HP OpenView Software Manager Using Radia

Radia Software Manager Guide

Software Version: 3.1

for the UNIX operating system

Manufacturing Part Number: T3424-90077

September 2004

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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

This book should be used by systems administrators who are implementing Radia in their environments, and who want to publish and deploy applications throughout their enterprises.

What this Guide is about

The *Radia Software Manager Guide for UNIX* version 3.1 describes:

- how to publish applications.
- how to implement entitlement policies.
- how to deploy applications.
- Radia Client objects.

This guide is for use with the Radia Software Manager for UNIX Version 3.1.

Summary of Changes

This printing of the *Radia Software Manager Guide for UNIX* for use with Radia Software Manager version **3.1** contains the following changes to information and procedures for the following chapters.

3.1 Note

Items with 3.1 represent changes that are specific to version **3.1**. To take full advantage of the new features, you will need the Radia Database version 3.1 or above.

Chapter 2: Installing the Radia Software Manager

3.1 Page 30, *System Requirements*: Updated System Requirements to include SUSE Linux and RedHat Enterprise Linux requirements.

Conventions

You should be aware of the following conventions used in this book.

Table P.1 ~ Styles

Element	Style	Example
References	*Italic*	See the *Publishing Applications and Content* chapter in this book.
Dialog boxes and windows	**Bold**	The **Radia System Explorer Security Information** dialog box opens.
Code	`Andale Mono`	`radia_am.exe`
Selections	**Bold**	Change your current directory to the **/opt** directory on the installation CD-ROM.

Table P.2 ~ Usage

Element	Style	Example
Drives (system, mapped, CD)	Italicized placeholder	*/SystemDrive/*Novadigm might refer to /opt/Novadigm on your computer. *CDDrive/*client/radia_am might refer to /cdrom/client/radia_am on your computer.
Files (in the Radia Database)	All uppercase	PRIMARY
Domains (in the Radia Database)	All uppercase	PRIMARY.SOFTWARE May also be referred to as the SOFTWARE domain in the PRIMARY file.
Classes (in the Radia Database)	All uppercase	PRIMARY.SOFTWARE.ZSERVICE May also be referred to as the ZSERVICE class in the SOFTWARE domain in the PRIMARY file.

The table below describes terms that may be used interchangeably throughout this book.

Table P.3 ~ Terminology*

* Depends on the context. May not always be able to substitute.

Term	May also be called
Application	software, service
Client	Radia Application Manager and/or Radia Software Manager
Computer	workstation, server
NOVADIGM domain	PRDMAINT domain **Note**: As of the 4.0 release of the database, the NOVADIGM domain is being renamed the PRDMAINT domain. Therefore, if you are using an earlier version, you will see the NOVADIGM domain in the database.
Radia Configuration Server	Manager, Active Component Server
Radia Database	Radia Configuration Server Database

Contents

1

Introduction

At the end of this chapter, you will:

- Understand the components of Radia.
- Know the structure of the Radia Database.
- Understand suggested deployment strategies.
- Know how to use this manual.
- Be familiar with the requirements for a test environment.

About Radia Technology

Enterprises have tried several different software distribution methods to solve the challenge of distributing digital assets. These methods include:

- **Electronic CDs**
  Individual users can manually personalize their own software, but this method lacks the ability to standardize software, and does not allow for synchronized installation.
- **Electronic Software Distribution (ESD) tools**
  This method ensures synchronized delivery, but at the price of excessive standardization. Everyone in the organization is forced to get a one-size-fits-all copy of the same thing, without any personalization of software, although each department in an organization may have different software needs.
- **Push Products**
  Some companies are attempting to deal with the software management challenge with Internet-based push technology. This method, similar to ESD, ensures synchronized delivery, but does not allow for customization.

Radia technology provides high levels of adaptability, flexibility, and automation. Adaptability comes from the embedded intelligence of platform-independent object-oriented technology. Flexibility is provided by the media-independence of Radia technology that enables content to be easily revised and customized. Radia automates digital asset management across virtually any kind of network. The following bullets detail each of these distinctive capabilities, which are essential to Radia technology:

- **The Embedded Intelligence of Object-Oriented Technology**
  Object-oriented technology transforms software and content from file-based media into self-aware, platform-independent, intelligent objects that automatically assess the environment into which they are deployed, and personalize, install, update, and repair themselves accordingly. In other words, as intelligent objects, they know what they need for a particular device or user, where to get what they need, when they need to change, how to change themselves, and how to repair themselves.
- **Revisable Packaging for Revisable Content**
  Radia technology enables revision and customization of software and content at any midstream point in the publisher-to-subscriber deployment process. Because Radia technology transforms software and content into objects, these objects can be easily modified midstream – subtracted from, added to, reconfigured – simply by packaging them with other objects or new configuration information. With revisable packaging, value-added service providers and IT administrators can customize standard published software offerings for the needs of their particular users without having to unpack and repackage everything.
- **Self-Managing Infrastructure**
  The object-oriented intelligence of Radia technology incorporates a self-managing infrastructure. This capability begins with network-independence, with Radia technology flexibly supporting any deployment environment, whether client/server, local, wide or virtual area network, intranet, extranet, or the Internet. Furthermore, Radia supports whatever distribution media make sense for the target audience and the provider (which might be a software publisher, application service provider (ASP), Internet service provider (ISP),

provider of enterprise application integration (EAI) services, e-business integrator, e-commerce component provider, or in-house IT administrator).

In the Internet age in which software is fundamental to the ability of businesses to compete, change is a constant state, and audience diversity has grown beyond the capacity of older technologies to manage. Radia technology provides the necessary automation, adaptability, and flexibility to solve the software management challenge.

Distribution Models

Radia manages the distribution of digital assets based on your *distribution model*. A distribution model records the identities and intended configurations of the desktop computers whose configurations are managed by Radia. The distribution model can be simple or complex. At a minimum, a Radia distribution model includes the following five elements:

- **Users**
  The identity of the computers being managed.

> **Note**
>
> The term computer is used to refer to a workstation or server.

- **Applications**
  The digital assets that are being managed.
- **Application Files**
  The components that make up the digital assets.
- **Deployment Source**
  The location where the application components are centrally stored, such as on a Radia Staging Server or Radia Configuration Server, so they can be deployed to the users.
- **Deployment Destinations**
  The location to which the application and its files will be distributed, such as desktop computers, PDAs, and laptops.

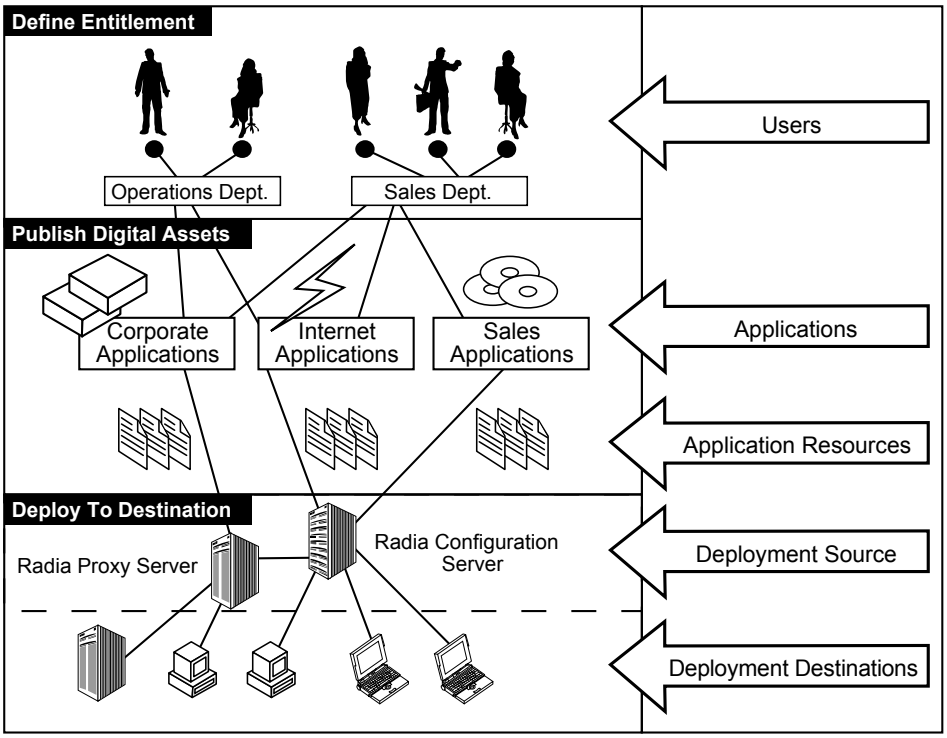

Figure 1.1 ~ Elements in a distribution model.

Use Radia to manage all of these elements. You will publish *packages* of digital assets, assign these packages to users, and define how the packages will be deployed.

Note

A *package* is a unit of distributable software or data.

The Radia Database

The Radia Database, stored on the Radia Configuration Server, records your distribution model. This includes all of the information that Radia uses to manage applications on a client computer, including:

- The software or data that Radia distributes.
- The distribution model for each client computer.
- The policies determining which subscribers are assigned to which packages.
- Security and access rules for Radia administrators.

Use the Radia System Explorer to view and manipulate the Radia Database. The Radia Database is hierarchically structured, and its components consist of files, domains, classes, instances, and attributes.

Note

The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

Table 1.1 ~ Radia Database Structure

Term	Description
File	Highest level in the hierarchy of the Radia Database. Groups similar domains together. **Example**: The PRIMARY file is used to define and maintain the distribution model. This is one of the pre-configured files distributed with Radia.
Domain	Logically partitions a Radia file. Groups similar classes together. **Example**: The POLICY domain contains the classes needed to create users and groups.
Class	A category of the distribution model. The class is a template for the attributes needed to create an instance of the class. Refer to the *Radia Class Reference Manual* for information on the structure and usage of Radia classes. **Example**: The USER class of the POLICY domain defines subscribers of Radia-managed applications. It defines all of the attributes necessary to identify the client computer to be managed by Radia.
Class Instance or Instance	An object containing a specific occurrence of a class. This is analogous to a row in a relational data table, or a record in a traditional flat file. The attributes of a class instance object contain data describing one specific entity of that class. **Example**: A USER instance is an object created from the USER class, containing the information needed to identify a subscriber's client computer.
Attribute Attribute Value	An attribute is a data element of a class. The class contains the definition (e.g., the name, data type, description, and length) for each attribute comprising the class. Each class instance created from the class contains a value for each of the attributes defined in the class. **Example**: The NAME attribute of a USER class contains the name of the user, and the USERID attribute contains the User ID, as specified by the Radia administrator.

When you install the Radia Configuration Server, LICENSE and PRIMARY are the only two files available. As you use Radia, your Database may change.

- The LICENSE file is read-only and used for Radia Configuration Server processing. This file is for HP use and should not be modified.
- The PRIMARY file is where you will find most information regarding software management. Within the PRIMARY file, there are seven domains.
  - Use the ADMIN domain for defining administrative rights and rules for connecting classes.
  - Use the AUDIT domain to configure tasks that will inventory, or audit, client computers' assets. See the *Radia Inventory Manager Guide* for additional information.
  - Use the NOVADIGM domain to store packages for self-maintenance. See *Radia Software Manager Self-Maintenance* on page 177.
  - Use the PATCH domain to store the list of available patches within a PATCH class. See the *Radia System Explorer Guide.*
  - Use the POLICY domain to create users and groups, and to assign users to groups. See the *Implementing Entitlement Policy* chapter in this book for more information.
  - The SOFTWARE domain contains information about the software being managed and the methods used to deploy the software. See the *Publishing Applications and Content* and *Deploying Applications* chapters in this book.
  - The SYSTEM domain contains administrative and process control definitions.
- The PROFILE file contains information collected from client computers. The file appears after the first client computer has registered with the Radia Configuration Server. This information is used to connect to computers to deploy software managed by Radia, and to see the configuration of the client computer. The PROFILE file is discussed in *Radia Client Objects* starting on page 259.
- The NOTIFY file contains information about attempts by the Notify function to update, remove, or e-mail subscribers. This file appears after the first attempted Notify. For more information about Notify, see *Deploying Mandatory Applications for the Radia Software Manager* starting on page 283.

Radia Infrastructure

Use Radia Infrastructure components to take full advantage of Radia's ability to manage your enterprise's computing environment. Depending on your enterprise's configuration, your infrastructure may be enhanced by any combination of these components. The Radia components can be divided into four categories.

- Radia Management Applications
- Radia Management Infrastructure
- Radia Extended Infrastructure

- Radia Management Extensions

Some of the basic Radia Infrastructure components are described below. For more information on all of the Radia products, see the *Radia Getting Started Guide* or the HP OpenView web site.

Radia Configuration Server

The Radia Configuration Server is part of the Radia Management infrastructure, and resides on a single server or across a network of servers. Applications and information about the subscribers and client computers are stored in the Radia Database. The Radia Configuration Server distributes packages based on policies established by the Radia administrator. See the *Radia Configuration Server Guide* (also known as the *Manager Guide*) for more information.

Radia Management Portal

The Radia Management Portal is a Web-based interface that you can use to manage your Raida infrastructure. The Radia Management Portal is part of the Radia Extended Infrastructure. Whether you are already using Radia, or are just beginning, you can use the portal to create a graphical representation of your infrastructure. See the *Radia Management Portal Guide* for more information.

Radia Proxy Server

If you want to reduce the load on the Radia Configuration Server, or store your digital assets closer to your client computers, consider using a Radia Proxy Server. The Radia Proxy Server stores a copy of the digital assets that are available to subscribers attached to the Radia Proxy Server. The Radia Proxy Server is also part of the Radia Extended Infrastructure. Evaluate the potential benefits for each server and its attached subscribers individually. For more information, refer to the *Radia Proxy Server Guide.*

Note

Contact your HP representative for details on the Radia Management Portal and the Radia Proxy Server.

Radia Administrator Workstation

Radia comes with a set of tools used to carry out software management functions. You should become very familiar with these tools. This is part of the Radia Management Infrastructure. These include:

- **Radia Publisher**
  Use the Radia Publisher to create groups of components, called *packages,* and promote them to the Radia Configuration Server.

- **Radia System Explorer**
  Use the Radia System Explorer to view and to manipulate the Radia Database. In addition to this publication, see the *Radia System Explorer Guide*.
- **Radia Client Explorer**
  Use the Radia Client Explorer to view and to manipulate Radia objects on the client computer.
- **Radia Screen Painter**
  Use the Radia Screen Painter to create custom dialog boxes.

Management Applications

Management Applications (clients) allow you to automate deployment, update, repair, and deletion activities, and inspect hardware and software. Install the Radia Management Applications onto the subscriber's computer.

There are three types of Management Applications available for communicating with the Radia Configuration Server. Install the only those clients for which you have obtained a license. The client software is located on the Management Applications CD-ROM.

- **Radia Application Manager**
  Schedule the distribution of mandatory applications throughout the enterprise. This client is described in this book.
- **Radia Software Manager**
  Subscribers install, remove, or update optional applications that are available to them in a service list. For more information, see the Radia Software Manager Guide.
- **Radia Inventory Manager**
  This client allows you to collect hardware information and send it to the Radia Inventory Manager for collection and reporting. See the Radia Inventory Manager Guide for details.

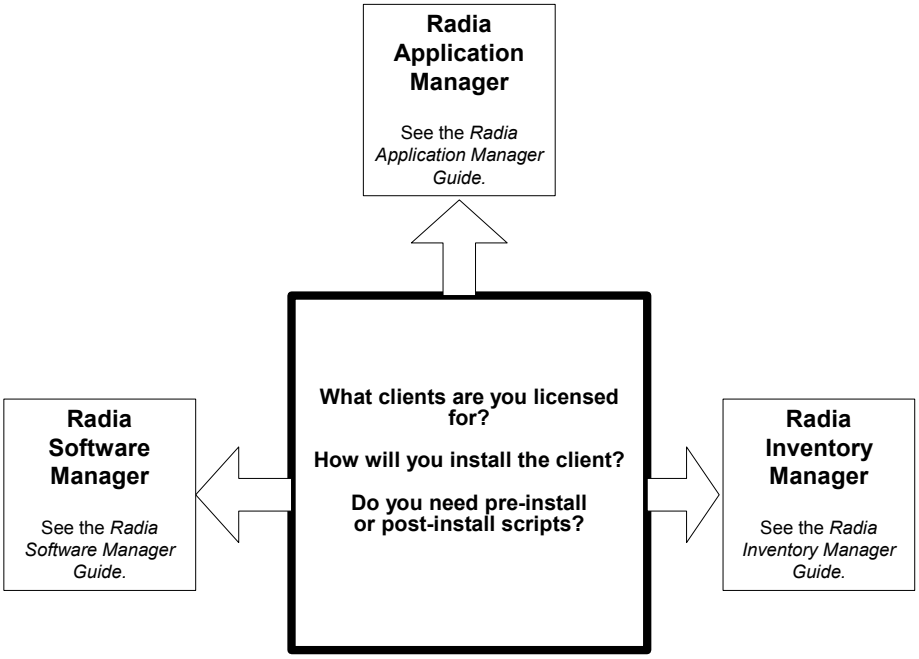

Figure 1.2 ~ Client options.

If you install both the Radia Software Manager and Radia Application Manager feature sets, you decide if an application is mandatory or optional, and specify who controls the installation of the application. By adding the Radia Inventory Manager, you can also find out the hardware and software configurations of the client computer.

Distributing Applications with the Radia Software Manager

After installing the necessary components, you need to prepare your applications and make them available to your subscribers. To do this:

1. **Publish applications and content.**
   Use the Radia Publisher to create and publish packages to the Radia Configuration Server. Packages contain the data that you want to distribute. Then, use the New Application Wizard in the Radia System Explorer to create application services for your packages. An *application service* (also referred to as a *service*) is a group of related packages that represents the content to be managed by Radia. See the *Publishing Applications and Content* chapter starting on page 115 for more information.
2. **Assign services to your subscribers.**
   Use the Radia System Explorer to assign services to your subscribers. See the *Implementing Entitlement Policy* chapter starting on page 207 for more information.
3. **Prepare the Radia Software Manager user interface.**
   Customize the Radia Software Manager user interface as necessary and make it available to your subscribers. See the *Radia Software Manager User Interface* chapter starting on page 233 for more information.
4. **Subscribers install applications.**
   Each subscriber installs, updates, verifies, and removes the applications in the Radia Software Manager user interface. Subscribers can also configure a schedule to automatically update installed applications. See the *Radia Software Manager User Interface* chapter starting on page 233 for more information.
5. **Review the results.**
   Use the Radia System Explorer or Radia Client Explorer to review objects that contain information about your subscribers' computers, as well as the most recent application event, such as installing, updating, verifying, or removing applications. See the *Radia Client Objects* chapter starting on page 259 for more information.

Creating a Test Environment

Before preparing for enterprise-wide deployment of Radia, you may want to set up a test environment and deploy a sample application.

Setting up a Test Environment

We recommend that you have at least three computers in your test environment.

- **Server**
  Install the Radia Configuration Server on this computer. See the *Radia Getting Started Guide for UNIX* on the HP OpenView web site for information about installing the Radia Configuration Server.
- **Administrator computer**
  Install the Radia Administrator Workstation on this computer. The Radia Administrator Workstation must be installed on a 32-bit Windows machine.

  You must have a TCP/IP connection to the Radia Configuration Server.
- **Client computer**
  Install the Radia Software Manager on this computer. You must have a TCP/IP connection to the Radia Configuration Server.

About This Guide

This guide covers the *suggested* implementation for the Radia Software Manager. Although you will tailor this strategy to meet your organization's needs, you should review this guide for a comprehensive understanding of the Radia Software Manager. At the start of each chapter, you will find the following diagram to help you locate where you are in the implementation. The appropriate area will be shaded.

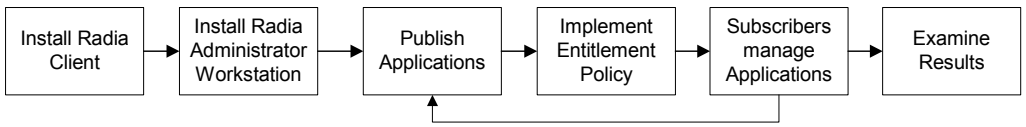

Figure 1.3 ~ Overview of the Radia Software Manager Guide.

The *Radia Software Manager Guide for UNIX* covers the following:

- **Installing the Radia Software Manager**
  This chapter describes how to install, repair, and remove the Radia Software Manager for UNIX, and how to modify its installation.
- **Installing the Radia Administrator Workstation for UNIX**
  This chapter describes how to install, repair, and remove the Radia Administrator Workstation for UNIX and how to modify its installation.
- **Installing the Radia Administrator Workstation for Windows**
  This chapter describes how to install, repair, and remove the Radia Administrator Workstation for Windows and how to modify its installation.
- **Publishing Applications and Content**
  This chapter describes how to publish applications.
- **Implementing Entitlement Policy**
  This chapter describes how to integrate Radia with your existing policy information, create new users and assign them to groups, and connect services to groups.
- **Radia Software Manager User Interface**
  This chapter describes how to customize the Radia Software Manager, and how to use the Radia Software Manager user interface.
- **Radia Client Objects**
  This chapter describes how to examine the results of your Radia implementation.
- **Deploying Mandatory Applications for the Radia Software Manager**
  This chapter introduces you to the additional capabilities that are available after enabling the Radia Application Manager along with the Radia Software Manager.

Summary

- Radia gives you the flexibility and control to efficiently manage desktop software using Radia technology.
- Radia includes a set of administrator tools to help you manage your software.
- The Radia Database includes all the information needed to manage your software.
- We provide suggested deployment strategies that you should tailor to your organization's needs.
- Before preparing for enterprise-wide deployment of Radia, consider setting up a test environment.

2

Installing the Radia Software Manager

At the end of this chapter, you will:

- Understand the system requirements and permissions necessary to deploy the Radia Software Manager.
- Be able to install the Radia Software Manager using either the graphical or non-graphical mode.

This guide covers the *suggested* implementation for the Radia Software Manager. Although you will tailor this strategy to meet your organization's needs, it is recommended you review this guide for a comprehensive understanding of the Radia Software Manager. This chapter covers installing the Radia Software Manager.

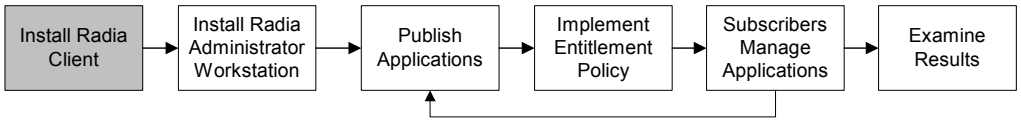

Figure 2.1 ~ Overview of the Radia Software Manager Guide.

Caution

Install only the Radia Clients for which you have licenses. If you do not have a license, the Radia Client will not authenticate with the Radia Configuration Server.

System Requirements

- HP-UX Operating System Version 10.20 or above, PA Risc CPU, Motif 1.2 libraries.
- RedHat Enterprise Linux Version 2.1 and 3.0, Intel Pentium processor or compatible CPU.
- SUSE Linux versions 8 and 9, Intel Pentium processor or compatible CPU.
- Solaris Operating System Version 2.5.1 or above, SPARC CPU, Motif 1.2 libraries.
- AIX Operating System Version 4.3.1, 5L, Motif 1.2 libraries.
- Siemens Reliant operating system Version 5.43 or 5.45 Reliant UNIX, R400, R4000 Risc.
- TCP/IP connection to a computer running Radia Configuration Server.
- Radia Client requires 20 MB free disk space.

Prerequisites

- We strongly recommends installing the Radia Clients as root.
- Install the Radia Client on a local file system.
- The installation program must be run from within UNIX. Although you can continue to work within UNIX (performing other tasks and operations) while the installation program is being executed, we strongly recommend that you don't.
- If you intend to run any of the graphical components of the Radia Client software, make sure the UNIX environment variable DISPLAY is set in your environment. If it is not, you will

need to set this variable to indicate the hostname or IP address to which you would like to redirect the graphical display.

Table 2.1 ~ Setting the DISPLAY Variable

In a.....	Type....
C shell	`setenv DISPLAY IP address or hostname:0.0`
Bourne, Bash, or Korn shell	`DISPLAY=IP address or hostname:0.0` `export DISPLAY`

Caution

If there is an existing installation in the current working directory, you are urged to relocate it before beginning installation. You will be prompted for this during the installation. If you choose to overwrite your existing client, all your customized data will be lost.

When installing the Radia Client, you must know the subscribers' operating systems. After setup and configuration, the executables and library files will not be changing with the same frequency as that of your site's user files.

To successfully run Radia applications, standard UNIX environment variables are required, as shown in *Table 2.2 ~ Environment Variables* on page 32. Minimally, these environment variables should include the fully qualified path of the installed client executables, the path to the operating system-specific Motif libraries, and the standard UNIX operating system paths for operating system executables and shared libraries. We recommend these be included as part of the logon scripts of the UNIX user ID who installs, and will maintain the Radia Clients.

Note

When installing the Radia Client on HP-UX platforms, the CD-ROM drive must be mounted to display lowercase file names. A sample mount command line follows:

```
mount -o cdcase /dev/<cdrom device>  /cdrom
```

If you do not mount the CD-ROM drive with the cdcase parameter, file names on the CDROM will be displayed in uppercase and the installation will fail.

Table 2.2 ~ Environment Variables

Platforms	Examples
Solaris	`LD_LIBRARY_PATH=/lib:$IDMSYS:$MOTIF:$LD_LIBRARY_PATH` `PATH=/bin:/usr/bin:$IDMSYS:$MOTIF:$PATH`
HP-UX	`SHLIB_PATH=/lib:$IDMSYS:$MOTIF:$SHLIB_PATH` `PATH= /bin:/usr/bin:$IDMSYS:$MOTIF:$PATH`
AIX	`LIBPATH=/lib:$IDMSYS:$MOTIF:$LIBPATH` `PATH=/bin:/usr/bin:$IDMSYS:$MOTIF:$PATH`
Linux	`LD_LIBRARY_PATH=/lib:/usr/lib:$IDMSYS:$LD_LIBRARY_PATH` `PATH=/bin:/usr/bin:$IDMSYS:$PATH`

In *Table 2.2 ~ Environment Variables above*, $IDMSYS represents the fully-qualified path to the Radia Client executables, often referred to as the IDMSYS location, and $MOTIF represents the fully-qualified path to the Motif libraries installed with the operating system.

Note

The inclusion of the MOTIF libraries is required only when running Radia Client or Radia Administrator Workstation graphical tools such as the Radia Publisher, the Radia Client Explorer, and the presentation of the Radia Client logon panel.

After the Radia Client is installed, the file **.nvdrc** is placed in the HOME directory of the UNIX user ID who performed the installation. This file aids you in setting the required environment variables needed to use the Radia Clients. We recommend adding a line to the appropriate logon scripts to invoke this shell script:

```
. $HOME/.nvdrc
```

Troubleshooting

Should you encounter any problems while installing the Radia UNIX Client, please perform the following steps before contacting technical support:

1. Enable diagnostic tracing by appending the text **-loglevel 9** to the installation command line and re-run the installation.
2. Have this log file (tmp/setup/setup.log) located in the home directory of the UNIX user ID who ran the install.

Note

The installation option **–loglevel 9** should only be used to diagnose installation problems.

About Radia Daemons in UNIX

The Radia Client installation program installs the following daemon executables:

- **Radia Notify (default port 3465)**
  Use Radia Notify, **radexecd**, to push updates to subscribers or to remove applications. A Notify message is sent from the Radia Configuration Server to this daemon. When the daemon receives the Notify message, the Radia Client connects to the Radia Configuration Server and performs the action initiated by the Notify operation.

Important Note

If you want to send a Notify to subscribers of a particular application, that application *must* be installed on their computers in order for them to be eligible for notification.

- **Radia Scheduler**
  Use the Radia Scheduler service, **radsched**, to schedule timer-based deployments of applications.

The installation of **radexecd** and **radsched** as services on a UNIX workstation is not automated within the context of the installation. The starting of services on UNIX workstations is operating system dependent. For information about installing Radia daemons as system services at boot time, please see your local UNIX system administrator or refer to your UNIX operating system's manual.

Sample Shell Scripts

The installation of the Radia Client includes a subdirectory called "sample". It contains a sample shell script called **daemons.sh** that may be used to start, stop, and restart the **radexecd** and **radsched** daemons.

- To start the radexecd and radsched daemons, type: **daemons.sh start**
- To stop the radexecd and radsched daemons, type: **daemons.sh stop**
- To stop, then restart the radexec and radsched daemons, type: **daemons.sh restart**

Recommendations

- We strongly recommend that you install and run the Radia Client as root.

> **Note**
>
> Root authority is required to apply owner and group designators to managed resources.

- After you perform an installation, make sure the Radia Software Manager is successfully connected to the Radia Configuration Server. This registers the subscriber in the Radia Database. Once registered, the subscriber appears in the PROFILE file. Make sure to verify that all ports are active and that you have full connectivity to the Radia Configuration Server.

Before you install the Radia Client, consider the following:

- You can perform a local installation of the Radia Clients.
- Your Radia systems administrator can perform a Remote Installation Setup. This process stores the installation media in a selected directory path. Later client installations can be initiated from any number of intended client workstations providing they have access to the directory path selected during the Remote Installation Setup.
- Performing an installation from a customized configuration file provides a number of benefits.
  - Replication of precise installation details on multiple clients.
  - Ability to use a pre-installation method that runs any script or executable before the Radia Client installation.
  - Ability to use a post-installation method, which runs any script or executable after the Radia Client is installed.
  - You can configure the installation to force a client connection to the Radia Configuration Server immediately after the installation.
  - You can pre-configure the IP address and port number of the Radia Configuration Server that the Radia Client will be connecting to.
  - Ability to use an object update text file that can be used to update Radia objects after the installation.

Installation Methods

You can install the Radia Clients by:

- Executing the installation procedure directly from the CD-ROM.
- Copying the files from the CD-ROM into a temporary directory and executing the installation procedure.

Several parameters can be used on the command line when installing the Radia Clients. These parameters are used to install the Radia Client using the graphical mode, non-graphical mode, plain mode, or silent mode.

Table 2.3 below describes the installation parameters.

Table 2.3 ~ Command Line Parameters

Parameter	Example	Description
-mode plain	./install –mode plain	Installs the Radia Client in plain mode. The installation graphics are displayed with no animations. This is useful for remote installations where network bandwidth may be an issue.
-mode text	./install –mode text	Installs the Radia Client in text mode using the non-graphical installation. The installation takes place completely on the command line. The installation will default to text mode if the DISPLAY environment variable is not set.

