName is used to define the resulting MSI name and directory for the AIP, and the package name and description when publishing to Radia.

To add a default distribution path

- 1. Right-click the **Distribution Paths** folder.
- 2. Select Add a Distribution Path, and complete the selections.

To remove a default distribution path

- **1.** Right-click an entry from the tree.
- 2. Select Delete.

To add a default import path

- 1. Right-click the Configuration Analyzer Import Paths folder.
- 2. Select Add a Configuration Analyzer Import Path, and complete the selection.



Appendix A

To remove a default import path

- **1.** Right-click the import path from the tree.
- 2. Select Delete.

To add an administrative install path

- 1. Right-click the Administrative Install Paths folder.
- 2. Select Add an Admin Install Path, and complete the selections.

State Desc Tab

Paths (1) Paths (2) Paths (3) I Package Marge Modules Validation	settings 2 nstall Analysis Machine Scan Library Promotion State Desc. Settings Files				
Removed Resources	Installed Resources				
Removed Resources	- Installed Resources				
	· · · · · · · · · · · · · · · · · · ·				
Library Sub State Descriptions					
Removed Resources	Installed Resources				
Removed Resources	- Installed Resources				
Package Sub State Descriptions					
Removed Resources	Installed Resources				
- Removed Resources	- Installed Resources				
	,				
	OK Cancel Help				

Figure A.13 ~ Radia Packager for Windows Installer Settings – State Desc tab.

The **State Desc** tab contains the descriptions appended to sub-states as they appear when imported into the Radia Configuration Analyzer.

For example, if you had a library description of **My Library** and imported it into the Radia Configuration Analyzer, you would have two sub-states:

- My Library- Removed Resources, which lists items that would be removed by the final package.
- My Library- Installed Resources, which lists items installed by the final package.

~		
2	4	4

Settings Files Tab

The **Settings Files** tab allows you to save the current, or reload previous, Radia Packager for Windows Installer environment settings. Settings should be saved to a server, but may be saved to the local machine. Once saved, these settings can be reloaded to restore the current settings to a previously saved state.

Paths (1)	Paths (2)	Paths (3)	Install An	alysis	Machine 9	ican 🖡 Libra	ırу
Package	Merge Modul	es Validat	ion Prom	otion	State Desc	Settings Fi	es
	Save	or Load Cur	rent Setting	To/Fror	n a File		
Sett	ings Files						

Figure A.14 ~ Radia Packager for Windows Installer Settings – Settings File tab.

The operating settings may be set and saved based on any criteria that meets your packaging needs, such as by corporate division, department, or line of business.

To save settings

- 1. Right-click the Settings Files icon.
- 2. Select Save Settings to a File, and enter a path and name for the settings file (.ini).

To load settings

- 1. Right-click the Settings Files icon or the desired entry from the tree.
- 2. Select Load Settings from a File, and enter a path and name for the settings file (.ini) to load.

To delete settings

1. Right-click an entry from the tree.

2	4	5
-		~

Radia Packager for Windows Installer Settings

2. Select **Delete this Settings File**.



Radia Package Wizard Advanced Options

The Radia Packager Wizard includes an **Advanced Options** menu that gives you easy access to the common settings and various types of information placed in your Windows Installer packages, as shown in Figure B.1 on page 248.

These same settings are also available from the **Windows Installer Options** dialog of the Radia Packager for Windows Installer, as shown Figure B.2 on page 248; this dialog is presented at the end of a Unified packaging session.

The only difference between the Advanced Options menu and the Windows Installer Options dialog is the grouping of the options.

The following Appendix describes each of the options available from either menu. However, many of the options can be preset through your package template, thereby removing the need to edit the information each time you reach the **Advanced Options** or **Windows Installer Options** dialogs.

	Advanced Options	
Hardware Requirements	Platform Requirements	Software Requirements
Product Information	Package Information	User-Defined Properties
Installation Options	Reinstallation Options	Upgrade Options
Add/Remove Options	Services	Admin Install Options.
Custom Actions	Setup.Exe Options	Insulation Options

Figure B.1 ~ Radia Package Wizard – Advanced Options.

Radia Packager	for Windows Installer	×
	Windows Installer Options	
Prerequisites	Installation Execution Information Extended	
	Hardware Requirements	
	Platform Requirements	
	Software Requirments	
	<back next=""> Cancel H</back>	elp

Figure B.2 ~ Radia Packager for Windows Installer, Windows Installer Options.

3
3

Table B.1, below, lists the options found under each tab on the Windows Installer Options dialog of the Radia Packager for Windows Installer. To obtain the details on using each option, see the topics that follow.

Table B.1 ~ Windows Installer Options, by Tab Location					
Option	Tab Location				
Hardware Requirements Platform Requirements Software Requirements	Prerequisites Tab				
Add/Remove Options Administrative Install Options Installation Options Reinstallation Options	Installation Tab				
Custom Actions Services	Execution Tab				
Package Information Product Information User Defined Properties	Information Tab				
Insulation Options Setup.Exe Options Upgrade Options	Extended Tab				

Hardware Requirements

Hardware requirements set the criteria for the hardware. If the destination machine does not meet these requirements, the package will not download and install to the machine.

		Pa	ackage Harc	ware Requireme	ents		
	Processor Leve Minimum Maxi None None	mum	Numbe Minimur 0	r of Processors n Maximum 0		nstalled RAM Mi Minimum I D 0	egabytes— Maximum
	Scree Minimum None	en Size — Max None	imum	Min None	Screer imum	n Colors Maximum None	-
Г	Path	Minimum	Maximum	ice (megabytes			
	C: WindowsFolder SystemFolder ProgramFilesFolder TempFolder	0 0 0 0 0	0 0 0 0 0				
		OK		ancel	Help		

Platform Requirements

Platform requirements define the Windows platform version requirements that should be met for the package to install. By default, all packages are set to install only if these platform requirements are met, and the **Minimum Platform Version** (see Figure B.4 on page 251) is set to the platform on which the original application was analyzed.



Radia Package Wizard	×
Package Pl	atform Requirements
Only install if platfor	rm requirements are met
Platform: WinNT	
Minimum Platform Version	Maximum Platform Version
Major Version: 5	Major Version:
Minor Version: 0	Minor Version:
Build Version: 2195	Build Version:
Service Pack: 2	Service Pack:
ОК	Cancel Help

Figure B.4 ~ Radia Package Wizard – Package Platform Requirements.

Software Requirements

Software requirements can be set to verify that certain applications, files, or registry values are, or are not, on the machine before your package is installed.

Re	adia Package Wizard	×
	Package Software Requirements	
	Software Requirements Product Requirements File Requirements Registry Requirements	
	OK Cancel Help	

Figure B.5 ~ Radia Package Wizard – Package Software Requirements.


Product Requirements

You can set product requirements to ensure a Windows Installer package has been previously installed or not previously installed.

To set product requirements

1. On the Advanced Options dialog box (see Figure B.1 on page 248), click Software Requirements.

OR

On the **Windows Installer Options** dialog box (see Figure B.2 on page 248), click the **Prerequisites** tab, and then click **Software Requirements**.

2. On the Package Software Requirements dialog box, right-click Product Requirements and select Add Product Requirement from the shortcut menu.

The Add Product Requirement dialog box opens.

adia Package Enter the i	Wizard - Add Product Requirement
File Name:	
	Browse Radia Packages
	Browse for .MSI Files
OK	Cancel Help

Figure B.6 ~ Radia Package Wizard – Add Product Requirement.

- **3.** Enter the appropriate file name or click one of the **Browse** buttons to manually locate the file.
- 4. Click OK.

The Edit Product Requirements dialog box opens.

Radia Package Wizard Advanced Options

	_
Radia Package Wizard - Edit Product Requirements	×
Enter the Required State for this Product	
Product Code: {FCB4EC7A-C977-4A67-A8B8-99097312A5EB}	
Product Name: Integration Studio with Merge Modules - Win 2K	
Required Product State	
O The Product must be installed	
The Product must be installed or advertised	
O The Product must not be installed	
O The Product must not be installed or advertised	
Product Version (x.x.x) Minimum Maximum	
2.1.0 2.1.0	
UK Cancel Help	
~ Radia Package Wizard – Edit Product Requirements.	

5. Enter the required state for the product and click **OK** to return to the **Package Software Requirements** dialog box.

File Requirements

You can set the file requirements to verify whether files are or are not on the machine before your package is installed.

To add a file requirement

1. On the **Advanced Options** dialog box (see Figure B.1 on page 248), click **Software Requirements.**

OR

On the **Windows Installer Options** dialog box (see Figure B.2 on page 248), click the **Prerequisites** tab, and then click **Software Requirements**.

2. On the Package Software Requirements dialog box, right-click File Requirements and select Add File Requirement from the shortcut menu.

Radia Package Wizard	×
Package Software Requirements	
Software Requirements Product Requirements File Require Add File Requirement Registry Re	
OK Cancel Help	

Figure B.8 ~ Radia Package Wizard – Add File Requirement.

The Add File Requirement dialog box opens.

Radia Package V E	Wizard - Add File Requirement
File Name:	
	Browse this Package
	Browse Radia Packages
	Browse Radia Libraries
	Browse Radia States
	Browse for Files
OK	Cancel Help

Figure B.9 ~ Radia Package Wizard – Add File Requirement.

- **3.** Enter the name of the file, or click one of the **Browse** buttons to manually locate the file.
- 4. Click OK

The Edit File Requirements dialog box opens.

Radia Package Wizard - Edit File Requirements	×
Enter the Required State for this File	
License.ini	
File State	
Search Type: Start with the path in the Search Path field	
Search Path: C:\Program Files\Novadigm\AdvPub\Bin	
Search in gubdirectories below the starting search path.	
File Size File Version (x.x.x.) Minimum Maximum 86 86	
File Time (yyyy/mm/dd hh:mm:ss) Minimum Maximum 2002/06/05 12:56:14 2002/06/05 12:56:14	
OK Cancel Help	

Figure B.10 ~ Radia Package Wizard – Edit File Requirements.

5. Edit the appropriate file requirements, and click **OK** to return to the **Package Software Requirements** dialog box.

Registry Requirements

You can set the registry requirements to verify whether a registry entry is or isn't on the machine before your package is installed.

To add a registry requirement

1. In the **Advanced Options** dialog box (see Figure B.1 on page 248), click **Software Requirements.**

OR

On the **Windows Installer Options** dialog box (see Figure B.2 on page 248), click the **Prerequisites** tab, and then click **Software Requirements**.

2. In the Package Software Requirements dialog box, right-click Registry Requirements and select Add Registry Requirement from the shortcut menu.