Installing the Radia Client

This section describes both the graphical (using a GUI) and non-graphical (using a command line) installations of the Radia Client for UNIX.

Graphical Installation

This section describes how to install the Radia Clients both to a local and to a remote computer using a graphical user interface (GUI).

Local Installation

This section describes how to install the Radia Clients to a local computer using a GUI.

To install the Radia Client to a local computer using a GUI

> **Note**
>
> These instructions will guide you through the local graphical installation of the Radia Client. For the non-graphical installation instructions, see *Non-graphical Installation* on page 60.

1. Depending on your version of UNIX, change your current working directory to the correct /client subdirectory on the installation media.

   Example:

   For Solaris, type: **cd /cdrom/solaris**

2. Type **./install**, and then press ENTER.

The **Welcome** window opens.

Figure 2.2 ~ Welcome window of the Radia Products Setup program for a local installation.

Note

At any point during the installation, you can return to a previous window by clicking **Back.** Also, if you would like to exit the installation at any time, click **Cancel.**

3. Click **Next**.

4. The **Select Components to Install** window opens.

Figure 2.3 ~ Select Components to Install window.

5. Select the **Radia Software Manager** check box.

6. Click **Next**.

The **Select Installation Type** window opens.

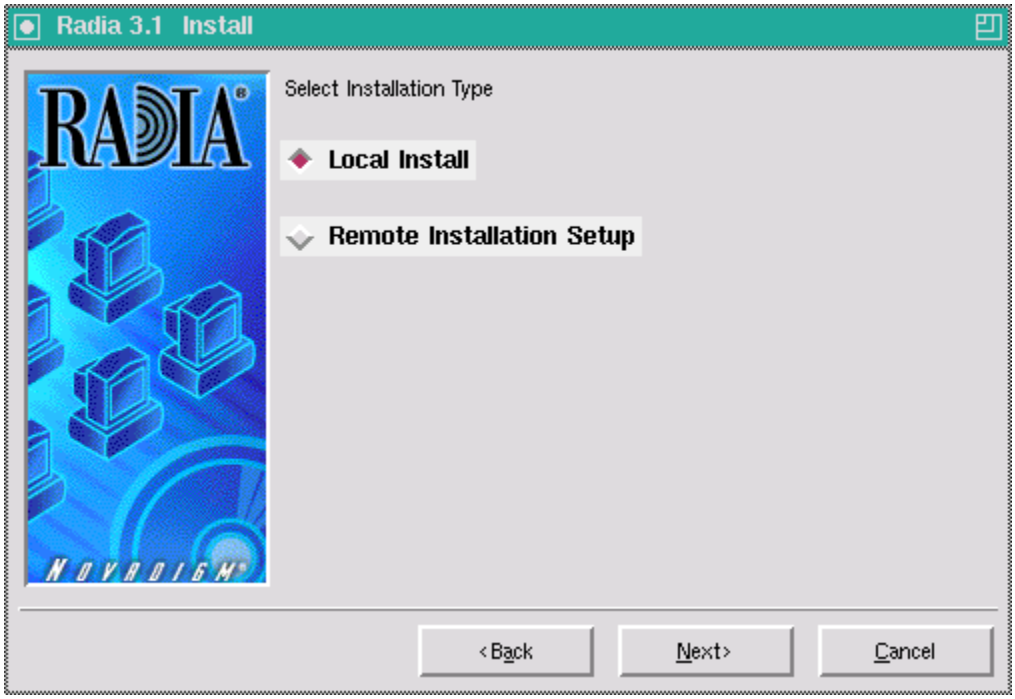

Figure 2.4 ~ Select Installation Type window.

7. Select **Local Install** to install the Radia Client onto a local computer, and then click **Next**.

The **Radia Client Location** window opens.

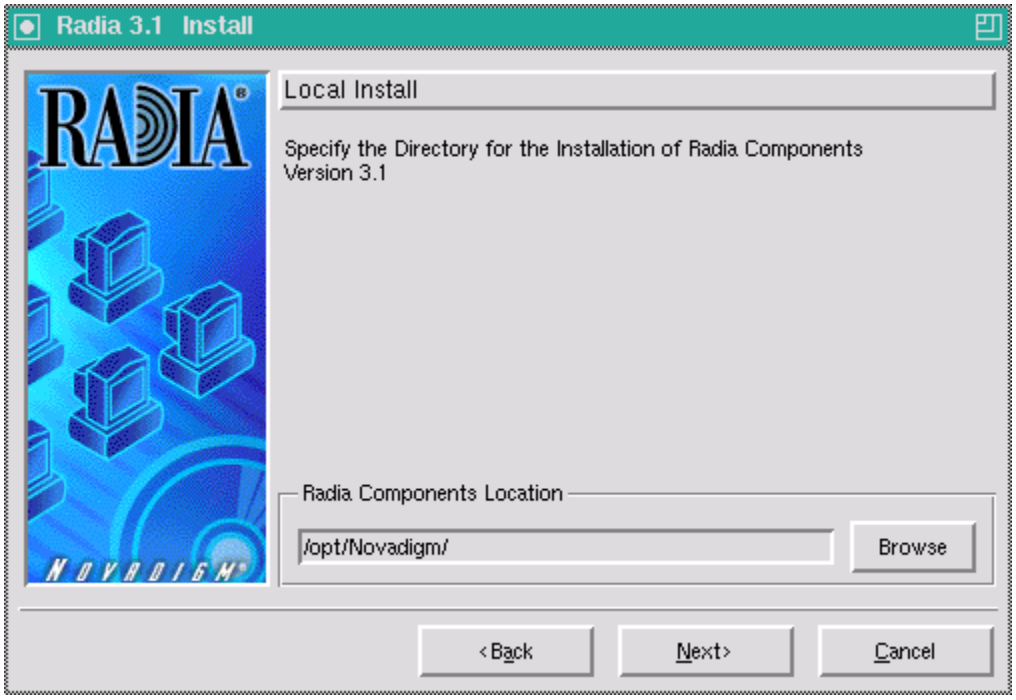

Figure 2.5 ~ Radia Client Location window.

8. Type the name of the directory where you want to install the Radia Client, or click **Browse** to navigate to it.
9. Click **Next**.

   If the specified directory already exists you will be prompted to verify this location.

   - If you would like to update the existing directory, click **OK.**
   - If you want to specify a different location, click **Cancel**.

The **Lib Directory** window opens.

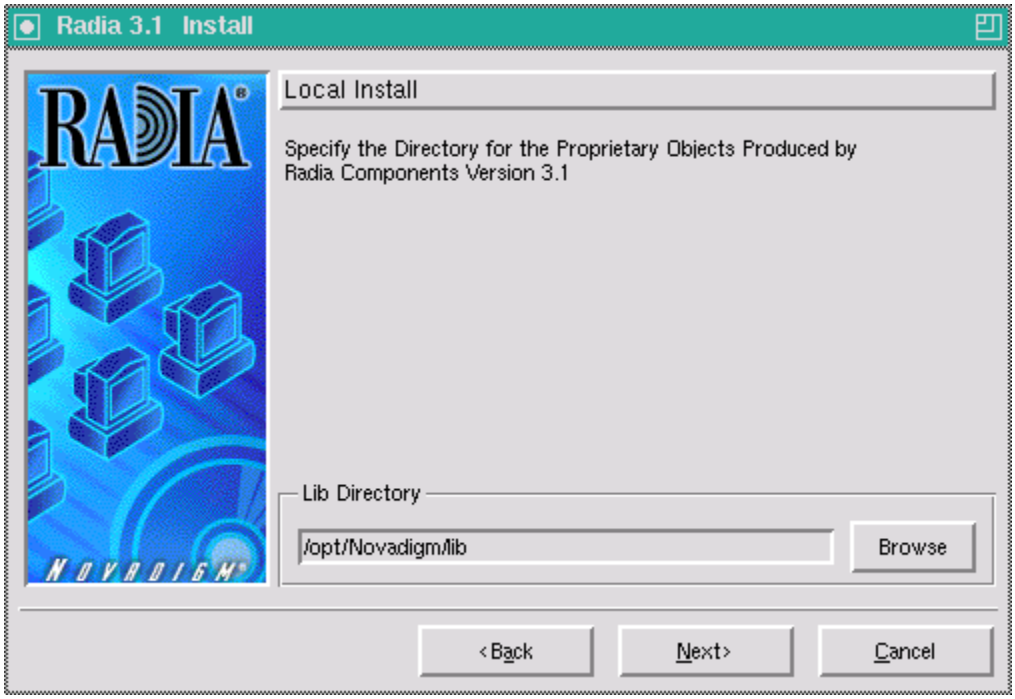

Figure 2.6 ~ Lib Directory window.

10. Type the name of the directory where you would like to store proprietary information created by Radia (the lib directory), or click **Browse** to navigate to it.

11. Click **Next**

The **Log Directory** window opens.

Figure 2.7 ~ Log Directory window.

12. Type the name of the directory where you would like to store the log files generated by Radia, or click **Browse** to navigate to it.

13. Click **Next**.

The **Radia Configuration Server IP Address** window opens.

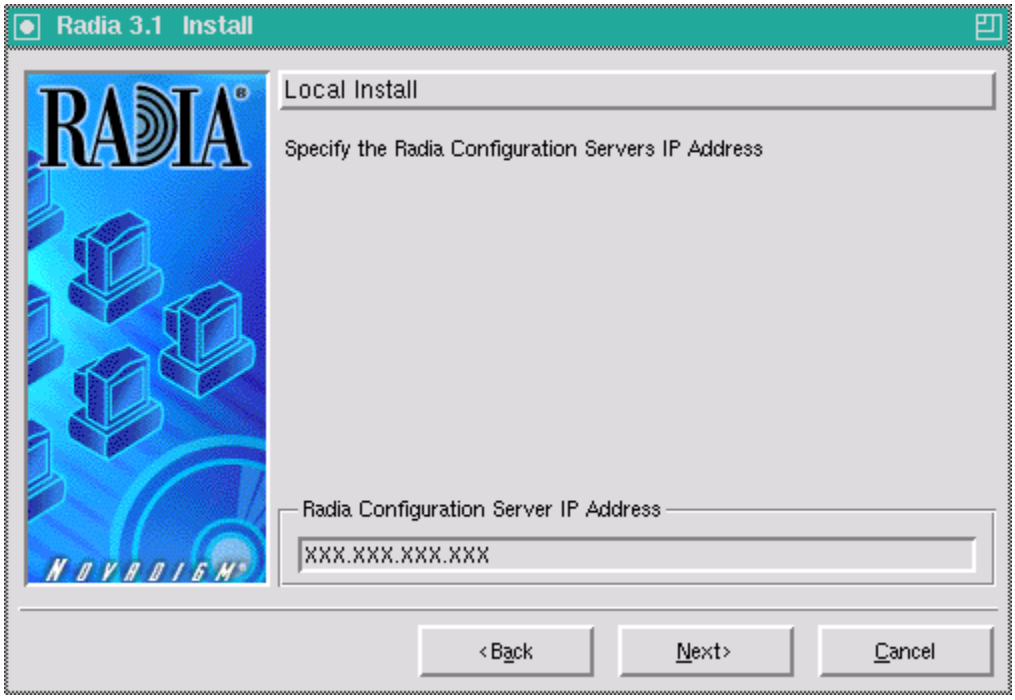

Figure 2.8 ~ Radia Configuration Server IP Address window.

14. Type the IP address (format: xxx.xxx.xxx.xxx) of the Radia Configuration Server to which the Radia Client will connect. Specify a valid IP address or hostname recognized by the client workstation.
15. Click **Next**.

The **Radia Configuration Server Port Number** window opens.

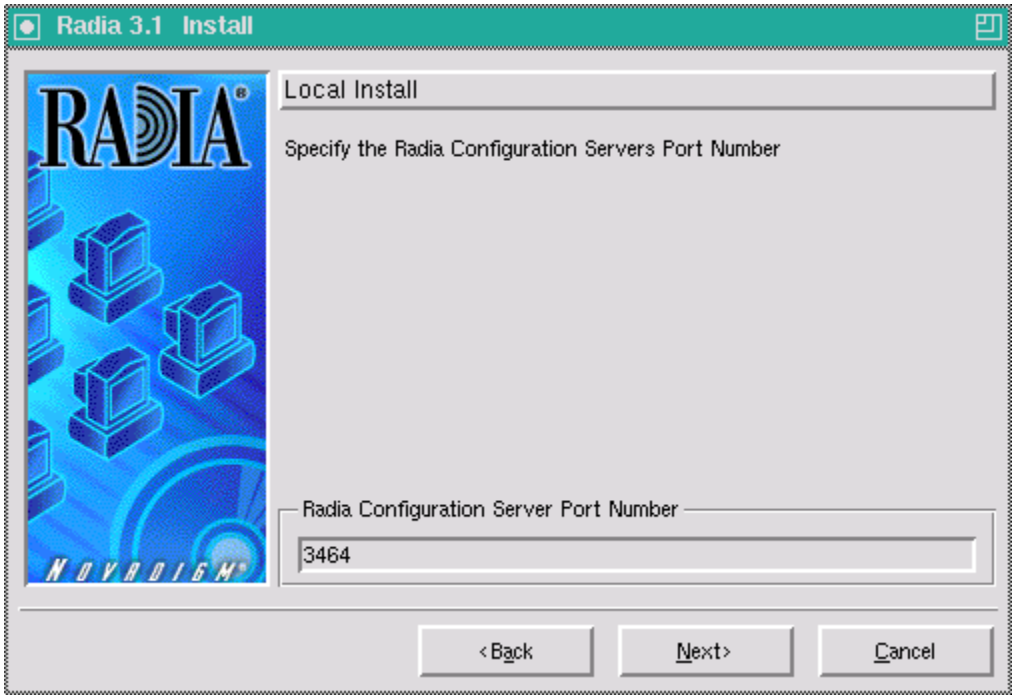

Figure 2.9 ~ Radia Configuration Server Port Number window.

16. Type the Radia Configuration Server's port number (default is 3464).

17. Click **Next**.

The **Package Settings** window opens.

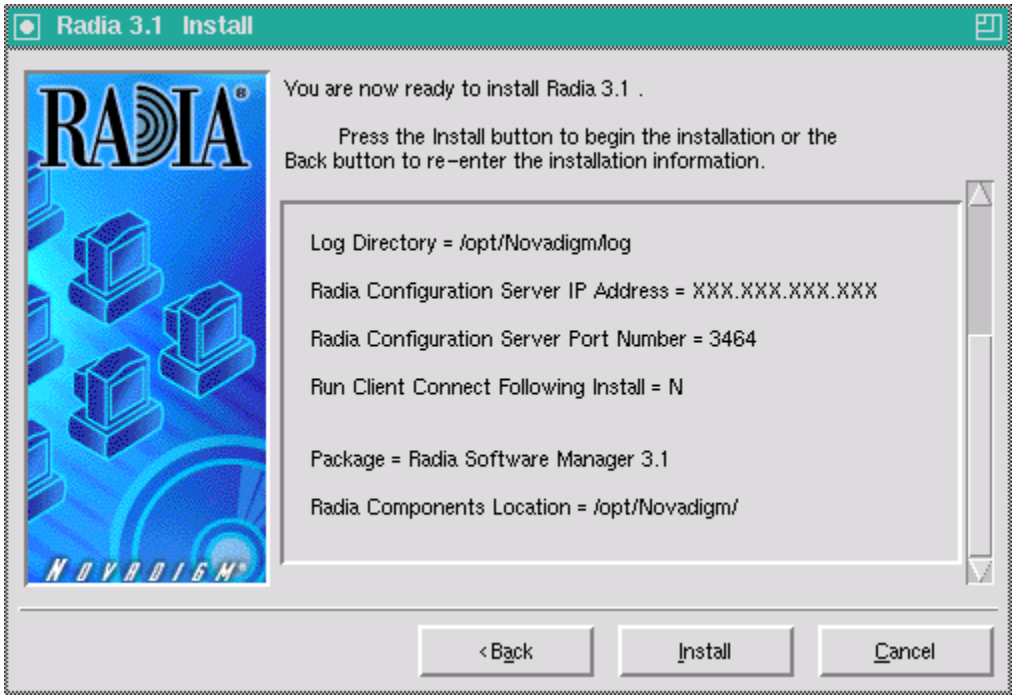

Figure 2.10 ~ Package Settings window.

18. Review the settings displayed in the **Package Settings** window. If you would like to change any of the settings, click **Back** until you get to the appropriate window.

19. When you're satisfied with the settings, click **Install** to install the Radia Client with these settings.

20. When the installation is complete click **Finish** to exit the installation program.

The Radia Client has been successfully installed.

Remote Installation Setup

This section describes how to install the Radia Client to a remote computer using a GUI.

To install the Radia Client to a remote computer using a GUI

1. Depending on your version of UNIX, change your current working directory to the correct subdirectory on the installation media.
2. **Example:**

   For Solaris, type: **cd /cdrom/solaris**

3. Type **./install**, and then press ENTER.

   The **Welcome** window opens.

Figure 2.11 ~ Welcome window of the Radia Products Setup program for a remote installation.

Note

At any point during the installation, you can return to a previous section by clicking **Back.** Also, if you would like to exit the installation at any time, click **Cancel.**

4. Click **Next**.
5. The **Select Components to Install** window opens.

Figure 2.12 ~ Select Components to Install window.

6. Select the **Radia Software Manager** check box.
7. Click **Next**.

The **Select Installation Type** window opens.

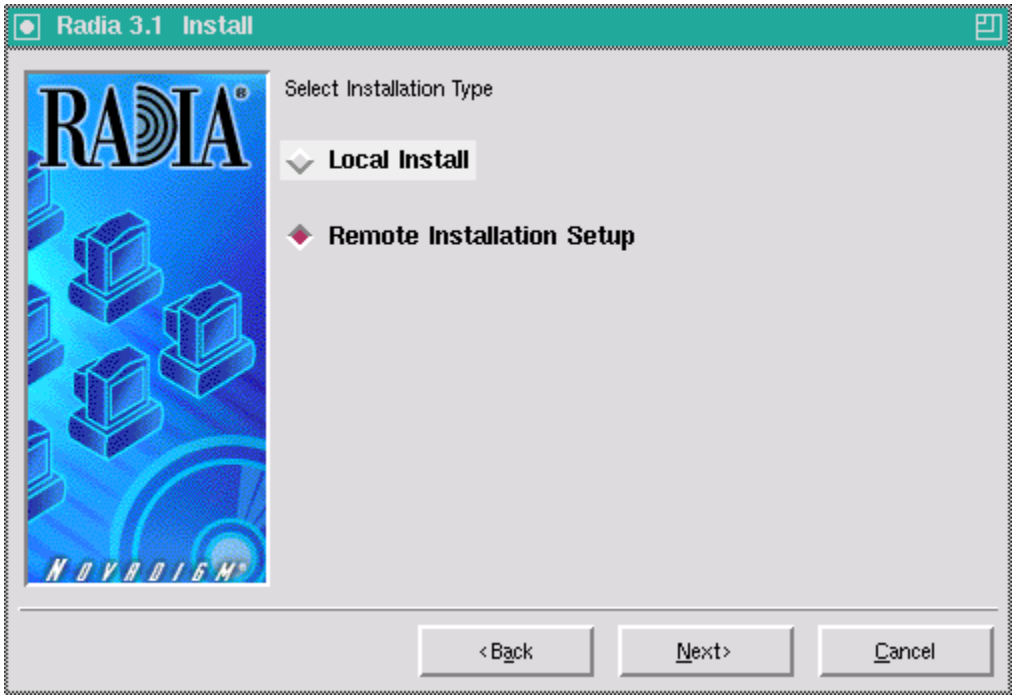

Figure 2.13 ~ Select Installation Type window.

8. Select **Remote Installation Setup**.

This will store the installation media to another location on disk to be used later as the source for other client installations.

9. Then click **Next**.

The **Radia Client Location** window opens.

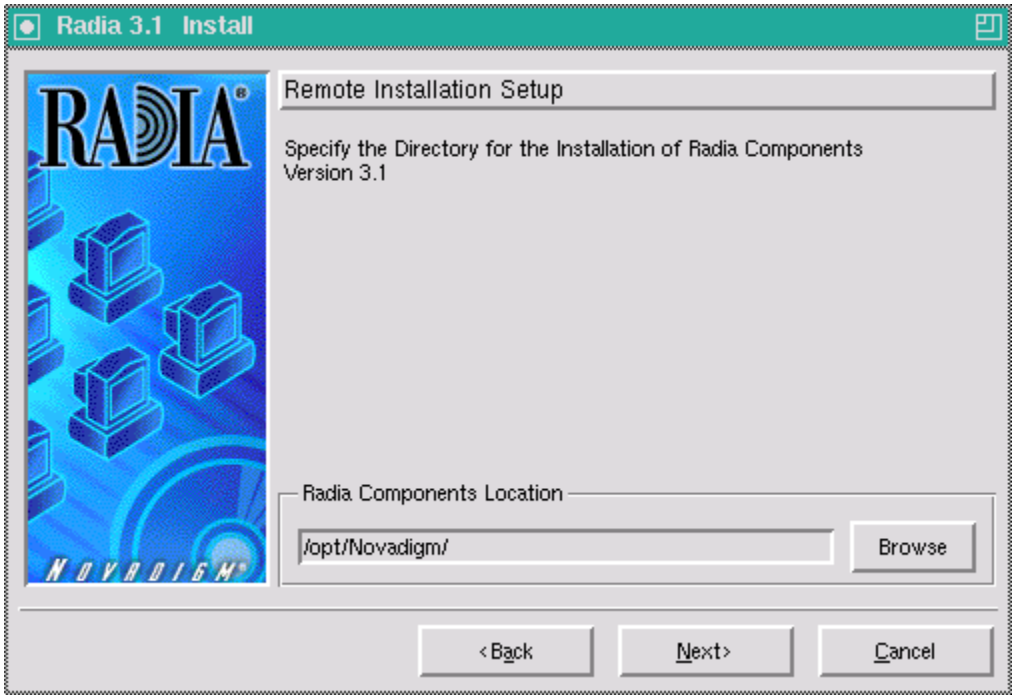

Figure 2.14 ~ Radia Client Location window for the Remote Installation Setup.

10. Type the name of the directory where you want to install the Radia Client executables for a silent installation, or click **Browse** to navigate to it.

11. Click **Next**.

The **Lib Directory** window opens.

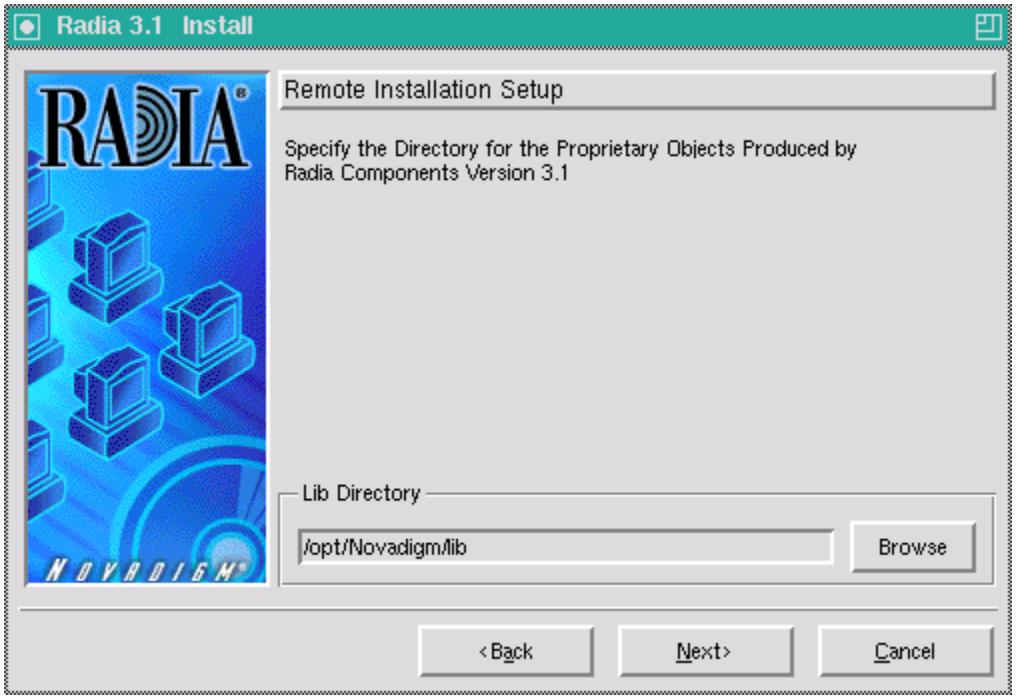

Figure 2.15 ~ Lib Directory window.

12. Type the name of the directory where you would like to store proprietary information created by Radia for a silent installation, or click **Browse** to navigate to it.

13. Click **Next**.

The **Log Directory** window opens.

Figure 2.16 ~ Log Directory window.

14. Type the name of the directory where you would like to store log files generated by Radia for a silent installation, or click **Browse** to navigate to it.
15. Click **Next**.

The **Radia Configuration Server IP Address** window opens.

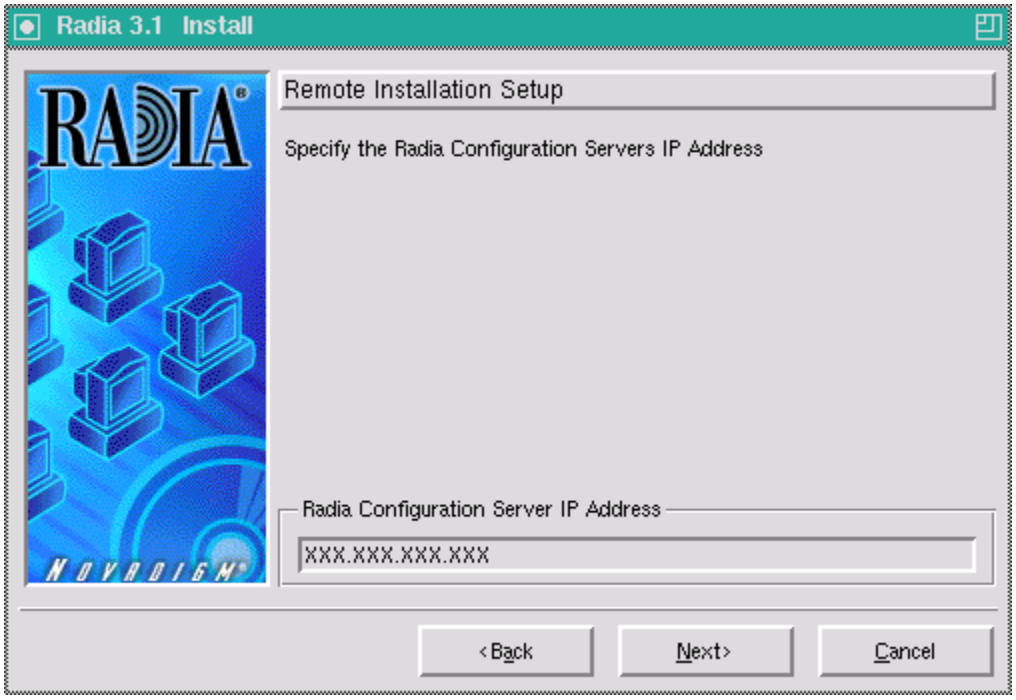

Figure 2.17 ~ Radia Configuration Server IP Address window.

16. Type the IP address (format: xxx.xxx.xxx.xxx) of the Radia Configuration Server that the Radia Client will connect to. Specify a valid IP address or hostname recognized by the client workstation.

17. Click **Next.**

The **Radia Configuration Server Port Number** window opens.

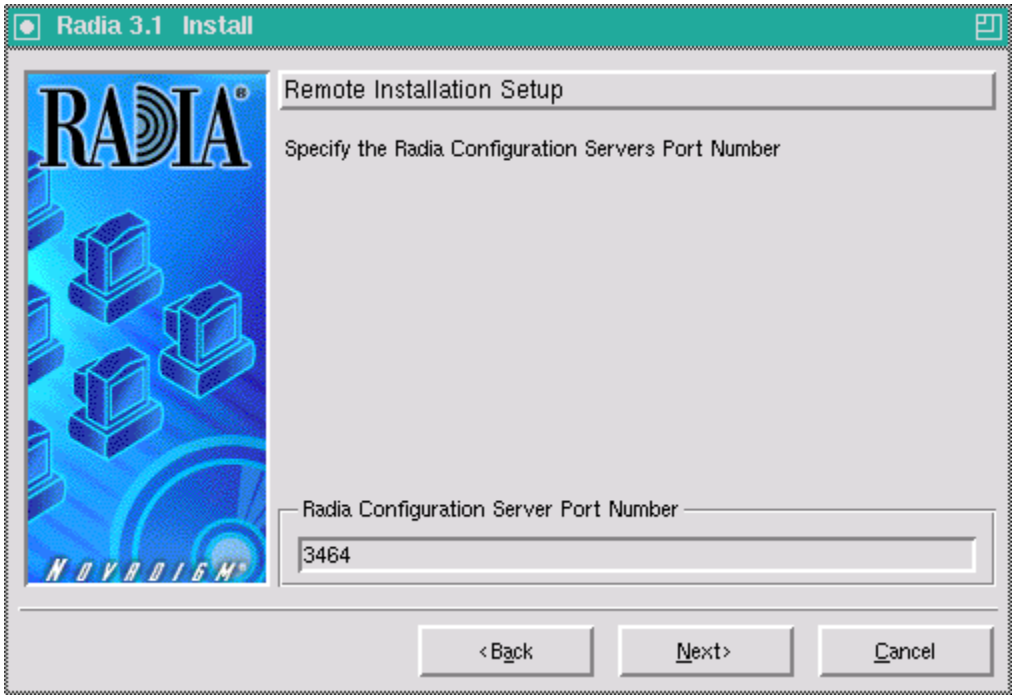

Figure 2.18 ~ Radia Configuration Server Port Number window.

18. Type the port number of the Radia Configuration Server (default is 3464).

19. Click **Next**.

The **Package Location** window opens.