Radia Package Wizard	
Package Software Requirements	
Software Requirements	
Product Requirements	
File Requirements	
Add Registry Requirement	
Ů	
1	
OK Cancel Help	

Figure B.11 ~ Radia Package Wizard – Package Software Requirements.

The Add Registry Requirement dialog box opens.

Radia Package V	Wizard - Add Registry Requirement	×
Enter	the name of the required registry entry	
	Root Key C HKEY_CURRENT_USER I HKEY_LOCAL_MACHINE C HKEY_CLASSES_ROOT	
Key Name:		_
Value Name:		
	Browse this Package	
	Browse Radia Packages	
	Browse Radia Libraries	
	Browse Radia States	
	Browse Local Registry	
OK	Cancel Help	

Figure B.12 ~ Radia Package Wizard – Add Registry Requirement.

17. Enter the required registry entry.

- Select the appropriate Root Key.
- Enter the registry Key Name and Value Name, or use one of the **Browse** buttons to manually locate the Key and Value Names.
- **18.** Click **OK**.

The Edit Registry Requirements dialog box opens.

Radia Package Wizard - Edit Regist	ry Requirement
Enter the Require	ed State for this Registry Entry
HKCU\Netw	vork\G\ConnectionType
Registry State	entry must be installed entry must not be installed
Registry Value Minimum	Maximum
OK	Cancel Help

19. Edit the appropriate file requirements, and then click **OK** to return to the **Package Software Requirements** dialog box.

Product Information

Product information contains your **Company Name** and a **Description** of the product.

Radia Package W	izard - Product Information
	Enter the Product related information
Company Name:	ABC Company Inc
Description	Install Analysis of Acrobat Reader 4.05
	OK Cancel Help

Figure B.14 ~ Radia Package Wizard – Product Information.

Package Information

Package information allows you to enter specific comments about a package. 1033 represents English in the **Language** option.

Radia Package	e Wizard - Package Information	×
	Enter the Package related information	
Comments	Install Analysis of Acrobat Reader 4.06	
Key Words	Radia Packager for Windows Installer	_
Language:	1033	-
F		
L	UK Cancel Help	

Figure B.15 ~ Radia Package Wizard – Package Information.

User-Defined Properties

User-defined properties is information you want embedded into the MSI database that you may want to change with each package. Any information that remains consistent from package to package should be added to your MSI package template (see *Editing a Package Template* on page 190). Examples of instances where you may want to use user-defined properties:

- Track the packager of an application.
- Enter inventory control numbers into the package.

Note
For this button to be available, select a User Properties .ini file in the Package tab of the Radia Packager for Windows Installer Settings dialog box. See <i>Package Tab</i> on page 236 for more information.

To modify a user-defined property

- **1.** On the **Advanced Options** dialog box (see Figure B.1 on page 248), right-click **User-Defined Properties**.
- 2. The Set user-defined property values dialog box opens.

Set user-d	lefined property values
Property	Value
Admin_Name Application_State_File AppName_and_Ver Base_System_Requirements Creation_Date Inventory_Control_Number Location Request_For_Service_Number	Charles Schultz 83306781-549A-4711-9CCE-AFA853D742 Peanuts 1.0 Base Online 2000 Requirements 06-19-2000 LS2220-2222-1 Everywhere 371-1440-3
• OK	Cancel Help

Figure B.16 ~ Radia Package Wizard – User-Defined Properties.

3. Right-click the property you would like to modify, and select Edit from the shortcut menu.



Set user-	defined property values
Property	Value
Admin_Name Application_State_File AppName_and_Ver Base_System_Requirements Creation_Date Inventory_Control_Number Location Request_For_Service_Number	Edit 49A-4711-9CCE-AFA853D74 Peanuts 1.0 Base Online 2000 Requirements 06-19-2000 LS2220-2222-1 Everywhere 371-1440-3
•	•

Figure B.17 ~ Radia Package Wizard – User-Defined Properties.

The Radia Package Wizard - Property Value Edit dialog box opens.

4. In the **Value** text box type a new value.

Radia Package	Wizard - Prope	rty Value E	dit	X
E	nter the new valu	e for the prop	perty	
Property: Adr	nin_Name			
Value: Cha	arles Schultz			
OK	Can	cel	Help	

Figure B.18 ~ Radia Package Wizard – Property Value Edit.

- 5. Click OK to return to the User-Defined Properties dialog box.
- 6. Click OK to return to the Advanced Options dialog box.

2	6	4
-	-	

Installation Options

Installation Options allow you to modify how your application is installed on the target machine. If you wish your application to be installed with only a progress bar (and no other interface), and your users to install by double-clicking the MSI, select **Set Default User Interface to Basic**.

Sele	et the Installation Opti	ons for this Package		
🔲 Set Default User Interfac	e to Basic	🔽 Execute ODB0	Driver Setup Dlls	
- Advertisement Mode				_
Shortcuts and Registry	C Shortcuts Only	C Registry Only	O Do Not Advertise	
- Install Mode				
Per User Install	C Per Machine Ir	nstall 🔿 Bas	ed on User Authority	
Reboot Mode © Reboot if Necessary	C Always Reboo	t OSup	press Reboots	
-Windows Installer Execution 0	Iptions			_
No Reboot Prompts	🔲 Disable Rollba	ck 🗌 No	Advertised Shortcuts	
File Replacement Mode C Never If Olde	er OlfEqual	or Older 🔿 If Difl	erent C Always	
OK	Canc	el Help		

Figure B.19 ~ Radia Package Wizard – Installation Options.

If your platform of choice is Windows NT, Windows 2000, or Windows XP, then you can choose to install the application in one of three ways:

- **Per User** (only the user who installs the application will have access to it).
- **Per Machine** (all users will have access to the application)
- **Based on User Authority** (if the installing user is an administrator, the application will be installed Per Machine, otherwise the application will be installed Per User).

There are multiple options available in the Installation Options.

Select the **Reboot Mode** you would like your Windows Installer package to use on installation.

Radia Package Wizard Advanced Options

Set options for the execution of your Windows Installer package:

- **File Replacement Mode** allows you to set the criteria Windows Installer use to determine if a file that already exists on the machine should be overwritten when installing the package. You can overwrite an existing file:
 - never,
 - if the existing file is an older version,
 - if the existing file is the same version or older than the one in the package,
 - if the existing file is simply a different version than the file on the machine,
 - or you can always replace the file.

Reinstallation Options

Review and modify any reinstallation options to be used if a reinstallation of the product is required and performed on the client machine by Windows Installer.



Figure B.20 ~ Radia Package Wizard – Reinstallation Options.

File Reinstallation Mode determines when files are reinstalled. You can choose to reinstall:

- only if the file is missing,
- if the file is missing or the existing version is older than the version in the package,
- if the file is missing or the existing version is older or the same version as the version in the package,
- if the file is missing or the version on the machine is different than the version in the package,
- or you can always reinstall the files.



Upgrade Options

Upgrade Options allow you to enter Upgrade Codes for packages to be removed before new packages are installed.

Radia Package Wizard - Upgrade Uptions	×
Enter the Upgrade Codes for Packages to be removed before this Package is installed	
Vpgrade Codes	1
Note: Radia automatically removes any previous Packag builds or releases for the same Radia Product version.	e
Note: Radia automatically removes any previous Packag builds or releases for the same Radia Product version.	le

Use **Upgrade Options** to define previous versions of packages that will be upgraded automatically when the package is installed. Because versions and upgrades are maintained within the product once it is created, this option is only available when creating a new product.

Note		
An Upgrade Cod used to upgrade ProductVersion v pkg 1 pkg 2 pkg 3	e is a GUID identifier one another. It is us variable. Take three (UpgradeCode=123 UpgradeCode=123 UpgradeCode=234	within the MSI that defines what packages can be seed by Windows Installer in conjunction with the simplified) packages: ProductVersion=1.1.1 ProductVersion=1.2.0 ProductVersion=1.2.0
pkg2 will upgrac higher. pkg3 wil update the othe different Upgrad	le pkg1 because the I not upgrade either, rs because they both leCode).	UpgradeCode is the same and the ProductVersion is because its UpgradeCode is different. pkg1 will not have a higher ProductVersion (and pkg 3 has a

■ Right-click **Upgrade Codes** to add a new Upgrade Code.



Add/Remove Options

Add/Remove Options allow you to adjust how your package interacts with Windows 2000 or later operating system's improved Add/Remove Programs Control Panel Applet. In this Advanced Option, you can set whether the application will be displayed in the list of applications in the Control Panel, and whether to allow the application to be repaired, modified, or removed from the Control Panel. You can also set help contact, phone, and Web address information for the application in the Control Panel.

Radia Packa	ge Wizard - Add/Remove Options	×
	 Show in Add/Remove Programs List Disable Repair Product Button Disable Modify Product Button Disable Remove Product Button 	
Comments		
Contact:		
Help Phone	Place your tech support phone number here	
Help Link:	Place your tech support web address here	
lcon:	Change Icon	
[OK Cancel Help	

Figure B.22 ~ Radia Package Wizard – Add/Remove Options.

Services

The Services Option allows you to perform different service related tasks with your installation. If you had to stop a service on installation, you would add that option here. Any services installed with the application would be displayed here as well.

To add a service

1. Open the **Services** dialog box.

Access **Services** from the Radia Package Wizard Advanced Options dialog or from the **Execution** tab of the Windows Installer Options dialog of the Radia Packager for Windows Installer.

2. Right-click Services, and select Add a service from the shortcut menu.

R	adia Package Wizard	x
	Set Service Control Actions	
	Add a service	
	OK Cancel Help	

Figure B.23 ~ Radia Package Wizard – Add a service.

3. Enter the service name and click **OK**. The **Service Control Actions** dialog box opens.



Figure B.24 ~ Radia Package Wizard – Set service control actions.

- 4. Select the appropriate installation and un-installation actions for the service and click OK.
- **5.** Click **OK** to return to the **Advanced Options** dialog box or the **Windows Installer Options** dialog box.

Admin Install Options

Admin Install Options let you set information that you may want to differ if the application is installed from an Administrative Installation.

Radia Packa	ge Wizard - Ac	lmin Install Op	tions		×
S	et the Administral	ive Installation O	ptions for this P	'ackage	
	Select the Targe	t Server Path from	m the Original Ir	nstall	_
				-	
Enter	the Default Admi	nistrative Install 1	Farget Server P	ath Name	
	Enter Admin	istrative Install Pr	operty Override	s	
Property	Value				
I					
	OK	Cancel	He	lp	

Figure B.25 ~ Radia Package Wizard – Admin Install Options.