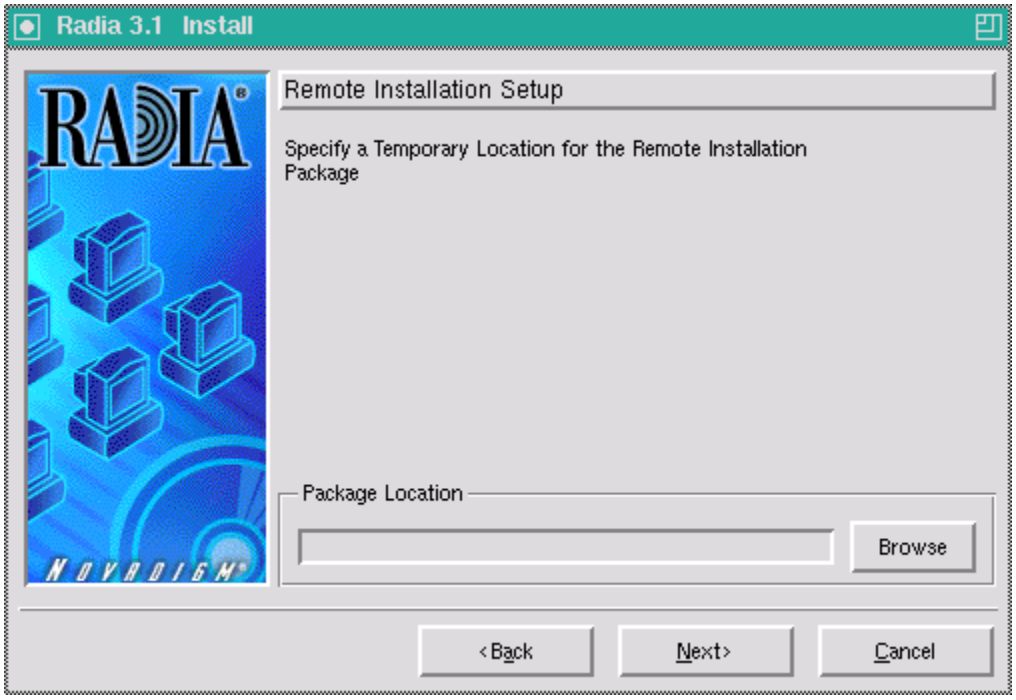

Figure 2.19 ~ Package Location window.

20. Type the fully qualified path to a directory where you would like to store the Radia Client installation media for future client installations, or click **Browse** to navigate to it.

21. Click **Next**.

The **Package Configuration Name** window opens.

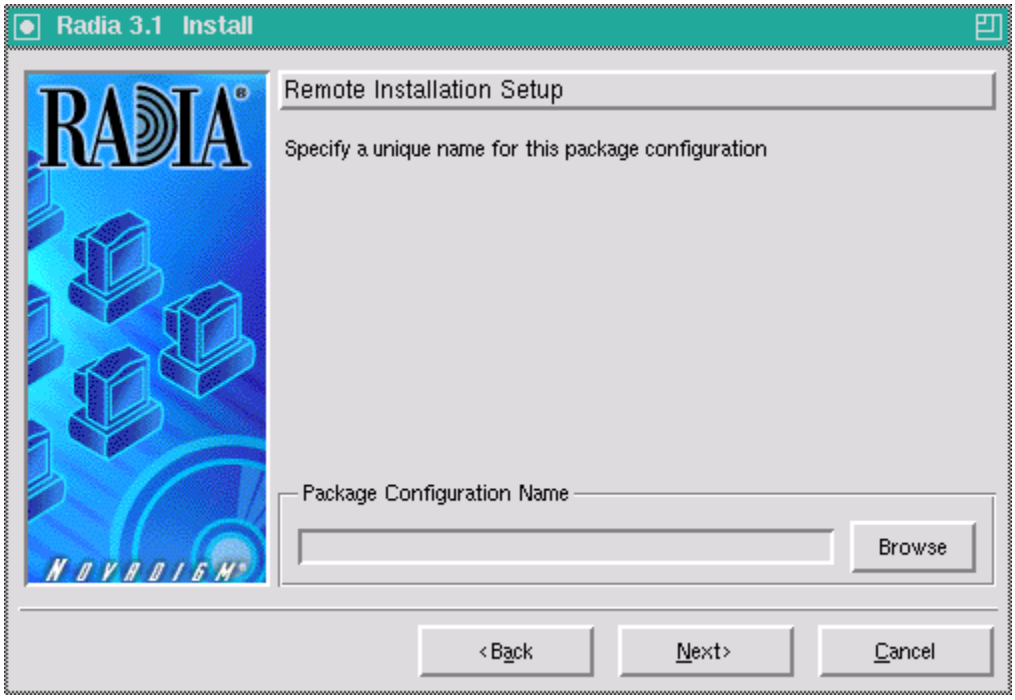

Figure 2.20 ~ Package Configuration Name window.

22. Type the fully qualified path to a configuration file that you would like to use for silent installations, or click **Browse** to navigate to it. The configuration file you specify will contain the installation information you chose during the Remote Installation Setup.

23. Click **Next**.

The **Package Settings** window opens.

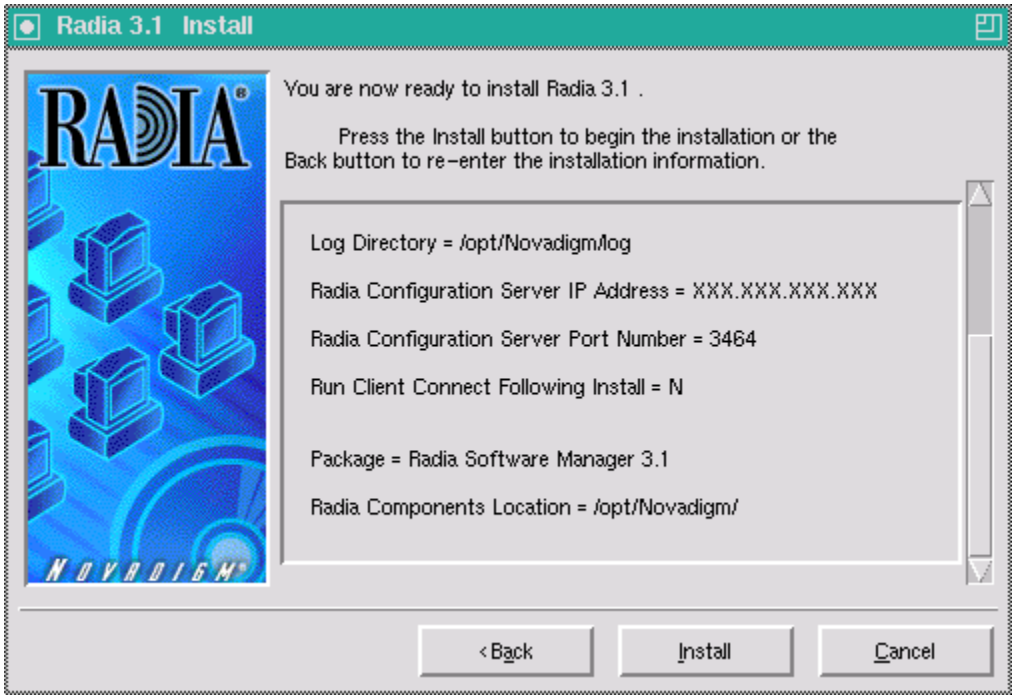

Figure 2.21 ~ Package Settings window.

24. Review the settings displayed in the **Package Settings** window.

25. Click **Continue** to build the Remote Installation Package.

26. When the installation is complete, click **Finish** to exit the installation program.

The Radia Client installation media has been successfully stored on disk for future installations.

Once the media has been stored for other computers to use for remote installations, you should become familiar with the variables in the configuration file.

Customizing the Installation Configuration File

A configuration file supplies the default responses for silent Radia Client installations. These responses would normally be provided during an interactive Radia Client installation. When performing silent installations, additional installation options are also available in the configuration file.

The variables available in the configuration file are described in Table 2.4 below.

Table 2.4 ~ Configuration File Variables

Variable	Sample Value	Description
REMOTE	0	0 designates a local installation. 1 designates a Remote Installation Setup.
INSTDIR	/opt/Novadigm	The default installation directory.
IDMLOG	/opt/Novadigm/log	This can be defined to designate a directory for IDMLOG other than the default INSTDIR/log.
IDMLIB	/opt/Novadigm/lib	This can be defined to designate a directory or IDMLIB other than the default INSTDIR/lib.
PREPROC		The fully qualified name of a script or executable to run pre-installation.
PREPARM		Any parameters that may be required by the pre-installation method specified in the variable PREPROC.
POSTPROC		The fully qualified name of a script or executable to be run post-installation.
POSTPARM		Any parameters required by the post-installation method specified in the variable POSTPROC.
MGRIP	xxx.xxx.xxx.xxx	The default IP address for connection to the Radia Configuration Server.
MGRPORT	3464	The default port number for connection to the Radia Configuration Server.
NTFYPORT	3465	The default Notify port used.
CONNECT	Y	Connects to the Radia Configuration Server immediately after the installation. Default behavior is N. Set to Y if you want your Radia Client to connect to the Radia Configuration Server automatically after the installation.
OBJECTS	./object.txt	The file that is used to create or update Radia attributes after the installation.
DUAL	1	0 designates RAM only selected. 1 designates more than one component selected.

Using a Pre- or Post-Installation Script

You can create and run custom executables or shell scripts prior to or after the silent installation of a Radia Client. For example, your post-installation script can initiate a connection to the Radia Configuration Server in order to process mandatory applications. Figure 2.22 below is part of a shell script that initiates the connection to the Radia Configuration Server and processes mandatory applications.

```
#!/bin/sh
#
cd /opt/Novadigm

# ZIPADDR is the IP address or hostname of the manager
ZIPADDR="xxx.xxx.xxx.xxx"
# ZDSTSOCK is the TCP port the manager is running on
ZDSTSOCK="3464"

# To manage the machine
# 1. .edmprof must exist in root's home directory
# 2. The connect must be run as root

/opt/Novadigm/radskman
mname=NVDM,dname=SOFTWARE,ip=$ZIPADDR,port=$ZDSTSOCK,cat=promp
t,ind=y,uid=\$MACHINE,startdir=SYSTEM,ulogon=n
```

Figure 2.22 ~ Sample shell script that runs a Client Connect.

Customizing Installed Object Variable Content

The configuration file option OBJECTS allows you to specify the fully qualified path to a filename that contains data in the form:

```
OBJECT_NAME VARIABLE_NAME VARIABLE_VALUE
```

An example of a valid object file is:

```
ZMASTER ZTRACE N
ZMASTER ZTRACEL 000
```

When creating an object text file:

- A pound sign (#) at the beginning of a line indicates a comment.
- A pound sign (#) on any other part of a line will be considered data.
- The format is OBJECT_NAME followed by VARIABLE_NAME. Everything after the VARIABLE_NAME is considered VARIABLE_VALUE.
- The VARIABLE_VALUE text should not be enclosed by any special characters.

Performing a Silent Installation of a Radia Client

Note

We recommend the client be installed as root.

Performing a silent installation of the Radia Client using stored Radia Client installation media requires that:

- your Radia system administrator has already run the Remote Installation Setup installation method.
- the workstation running the silent installation is able to access the directory path where the installation media was stored.

Several parameters can be used on the command line when performing a silent installation of the Radia Client. Table 2.5 below describes these.

Table 2.5 ~ Silent Installation Command Line Parameters

Parameter	Example	Description
-cfg	./install –cfg Radia.cfg	The filename specified after **-cfg** is the name of the configuration file to be used during the installation. For information about configuration files, see *Customizing the Installation Configuration File* on page 57.

Table 2.5 ~ Silent Installation Command Line Parameters

Parameter	Example	Description
-mode silent	./install –mode silent –cfg /common/Radia.cfg	Installs the Radia Client in silent mode based on the parameters set in the configuration file specified after the **-cfg** parameter. For information about configuration files, see *Customizing the Installation Configuration File* on page 57.

Non-graphical Installation

This section describes a non-graphical (using a command line) installation of the Radia Client for UNIX.

To install the Radia Client for UNIX using a command line

Note

These instructions guide you through the local non-graphical installation of the Radia Client for UNIX. For the graphical installation, see *Graphical Installation* on page 36.

1. Depending on your version of UNIX, change your current working directory to the correct subdirectory on the installation media.

   Example:

   For Solaris, type: **cd /cdrom/solaris**

2. Type **./install –mode text**, and then press ENTER.

   The Radia Client installation begins.

```
Installing Radia 3.1 Products
Welcome to Radia 3.1 Products Setup program.
This program will install Radia 3.1 Products on your computer.

It is strongly recommended that you exit all desktop programs
before running this Setup Program

Type Q to quit Setup, then close any programs you have
running. Type C to continue with the Setup program.
(To exit install at any prompt, type <cancel>)

WARNING: This program is protected by copyright law and international
treaties.

Unauthorized reproduction or distribution of this program, or any
portion of it, may result in severe civil and criminal penalties,
and will be prosecuted to the maximum extent possible under the law.

Enter C to Continue with the installation or Q to Quit the setup
program:
```

Figure 2.23 ~ Radia Client non-graphical installation.

3. Type **C**, and press ENTER.

```
Select Components to Install
Radia Application Manager 3.1
Install? Y|N (Y):
Radia Inventory Manager 3.1
Install? Y|N (N):n
Radia Software Manager 3.1
Install? Y|N (N):y
```

Figure 2.24 ~ Select Components to install.

4. Press ENTER to accept the default component, the Radia Application Manager.

   OR

   Type **N** to skip the installation of the Radia Application Manager.
5. Press ENTER to not install the Radia Inventory Manager.

   OR

   Type **Y** and accept the installation of the Radia Inventory Manager.
6. Type **Y** and press ENTER to install the Radia Software Manager.

```
Select Installation Type
1) Local_Install
2) Remote_Installation_Setup
Enter Type index (1 - 2) (1):
```

Figure 2.25 ~ Select the installation type.

7. Select the type of installation. The default is 1, a local installation.

- Type **1**, and then press ENTER to install the Radia Client locally.

OR

- Type **2**, and then press ENTER to set up remote installation media.

For this example, we accepted the default.

```
Specify the Radia Installation Location
Radia Components Location
Default value: /opt/Novadigm/
```

Figure 2.26 ~ Specify the location for the Radia Client.

8. Specify the installation location for the Radia Client, and then press ENTER.

```
Specify the Directory for the Proprietary Objects Produced by Radia
Components Version 3.1
Lib Directory
Default value: /opt/Novadigm/lib/
```

Figure 2.27 ~ Specify the location of the lib directory.

9. Specify the location for the Radia proprietary objects (IDMLIB), and then press ENTER.

```
Specify the Directory for the Log Files Produced by the Radia
Components Version 3.1
Log Directory
Default value: /opt/Novadigm/log/
```

Figure 2.28 ~ Specify the location for the log directory.

10. Specify the location for the log files created by Radia (IDMLOG), and then press ENTER.

```
Specify the Radia Configuration Servers IP Address
Radia Configuration Server IP Address
Default value: XXX.XXX.XXX.XXX
```

Figure 2.29 ~ Specify the Radia Configuration Server's IP address.

11. Specify the IP address of the Radia Configuration Server, and then press ENTER.

```
Specify the Radia Configuration Servers Port Number
Radia Configuration Server Port Number
Default value: 3464
```

Figure 2.30 ~ Specify the Radia Configuration Server's port number.

12. Specify the port number for the Radia Configuration Server, and then press ENTER.

```
Installation Settings:
Install Radia Software Manager 3.1
  Package Settings:

    Radia Components Location = /opt/Novadigm/
    Lib Directory = /opt/Novadigm/lib/
    Log Directory = /opt/Novadigm/log/
    Radia Configuration Server IP Address = 1.1.1.98
    Radia Configuration Server Port Number = 3464

Install Radia Software Manager 3.1
  Package Settings:

    Radia Components Location = /opt/Novadigm/

Enter Y to begin the installation
Enter N to re-enter the installation information.
Please enter your choice (Y):
```

Figure 2.31 ~ Installation Settings.

13. Review the installation settings you've chosen.

14. If you would like to install the Radia Client with these parameters, press ENTER to accept the default answer of **Y**.

If you would like to change any of these settings, type **N** to re-enter the installation information.

```
Starting Install . . .
Complete the configured install process? Y|N (Y):
```

Figure 2.32 ~ Complete the Radia Client installation.

15. When you're satisfied with the settings, press ENTER to install the Radia Client.

The Radia Client is installed.

Summary

- We strongly recommend that you install and run the Radia Clients as root.
- Install the Radia Clients using either the graphical or non-graphical modes.

3

Installing the Radia Administrator Workstation for UNIX

At the end of this chapter, you will:

- Understand the system requirements and permissions necessary to install the Radia Administrator Workstation for UNIX.
- Be able to install the Radia Administrator Workstation using either the graphical or non-graphical mode.

This guide covers the *suggested* implementation for the Radia Software Manager. Although you will tailor this strategy to meet your organization's needs, it is recommended that you review this guide for a comprehensive understanding of the Radia Software Manager. This chapter focuses on installing the Radia Administrator Workstation for UNIX.

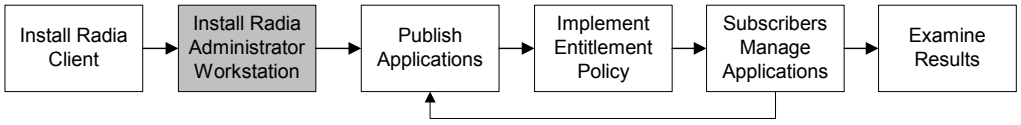

Figure 3.1 ~ Overview of the Radia Software Manager Guide.

If you are responsible for packaging applications or configuring them for distribution, install the Radia Administrator Workstation on your administrator computer.

Use the Radia Publisher to create software or data packages, and then promote them to the Radia Database.

System Requirements

- RedHat Linux Version 6.2 or above, Intel Pentium processor or compatible CPU.
- Solaris operating system version 2.5.1 or above, SPARC CPU, Motif 1.2 libraries.
- HP-UX operating system version 10.20 or above, PA Risc CPU, Motif 1.2 libraries.
- AIX operating system version 4.3.1, Motif 1.2 libraries.
- RadHat Enterprise Linux Version 2.1 and 3.0, Intel Pentium processor or compatible CPU.
- Siemens Reliant operating system Version 5.43 or 5.45 Reliant UNIX, R400, R4000 Risc.
- SUSE Linux versions 8 and 9.
- TCP/IP connection to a computer running the Radia Configuration Server.
- Radia Administrator Workstation requires 20 MB free disk space.

Prerequisites

- We strongly recommend installing the Radia Clients as root.
- Install the Radia Client on a local file system.
- If you intend to run any of the graphical components of the Radia Administrator Workstation software, make sure the UNIX environment variable DISPLAY is set in your environment. If it is not, you will need to set this variable to indicate the hostname or IP address to which you would like to redirect the graphical display.

Table 3.1 ~ Setting the DISPLAY Variable

In a.....	Type....
C shell	`setenv DISPLAY IP address or hostname:0.0`
Bourne, Bash, or Korn shell	`DISPLAY=IP address or hostname:0.0` `export DISPLAY`

Note

If the DISPLAY environment variable is not set in your environment, the installation will default to a non-graphical installation.

Troubleshooting

Should you encounter any problems while installing the Radia UNIX Client, please perform the following steps before contacting technical support:

1. Enable diagnostic tracing by appending the text **-loglevel 9** to the installation command line and re-run the installation.
2. Have this log file (tmp/setup/setup.log) located in the home directory of the UNIX user ID who ran the install.

Note

The install option **–loglevel 9** should only be used to diagnose installation problems.

Recommendations

- We strongly recommend that you install and run the Radia Administrator Workstation as root.

> **Note**
>
> Root authority is required to apply owner and group designators to managed resources.

Installation Methods

You can install the Radia Administrator Workstation by:

- Executing the installation procedure directly from the CD-ROM.
- Copying the files from the CD-ROM into a temporary directory and executing the installation procedure.

Several parameters can be used on the command line when installing the Radia Administrator Workstation. Table 3.2 below describes these.

Table 3.2 ~ Command Line Parameters

Parameter	Example	Description
-mode plain	./install –mode plain	Installs the Radia Administrator Workstation in plain mode. The installation graphics are displayed in plain mode (no moving graphics). This is useful for remote installations where network bandwidth may be an issue.
-mode text	./install –mode text	Installs the Radia Administrator Workstation in text mode using the non-graphical installation. The installation takes place completely on the command line. The installation will default to text mode if the DISPLAY environment variable is not set.

Installing the Radia Administrator Workstation for UNIX

This section describes both the graphical (using a GUI) and non-graphical (using a command line) installations of the Radia Administrator Workstation for UNIX.

Graphical Installation

This section describes how to install the Radia Administrator Workstation for UNIX using a graphical user interface (GUI).

To install the Radia Administrator Workstation for UNIX using a GUI

> **Note**
>
> These instructions will guide you through the graphical installation of the Radia Administrator Workstation. For non-graphical instructions, see *Non-graphical Installation* on page 79.
>
> If the UNIX user ID of the person performing the Radia Administrator Workstation installation has previously installed a Radia Client, the location of the Radia Administrator Workstation will default to the location of the Radia Client executables.

1. Depending on your version of UNIX, change your current working directory to the correct sub-directory on the installation media.

   Example:

   For Solaris, type: **cd /cdrom/management infrastructure/administrator workstation/solaris/**

2. Type **./install**, and then press ENTER.

The **Welcome** window opens.

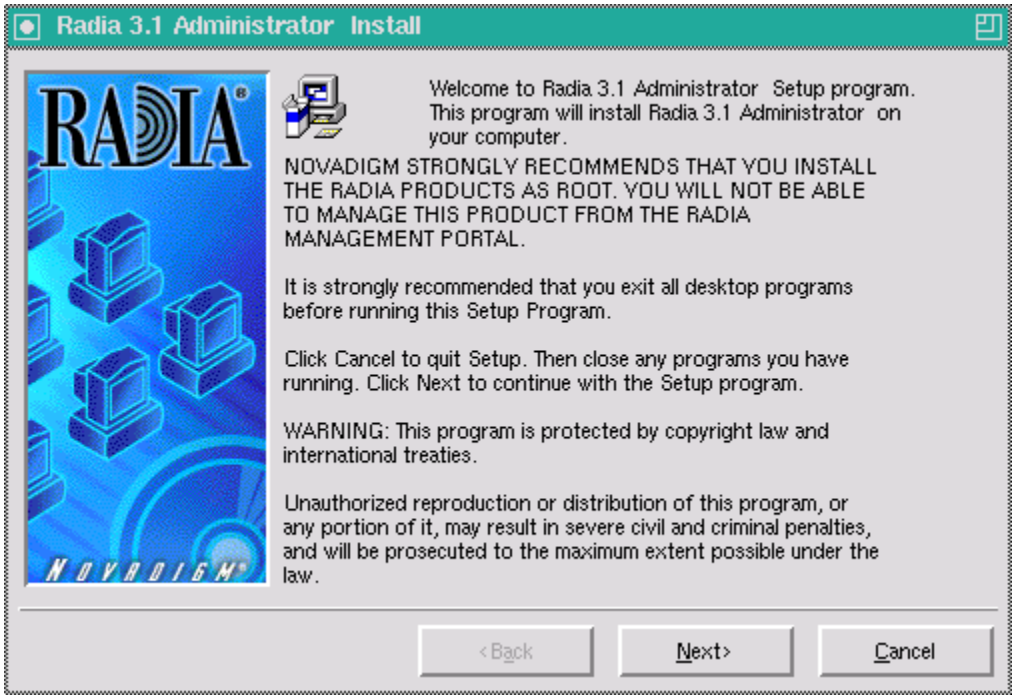

Figure 3.2 ~ Radia Administrator Workstation Welcome window.

3. Click **Next**.

Note

If you are installing the Radia Administrator Workstation to a computer with the same UNIX user ID that had previously installed a Radia Client, the installation program will prompt you for the Radia Configuration Server's IP address next. The next three windows: Radia Administrator Location, Lib directory, and Log directory, are only needed if you are installing the Radia Administrator Workstation to a computer that does not have a Radia Client already installed.

The **Radia Administrator Location** window opens.

Figure 3.3 ~ Radia Administrator Location window.

4. Type the name of the directory where you are installing the Radia Administrator Workstation, or click **Browse** to navigate to it.
5. Click **Next.**

   If the specified directory already exists you will be prompted to verify this location.

   - If you would like to update the existing directory, click **OK.**
   - If you would like to change the directory location, click **Cancel.**

The **Lib Directory** window opens.

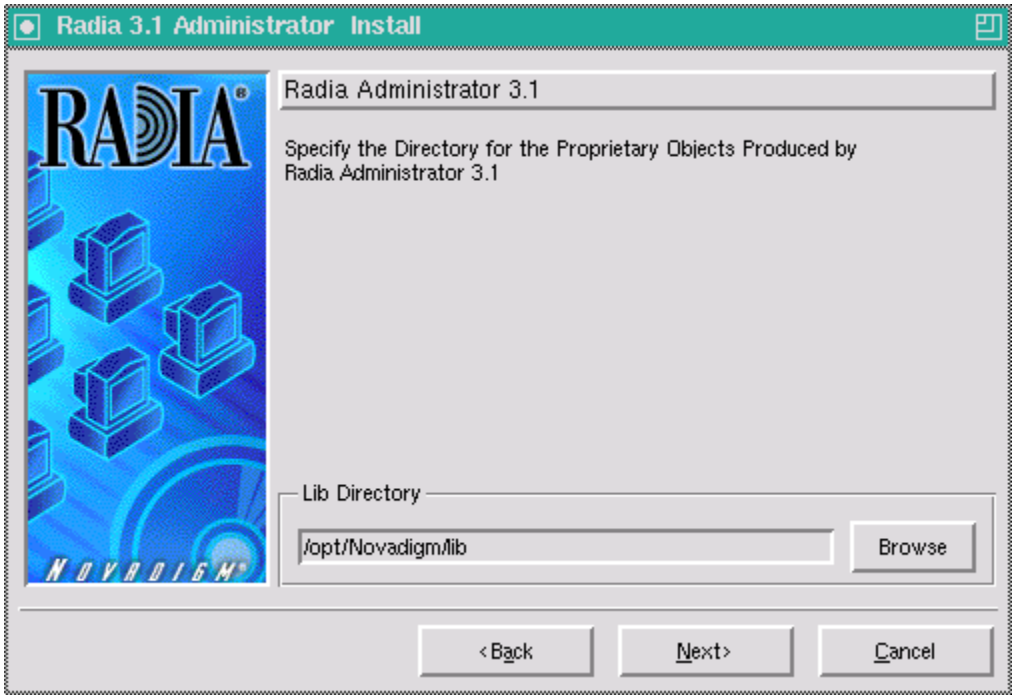

Figure 3.4 ~ Lib Directory window.

6. Type the name of the directory where you would like to store proprietary information created by Radia (the lib directory), or click **Browse** to navigate to it.
7. Click **Next**.

The **Log Directory** window opens.

Figure 3.5 ~ Log Directory window.

8. Type the name of the directory where you would like to store the log files generated by Radia, or click **Browse** to navigate to it.
9. Click **Next**.

The **Radia Configuration Server IP Address** window opens.

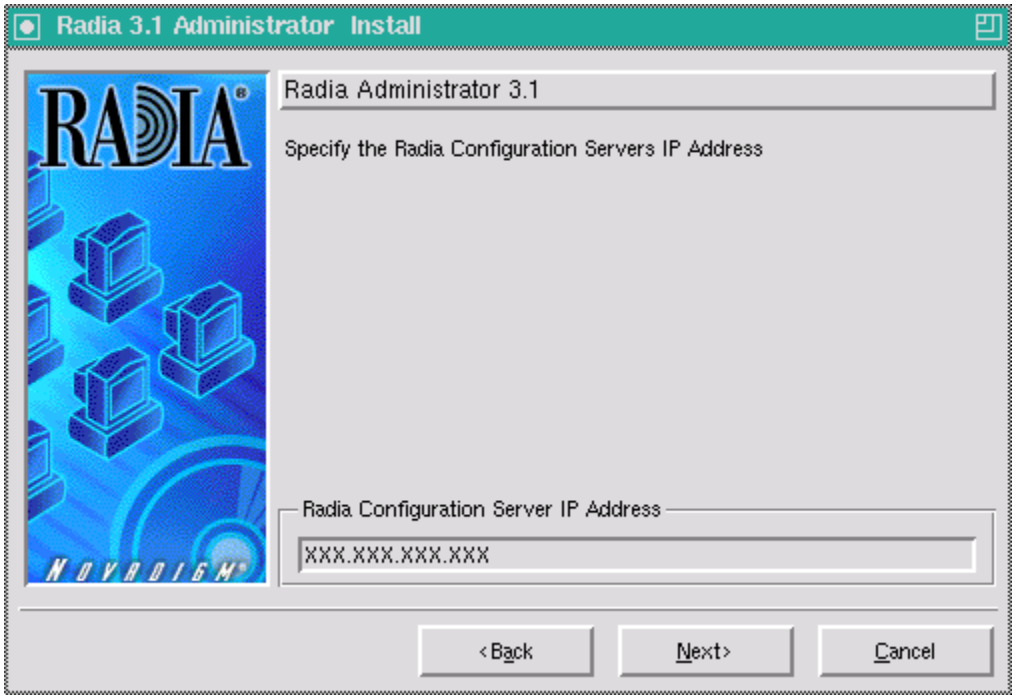

Figure 3.6 ~ Radia Configuration Server IP Address window.

10. Type the IP address (format: xxx.xxx.xxx.xxx) or hostname of the Radia Configuration Server you will be publishing to.

11. Click **Next**.

The **Radia Configuration Server Port Number** window opens.