Custom Actions

Custom Actions may be used during the installation process to provide functionality that is outside the scope of the standard Radia Packager for Windows Installer and Windows Installer functionality.



Figure B.26 ~ Radia Package Wizard – Edit Custom Actions – Set the desired custom actions.

Custom Actions allow you to expand the functionality of Windows Installer package processing to include your own custom written code. For example, you can use Custom Actions to extend the user interface, edit install components prior to installation, validate the target install environment, or for a myriad of other functions.

You can execute custom actions at each of the following Windows Installer points:

- Initialization Actions
- Before Installations Actions
- Before Standard Actions
- After Standard Actions
- After Installation Actions

Radia Packager for Windows Installer packaging treats custom actions as reusable components, which allows the administrator to create and save a related set of custom actions and then imbed these custom actions into any number of installation packages. Therefore, custom action sets

Radia Package Wizard Advanced Options

should be created with functionally related actions. One or more custom action sets may be added to the installation package.

Windows Installer supports the following Custom Action file types:

- Visual Basic Scripts
- Java Scripts
- EXE (Executables)
- DLLs
- .MSIs

Creating a Custom Action

Custom Action executable code is created by an administrator, or developed using one of the supported executable file types: VB Script, Java Script, EXE, DLL, or MSI. As such, each custom action is associated with the appropriate executable file type.

Use the Radia Package Wizard's **Manage Custom Actions** option to create, edit, and delete Custom Action sets or files. The wizard steps you through the process of loading executables, setting conditions, adding actions, and accessing custom data.

Manage Packages Manage Custom Actions

Figure B.27 ~ Radia Package Wizard – Select an Action.

Your set of custom actions are saved as a Custom Action State File (*.ISState). Included in this state file are the actual executables as well as any custom data binary files. Therefore, each time a custom action executable is modified, it must be imported into the Custom Action state file again, so it can be embedded into Windows Installer packages.



When setting the Advanced Options for a package, you can use the Custom Actions dialog box to apply the custom actions to the package, as necessary.

Setup.Exe Options

Radia Packager for Windows Installer provides you with a Setup.exe with every package you create. This executable will start Windows Installer with the options you provide. To set the options, use the **Setup.Exe Options** button in the **Advanced Options** dialog box of the Radia Package Wizard. Alternatively, use the **Setup**.Exe Options button on the **Extended** tab of the Windows Installer Options dialog of the Radia Packager for Windows Installer.

■ User Interface Level area

Radia Packager for Windows Installer allows you to easily set the user interface level on the install to anything from completely silent (None) so the user doesn't even know the application is being installed (even if there are user interface dialog boxes to respond to) to Full, with which the user is always given dialog boxes to respond to, even if there is no user interface to the installation.

■ Logging Options area

You can also modify the logging options that are run when you install your application using Setup.exe.

Setup.exe uses the information in the file Setup.ini, also included with the package. As with any INI file, Setup.ini can be modified by hand if you wish to run transforms or run other Windows Installer options.

	Enter the default o	ptions for Setup.Exe	
User Interface Level O None	Basic	C Reduced	C Full
Logging Options Information I Log File: 2Tem	Warnings ▼ DFolder%\MsiLogs bend	Errors 🔽 Proper	ties 🔽 Verbose crobat Reader 4.0
OK	Ca	ncel	Help

Figure B.28 ~ Radia Package Wizard – Setup Options.

After making changes to the Advanced Options, be sure to finish the Radia Package Wizard to apply the changes to your package.

Radia Package Wizard Advanced Options



EDM-Radia Compatibility Mode for the Radia Configuration Analyzer

State File Generator (IsState)

A state file (.ISState) contains metadata of the components of a Radia package or EDM service, as it would look on the desktop after the Client Connect process. This is done by starting at the specified Radia package or EDM service, reading its components from the Radia Configuration Server in real-time, and resolving any symbolics that replace standard paths during the packaging process. The symbolics include registry keys/values and (Radia/EDM) object/variables. The State File Generator batch mode process connects to the Radia Configuration Server as an administrator to read the component classes, instances and resource data of the Radia package and chained Radia packages or EDM resources to get the component information to generate the state file container.

Setting Symbolic Variable Values

The Radia Client performs symbolic variable substitution for well known logical directories on the Windows computer during installation of resources. The following logical directories are symbolically processed based on settings in the following registry key on the local machine:

 $HKLM \verb| Software \verb| Microsoft \verb| Windows \verb| CurrentVersion \verb| Explorer \verb| ShellFolders$

with values:

- Common Startup
- Common Desktop
- Common Programs
- Common Start Menu
- Startup
- Desktop
- Programs
- Start Menu

During the packaging process, if shortcuts are discovered to have the same data as the key/value for the items noted above, those data strings are replaced with a Radia tag for the data value. The tags are:

- \$COMMON STARTUP\$
- **\$COMMON DESKTOP\$**
- \$COMMON PROGRAMS\$
- \$COMMON START MENU\$
- \$STARTUP\$
- \$DESKTOP\$
- \$PROGRAMS\$
- \$START MENU\$
- \$NTUSER\$
- \$ALLUSERS\$

Radia/EDM object variables are in the form of &(object.variable) or &(variable). In the second case, the object name is defaulted to ZMASTER. Since the State File Generator would usually run on the administrator machine, it has access to the current registry values on that machine and the object stored in EDM/IDMLIB, namely ZMASTER. This symbolic substitution must be honored when creating state files also. Since the package associated with a state file is resolved at an instance in time, the current registry and (Radia) object values of the administrator might not be the correct values with which to replace the symbolics.

The State File Generator supports a schema to override the current machine values. This is done with an INI file. Thus, the default behavior is not to use the local machine's registry values or object in IDMLIB, but the value stored in the noted INI file. This can be altered with a runtime option.

The format of the INI file section names are the object names; [ZMASTER] would be the pseudo value for ZMASTER and the values in the section are attributes and values.

There is a special section, [REGISTRY] which is the override values for the registry items noted above.



Note

If the State File Generator cannot find the value for a symbolic replacement value in the INI file, the process will stop and the INI file must be updated with the associated symbolic value.

If *UseLocalValues* was specified, then it will then look in the registry and EDM/ IDMLIB for objects and their values. If the value still can't be found, the process stops, unless the State File Generator output type is set to *discover*. When running in *discover* mode, a random value is generated for the unknown value to permit the process to continue. The contents of the INI file may look similar to Figure C.1 (the case for the section names and the keys —left of the equal sign) is case-neutral. The values are case-sensitive.

```
[registry]
$Common
          Startup$
                               =
                                   C:\Windows\Profiles\All
                                                              Users\Start
Menu\Programs\Startup
$Common Desktop$
                    = C:\Windows\Profiles\All Users\Desktop
$Common Programs$ = C:\Windows\Profiles\All Users\Start Menu\Programs
$Common Start Menu$ = C:\Windows\Profiles\All Users\Start Menu
$Startup$
                                    = C:\Windows\Profiles\JoeUser\Start
Menu\Programs\Startup
$Desktop$
                    = C:\Windows\Profiles\JoeUser\Desktop
$Programs$
                    = C:\Windows\Profiles\JoeUser\Start Menu\Programs
$Start Menu$
                    = C:\Windows\Profiles\JoeUser\Start Menu
[zmaster]
zuserid
          = JoeUser
localuid = JoeUser
zwindrv
          = C:
          = \Windows\
zwindir
          = S:
zdrive
zmsysdir = \radia\sys
zmlibdir
          = \radia\lib
705
          = WIN2K
zsysdrv
          = c:
zsysdir
          = \novadigm\
Zdomname
          = MyDomain
Zmgrname
          = ThisMgr
[desktop]
zobjid
          = 0000000000
zobjpcls
          = dummy
[dummy]
zobjname
         = dummy1
Figure C.1 ~ Contents of sample INI file.
```

Output Types

The output format is controlled by the **Type=** option. When **Type=State** is specified, the output state file is written to the file named in the **Filename=** keyword. With the addition of the **Mode=** keyword, the output can be directed to a special directory as described by a registry value:

 $HKLM \verb| Software \verb| Novadigm \verb| Radia \verb| Settings \verb| ApplicationAnalyzerExportPath$

The output modes are **autoname** and **export**.

Note

Type=Package will force export mode.

In both **autoname** and **export**, the output state file name of the state files are controlled by the State File Generator and are used to define the state file output formats that are compatible with the Radia Knowledge Base Manager automated import process. **Type=Package** is used exclusively for generating Radia packages. For more information on the Knowledge Base Manager refer to the topic *The Knowledge Base Manager*.

The State File Generator (IsState) is a command line driven utility. All input is specified by keywords on the command line in the form **keyword=value keyword=value keyword=value**. In addition to the keywords, there are control switches which are in the form of -x or =X. The common switches are -Uuserid for the Radia userid, and -Ppassword for the password.

Note

There are no blanks after the -U and the text of the userid.

Keywords

The valid keywords for IsState are:

- Argsdump
- Description
- DiscoverINI
- EDMServiceName
- Filename
- Inifile
- Logonly
- MaxErrors
- Mode
- OS



Appendix C

- Packagename
- Replace
- Saveedr
- Showkeys
- Type
- UseLocalValues
- Validate

The keywords can be abbreviated to the least number of characters that makes the keyword unique. Thus **PackageName** can be shortened to **P=**, but **SaveEDR** would be specified as **Sa=**. **ShowKeys** would be shortened to **Sh=**. The keywords are case neutral, but their values are case sensitive. If the value for the keyword contains blanks or special characters, then use quotation marks around the keyword and value; "D=This is my state file", where **D=** is short for **Description**. The Keyword=Value pairs are separated by one or more blanks on the command line, IE K1=V1 K2=V2 K3=V3.... Kn=Vn. Table C.1 below, contains a description of the keywords and their values.

Table C.1 ~ IsState Keywords		
Keyword	Values	Description
Argsdump	Yes No True False 1 0	Used for debugging. Argsdump shows the values being passed into the State Create API. Argsdump=Yes
Description	Descriptive text	State file description text that describes its content and is viewed by the state analyzer. If not specified, a string with the package name is used as the description. When Type=Package is specified, the description is the value saved in the DESCRIPT attribute of the PACKAGE instance.
DiscoverINI	Output INIFile.INI	When running with type=discover , all the symbolics used (registry / objects), will be written to this INI file, including the random values generated for the unknowns. The contents of this INI file can be edited with new values replacing the randomly generated values. The values are in the form % <digits>%. The number of digits is 12 and the first digit is 0. If the file name is not fully qualified, the current directory is used.</digits>
EDMServiceName	ServiceName	Name of the EDM service to process. If only the instance name is specified, then the default location is Primary.SystemX.ZService . To specify a different domain, type the full FDCI.