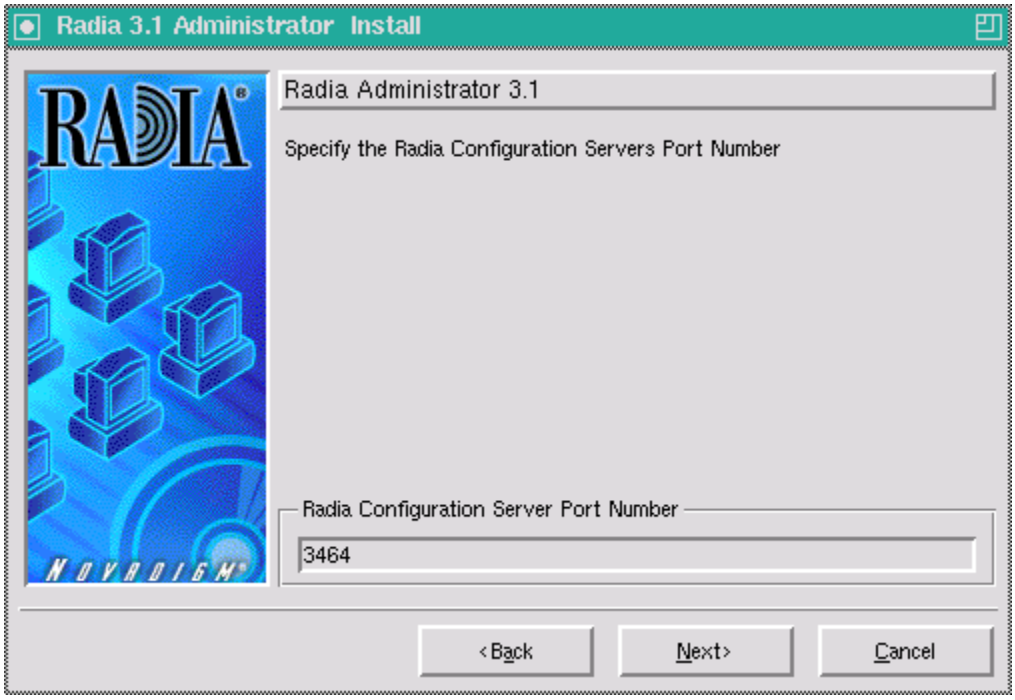

Figure 3.7 ~ Radia Configuration Server Port Number window.

12. Type the port number of your Radia Configuration Server (default is 3464).

13. Click **Next**.

The **Package Settings** window opens.

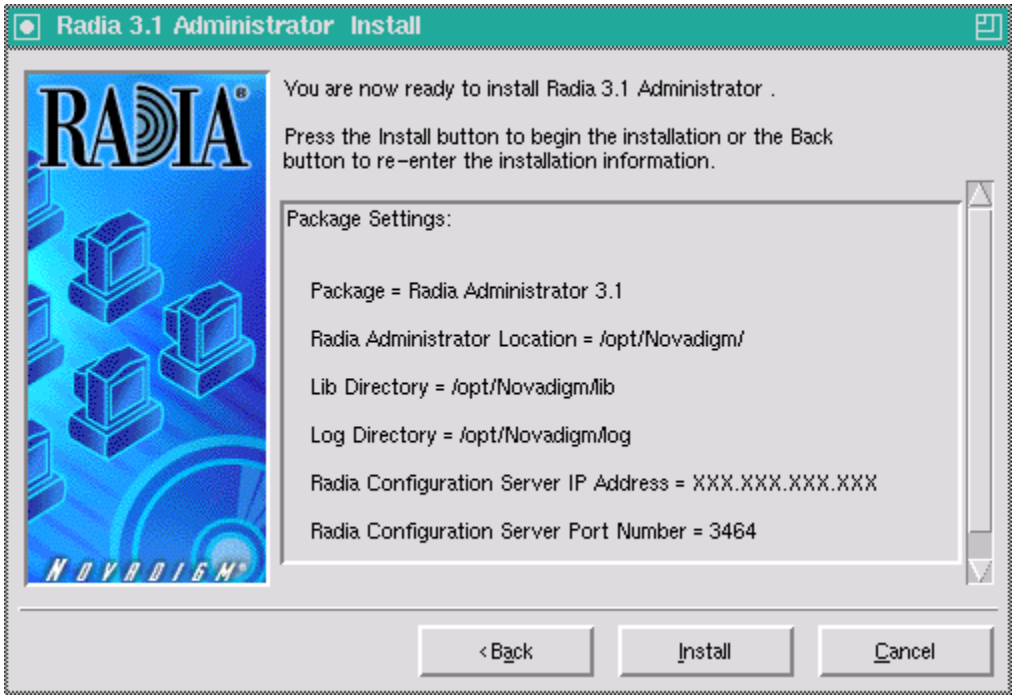

Figure 3.8 ~ Package Settings window.

14. Review the settings displayed in the **Package Settings** window. If you would like to change any of the settings, click **Back** until you get to the appropriate window.

15. When you are satisfied with the Package Settings, click **Install**.

The Radia Administrator Workstation is installed.

Non-graphical Installation

This section describes a non-graphical (using a command line) installation of the Radia Administrator Workstation for UNIX.

To install the Radia Administrator Workstation for UNIX using a command line

> **Note**
>
> These instructions guide you through the non-graphical installation of the Radia Administrator Workstation. For the graphical installation, see *Graphical Installation* on page 71.

1. Depending on your version of UNIX, change your current working directory to the correct subdirectory on the installation media.

   Example:

   For Solaris, type: **cd /cdrom/management infrastructure/administrator workstation/solaris/**

2. Type **./install –mode text**, and then press ENTER.

   The Radia Administrator Workstation installation begins.

```
Installing Radia 3.1 Administrator
Welcome to Radia 3.1 Administrator Setup program.
This program will install Radia 3.1 Administrator on your computer.

It is strongly recommended that you exit all desktop programs
before running this Setup Program

Type Q to quit Setup then close any programs you have
running. Type C to continue with the Setup program.
(To exit install at any prompt, type <cancel>)

WARNING: This program is protected by copyright law and
international treaties.

Unauthorized reproduction or distribution of this program, or any
portion of it, may result in severe civil and criminal penalties,
and will be prosecuted to the maximum extent possible under the law.

Enter C to Continue with the installation or Q to Quit the setup
program:
```

Figure 3.9 ~ Radia Administrator Workstation non-graphical installation.

3. Type **C**, and then press ENTER.

Note

If you are installing the Radia Administrator Workstation to a computer with the same UNIX user ID that had previously installed a Radia Client, the installation program will prompt you for the Radia Configuration Server's IP address next. The next three sections: Radia Administrator Location, Lib directory, and Log directory, are only needed if you are installing the Radia Administrator Workstation to a computer that does not have a Radia Client already installed.

```
Radia Administrator 3.1
Specify the Radia Installation Location
Radia Administrator Location
Default value: /opt/Novadigm/
```

Figure 3.10 ~ Specify the Radia Administrator Workstation installation location.

4. Specify the installation location for the Radia Administrator Workstation, and then press ENTER.

```
Radia Administrator 3.1
Specify the Directory for the Proprietary Objects Produced by Radia
Administrator 3.1
Lib Directory
Default value: /opt/Novadigm/lib/
```

Figure 3.11 ~ Specify the location for the lib directory.

5. Specify the location for the Radia proprietary objects (IDMLIB), and then press ENTER.

```
Radia Administrator 3.1
Specify the Directory for the Log Files Produced by the Radia
Administrator 3.1
Log Directory
Default value: /opt/Novadigm/log/
```

Figure 3.12 ~ Specify the location for the log directory.

6. Specify the location for the log files created by Radia (IDMLOG), and then press ENTER.

```
Radia Administrator 3.1
Specify the Radia Configuration Servers IP Address
Radia Configuration Server IP Address
Default value: XXX.XXX.XXX.XXX
```

Figure 3.13 ~ Specify the Radia Configuration Server's IP address.

7. Specify the IP address of the Radia Configuration Server, and then press ENTER.

```
Radia Administrator 3.1
Specify the Radia Configuration Servers Port Number
Radia Configuration Server Port Number
Default value: 3464
```

Figure 3.14 ~ Specify the Radia Configuration Server's port number.

8. Specify the port number of the Radia Configuration Server, and then press ENTER.

```
You are now ready to install the Radia 3.1 Administrator.
Installation Settings:

Install Radia Administrator 3.1

  Package Settings:

    Radia Administrator Location = /opt/Novadigm/
    Lib Directory = /opt/Novadigm/lib/
    Log Directory = /opt/Novadigm/log/
    Radia Configuration Server IP Address = xxx.xxx.xxx.xxx
    Radia Configuration Server Port Number = 3464

Enter Y to begin the installation
Enter N to re-enter the installation information.
Please enter your choice (Y):
```

Figure 3.15 ~ Installation Settings.

9. Review the installation settings you've chosen.

10. If you would like to install the Radia Administrator Workstation with these settings, press ENTER to accept the default (**Y**) and begin the installation or type **N**, to re-enter your installation information.

```
Starting Install . . .
Complete the configured install process? Y|N (Y):
```

Figure 3.16 ~ Complete the Radia Administrator Workstation installation.

11. To complete the configured installation process, press ENTER.

The Radia Administrator Workstation is installed.

Summary

- We strongly recommend that you install and run the Radia Administrator Workstation as root.
- Install the Radia Administrator Workstation for UNIX using the graphical or non-graphical mode.

4

Installing the Radia Administrator Workstation for Windows

The Radia Administrator Workstation installation program uses the Microsoft MSI format for Windows Installer. The program consists of one MSI package with four feature sets—Radia Publisher, Radia System Explorer, Radia Client Explorer, and Radia Screen Painter.

System Requirements

- Clean computer. (A *clean computer* is a computer with only the target subscriber's operating system installed.)

> **Note**
>
> We recommend that you use a third-party disk-imaging tool, such as Symantec Ghost™, to create an image of your clean computer. This allows you to quickly restore it to its *clean* state.

- Windows 95, 98, NT 4.0, 2000, or XP.

- TCP/IP connection to the Radia Configuration Server.
- Minimum resolution of 800 x 600.
- MS Windows Installer Version 2.0 or higher.
  The MSI 2.0 installation program is available in the **managementinfrastructure \administratorworkstation\win32\msi** folder on the Radia Infrastructure CD-ROM. If Windows Installer does not exist, or if an earlier version is detected on the computer, the MSI 2.0 installation program runs automatically.
- For Windows NT, 2000 or XP, you must have administrator rights to the computer to install the Radia Administrator Workstation.

About the Installation Files

SETUP.EXE

SETUP.EXE is stored on the Radia Infrastructure CD-ROM in the **managementinfrastructure\administratorworkstation\win32** folder. It accepts any command line parameters and passes them to Windows Installer.

You can also create a Windows Installer Administrative Installation Point (AIP) for network installations.

> **Note**
>
> A Windows Installer Administrative Installation Point (AIP) is also known as an Administrative Control Point (ACP).

The AIP starts Windows Installer and passes any command line parameters to it. To create the Windows Installer Administrative Installation Point (AIP) in a specified target directory, type:

```
setup.exe /a TARGETDIR=drive:\targetdirectory /qb
```

The target directory contains RADADMIN30.MSI, the installation folders, and SETUP.EXE.

RADADMIN30.MSI

RADADMIN30.MSI is the MSI database file, which contains the default configuration information for the installation. This file is stored on the Radia Infrastructure CD-ROM in the **managementinfrastructure\administratorworkstation\win32** folder.

Installing the Radia Administrator Workstation

This section describes how to install the Radia Administrator Workstation using the Installation Wizard and using a command line.

Using the Installation Wizard to Install the Radia Administrator Workstation

This section describes how to install the Radia Administrator Workstation for Windows using the Installation Wizard.

To install the Radia Administrator Workstation using the Installation Wizard

1. From the folder containing the Radia Administrator Workstation installation files, run **setup.exe**.

The **Installation Wizard** opens.

Figure 4.1 ~ Welcome window.

2. Click **Next**.

If the Radia Client is not installed on the computer, the **Destination Folder** window opens.

Note

If the Radia Client is already installed on the computer, this window will not open and the Radia Administrator Workstation is installed in the same location as the Radia Client.

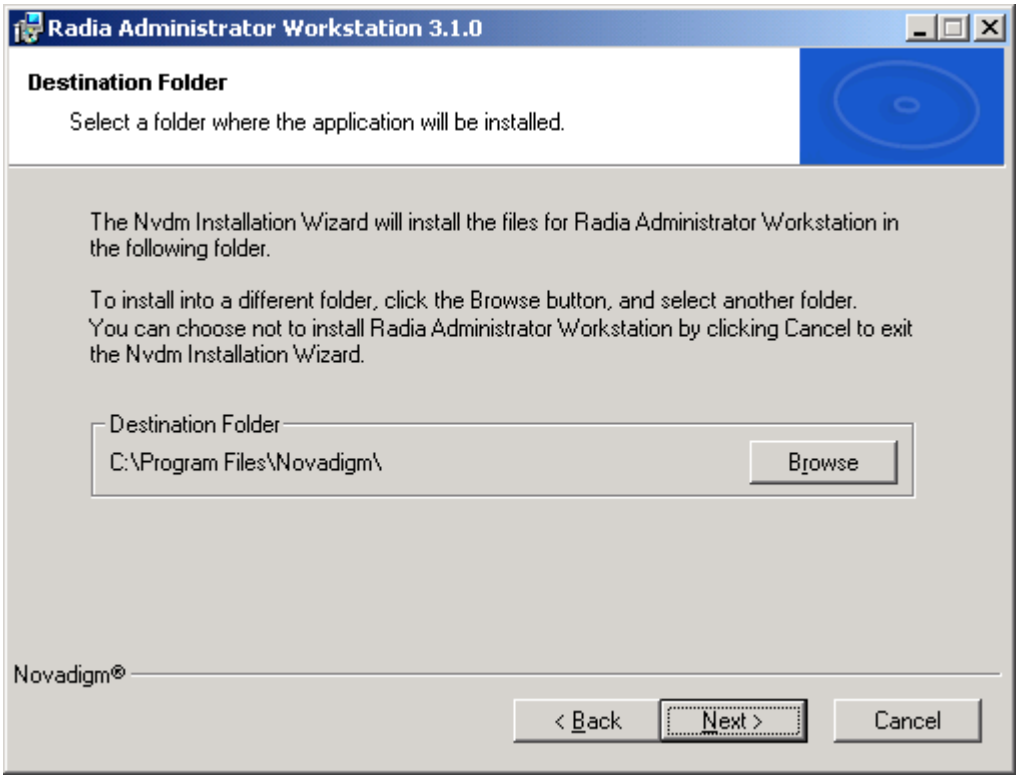

Figure 4.2 ~ Destination Folder window.

If you want to select a different destination for the Radia Administrator Workstation, click **Browse**, and then navigate to the appropriate destination folder.

Click **OK** to continue.

3. Click **Next**.

The **Radia Configuration Server** window opens.

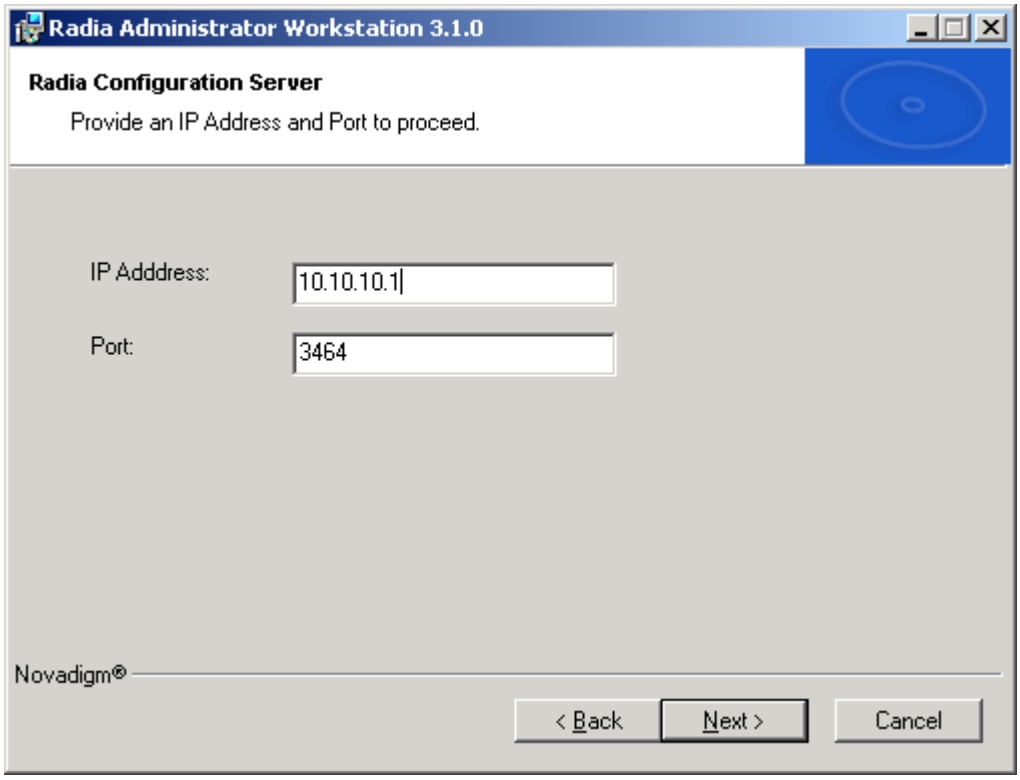

Figure 4.3 ~ Radia Configuration Server window.

4. In the **IP Address** text box, type the IP address for the Radia Configuration Server.
5. In the **Port** text box, type the port number (default is 3464).
6. Click **Next**.

The **Select Features** window opens.

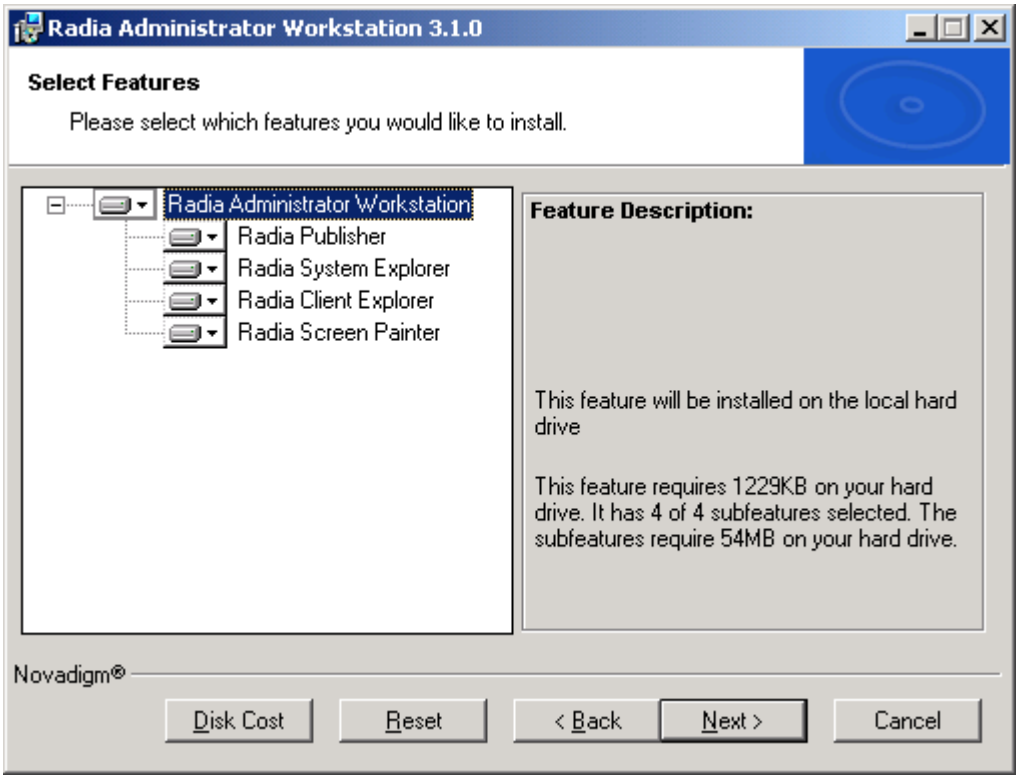

Figure 4.4 ~ Select Features window.

7. Click  to select the features that you would like to install.

Tips

- If you want to set the same options for all of the features, you can click  next to **Radia Administrator Workstation** and select the appropriate option to apply the setting to all features.
- Click **Disk Cost** to see an overview of the disk space needed for the installation.

Each time you click  a shortcut menu for that feature opens.

Figure 4.5 ~ Feature set installation options.

8. From the shortcut menu, select an installation option. These options are described in Table 2.1 on page 31.

Table 4.1 ~ Feature Settings for the Radia Administrator Workstation

Option	Description
Will be installed on local hard drive	Installs the top-level feature on the local hard drive, but not any sub-features listed below.
Entire feature will be installed on local hard drive	Installs the entire feature, including any sub-features listed below. **Note:** In this installation program, selecting this option or the "Will be installed on local hard drive" option for any of the features results in the same installation because these features do not contain sub-features.
Entire feature will be unavailable	The feature will not be installed. If previously installed, this feature will be removed.

9. Click **Next**.

The **Ready to Install the Application** window opens.

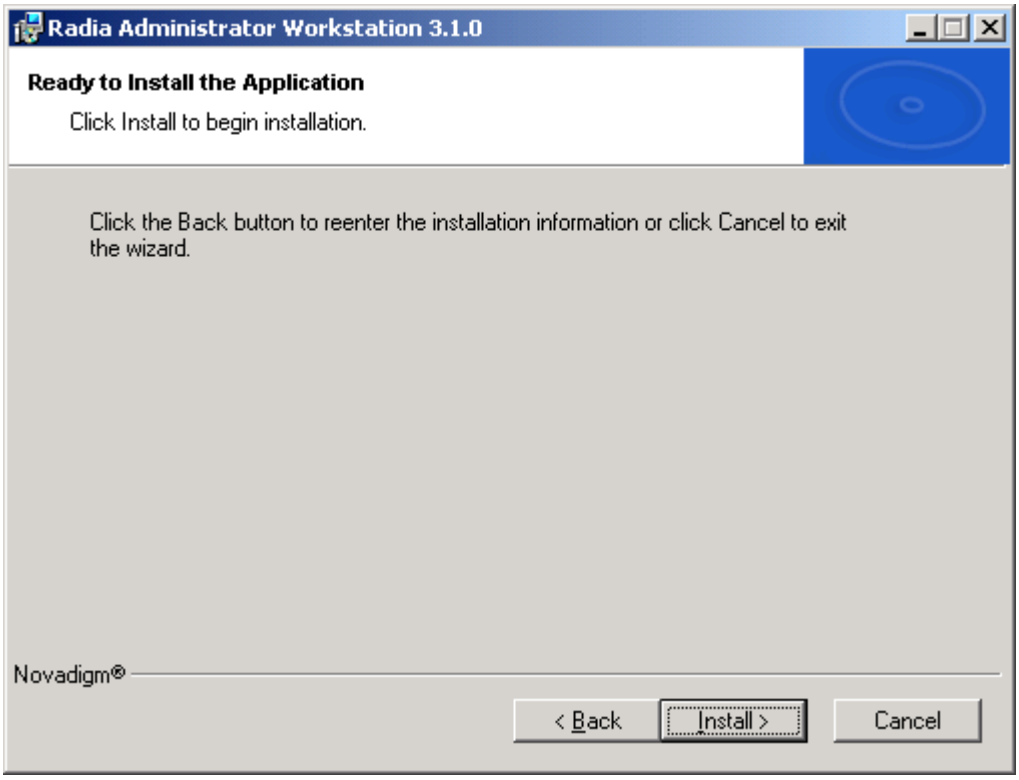

Figure 4.6 ~ Ready to Install the Application window.

10. Click **Install** to begin the installation.

When the installation is done, the **Radia Administrator Workstation 3.x has been successfully installed** window opens.

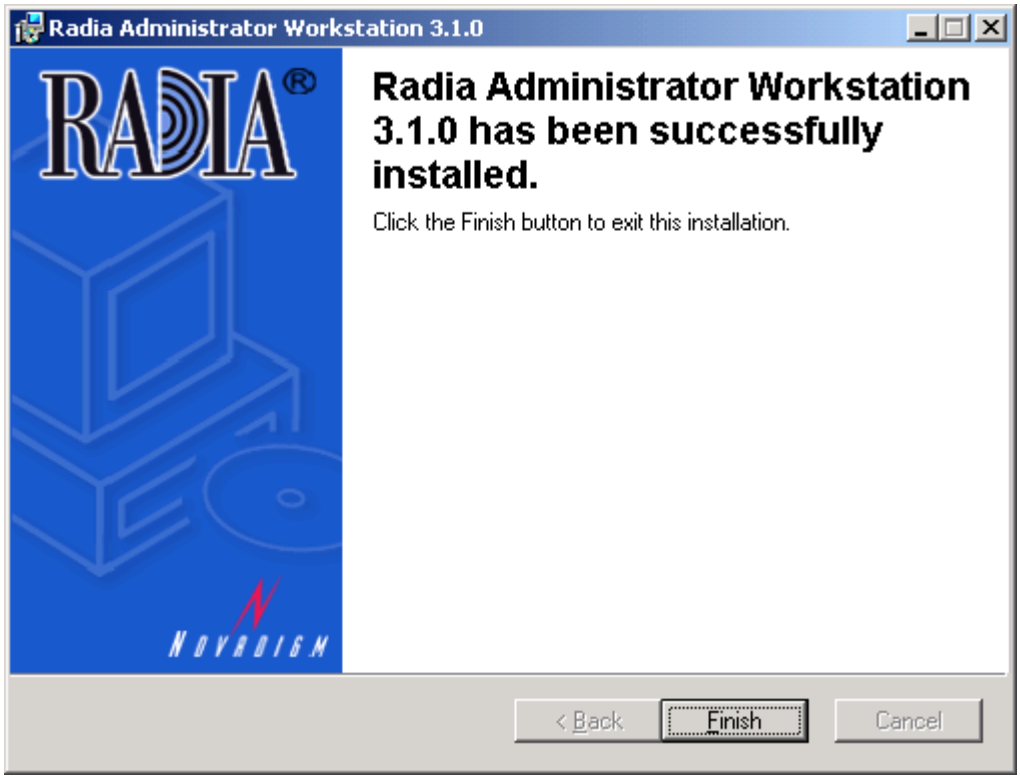

Figure 4.7 ~ Successful installation window.

11. Click **Finish** to exit the installation.

Using a Command Line to Install the Radia Administrator Workstation

You can also use the command line to run the Radia Administrator Workstation installation program For example, if you want to install only the Radia Publisher on a computer, the command line that you run from the directory containing the Radia Administrator Workstation installation files might be:

```
setup.exe ADDLOCAL=NVDINSTALLPUBLISHER
```

Specifying the Features to Install

To specify the features that you want to install, use the appropriate feature state argument, such as ADDLOCAL, and specify the features that you want to install.

Table 4.2 ~ Radia Administrator Workstation Feature State Arguments

Specify the following arguments	To set the feature state
ADDLOCAL	Type a comma-delimited list of features that you want set to "Will be installed on local hard drive".
ADDSOURCE	Type a comma-delimited list of features that you want set to "Will be installed to run from network".
ADVERTISE	Type a comma-delimited list of features that you want set to "Feature will be installed when required".
REMOVE	Type a comma-delimited list of features that you want set to "Entire feature will be unavailable". This only removes the features—not the entire product. Therefore, if you use the REMOVE property and type each of the feature names, the core product will still be stored on your computer. If you want to remove the entire product, type REMOVE=ALL.

When specifying features on the command line, reference the Radia Administrator Workstation features as follows:

- NVDINSTALLPUBLISHER = Radia Publisher
- NVDINSTALLSYSTEMEXPLORER = Radia System Explorer
- NVDINSTALLCLIENTEXPLORER = Radia Client Explorer
- NVDINSTALLSCREENPAINTER = Radia Screen Painter

For example, if you want to install the Radia System Explorer and the Radia Client Explorer to the computer, the command line might be:

```
setup.exe ADDLOCAL= NVDINSTALLSYSTEMEXPLORER,NVDINSTALLCLIENTEXPLORER
```

Caution

If you run the installation from a command line, be sure to pass the IP address for the Radia Configuration Server to the installation. For example:

```
setup.exe NVDOBJZMASTER_ZIPADDR=10.10.10.1
```

Additional Command Line Arguments

Some additional arguments that you can pass to the installation program on the command line are described in Table 4.3 below.

Table 4.3 ~ Command Line Arguments

Argument	Description
/qn	Performs a silent installation.
/qb	Displays the progress bar only during the installation.
/l*v *drive*:*install.log*	Creates a detailed Windows Installer log. **Note:** Using this option may impact the performance of the installation.
/a TARGETDIR= *drive*:*targetdirectory*	Creates a Windows Installer AIP in the specified target directory. **Note:** A Windows Installer Administrative Installation Point (AIP) is also known as an Administrative Control Point (ACP). The target directory contains RADADMIN30.MSI, the installation folders, and SETUP.EXE. Once you have created the AIP, you can run SETUP.EXE and pass the appropriate command line parameters. This starts the Windows Installer and passes the specified parameters to it.

Removing the Radia Administrator Workstation

The Windows Installer installation program offers the ability to remove the Radia 3.x Administrator. This section describes how to remove the Radia Administrator Workstation using the Installation Wizard and using a command line.

Using the Installation Wizard to Remove the Radia Administrator Workstation

This section describes how to remove (uninstall) the Radia Administrator Workstation using the Installation Wizard.

> **Note**
>
> To remove specific features of the Radia Administrator Workstation, use the Modify option on the Application Maintenance window. This is discussed in *Modifying the Radia Administrator Workstation Installation* on page 107.

To remove the Radia Administrator Workstation using the Installation Wizard

1. From the folder containing the Radia Administrator Workstation installation files, double-click **setup.exe**.

The **Application Maintenance** window opens.

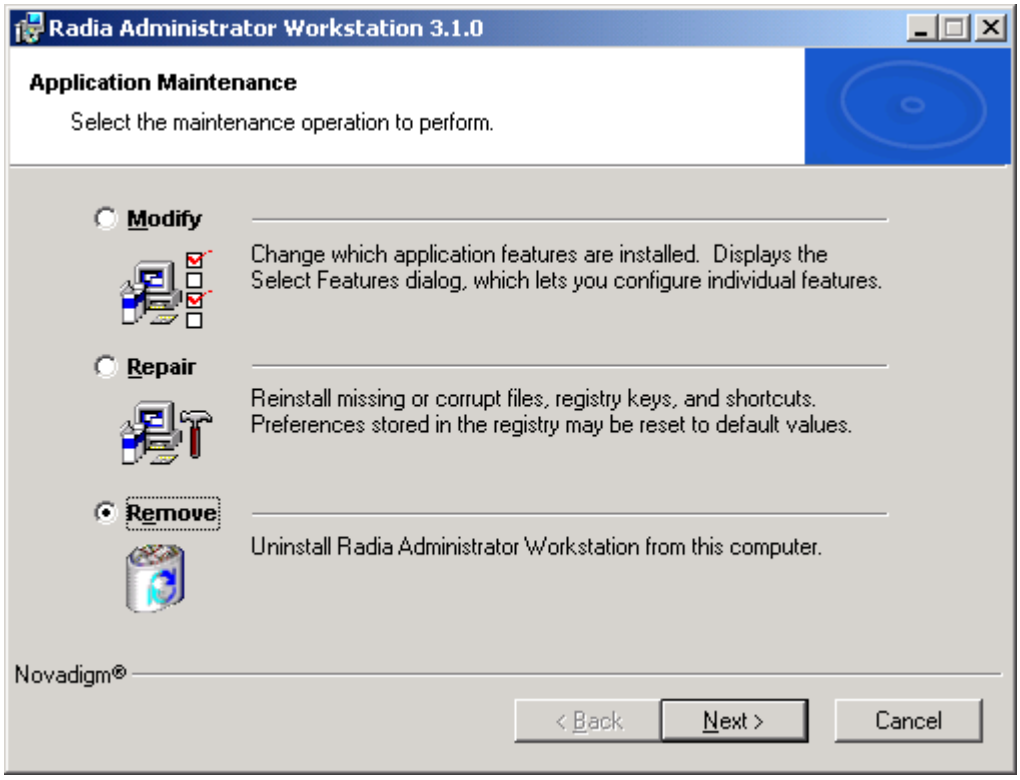

Figure 4.8 ~ Application Maintenance window.