Table C.1 ~ IsState Keywords		
Keyword	Values	Description
FileName	<i>MyState.ISState</i>	File name of the state file to create. If omitted, the state file name is the same as the package (instance) name. If the name is not fully qualified, then the current directory is used. When Mode=Export or Mode=Autoname is specified, the State File Generator controls the name and location of the state file using the value of a registry key for folder name.
INIFile	<i>MyINI.INI</i>	The name of the INI file of default symbolic values to use. The default name is ISState.INI, and is looked for in the current directory. When Mode=Export is specified, the location of the inifile is controlled by the <i>Radia registry value</i> ApplicationAnalyzer ExportPath . This registry value points to a directory structure that is a series of subdirectories, and the INI files are stored in the Varsets subdirectory. If there is no path specified on the inifile name, then the default path is located by the value of <i>ApplicationAnalyzerExportPath</i> and <i>Varsets</i> ISState.INI. If a path is specified, that value will be used, regardless of the <i>Mode</i> value.
LogOnly	Yes No True False 1 0	Logonly will redirect most of the console output to the log file. LogOnly=Yes
MaxErrors	Number	The number of download errors that will be tolerated if this value is exceed, the process stops. MaxErrors=5

Table C.1 ~ IsState Keywords		
Keyword	Values	Description
Mode	Autoname [: StateFilePath]	In autoname mode the name of the state file is changed to reflect the package name and the INI file used to create the state file. The state file is placed in is the directory specified after autoname: . In addition to the created state file, a copy of the INI file used is also placed in the same directory. If no path is specified, then the current directory is used.
		The name of the INI/state file pair comes from the package FDCI . Since the F part is always PRIMARY , and the C part is always PACKAGE (ZSERVICE), just the domain and instance part of the name will be used to build the (file system) name of the state and INI file. Periods (.) are usually used to annotate an FDCI name, but in the case of the state/INI names, the periods are replaced with a hyphen (-). In addition to the domain and instance name, the package timestamp and the CRC of the INI file contents are added to the name. Lastly, if required, the operating system for which the state file was generated is added. If the state operating system is neutral, then the name ends with the CRC. The operating systems can be Windows 9x, NT, 2000, or XP. An example name would appear as:
		domain-instance-date-hour-minute- second-crc-os. [INI ISState]
		For example, the package name PRIMARY.SOFTWARE.PACKAGE.C_ COMMUNICATOR_476_W2K
		would generate the following two files:
		software-c_communicator_476_w2k- 20020213-17-33-21-4a32ed92- win2k.INI
		software-c_communicator_476_w2k- 20020213-17-33-21-4a32ed92- win2k.ISState
		If the state file is placed into an Automated Import Path, then the Knowledge Base Manager will automatically import the state file into the Application Knowledge Base.

Table C.1 ~ IsState Keywords		
Keyword	Values	Description
	Export	The location of the state files is controlled by the value of the Radia registry value: HKLM\Software\Novadigm\Radia\Setti ngs \ApplicationAnalyzerExportPath This registry value points to a directory structure that is a series of subdirectories. In addition to the VarSets subdirectory, there are Package and Service , subdirectories. If the state file is placed into an Automated Import Path, then the Knowledge Base Manager will automatically import the state file into the Application Knowledge Base.
OS	OS Name	This keyword permits the operating system name (i.e. WIN95, WIN98, NT, WIN2K, WINXP) to be preloaded and thus override the value stored in ZMASTER.ZOS.
PackageName	PackageName	The nName of the package to process. If only the package instance name is specified, then the default location is Primary.Software.Package . To specified a different domain. Specify the full FDCI. Packages can only be in a class named package.
Replace	Yes No True False 1 0	Replace controls if the generated output is replaced in the directory. If set to <i>True</i> or <i>Yes</i> , the state file is always replaced. When <i>Type=Package</i> and <i>Replace=False</i> is specified, the output is replaced if the package stored on RCS is newer than the existing one in the output area.
SaveEDR	Yes No True False 1 0	This is mainly for debugging. When specified, the EDR file that contains the registry keys is save in the TEMP directory. The State File Generator looks for a working temp directory in the environment variable "TEMP". The files with the extension "*.before" are the EDRs fetched from RCS and the files name "*.after" are the values after the symbolics are resolved.
ShowKeys	Yes No True False 1 0	When processing the EDR files which contain the registry keys, the active keys are not echoed to the screen. When set to true, all keys are echoed to the screen. The inactive and skipped keys are always echoed to the screen.

Table C.1 ~ IsState Keywords		
Keyword	Values	Description
Туре	S[tate] D[iscover] P[ackage]	Specifies the type of output: State, Discover, or Package (S, D or P, respectively). If Type is omitted, then a dump is generated which will annotate all the components of the package. Type=Package will generate a state file, but will force Mode=Export , which will place the state files in the directory specified by the Radia registry value. HKLM\Software\Novadigm\Radia\Settings\ ApplicationAnalyzerExportPath. With <i>Twne=Discover</i> , ISState will continue to read the
		components of the package even if unknown symbolics are discovered. When an unknown symbolic is found, a random value in the form of % <digits>% is used in its place. The number of digits in this value is 12 and the first digit is 0. At the end of the process, all the values for the symbolics are written to the console, and if the <i>DiscoverINI</i> key was specified, then they are written there too.</digits>
Validate	Yes No True False 1 0	This will validate the resource data fetched from the manager. The first validation test is the size. The size of the resource as noted in ZRSCSIZE must be equal to the size of the resource when it's fetched (and exploded if compressed) from RCS. Then if a CRC of the data is stored in the instance, a CRC is computed for the data just fetched and the two values are compared. Lastly, if an MD5 signature exists, that is also checked in the same manor as the CRC was checked. Internal resource, like EDR files and Radia objects are always checked regardless of the value of Validate.