2. Select the **Remove** option.
3. Click **Next**.

The **Radia Administrator Workstation 3.x Uninstall** window opens.

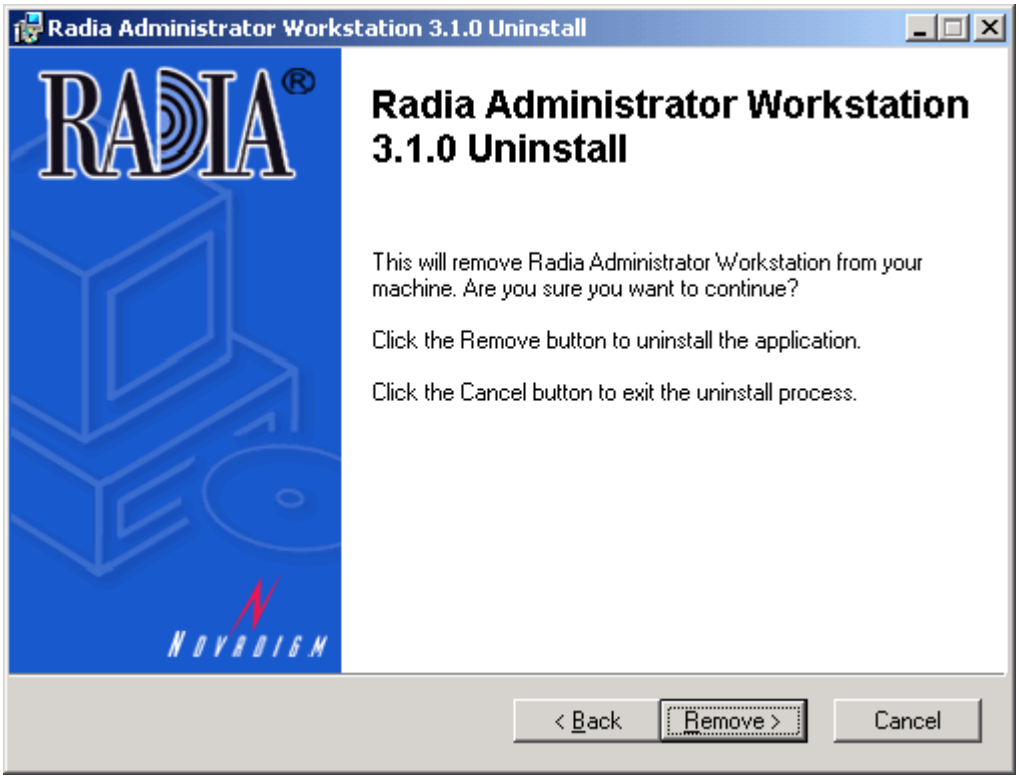

Figure 4.9 ~ Radia Administrator Workstation Uninstall window.

4. Click **Next**.

The files for the Radia Administrator Workstation are removed from the computer.

The **Radia Administrator Workstation has been successfully uninstalled** window opens.

Figure 4.10 ~ Successful Uninstallation window.

5. Click **Finish**.

Using a Command Line to Remove the Radia Administrator Workstation

This section describes how to remove (uninstall) the Radia Administrator Workstation using a command line.

To remove the Radia Administrator Workstation using a command line

- From the folder containing the Radia Administrator Workstation installation files, type the following command line:

  ```
  setup.exe REMOVE=ALL
  ```

  OR

  If you would like to remove a single Radia Administrator Workstation feature, type a comma-delimited list of the features that you want to remove on the command line.

EXAMPLE

If you want to silently remove the Radia System Explorer and Radia Client Explorer, type:

```
SETUP.EXE REMOVE=NVDINSTALLSYSTEMEXPLORER,NVDINSTALLCLIENTEXPLORER /qn
```

Note

Reference the features for the Radia 3.x Administrator Workstations as follows:

- Radia Publisher = NVDINSTALLPUBLISHER
- Radia System Explorer = NVDINSTALLSYSTEMEXPLORER
- Radia Client Explorer = NVDINSTALLCLIENTEXPLORER
- Radia Screen Painter = NVDINSTALLSCREENPAINTER

Caution

This only removes the features—not the entire product. Therefore, if you use the REMOVE property and type each of the feature names, the core product will still be stored on your computer.

Repairing the Radia Administrator Workstation

The Windows Installer installation program offers the ability to repair the Radia Administrator Workstation. For example, if you have a missing Radia Administrator Workstation module, you can use this tool to repair the installation. This tool will not overwrite modules that exist on the computer if they are newer than the ones provided with the installation.

This section describes how to repair the Radia Administrator Workstation using the Installation Wizard and using a command line.

Using the Installation Wizard to Repair the Radia Administrator Workstation

This section describes how to repair the Radia Administrator Workstation using the Installation Wizard.

To repair the Radia Administrator Workstation using the Installation Wizard

1. From the folder containing the Radia Administrator Workstation installation files, double-click **setup.exe**.

The **Application Maintenance** window opens.

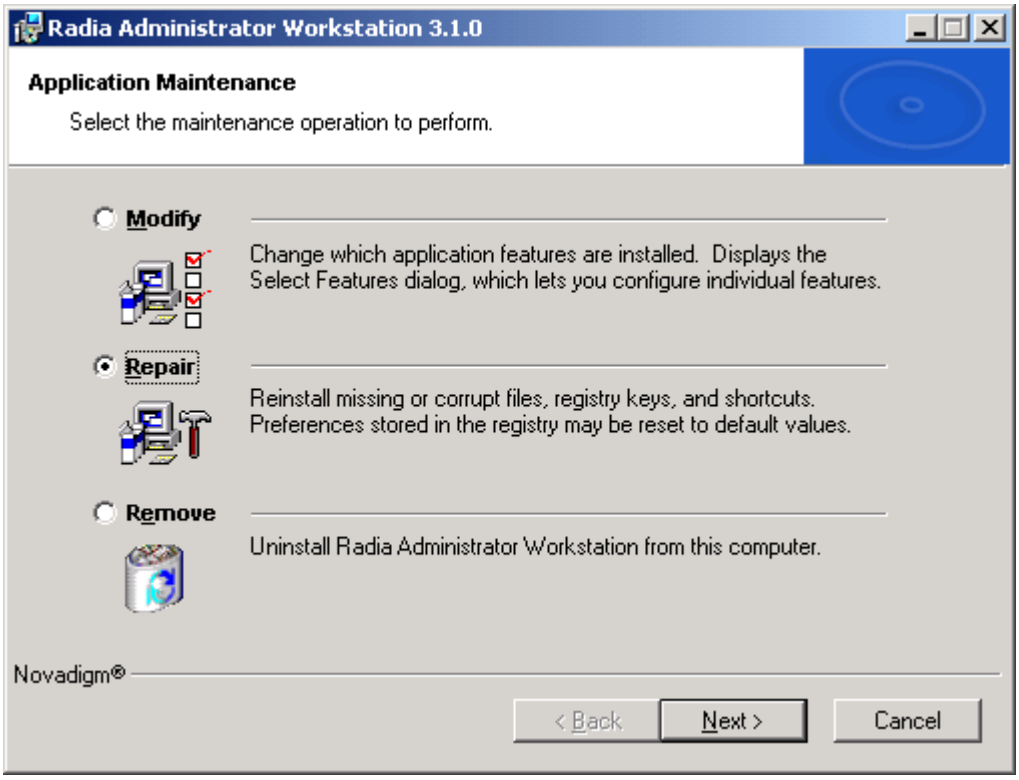

Figure 4.11 ~ Application Maintenance window.

2. Select the **Repair** option.
3. Click **Next**.

The **Ready to Repair the Application** window opens.

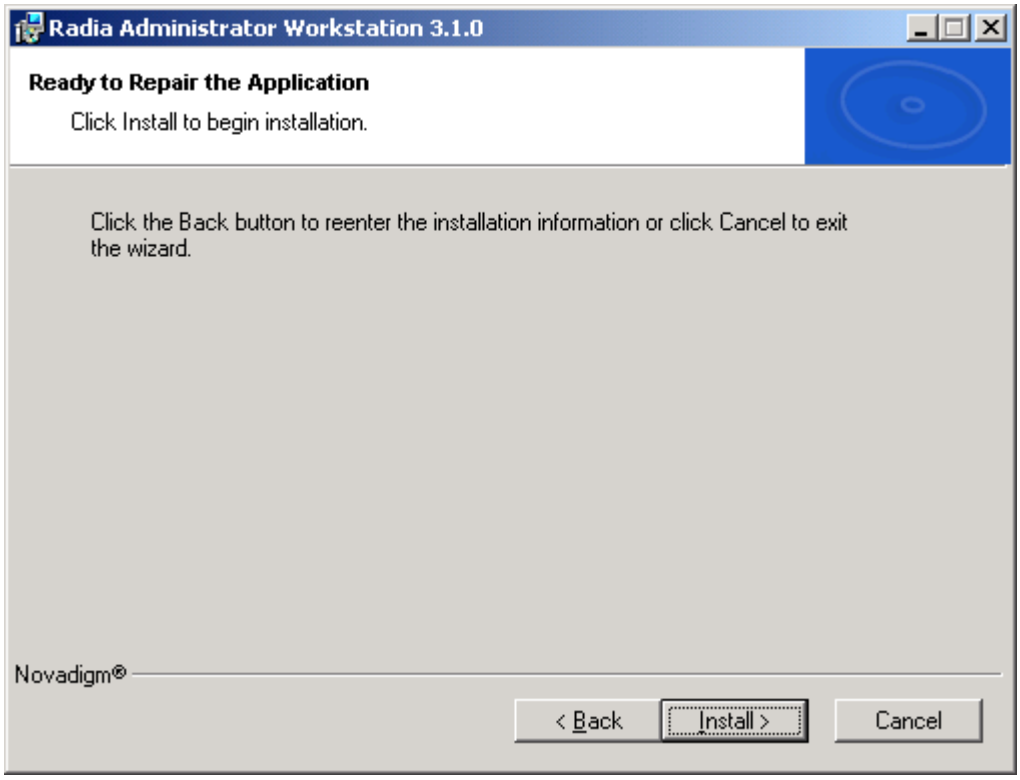

Figure 4.12 ~ Ready to Repair the Application window.

4. Click **Next**.

When the repair is done, the **Radia Administrator Workstation has been successfully installed** window opens.

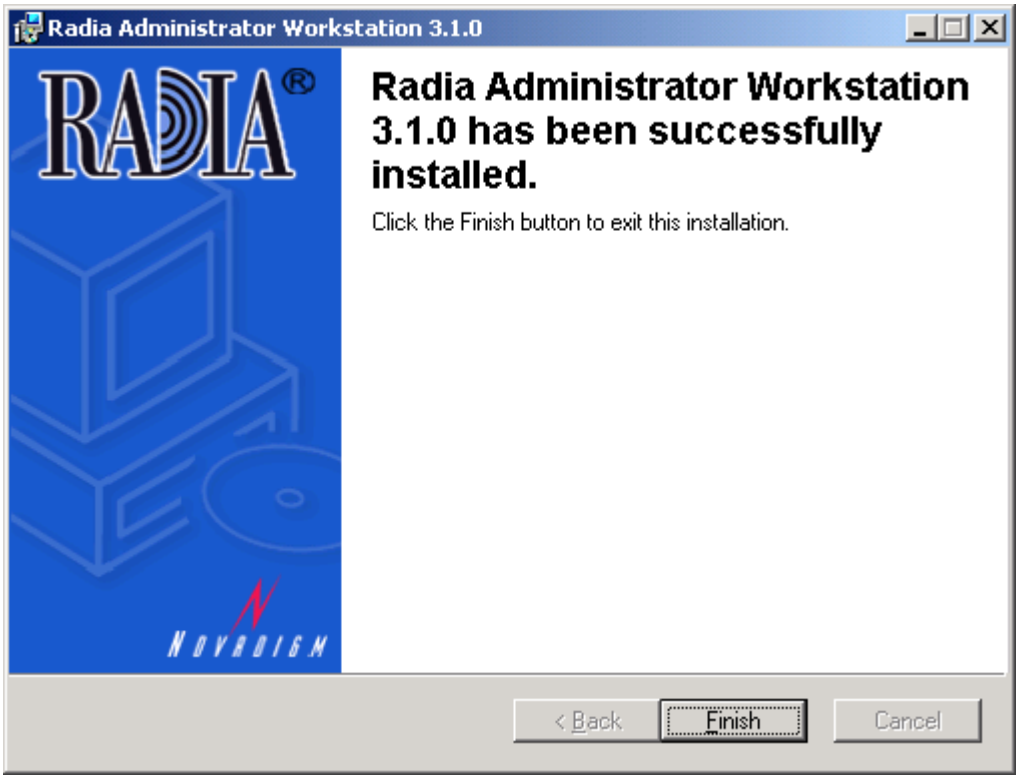

Figure 4.13 ~ Successful installation window.

5. Click **Finish**.

Using a Command Line to Repair the Radia Administrator Workstation

This section describes how to repair the Radia Administrator Workstation using a command line.

To repair the Radia Administrator Workstation using a command line

- From the folder containing the Radia Administrator Workstation installation files, type the following command line:

```
msiexec /f radiadmin30.msi
```

Note

Additional parameters can be used with this command line. For more information, see your Windows Installer documentation.

Modifying the Radia Administrator Workstation Installation

The Windows Installer installation program offers the ability to modify the Radia 3.x Administrator Workstation installation by adding or removing individual features. This section describes how to modify the installation of the Radia Administrator Workstation using the Installation Wizard and using a command line.

Using the Installation Wizard to Modify the Radia Administrator Workstation

This section describes how to modify the installation of the Radia Administrator Workstation using the Installation Wizard.

To modify the Radia Administrator Workstation installation using the Installation Wizard

1. From the folder containing the Radia Administrator Workstation installation files, double-click **setup.exe**.

The **Application Maintenance** window opens.

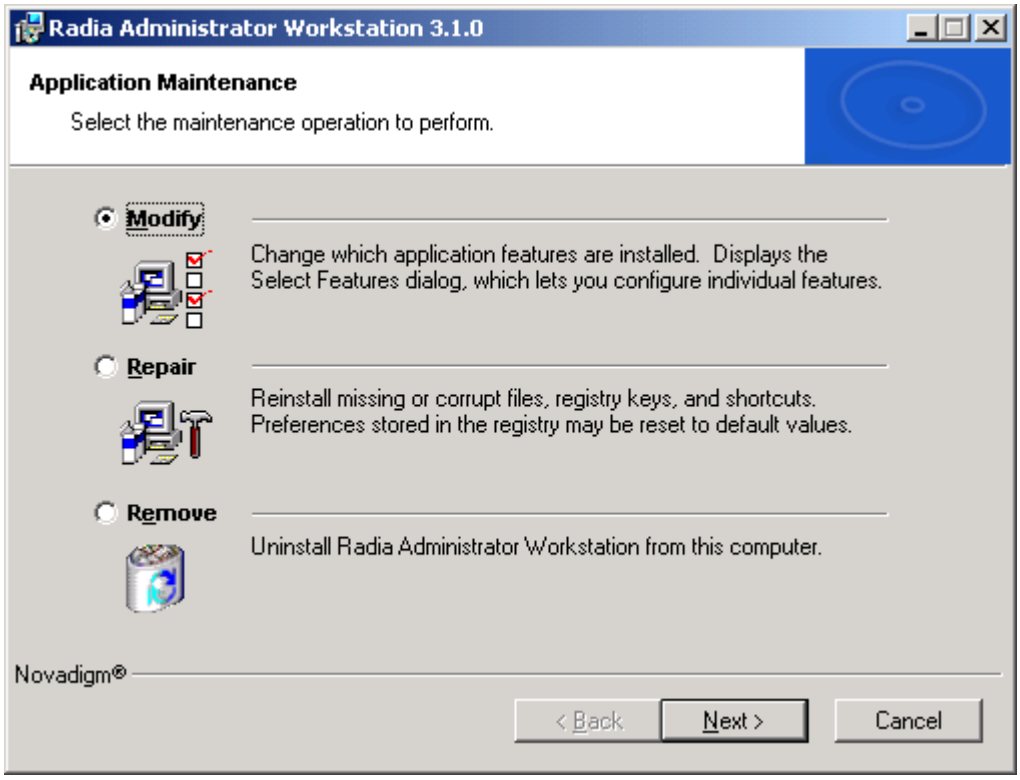

Figure 4.14 ~ Application Maintenance window.

2. Select the **Modify** option.
3. Click **Next**.

The **Select Features** window opens. See *Installing the Radia Administrator Workstation* on page 87 for information about how to use this window.

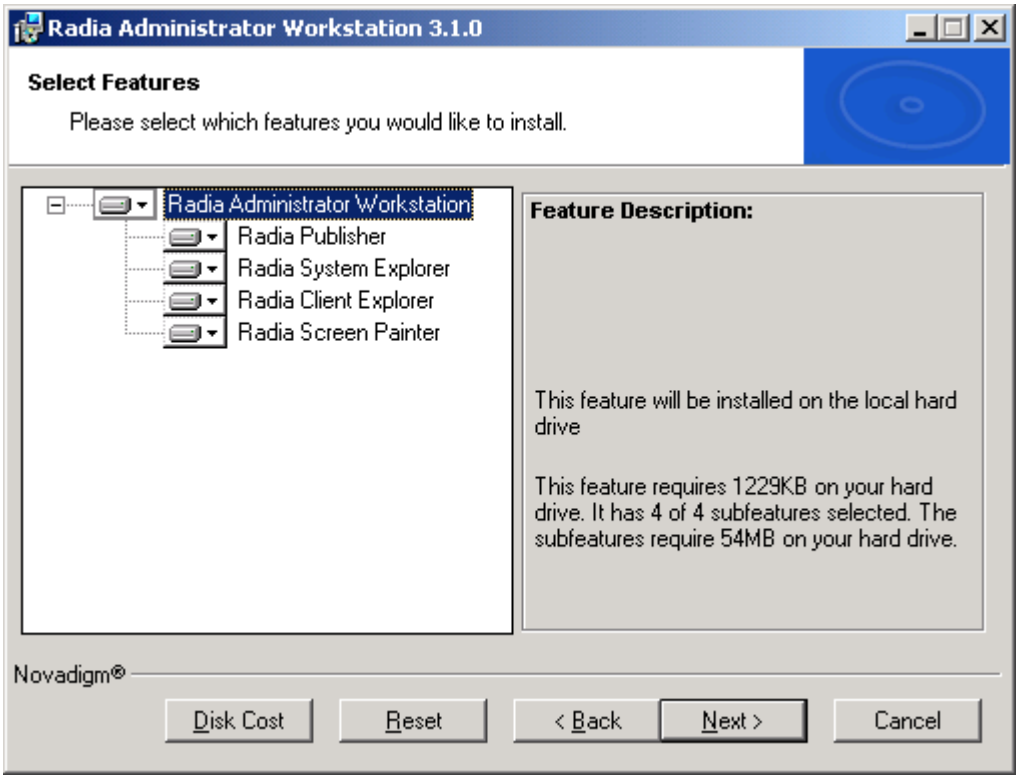

Figure 4.15 ~ Select Features window.

4. Click **Next**.

The **Ready to Modify the Application** window opens.

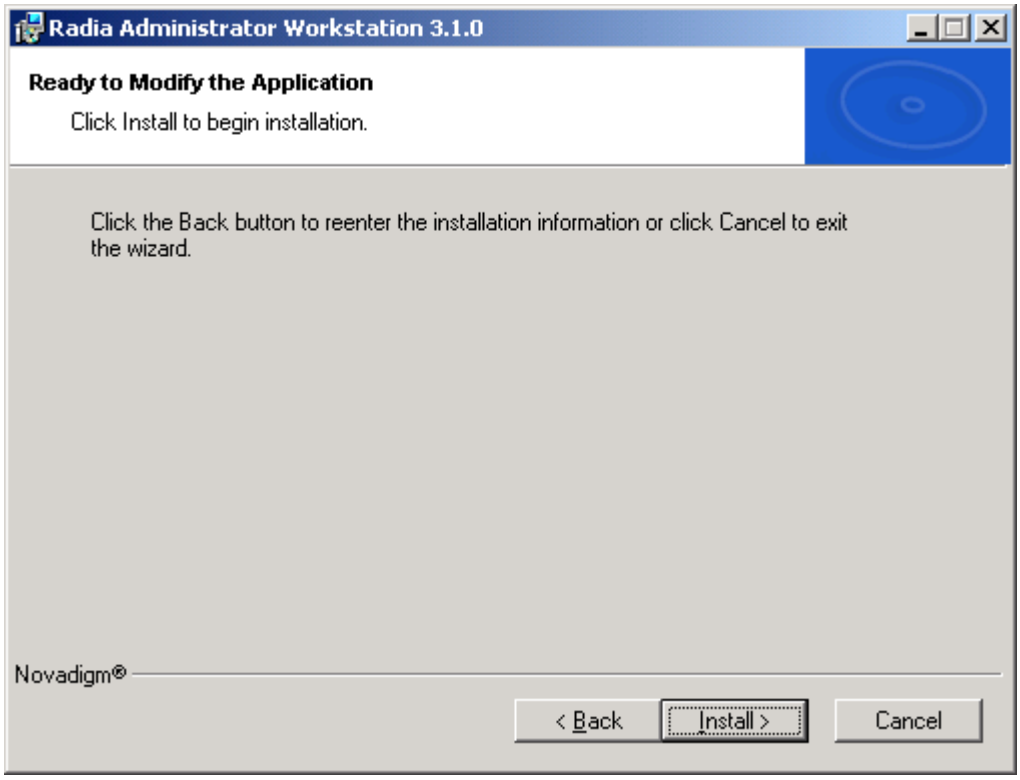

Figure 4.16 ~ Ready to Modify the Application window.

5. Click **Next**.

The **Radia Administrator Workstation 3.x has been successfully installed** window opens.

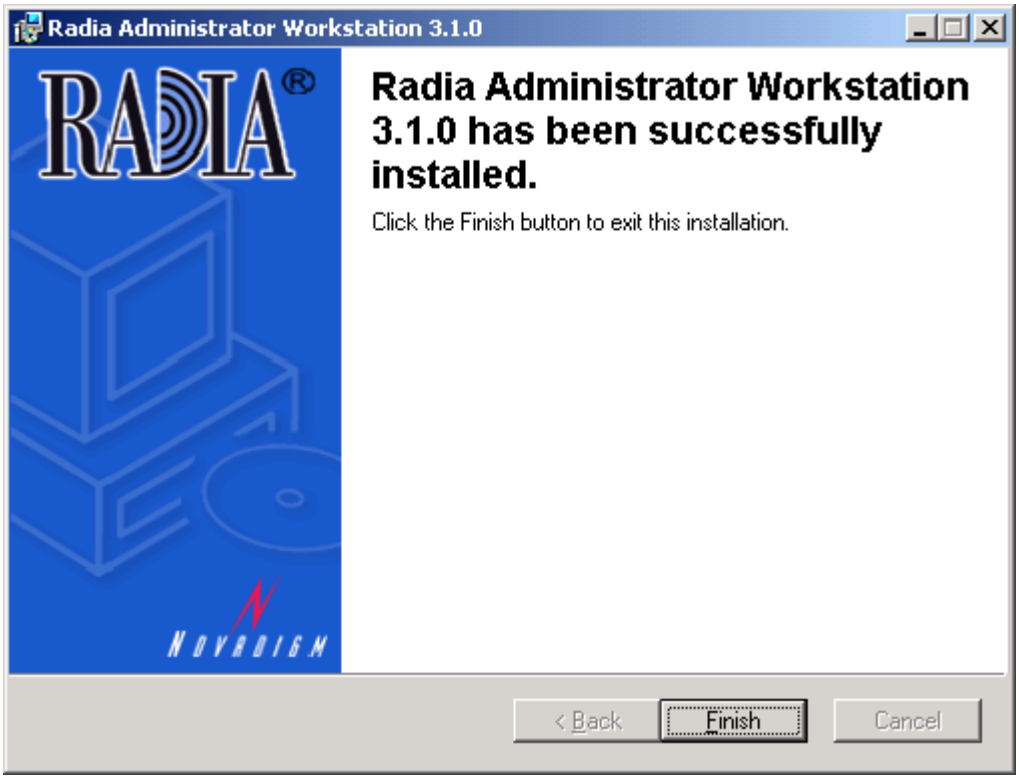

Figure 4.17 ~ Successful installation window.

6. Click **Finish** to close the installation program.

Using a Command Line to Modify the Radia Administrator Workstation Installation

To modify the Radia Administrator Workstation installation using a command line

- From the folder containing the Radia Administrator Workstation installation files, type the following command line:

  `setup.exe` *`FeatureStateArgument=feature1,feature2`*

See Table 4.2 on page 95 for more information.

EXAMPLE

If you want to install the Radia Publisher to the local hard drive, and to make the Radia System Explorer and Radia Client Explorer unavailable, use the following command line:

```
setup.exe ADDLOCAL=NVDINSTALLPUBLISHER REMOVE=NVDINSTALLSYSTEMEXPLORER,NVDINSTALLCLIENTEXPLORER
```

See *Additional Command Line Arguments* on page 96 for additional arguments.

Summary

- The Radia Administrator Workstation consists of one MSI package with four feature sets: Radia Publisher, Radia System Explorer, Radia Client Explorer, and Radia Screen Painter.
- Install the Radia Administrator Workstation on a clean computer.
- You can install the Radia Administrator Workstation using a command line or using the Installation Wizard.

5

Publishing Applications and Content

At the end of this chapter, you will:

- Understand the publishing process.
- Understand the requirements for publishing software or content.
- Be able to publish an application using Component Selection Mode
- Be aware of the Radia Publishing Adapter.
- Use the New Application Wizard in the Radia System Explorer to create a service.
- Be able to prepare and distribute maintenance packages to the Radia Software Manager.

This guide covers the *suggested* implementation for the Radia Software Manager. Although you will tailor this strategy to meet your organization's needs, it is recommended that you review this guide for a comprehensive understanding of the Radia Software Manager. This chapter focuses on *publishing*.

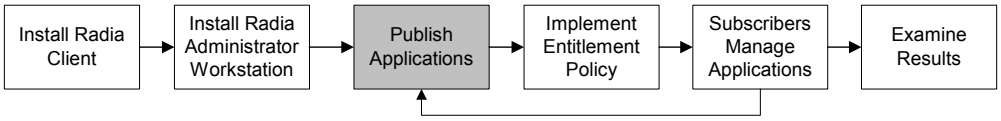

Figure 5.1 ~ Overview of the Radia Software Manager Guide.

About Publishing

Publishing is the process of identifying the components of the software and organizing them into *packages*. Packages contain the files and links that make up the software. The software that you distribute can vary greatly—from a single data file, such as a company telephone list, to an entire application suite.

There is one publishing mode available, **Component Selection Mode**. In Component Selection Mode, you select the individual components that make up the application, such as files, directories, and links.

After you create a package, you *promote* it to the Radia Database. The package is copied to the Radia Database and several instances are created, as described below.

- An **Application Packages (PACKAGE)** instance that represents the promoted package.
- One **UNIX File Resources (UNIXFILE)** instance for each file in the package.
- One **Path (PATH)** instance for each unique path to one or more components on the computer where the software is installed.

Note

Above are some of the default classes available in the SOFTWARE domain. You can also add your own classes to the Radia Database. See the *Radia System Explorer Guide* for information on how to add a class.

Then, you will use the Radia System Explorer to create a service, assign policies, and prepare the package for deployment. See the *Implementing Entitlement Policy* chapter starting on page 207 and the *Deploying Mandatory Applications for the Radia Software Manager* chapter starting on page 283 for more information.

Note

The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

Publishing Considerations Checklist

Before publishing your data, there are several items that you need to consider.

General

- ❑ What is the name of the package going to be? Follow your naming conventions.
- ❑ Do you have a unique session ID? Follow your conventions.

System Configuration

See *Setting the Required System Configuration* on page 143 for more information.

- ❑ What operating systems are your target computers (workstations or servers) using?

Activation Options

- ❑ When do you want to activate the application—immediately on distribution or at a later time?

  See *Setting Date and Time Constraints* on page 145 for more information.

- ❑ Which version of the application do you want to distribute, and when do you want to activate it?

  See the *Deploying Mandatory Applications for the Radia Software Manager* chapter starting on page 283 for more information.

- ❑ Do you want to build and maintain versions?

  See the *Deploying Mandatory Applications for the Radia Software Manager* chapter starting on page 283 for more information.

Data Options

See *Data Options Tab* in Setting Default Properties on page 126 and in Component Selection Mode on page 156 for more information.

- ❑ What type of compression do you want to use?
- ❑ Are you distributing maintenance to the Radia Software Manager client?
- ❑ How do you want to promote the resources?
- ❑ Are you sending out an update and only want to deploy the changes?

Verify Options

See *Client Management Tab* on page 151 for more information.

- ❑ Do you want to use the standard, default verification options?
- ❑ Is this a first time installation? Is there anything that you need to verify?
- ❑ When deploying files, what types of statistics do you want to check – date, time, size?
- ❑ Do you want to update all files, or only newer files?
- ❑ If a file already exists, do you want to deploy it again to overwrite any changes that may have been made?

Delivery Options

See *Client Management Tab* on page 151 for more information.

- ❑ Do your files or methods need to be deployed in a particular order?
- ❑ Is the data mandatory or optional?

  Note: You can only deliver mandatory files with the Radia Application Manager.

- ❑ Do you want the data deployed under the user or machine context?

Client Behaviors

See *Client Behaviors Tab* on page 158 for more information.

- ❑ After the file is deployed, do you want to run any methods? If so, what are they?
- ❑ Does anything need to happen to enable the file once it's deployed? If so, what method will you run to enable it?
- ❑ If the subscriber is no longer subscribed to the software, do you want to delete the file?
- ❑ Do you want to compare the old and new version of the file that you are deploying? If so, what method do you want to use?

Setting Default Properties

Soon, you will learn how to create packages using the Radia Publisher. However, before creating a package, you may want to set default properties (such as compression settings and verification options) for the files and directories that will be included in the package. Changes made to the default properties also apply to new publisher sessions. If necessary, you can modify the properties later for any file or directory from the **Set Properties and Locations** window. See *Using Component Selection Mode* on page 137 for more information.

You can also use the Radia System Explorer to modify the default properties in the base instance. Or, after you promote the package to the Radia Database, you can modify the properties for an individual instance in the UNIXFILE or PATH classes.

> **Note**
>
> The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

To log on to the Radia Publisher

1. Log on as root.
2. Change your current working directory to the location of the **publishr** executable, and type **./publishr**.
3. In the **Radia Publisher Security Information** dialog box, type your **User ID** and **Password** in the appropriate fields.

> **Note**
>
> The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed during installation. You can also change this by selecting the **Change Password** check box and typing the new password in the **New Password** and **Verify New Password** fields.

4. Click **OK**.

To access the Global Default Properties dialog box

- From the **Edit** menu, select **Change Global Defaults**. The **Radia Publisher – Global Default Properties** dialog box has four tabs: Client Management, Data Options, Database Information, and Client Behaviors.

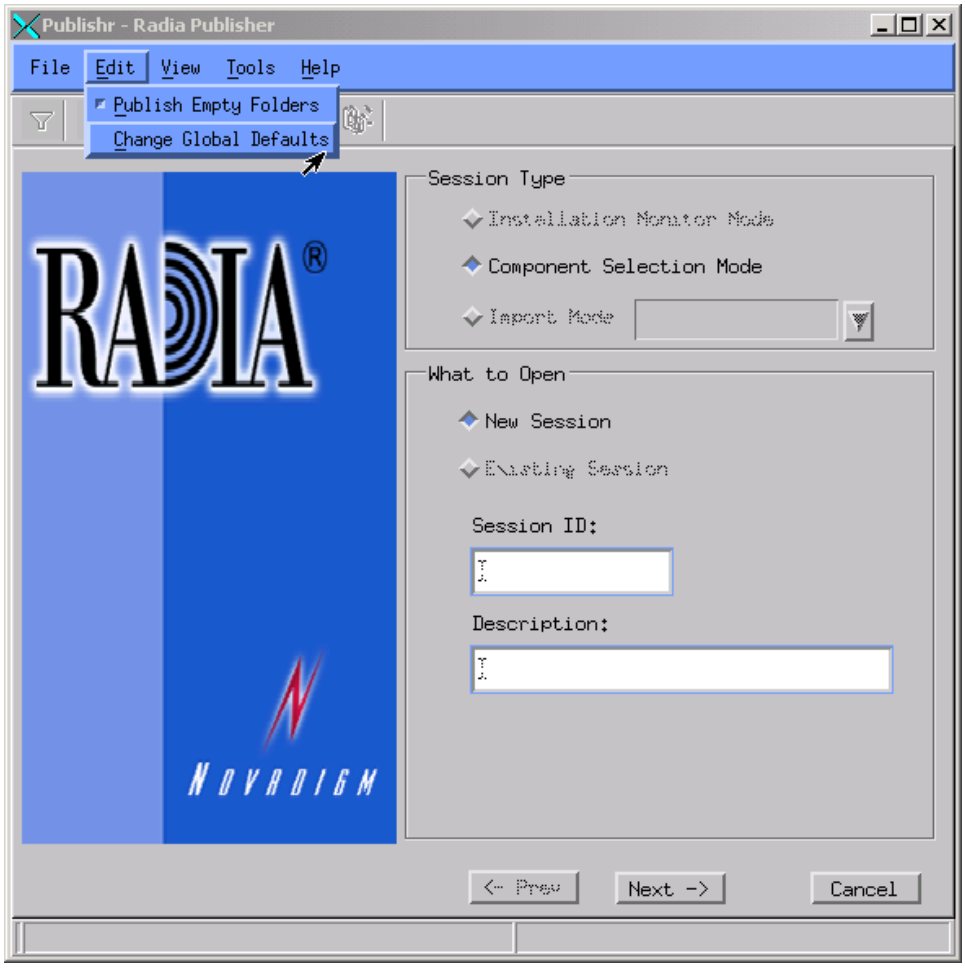

Figure 5.2 ~ Edit menu, Change Global Defaults option.

Client Management Tab

Use the **Client Management** tab to set verification and delivery options for the files or directories in the package.

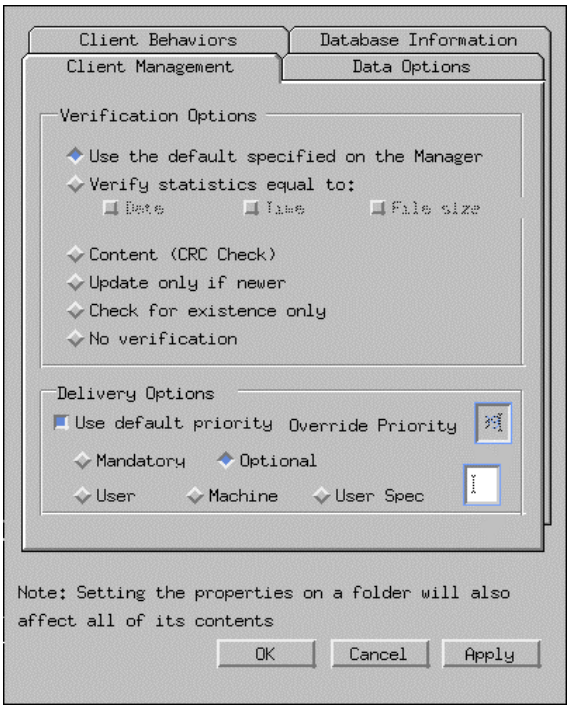

Figure 5.3 ~ Global Default Properties dialog box, Client Management tab.

Verification Options

Use **Verification Options** to specify the default actions that the Radia Software Manager will take for the file or directories.

Your selections in this dialog box set the variable ZRSCVRFY in the base instance of the UNIXFILE class. Use the Radia System Explorer to view, or modify this variable.

> **Note**
>
> The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

Table 5.1 ~ Verification Options

Verification Option	Usage	ZRSCVRFY Settings
Use the default specified on the Manager	Select this option to inherit verification options for the files from the UNIXFILE class' base instance in the Radia Database.	ZRSCVRFY=Y
Verify statistics equal to	Select this option so that the Radia Client checks the selected statistics [Date (D), Time (T) or File Size (S)] for the files on the computer. The files are deployed from the Radia Database (or Radia Staging Server) if the statistics of the file on the computer are different from the statistics for this file.	ZRSCVRFY=D ZRSCVRFY=T ZRSCVRFY=S ZRSCVRFY=Y (to check date, time and size)
Content (CRC Check)	Select the CRC option so that the Radia Application Manager checks the statistics Content (CRC) of the file on the client computer. When the file is verified, the file will *first* be checked based on the Date, Time, and File Size. To save time during the verify, the CRC will be checked *only* if the file passes the Date, Time, and File Size verification. Then, the Radia Configuration Server (or Radia Proxy Server) will deploy a file if its statistics are different from those on the client computer. By selecting this option, the Radia Publisher will calculate the CRC and put the value in the ZRSCCRC attribute.	ZRSCVRFY=Y
Update only if newer	Select this option so that the files are deployed if the files in the Radia Database (or Radia Staging Server) have a later date/time stamp than the ones on the subscriber's computer.	ZRSCVRFY=U
Check for existence only	Select this option so that the files are deployed if they are not on the subscriber's computer. No action is taken if the files already exist on the subscriber's computer, even if the files' statistics differ from those in the Radia Database.	ZRSCVRFY=E
No verification	Select this option so that the files are deployed the first time the software is deployed. No subsequent action is taken.	ZRSCVRFY=N

Delivery Options

Use **Delivery Options** to specify the default delivery options, such as the order in which files are deployed.

Your selections set the corresponding variables in the base instance of the UNIXFILE class. Use the Radia System Explorer to view, or modify, the appropriate variables.

> **Note**
>
> The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

Table 5.2 ~ Delivery Options

Delivery Option	Usage	Variable Settings
Use default priority	Select this check box to use the default priority of **50**. Priority determines the order of deployment, from highest priority to lowest priority.	ZRSCPRI=50
Override Priority	Type a number from **1** to **99** to override the default priority of **50**. 1 is the highest priority and 99 is the lowest.	ZRSCPRI=1
The following options apply *only* if there is not enough space on the subscriber's computer to install the entire application.		
Mandatory	Select this option to indicate that the files are critical to the software. If there is not enough space on the subscriber's computer for the entire application, Radia will only deploy mandatory files. If there is not enough space for the mandatory files, then the software is not deployed at all.	ZRSCMO=M
Optional (default)	Select this option to indicate that the files are not critical to the software. If there is not enough space on the subscriber's computer for the entire application, Radia will not deploy optional files.	ZRSCMO=O
The following options apply only to operating systems supporting multiple users with a required sign on.		
User	Select **User** if you want to indicate that the file will be deployed only to the subscriber logged on when the application is initially deployed.	ZCONTEXT=U
Machine	Select **Machine** to indicate that the file will be deployed to all users of the computer.	ZCONTEXT=M
User Spec	*This option is for future use.*	*This option is for future use.*

Data Options Tab

Use the **Data Options** tab to specify the default data compression and other details about the files you will be distributing.

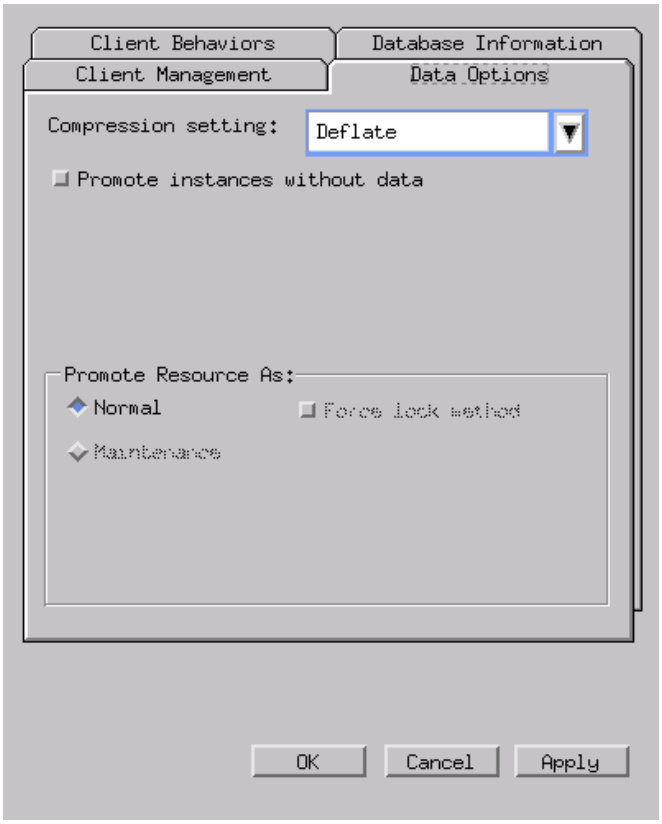

Figure 5.4 ~ Global Default Properties dialog box, Data Options tab.

Table 5.3 ~ Data Options

Data Option	Usage
Compression setting	If necessary, select the compression setting for storing files in the Radia Database. Compression minimizes the time required to transmit the files and the amount of disk space required to store them. • Select **Deflate** for the most efficient compression, which produces smaller compressed images. This is the default setting. • Select **None** if the files are already compressed. If you are packaging an application that contains one or more compressed files, do *not* have Radia Publisher compress them as well. The files may actually grow in size if they are compressed again.
Promote instances without data	Select this check box to indicate that the files should not be transferred to the Radia Database as part of the package. Only the instances representing the files are included in the package. The data remains in compressed format in the IDMDATA location on your computer. See the *Installing the Radia Software Manager* chapter in this book for more information. You can manually place files on Radia Staging Servers if you have connectivity to the Radia Staging Server and do not want copies of the files in the Radia Database.
Promote Resource As	
• **Normal**	Select this option to indicate that the files are to be deployed as part of an application. This is the default selection.
• **Maintenance**	Select this option to indicate that the files are maintenance components for the Radia Software Manager software.
• **Force lock method**	Select this check box to force the use of the *locked file method* for deploying the files. If files are in use on the subscriber's computer when Radia attempts to deploy new copies of the files, the locked file method is normally used to deploy the files. If necessary, the files are decompressed and stored locally in a directory. The Client Connect process forces a restart when it ends and the files are deployed to their correct locations during startup.

Client Behaviors Tab

Use the **Client Behaviors** tab to specify default methods (or programs) that Radia executes on the subscriber's computer.

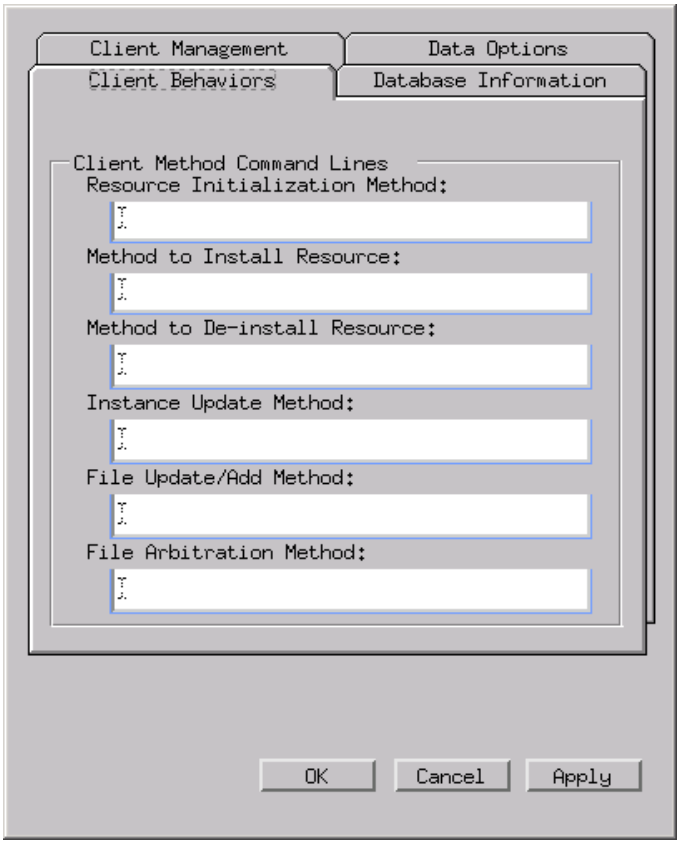

Figure 5.5 ~ Global Default Properties dialog box, Client Behaviors tab.

The command lines that you type in this dialog box are stored in variables in the UNIXFILE class instances in the SOFTWARE domain. In Figure 5.5 above, you can see the command line, stored in a FILE class instance that was typed into the **Method to De-install Resource** text box.

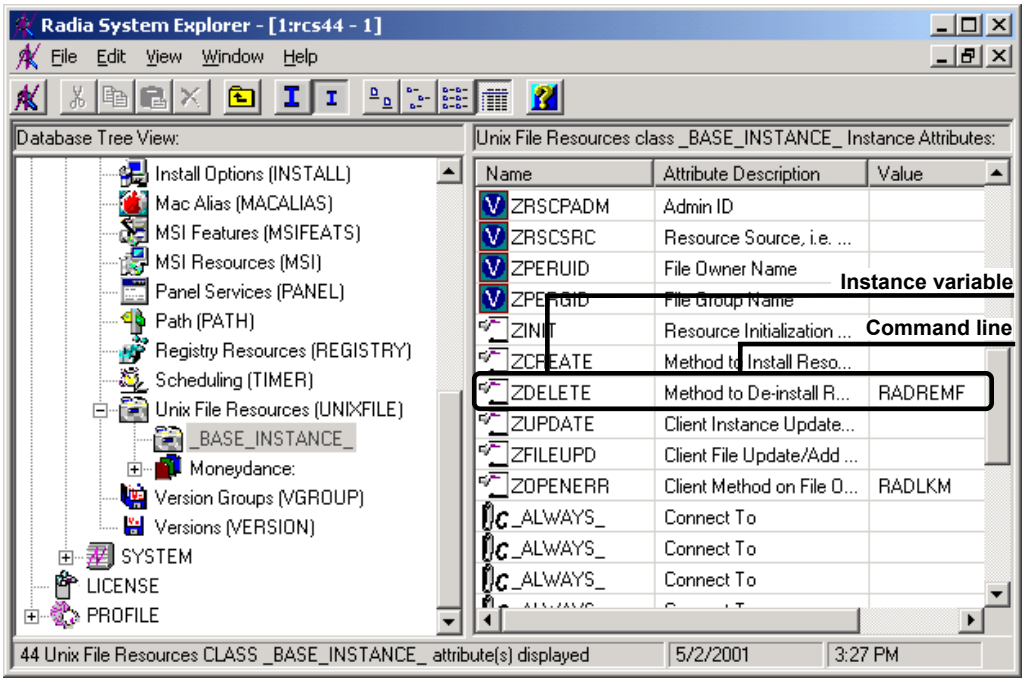

Figure 5.6 ~ Command line stored in the FILE class instance.

Note

Figure 5.6 above depicts the Radia System Explorer, which is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

Table 5.4 on page 130 describes the fields available on the Client Behaviors tab.

Table 5.4 ~ Client Behaviors

Client Behaviors	Usage
Resource Initialization Method (Variable in database: ZINIT)	Type the method to run when the files are stored on the subscriber's computer.
Method to Install Resource (Variable in database: ZCREATE)	Type the method to run after the file is stored on the computer. This is used if some processing is required to enable the file to be used on the computer.
Method to De-install Resource (Variable in database: ZDELETE)	Normally, files are removed if the subscription to the software is cancelled. If a file, such as shared objects, is not supposed to be deleted from the subscriber's computer, even if the subscription to the software is cancelled, type **_NONE_** (with the underscores) as the value for **Method to De-install Resource**.
Instance Update Method (Variable in database: ZUPDATE)	Type the method to run when the instance is modified on the computer, after the file has been deployed.
File Update/Add Method (Variable in database: ZFILEUPD)	Type the method to run when the file is new or has been updated. The method executes just before the file is deployed to the computer.
File Arbitration Method (Variable in database: ARBITRAT)	Type the method to run if a file is about to be replaced. This method compares the version information of the file that exists and the file that is going to replace it, and then determines which file to keep.

Database Information Tab

Use the **Database Information** tab to specify where the instances for the selected files or directories will be stored in the Radia Database.

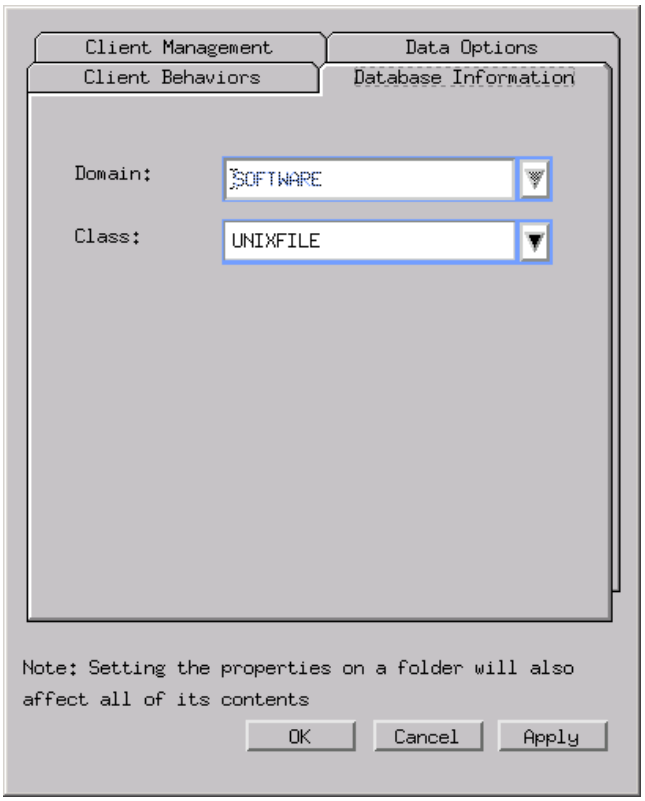

Figure 5.7 ~ Global Default Properties dialog box, Database Information tab.

Table 5.5 on page 132 describes the fields available on the Database Information tab, as shown in Figure 5.7 above.

Table 5.5 ~ Database Information	
Database Information	**Usage**
Domain	Domain that stores the instance. This is normally the SOFTWARE domain unless you have customized the Radia Database with proprietary domains. As shipped, the default domains are ADMIN, AUDIT, NOVADIGM, PATCH, POLICY, SOFTWARE, and SYSTEM. See the *Introduction* chapter in this book for more information about the domains.
Class	Component class that stores the instance for this file or directory.

UNIX File Resources (UNIXFILE)

During the publication process, the UNIXFILE attributes are defined. These attributes define the owner and group associations and permissions of each published resource. Each package published has a corresponding UNIXFILE instance within the PRIMARY domain. Use the Radia System Explorer to view and modify these attributes.

Note

The following instructions use the Radia System Explorer. The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, see the *Radia System Explorer Guide*.

To view the UNIXFILE class instances using the Radia System Explorer

1. From the **Start** menu, select **Programs**, **Radia Administrator Workstation**, **Radia System Explorer**. The **Radia System Explorer Security Information** dialog box opens.

Note

The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, type a **User ID** and **Password**, and then click **OK**.

   The **Radia System Explorer** window opens.
3. Double-click **PRIMARY**.
4. Double-click **SOFTWARE**.
5. Double-click **Unix File Resources (UNIXFILE)**.

6. Double-click the appropriate application. The attributes for the UNIXFILE instances for that application appear in the list view.

To change any instance attribute, double-click the attribute name in the list view. Make your desired changes in the box that opens, and click **OK** when finished.

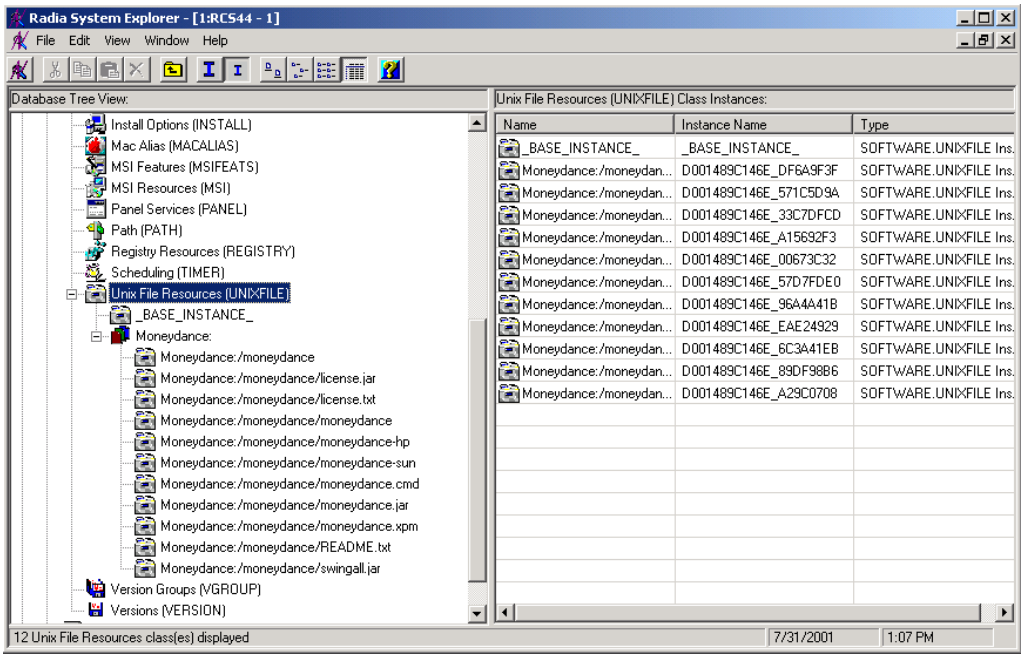

Figure 5.8 ~ Example of a UNIXFILE class instance.

Published Owner, Group, and Permission Considerations

The UNIXFILE class contains the attributes ZPERUID and ZPERGID. They define the user ID and group association of the promoted resource. These attributes are populated during the publishing session and reflect the user ID and group association of the resources being promoted. In addition, permission characteristics are captured during publishing and stored in the UNIXFILE.ZRSCRASH attribute. These attributes can be changed using the Radia System Explorer.

Table 5.6 ~ Attributes Exclusive to the UNIXFILE Class

Attribute	Description
ZPERUID	UNIX user ID associated with the promoted resource. The resource will be owned by this user ID when deployed, providing the Radia Client is run by root and the user ID exists on the client workstation.
ZPERGID	UNIX group ID associated with the promoted resource. The resource will be associated with this group when deployed, providing the Radia Client is run by root and the group exists on the client workstation.
ZRSCRASH	This should be a four-digit octal notation of the managed resources permissions (example: 7555). This is populated during the publishing session based on the characteristics of the published resources.

If the Radia Client is run as a non-root user ID:

- All deployed resources will be associated with the user ID and group of the user ID who is running the Radia Software Manager.
- During publishing, the owner and group of the publisher resource is stored in the UNIXFILE instance data. The owner and group attributes within the instance are only applied if the Radia Client is run as root for only root has the ability to perform changes in owner and group characteristics.
- Radia client capabilities are limited to the permission constraints of the current user ID and group membership for the UNIX user ID running the connect.
- Radia will be unable to deploy to directories where the directory permissions prohibit the non-root user and or group membership to write.
- Radia may be unable to set permissions on resources placed under Radia management that are already on the client workstation though owned by a different UID and/or GID.
- Radia will be unable to launch client methods requiring root authority.

If the Radia Client is run as root and:

- If the owner name of the resource, as defined in ZPERUID, and the user ID exist on the client workstation, the resource will be owned by the UNIX user ID specified.
- If the group name of the resource, as defined in ZPERGID, and the group exist on the client workstation, the resource will be associated with the UNIX group specified.

Important Note

To prevent security breaches please note the following:

If the owner of a resource, as defined in ZPERUID, does not exist on the client workstation, the owner designation of the managed resource will be set to "nobody" (uid 60001).

If the group of a resource, as defined in ZPERGID, does not exist on the client workstation, the group designation of the managed resource will be set to "nobody" (gid 60001).

The Radia Publisher Toolbar

The Radia Publisher toolbar, as seen in Figure 5.9 below, is used to navigate through the various completed publishing sections during Installation Monitor Mode, which is available for the Windows version of the Radia Publisher. The buttons available for use with the UNIX version of the Radia Publisher platform will be highlighted.

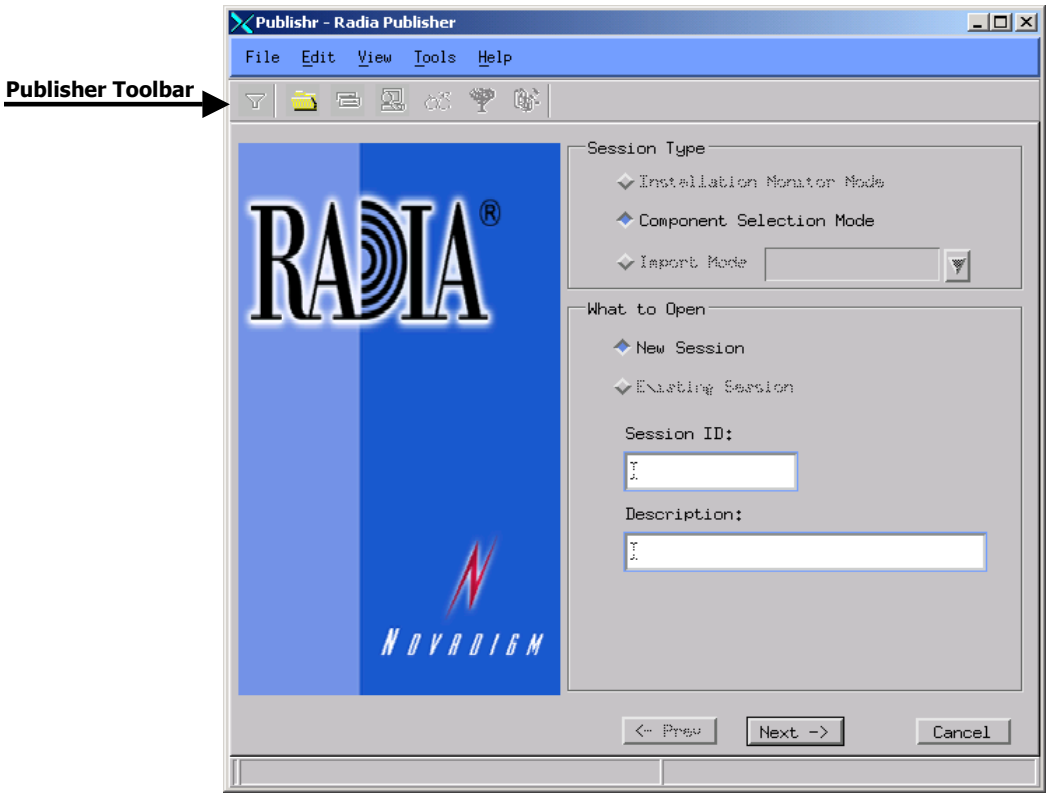

Figure 5.9 ~ Radia Publisher toolbar.

Using Component Selection Mode

In Component Selection Mode, you select the individual components that make up the application, such as files, directories, and links to create a package.

Publishing in Component Selection Mode involves three phases:

1. **Defining** the application's operating system requirements.
2. **Selecting** the individual files to be published.
3. **Promoting** the files to the Radia Database.