EDM-Radia Compatibility Mode for the Radia Configuration Analyzer



Application Extension Framework (AXF)

AXF is an extendible framework that resides on each workstation or server to monitor, report on, and control selected applications.

Application Extensions

Application Extensions are loaded by the Application Extension Framework to control some aspect of application processing. Application Extensions may be simple or complex in nature and enhance the ability to manage the application, such as protecting an application from corruption.

AXF Log File

The Application Extension Framework maintains a log of all extensions that were loaded for each launch of an application. This is basically an audit file containing a history of the extensions and any extraordinary events produced for the Radia Packager for Windows Installer protected applications.

Comma-Separated-Value (.CSV) Formatted Files

CSV files are data files that have each record value separated by a comma. CSV files are created by Radia Packager for Windows Installer from a state file so the state file information can be used by other software applications.

configuration set

Contains the configuration information for an Application Extension. Each Configuration Set is given a user-allocated unique name.

custom actions

A type of state file that contains customized application processing to extend the functionality of the Windows Installer package. Custom action files include Installation Actions that execute a VBScript, Java Script, EXE, or DLL based on your defined conditions, and may use Custom Data.

Glossary

delta state file

A type of state file that contains a definitive list of the differences between any two state files that are compared.

filter state file

A type of state file that contains the filtering criteria used during a machine scan or other state file build process.

impact state file

A type of state file that contains all resources changed by an application program during its execution.

install state file

A type of delta state file that combines a Machine Scan Delta State and a Radia Impact State to achieve the best of both techniques. Install states identify the resources needed for an install.

intersection state file

A type of state file that contains a definitive list of all the resources shared by any two state files.

package difference transform

A package difference transform creates a transform containing the differences between two package files. The packages must not have any file, registry, or shortcut differences.

packaging

The act of identifying and gathering the components of an application.

permission state file

A type of state file that contains a set of Access Control Groups, each of which has been assigned one or more group or user types with corresponding rights. Library resources can be assigned to the permissions of a specific Access Control Group. The assigned permissions are implemented when the Windows Installer package is installed, thus providing control over user access authority at installation time.

profile state file

A type of state file that contains a definitive list of all resources needed by an application program to execute properly.


project tree

The diagram showing the hierarchy of Radia' workspaces and projects, which is displayed when IStudio is executed.

promoting

When you **promote** a package that was created with the Radia Publisher, you are storing the package in the Radia Database.

publishing

The act of promoting the result of packaging to the Radia Database.

Radia Application Knowledge Base (AKB)

A historical database of application and machine state information.

Radia Configuration Analyzer

A console for viewing, storing, and comparing application data. Backed by an SQL or Oracle database, the Radia Configuration Analyzer allows you to import state files created by the Radia State Wizard or Radia Package Wizard of the Radia Packager for Windows Installer. The Radia Configuration Analyzer allows you to compare imported application information for conflicts before creating packages for deployment, and to compare these packages with applications that have been deployed.

Radia Configuration Analyzer Project

A Radia Configuration Analyzer project is a logical grouping comprised of the application and machine state files that have been exported to the Radia Application Knowledge Base.

Radia Configuration Analyzer Workspace

A Radia Configuration Analyzer workspace is the user's view into the Radia Application Knowledge Base based on the user's authority. Workspaces contain projects.

Radia Insulation Wizard

A wizard that guides the user in insulating Radia Libraries and Applications.

Radia Library Wizard

A wizard that guides the user in building Radia libraries.

Radia Package Wizard

A wizard that builds Windows Installer package files (.MSI) and patch package files (.MSP).

Glossary

Radia Packager for Windows Installer (Process) Menu

A single menu that offers a process view as well as quick access to the Radia Default Settings dialog box, all Radia Wizards, and the Radia Configuration Analyzer.

Radia State Wizard

A wizard that guides the user in the creation of different state file types.

Radia/Insulate

This component of Radia insulates, protects, and ensures application reliability by providing a "wall" around an application, insulating and protecting it from other applications.

scan state file

A type of state file that contains selected directory, file, and registry information created by scanning a workstation.

self-registration

A task that adds a registry setting that indicates where to load the modules required for the component to execute properly.

state file

A highly-tuned file format that is used to store information about an application or workstation at a particular point in time. There are several different types of state files.

transform files

A user interface transform executes the package installation's user interface and saves all responses in a transform file. Although the product appears to be installed, it is not. A package difference transform creates a transform containing the differences between two package files. The packages must not have any file, registry, or shortcut differences.

union interface transform file

A user interface transform executes the package installation's user interface and saves all responses in a transform file. Although the product appears to be installed, it is not.

union state file

A type of state file that contains a definitive list of all the resources contained by adding each of the resources contained in any two state files.



ZSTOP

A ZSTOP expression is used to stop the resolution of an instance based on certain criteria. For example, create a ZSTOP expression to deploy a ZSERVICE instance only to client computers with a particular operations system.

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