Prerequisites

Before publishing your application in Component Selection Mode:

- Install the target application on your packaging machine. This ensures that the files you need to select reside on the computer.

Publishing

This section guides you through publishing a sample application using the Component Selection Mode and provides detailed information about each screen that you encounter.

In this example, we publish the shareware application, Moneydance. You can substitute another application or file in its place.

Use this example to become familiar with Component Selection Mode. However, please remember that there are many variables when publishing applications.

Reminder

For the following example to work as shown, be sure to download and install Moneydance on your administrator computer. Moneydance is available at www.moneydance.com.

Step 1: Logging On to Radia Publisher

1. Log on as root.
2. Change your current working directory to the location of the **publishr** executable, and type **./publishr**.
3. In the **Radia Publisher Security Information** dialog box, type your **User ID** and **Password** in the appropriate fields.

Note

The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed during installation. You can also change this by selecting the **Change Password** check box and typing the new password in the **New Password** and **Verify New Password** fields.

4. Click **OK**.

   The **Open Publishing Session** window opens.

Step 2: Completing the Open Publishing Session Window

Use the **Open Publishing Session** window to select the publishing mode and enter information to identify the publishing session.

Figure 5.10 ~ Open Publishing Session window (Component Selection Mode).

At the end of a *publishing session*, you will have a Radia package – a unit of distributable software and/or data – that you will connect to a service. You will set up policies to distribute the software or data to the targeted subscribers.

The following section describes the options on the **Open Publishing Session** window, as shown in Figure 5.10 above.

Note

We recommend that you review the Global Defaults prior to beginning any Publishing Session. See *Setting Default Properties* beginning on page 121.

Session Type Area

- **Installation Monitor Mode**
  Not available at this time.
- **Component Selection Mode**
  Use this mode to create Radia packages when you know which files need to be distributed and what impact the installation will have on the subscriber's computer. In this mode, you identify the files that are packaged and then promoted to the Radia Database.
- **Import Mode**
  Not available at this time.

What to Open Area

- **New Session**
  Select **New Session** to begin a new publishing session. You must complete the **Session ID** and **Description** fields.
- **Existing Session**
  Select **Existing Session** to resume the previous session.
- **Session ID**
  Type a *unique* identifier that is one to six characters long.
- **Description**
  Type a description of the session.

In the Moneydance example, as shown in Figure 5.10 on page 139, we are using **Component Selection Mode** to begin a **New Session**. The **Session ID** is **MD0001** and we've described the session as Moneydance.

Click **Next** to go to the **Package Properties** window.

Step 3: Entering Package Properties

Use the **Package Properties** window to name the package and include additional descriptive information.

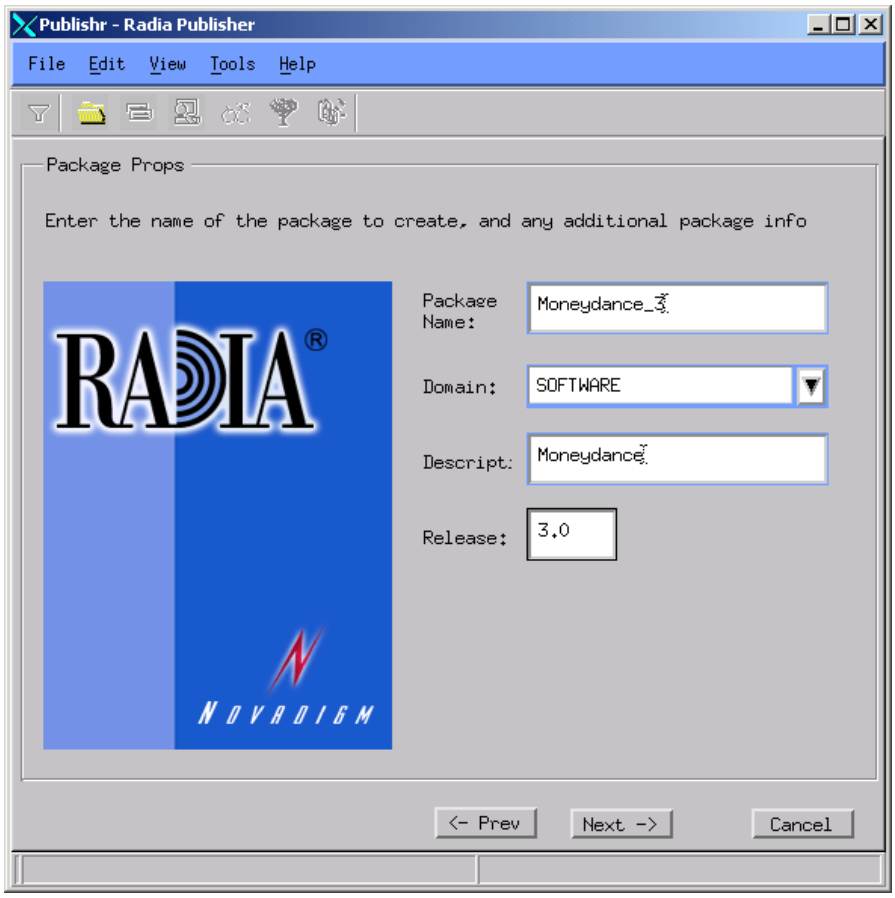

Figure 5.11 ~ Package Properties window (Component Selection Mode).

- **Package Name**
  Type a name for the package. This is the name for the PACKAGE class instance in the Radia Database and should conform to your naming conventions. Note that the name cannot contain any spaces.

Note

You may want to establish a naming convention to ensure that identifiers are unique. Radia Publisher uses this identifier to construct data objects and filenames. See *Appendix A: Naming Conventions* starting on page 293 for more information.

- **Domain**
  Select the domain to store the instance in. This is normally the SOFTWARE domain unless you customized the Radia Database with proprietary domains. As shipped, the default domains are ADMIN, AUDIT, NOVADIGM, PATCH, POLICY, SOFTWARE, and SYSTEM.

  See the *Introduction* chapter in this book for more information about the domains.
- **Description**
  Type a description for the package.
- **Release**
  Type the release number of the software.

In the Moneydance example, as shown in Figure 5.11 on page 141, we named the package **Moneydance_3** and gave it a description and release number: Moneydance, and 3.0, respectively.

Click **Next** to go to the **System Configuration** window.

Step 4: Setting the Required System Configuration

Use the **System Configuration** window to limit the distribution of the package to computers that meet specific requirements. Distribution is based on the computer's operating system. If none of the options is selected, the package will be available to all eligible subscribers.

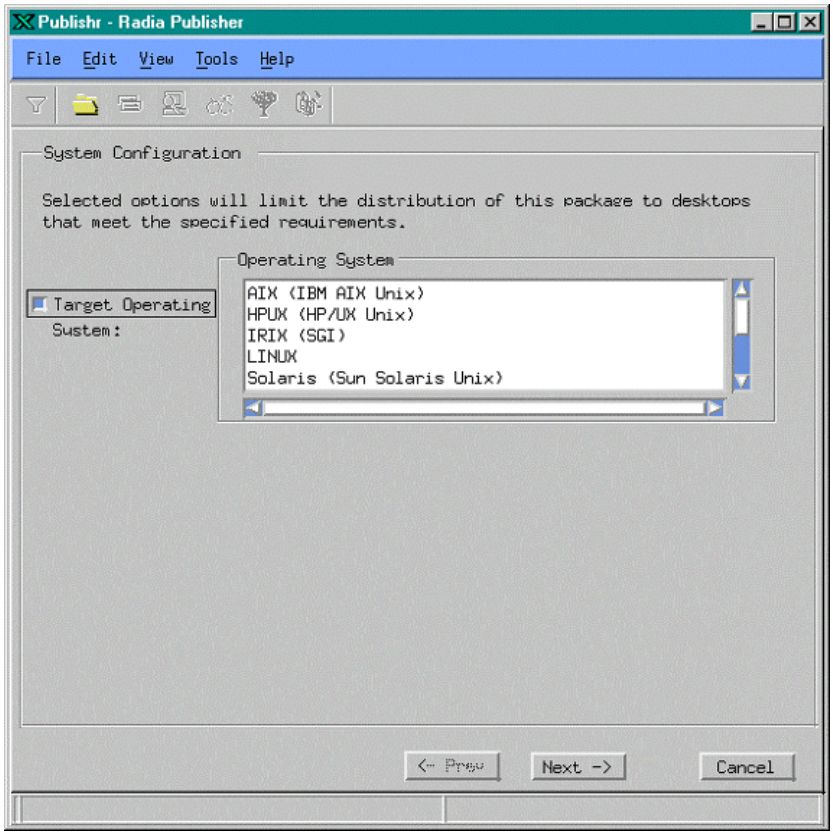

Figure 5.12 ~ System Configuration window (Component Selection Mode).

- **Target Operating System**
  Select this check box to make the **Operating System** options available. Then, select the operating systems for which this package applies.
  - To select multiple, consecutive operating systems, hold down the SHIFT key on your keyboard and click the appropriate items.
  - To select multiple, non-consecutive operating systems, hold down the CTRL key on your keyboard and click the appropriate items.

In the Moneydance example, we set the target operating system to Solaris. Click **Next** to go to the **Availability** window.

Step 5: Setting Date and Time Constraints

Use the **Availability** window to specify the date and time when the package will be available for deployment. The date and time are based on the system clock of the computer running the Radia Configuration Server. If no date and time constraints are specified, the package is available as soon as it is promoted to the Radia Database and configured for distribution. After promoting this package to the Radia Database, you can still modify these settings using the Radia System Explorer.

> **Note**
>
> The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

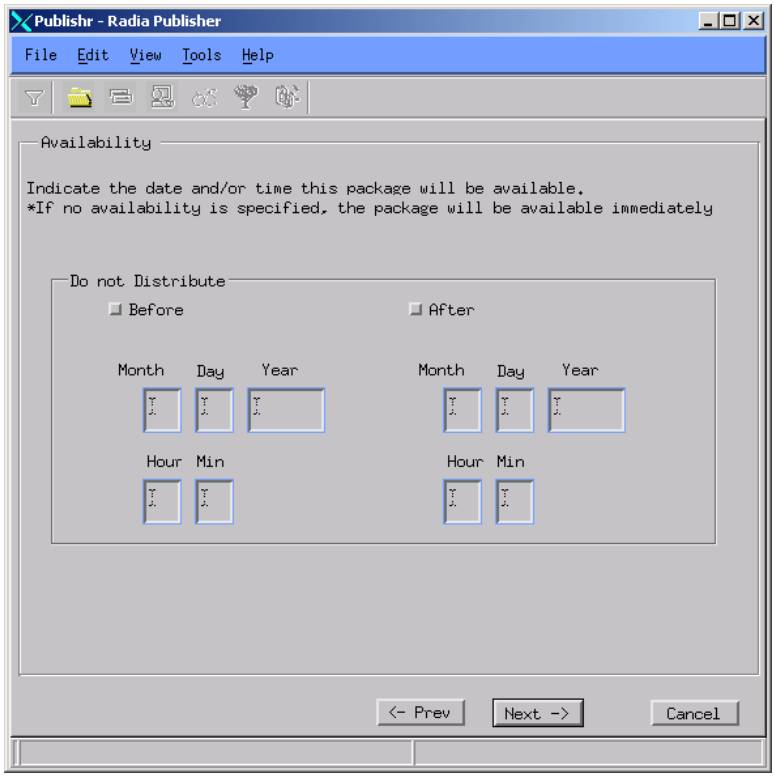

Figure 5.13 ~ Availability window (Component Selection Mode).

- **Before**
  Select this check box to prevent distribution of the package *before* the specified date and time. Use the **Month**, **Day**, **Year**, **Hour,** and **Min** fields to specify the date and time.
- **After**
  Select this check box to prevent distribution of the package *after* the specified date and time. Use the **Month**, **Day**, **Year**, **Hour,** and **Min** fields to specify the date and time.

In the Moneydance example, as shown in Figure 5.13 on page 145, we accepted the default settings so that the package will be available for distribution as soon as we promote it to the Radia Database.

Click **Next** to go to the **Select Files to Be Published** window.

Step 6: Selecting the Files to Publish

Use the **Select Files to Publish** window to select all files that need to be included in the package.

To select the files to publish

- Navigate through your file system (shown in the tree view in Figure 5.14 below) and select the files or directories to be included in the package. Click a check box again to clear a selection.

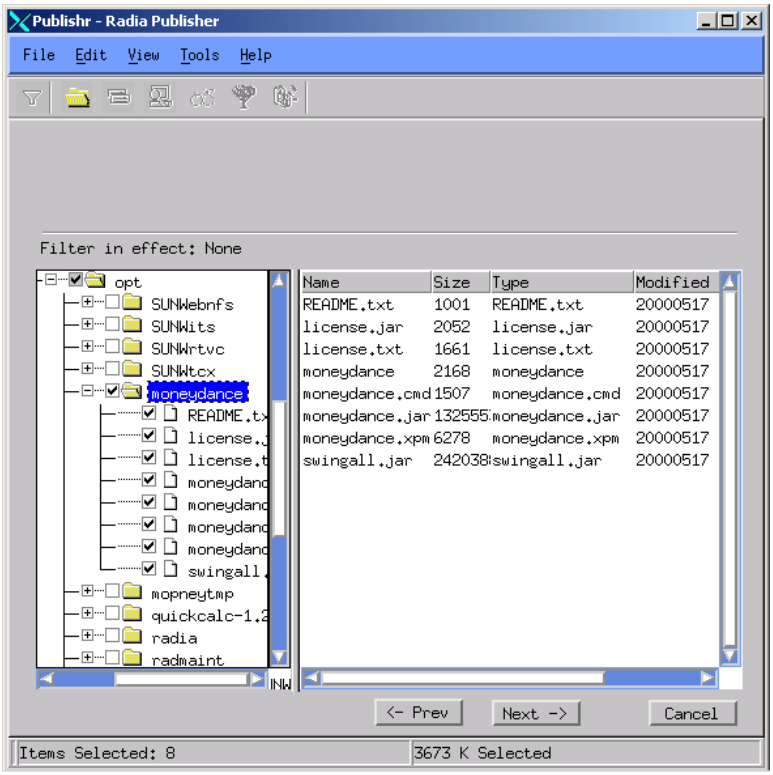

Figure 5.14 ~ Select Files to Publish window (Component Selection Mode).

In the Moneydance example, we selected the directory **/opt/moneydance** that contains the program files, as shown in Figure 5.14 above.

The file selection window displays the files available in order by:

- An alphabetized listing of directories.

- Then, an alphabetized listing of files.
- An alphabetized listing of UNIX links.

Re-size the file selection window by positioning your mouse over the vertical bar separating the two windows, clicking and dragging to the left or right.

Click **Next** to go to the **Set Properties and Locations** window.

Step 7: Viewing File Properties and Locations

Use the **Files** tab on the **Set Properties and Locations** window to see the selected files and directories in the package.

To view the selected files and directories

1. Right-click **Selected Files** and select **Expand All**. Check marks indicate that the properties for the file have been specified and the Radia Publisher is ready to promote them.
2. Select a file in the tree view to see its properties in the list view.

   Some of the properties in Figure 5.15 below, such as Verify, Priority, and Mandatory/Optional, are initially set according to the selections in the **Radia Publisher – Global Default Properties** dialog box, as described starting on page 121. In *Step 8: Setting Properties and Locations* on page 151, you will learn how to modify these settings, if necessary.

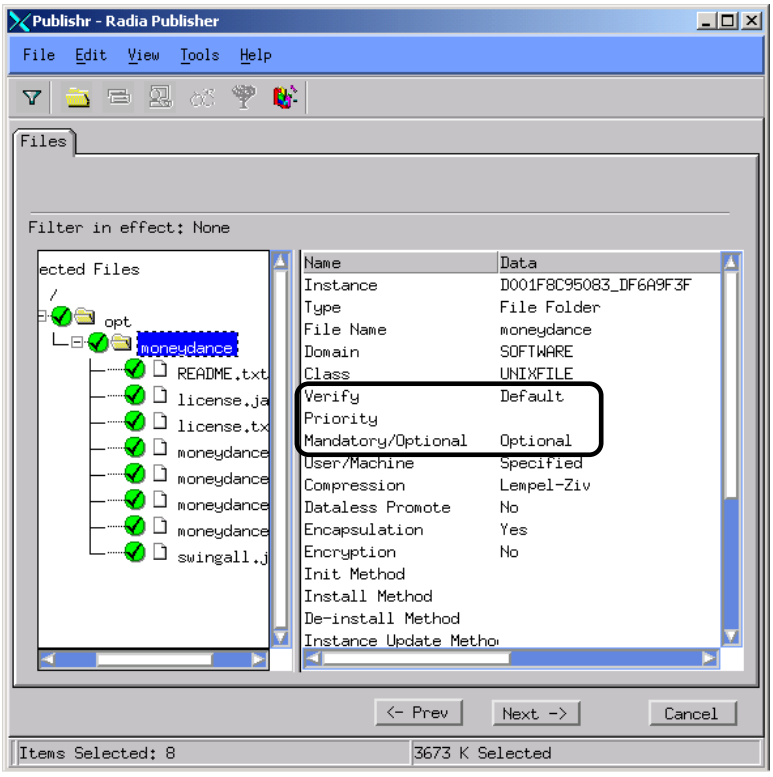

Figure 5.15 ~ View selected files window.

To filter the displayed files and directories

If the package contains many files, you can use filtering to limit the type of files that you want to see in the window.

1. Click the filter button  to filter the files in the tree view.
2. In the **Set Filter** dialog box, type the file type as a string. If the filter string is found anywhere in the file or directory name, it is considered a match.
3. Click **OK**.

To remove a filter

1. Click the filter button  to open the **Set Filter** dialog box.
2. Click **Clear**.
3. Click **OK**.

Click **Next** to continue.

In the Moneydance example, we expanded the selected files to confirm that the necessary components are selected. No filters have been applied.

Step 8: Setting Properties and Locations

Use the **Instance Properties** dialog box to modify the properties of the files and directories in the package. A file's properties are stored in its instance in the Radia Database.

Use the **Radia Publisher – Global Default Properties** dialog box to set the default values of these properties. For more information see *Setting Default Properties* on page 121.

To access the Instance Properties dialog box

1. Right-click the file or directory whose attributes you want to set.
2. From the shortcut menu, select **Set Properties**. If you selected a directory, you must also choose to select **Directory Only** or **Directory and Files**. The **Instance Properties** dialog box opens. It has four tabs: Client Management, Data Options, Database Information, and Client Behaviors.

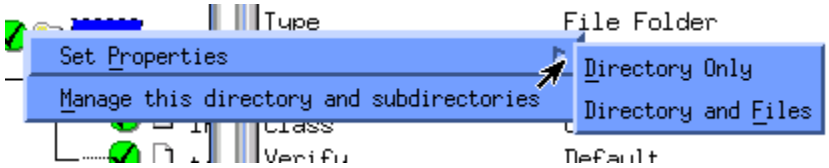

Figure 5.16 ~ Set Properties menu.

Client Management Tab

Use the **Client Management** tab to set verification and delivery options for the selected files or directories in the package. After promoting this package to the Radia Database, you can still modify these settings using the Radia System Explorer.

Note

The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

- Use the **verification options** to specify the actions that the Radia Software Manager will take for this file or directory.
- Use the **delivery options** to specify delivery options, such as the order in which files are deployed.

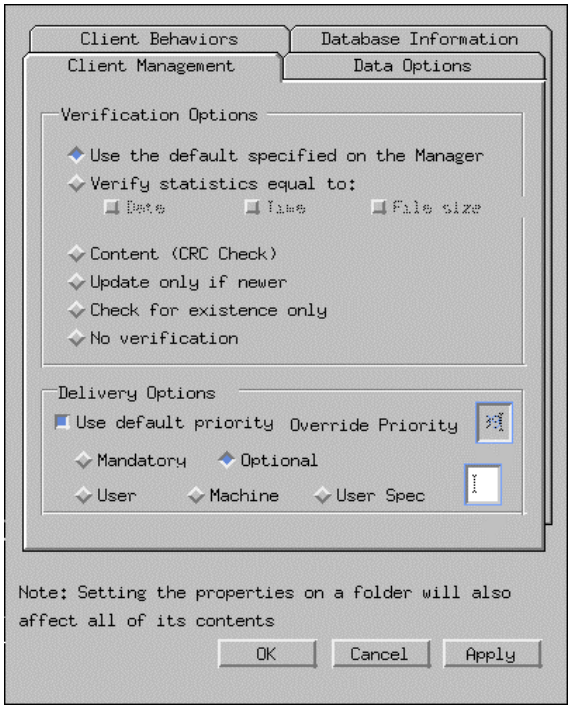

Figure 5.17 ~ Instance Properties dialog box, Client Management tab.

VERIFICATION OPTIONS

- **Use the default specified on the Manager** (default)
  Select this option so that verification options for these files or directories are inherited from the base instance of the UNIXFILE class.

  Use the Radia System Explorer to look at the ZRSCVRFY attribute of the base instance of the UNIXFILE class to determine what verification options apply, by default. For example, in Figure 5.18 on page 153, ZRSCVRFY=Y.

> **Note**
>
> The following figure and bullet points refer to the Radia System Explorer. The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

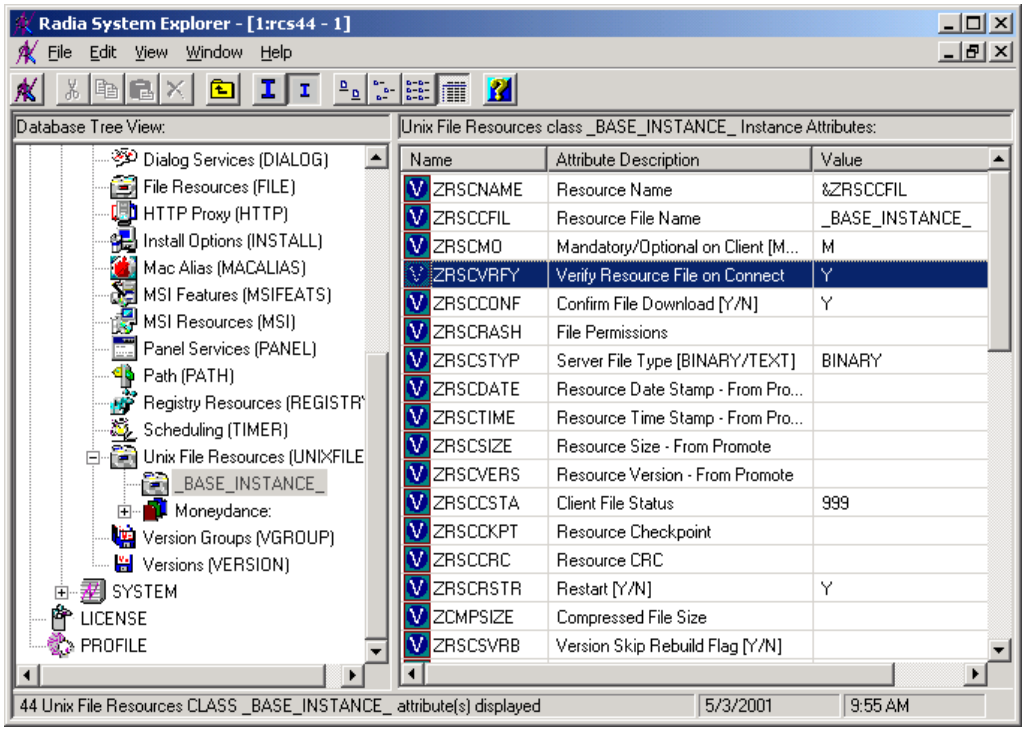

Figure 5.18 ~ ZRSCVRFY attribute.

- **Verify statistics equal to**
  Select this option so that the Radia Client checks the selected statistics (Date, Time, or File Size) for the files or directories on the computer. The files or directories are deployed from the Radia Database or Radia Staging Server if the statistics of the files or directories on the computer are different from the statistics for these files or directories. You can also use Radia System Explorer to set this option: ZRSCVRFY=D, ZRSCVRFY=S, ZRSCVRFY=T, or ZRSCVRFY=Y.
- **Content (CRC Check)**
  Select this option to perform content CRC checking for the resource. This populates the ZRSCCRC attribute of the resource's UNIXFILE class. ZRSCVRFY is set to Y.

Note

Use of Content CRC checking is a time consuming process and should be used sparingly.

- **Update only if newer**
  Select this option so that these files or directories are deployed if the files or directories in the Radia Database (or Radia Staging Server) have a later date/time stamp than those on the subscriber's computer. You can also use the Radia System Explorer to set this option: ZRSCVRFY=U.
- **Check for existence only**
  Select this option so that these files or directories are deployed if they are not on the subscriber's computer. No action is taken if the files or directories already exist on the subscriber's computer, even if the statistics differ from those in the Radia Database. You can also use the Radia System Explorer to set this option: ZRSCVRFY=E.
- **No verification**
  Select this option so that the files are deployed the first time the application is deployed. No subsequent action is taken. You can also use the Radia System Explorer to set this option: ZRSCVRFY=N.

DELIVERY OPTIONS

- **Use default priority**
  Select this check box to use the default priority of **50**. Priority determines the order of deployment, from highest priority to lowest priority. You can also use the Radia System Explorer to set this option: ZRSCPRI=50.
- **Override Priority**
  Type a number from **1** to **99** to override the default priority of **50**. **1** is the highest priority and **99** is the lowest. You can also use the Radia System Explorer to set this option: ZRSCPRI=1.

The following options apply *only* if there is not enough space on the subscriber's computer to install the entire application.

- **Mandatory**
  Select this option to indicate that these files or directories are critical to the application. If there is not enough space on the subscriber's computer for the entire application, Radia will deploy *only* mandatory files. If there is not enough space for the mandatory files, then the application is not deployed at all. You can also use the Radia System Explorer to set this option: ZRSCMO=M.
- **Optional** (default)
  Select this option to indicate that files or directories are not critical to the application. If there is not enough space on the subscriber's computer for the entire application, Radia will *not* deploy optional files. You can also use the Radia System Explorer to set this option: ZRSCMO=O.

The following options apply only to operating systems supporting multiple users with a required sign on, such as Windows NT 4.0 or 2000.

- **User**
  Select **User** if you want to indicate that the file will be deployed only to the subscriber logged on when the application is initially deployed. You can also use the Radia System Explorer to set this option: ZCONTEXT=U.

- **Machine**
  Select **Machine** to indicate that the file will be deployed to all users of the computer. You can also use the Radia System Explorer to set this option: ZCONTEXT=M.
- **User Spec**
  This option is reserved for future use.

In the Moneydance example, we accepted the default verification and delivery settings.

Data Options Tab

Use the **Data Options** tab to specify data compression and other details about the files or directories that you will be distributing.

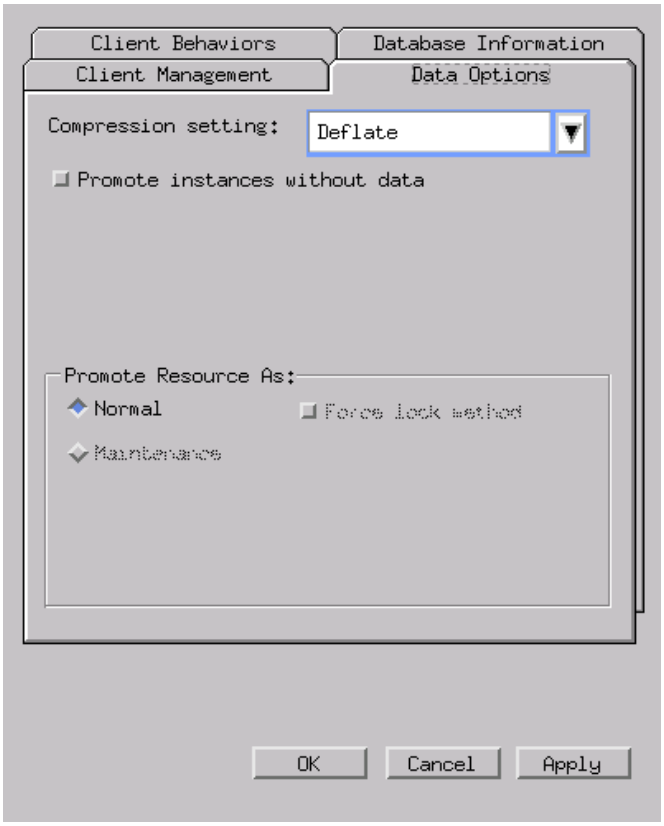

Figure 5.19 ~ Instance Properties dialog box, Data Options tab.

- **Compression setting**
  If necessary, select the compression setting for storing these files or directories in the Radia Database. Compression minimizes the time required to transmit it and the amount of disk space required to store it.
  - Select **Deflate** for the most efficient compression, which produces smaller compressed images. This is the default setting.
  - Select **None** if the files or directories are already compressed. If you are packaging an application that contains one or more compressed files, do *not* have the Radia Publisher compress the file as well. The file may actually grow in size if it is compressed again.

- **Promote instances without data**
  Select this check box to indicate that these files or directories should not be transferred to the Radia Database as part of the package. Only the instance representing the file is included in the package. The data remain in compressed form in the IDMDATA location on your computer. See the *Installing the Radia Software Manager* chapter in this book for more information. You can manually place files on a Radia Staging Server if you have connectivity to it and do not want a copy of the file in the Radia Database.

PROMOTE RESOURCE AS

- **Normal**
  Select this option to indicate that these files or directories are to be deployed as part of an application.
- **Maintenance**
  Select this option to indicate that these files or directories are a maintenance component for the Radia Software Manager software.
- **Force lock method**
  Select this check box to force the use of the *locked file method* for deploying these files or directories. If the files or directories are in use on the client computer when Radia attempts to deploy new copies of the files or directories, the locked file method is normally used to deploy the files or directories. If necessary, these files or directories are decompressed and stored locally in a directory. The Client Connect process forces a restart when it ends and the files or directories are deployed to their correct location during the startup.

Client Behaviors Tab

Use the **Client Behaviors** tab to specify methods (or programs) that Radia executes on the subscriber's computer.

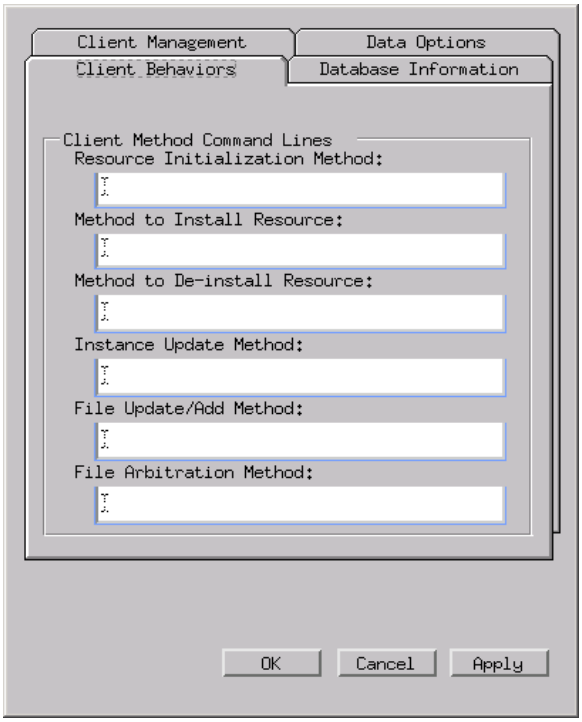

Figure 5.20 ~ Instance Properties dialog box, Client Behaviors tab.

The command lines that you type in this dialog box are stored in variables in the UNIXFILE class instances in the SOFTWARE domain.

CLIENT METHOD COMMAND LINES

- **Resource Initialization Method** (Variable in database: ZINIT)
  Type the method to run when the files or directories are stored on the subscriber's computer.
- **Method to Install Resource** (Variable in database: ZCREATE)
  Type the method to run after the file is stored on the computer. This is used if some processing is required to enable the file to be used on the computer.
- **Method to De-install Resource** (Variable in database: ZDELETE)
  Normally, files are removed if the subscription to the software is cancelled. If a file, such as a shared object file, should not be deleted from the subscriber's computer, even if the

subscription to the software is cancelled, type **_NONE_** (with the underscores) as the value for **Method to De-install Resource**.

- **Instance Update Method** (Variable in database: ZUPDATE)
  Type the method to run when the instance is modified on the computer, after the file has been deployed.
- **File Update/Add Method** (Variable in database: ZFILEUPD)
  Type the method to run when the file is new or has been updated. The method executes just before the file is deployed to the computer.
- **File Arbitration Method** (Variable in database: ARBITRAT)
  Type the method to run if files or directories are about to be replaced. This method examines the version information of the files or directories that exist and the files or directories that are going to replace it, and then determines which to keep.

In the Moneydance example, we did not specify any methods.

Database Information Tab

Use the **Database Information** tab to specify where the instance for the selected files or directories will be stored in the Radia Database.

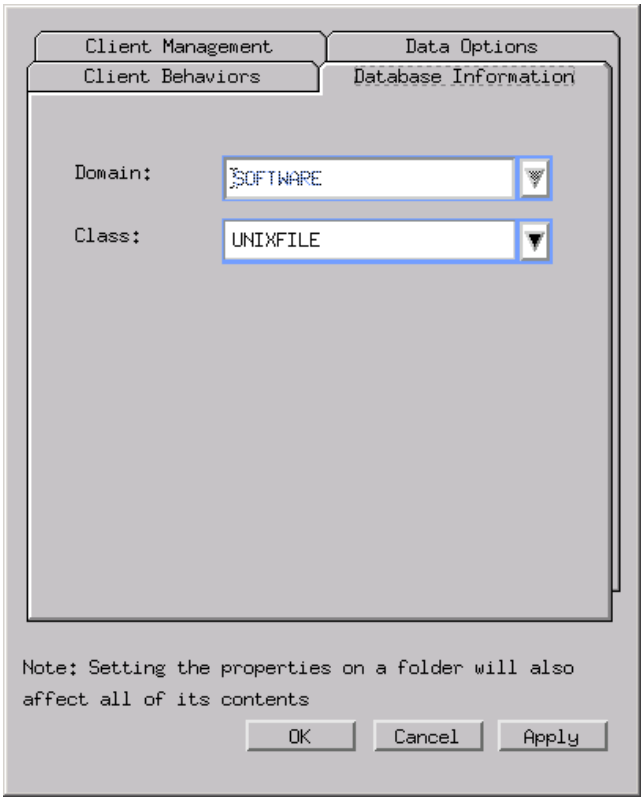

Figure 5.21 ~ Instance Properties dialog box, Database Information tab.

- **Domain**
  Select the domain to store the instance in. This is normally the SOFTWARE domain unless you customized the Radia Database with proprietary domains. As shipped, the default domains are ADMIN, AUDIT, NOVADIGM, PATCH, POLICY, SOFTWARE, and SYSTEM. See the *Introduction* chapter in this book for more information about the domains.
- **Class**
  Select the component class to store the instances for these files or directories in.

In the Moneydance example, we accepted the default settings for the domain and class.

Click **OK** to return to the **Set Properties and Locations** window.

Step 9: Directory Management

From the shortcut menu in Figure 5.22 below, select **Manage this directory and subdirectories** to control the level of directory management desired.

To establish management of specific directories

1. Expand the directory tree until the directory from where you would like to begin management is shown.
2. Right-click this directory and select **Manage this directory and subdirectories**. The directory and files will become highlighted, indicating Radia will now manage each directory and file beneath this directory.

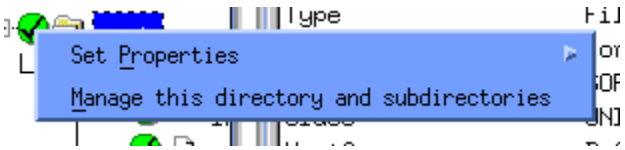

Figure 5.22 ~ Manage directory and subdirectories.

If you selected a directory you would not like managed, right-click the managed directory and select **UnManage this directory and subdirectories** from the shortcut menu.

The default behavior is UnManage directories and subdirectories.

Note

You will not be able to turn this selection on for the root directory (the / directory).

If you decide to leave this option turned off, you will be prompted to confirm your decision not to explicitly manage any directories within the current package as seen in Figure 5.23 on page 162.

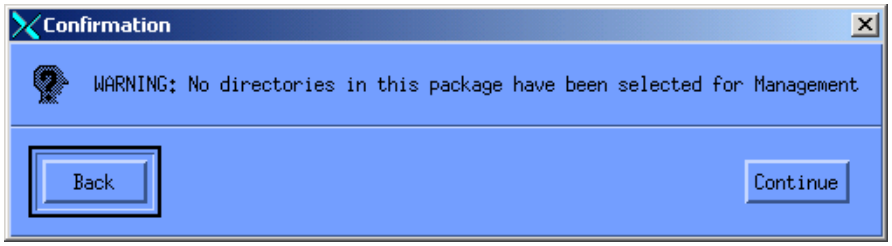

Figure 5.23 ~ Confirm no management of directories.

At this dialog box, you may click **Back** to choose directories for explicit management, or click **Continue** to proceed with the publishing of the package.

Step 10: Promoting Packages

Use the **Promote Files** window to create instances for the package in the Radia Database.

To view the files to be promoted

- Right-click **Files to be Promoted,** and select **Expand All**.

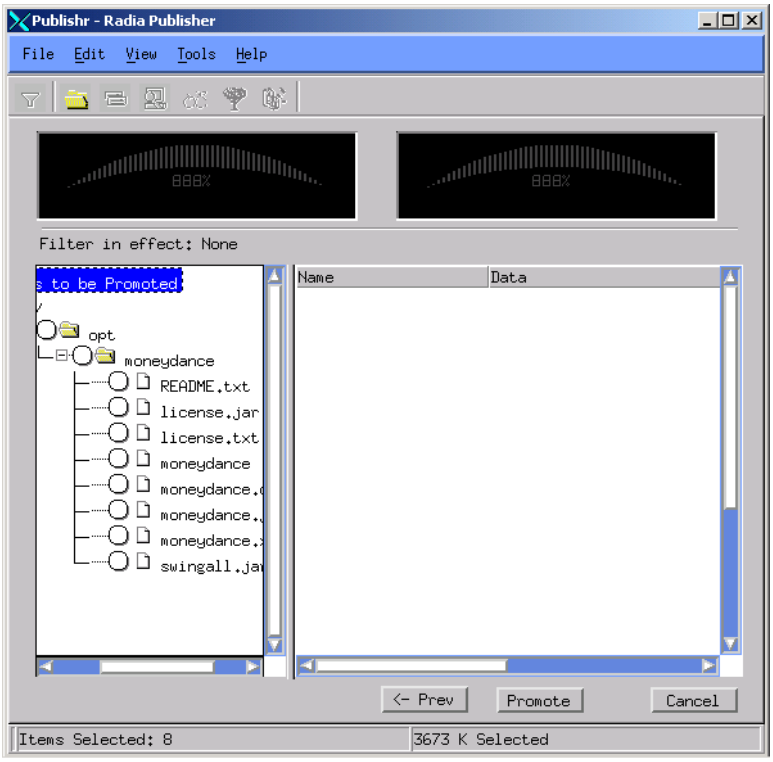

Figure 5.24 ~ Promote Files window (Component Selection Mode).

Note

If you need to change or modify your selections, click **Prev** until you reach the appropriate window. When you are satisfied with the package, click **Next** until you arrive back at this window.

You can also use the buttons in the toolbar to return to a previous screen.

To promote the package

1. Click **Promote**.
2. Click **OK** when you receive the message that the package has been promoted successfully.
3. Click **Finish** to close Radia Publisher.
4. Click **Yes** to confirm that you want to close the Radia Publisher.
5. In this example, Moneydance was promoted to the Radia Database. Next, use the Radia System Explorer to create a service. For more information, see *Creating a Service* on page on page 166.

Note

The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

Radia Publishing Adapter

The Radia Publishing Adapter (RPA) is a command-line alternative to using Component Selection Mode, which offers an automated, repeatable command-line process to create Radia packages and store them in the Radia Database for distribution.

The Radia Publishing Adapter can:

- Search for files on multiple drives/file systems.
- Search for, and publish files, from any mapped file/drive system.
- Be configured to limit the subdirectories that are searched.
- Include or exclude at the file level.
- Select files by type.

The Radia Publishing Adapter can also accommodate frequent patching of internal applications. Its capacity to revise content material is reliable, and can be designed to perform continuously, at designated times, and in predetermined intervals. RPA can be easily executed from within any script or code capable of calling a command prompt.

Radia Native Packaging

Radia Native Packaging, is a feature of the Radia Publishing Adapter specifically designed for UNIX environments. Radia Native Packaging is a command-line driven content-publishing tool supporting native HP-UX and Solaris software. Radia Native Packaging is installed during the regular installation of the Radia Publishing Adapter on a UNIX system.

Radia Native Packaging explores UNIX native software depots, searches for available native packages and publishes wrapped native packages to the Radia Configuration Server. Radia Native Packaging will publish all necessary information that will allow you immediate installation of native software to end clients. When the Radia Software Manager client is installed, a Tcl script is included in the IDMSYS directory that is required when packages published using Radia Native Packaging are deployed. For more information, see the *Radia Publishing Adapter Guide*.

Note

The Radia Publishing Adapter is an optional feature available from HP. Please contact your sales representative for more details.

Creating a Service

Once you have created a package with the Radia Publisher, use the New Application Wizard in the Radia System Explorer to create a service. A *service* is the fundamental unit of content managed by Radia. Use the Radia System Explorer to see services listed in the Application (ZSERVICE) class.

In this example, you will create a service using the Moneydance package that you created in Component Selection Mode, beginning on page 137.

Using the New Application Wizard to Create a Service

> **Note**
>
> The following instructions use the Radia System Explorer. The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

Step 1: Accessing the Radia System Explorer

1. Go to **Start**, **Programs**, **Radia Administrator Workstation**, and select **Radia System Explorer**.
2. In the **Radia System Explorer Security Information** dialog box, type your **User ID** and **Password** in the appropriate fields.

> **Note**
>
> The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed during installation. You can also change this by selecting the **Change Password** check box and typing the new password in the **New Password** and **Verify New Password** fields.

3. Click **OK**.

Step 2: Navigating to the PACKAGE class of the SOFTWARE domain

1. Double-click **PRIMARY**. The domains of the PRIMARY file appear beneath its icon in the tree view and in the list view.
2. Double-click **SOFTWARE**. The classes of the **SOFTWARE** domain appear beneath its icon in the tree view and in the list view.
3. Double-click **Application Packages (PACKAGE)** to open the **PACKAGE** class. The instances of the PACKAGE class appear beneath its icon in the tree view and in the list view.

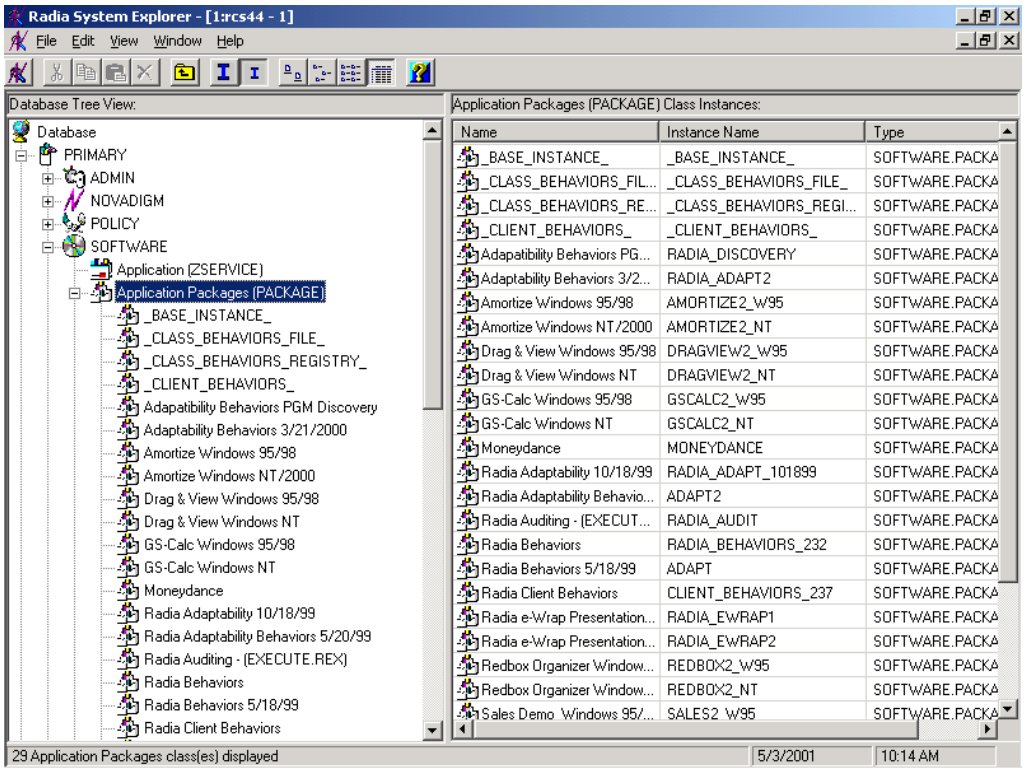

Figure 5.25 ~ Application Packages (PACKAGE) class.

Step 3: Using the New Application Wizard to Create a Service

1. In the **PACKAGE** class of the **SOFTWARE** domain, right-click the **Moneydance** instance. A shortcut menu opens.

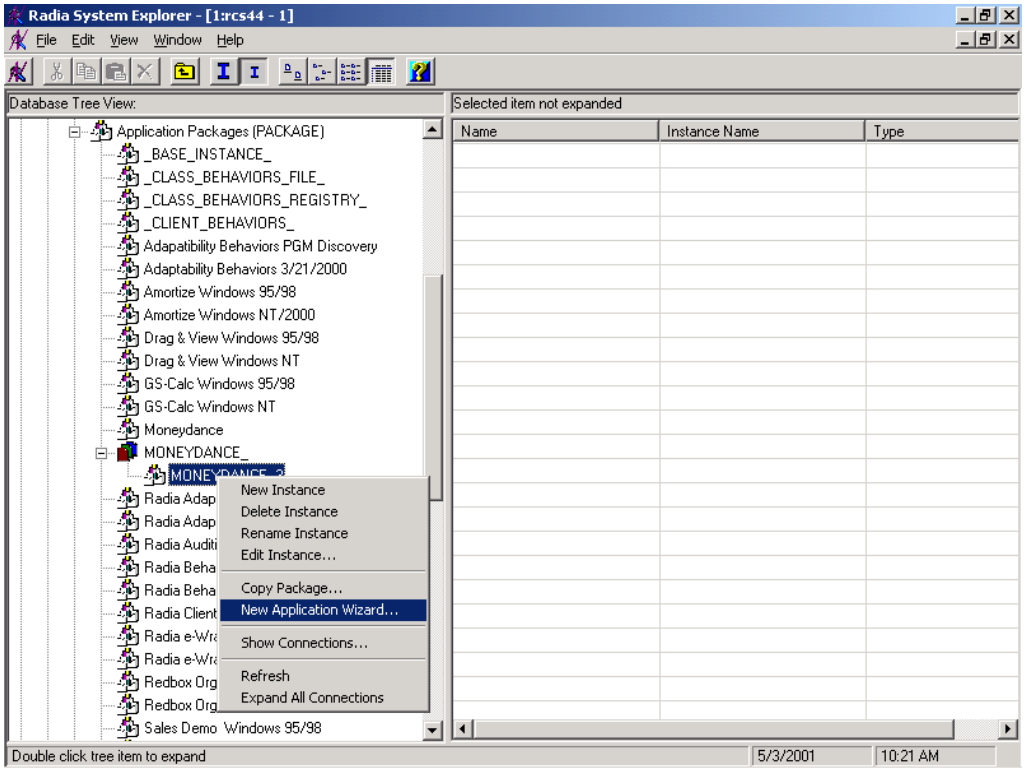

Figure 5.26 ~ Selecting New Application Wizard.

2. Click **New Application Wizard**.

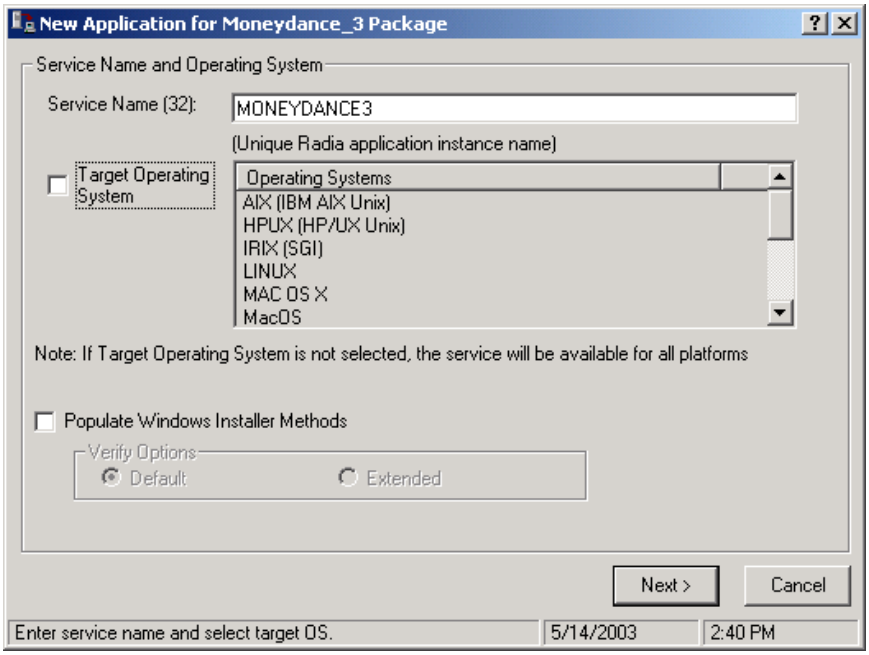

Figure 5.27 ~ Enter service name and select target OS dialog box.

3. In the **Service Name (32)** text box, type a name, such as **MONEYDANCE3**, for the Application (ZSERVICE) instance.
4. Select the **Target Operating System** check box only if your intended target operating system appears in the list, and the specific operating system for which the package applies is selected.
5. If you are creating a service for a Windows Installer-enabled application, you must select the **Populate Windows Installer Methods** check box. Do not select this check box for this exercise. This option is not applicable to UNIX-specific packages.
6. Click **Next** to select the application target type.

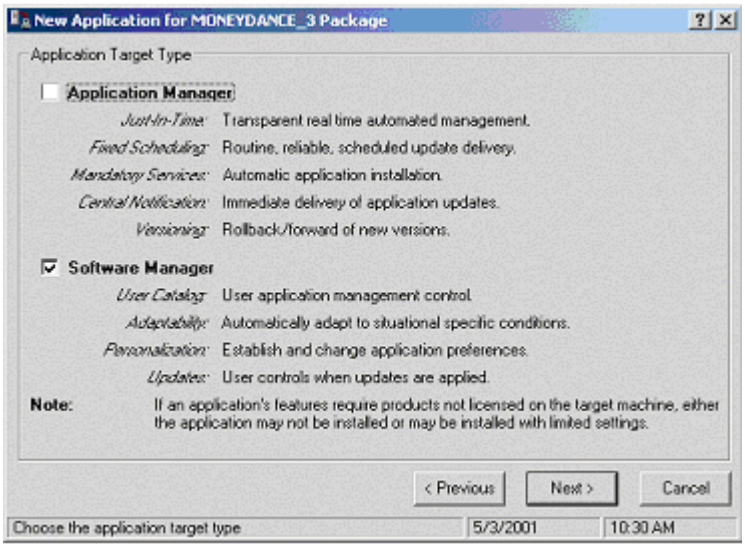

Figure 5.28 ~ Application Target Type dialog box.

7. Select the **Software Manager** check box. This designates the service as a mandatory application for your subscribers.

> **Note**
>
> When using the Radia Application Manager, applications *must* be mandatory in order to deploy them to your subscribers.

8. Click **Next** to enter the application properties.

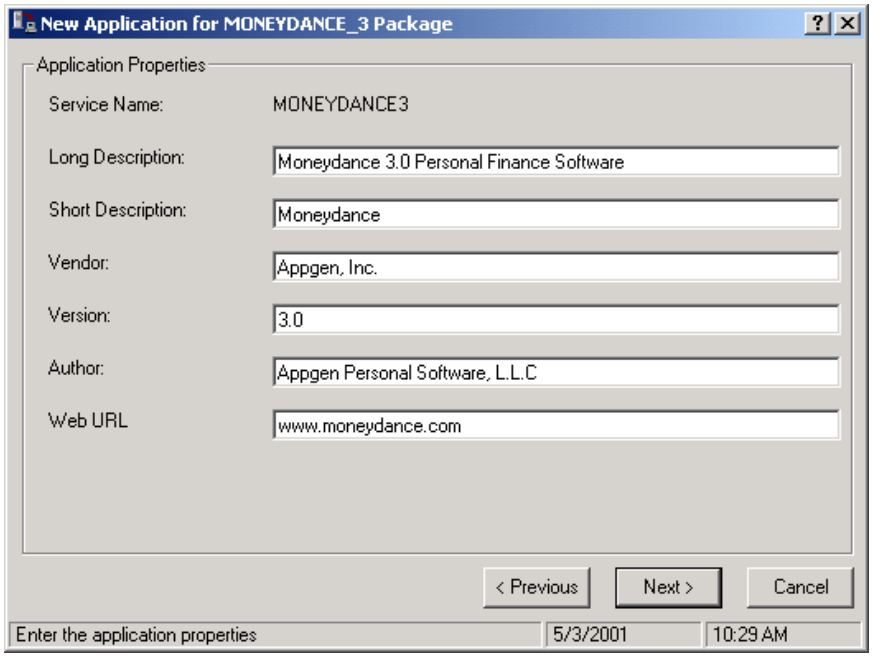

Figure 5.29 ~ Application Properties dialog box.

9. Type the appropriate information in the fields as shown in Figure 5.29 above.

10. Click **Next** to select the events that the Radia Software Manager will report on.

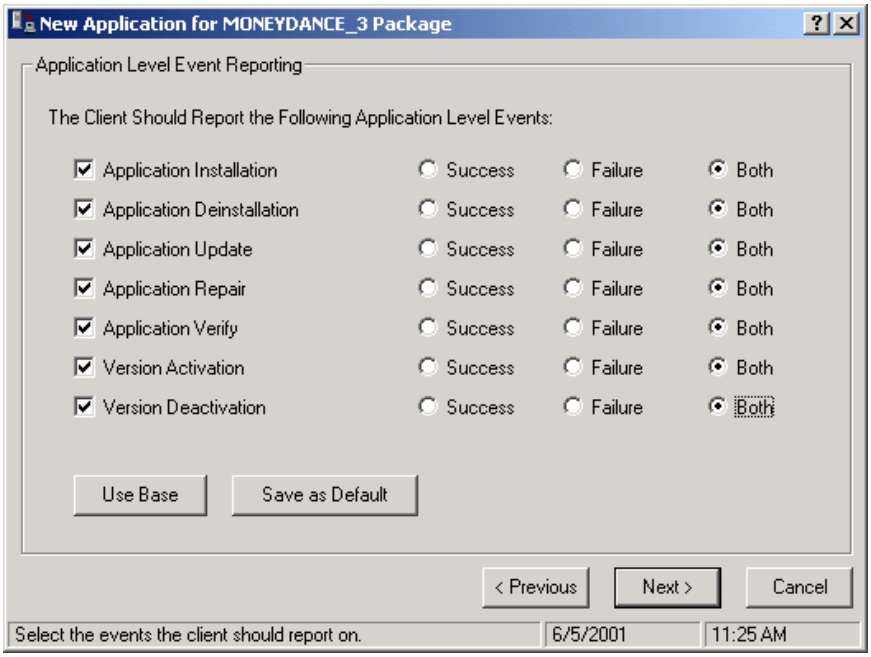

Figure 5.30 ~ Application Level Event Reporting dialog box.

11. Click the check box for each event that you want to report on. Then, select the appropriate option button to indicate whether to report on the event's success, failure, or both.

OR

Click **Use Base** if you want to inherit the values for the ERTYPE and EVENTS variables from the base instance of the Application (ZSERVICE) instance. These variables control event reporting.

For this example, we selected every Application Event to be reported in the event of a success or failure.

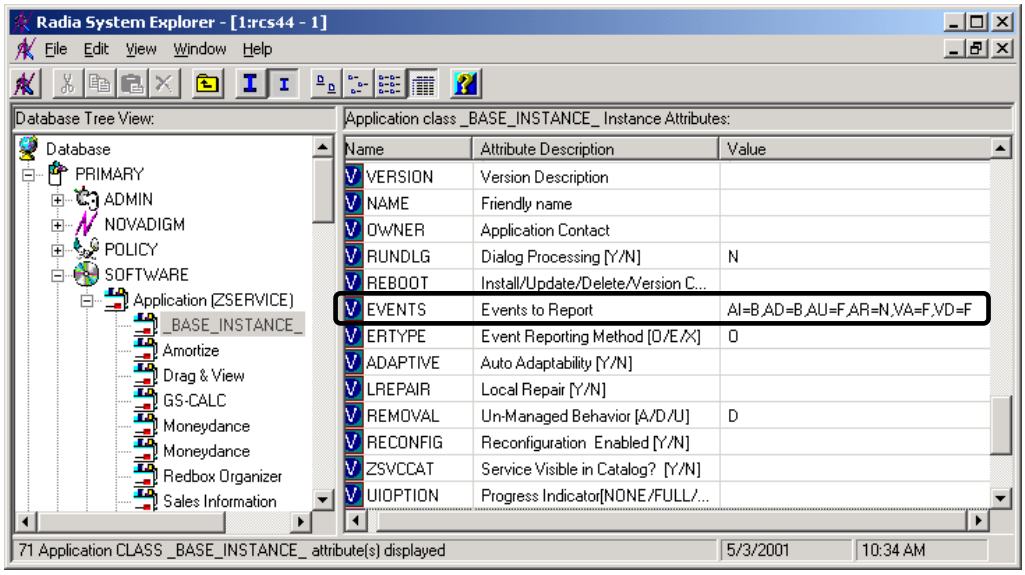

Figure 5.31 ~ Application (ZSERVICE) base instance.

For more information about these variables and the APPEVENT object, see the *Radia Client Objects* chapter in this book.

12. If you want to save the current settings as the default settings for the Application Event Panel, click **Save as Default**.

13. Click **Next** to review your selections.

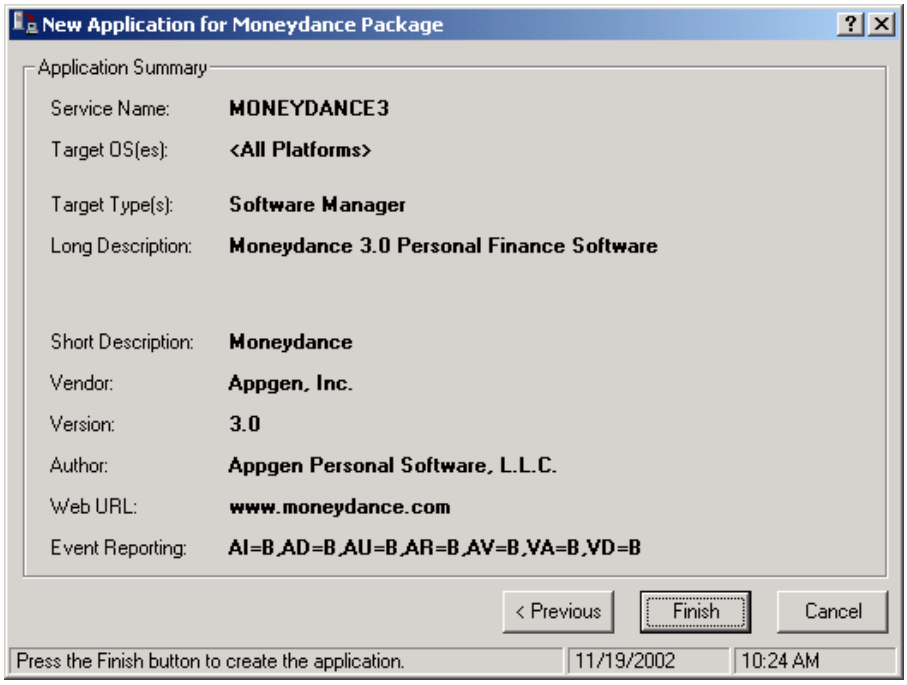

Figure 5.32 ~ Application Settings Summary.

14. Click **Finish** to create the application instance.

15. Click **OK** when you are prompted with a message indicating that the application has been added. The instance appears in the ZSERVICE class.

Note

If you want to modify any of the information that you entered in the New Application Wizard, locate the corresponding variable and change its value.

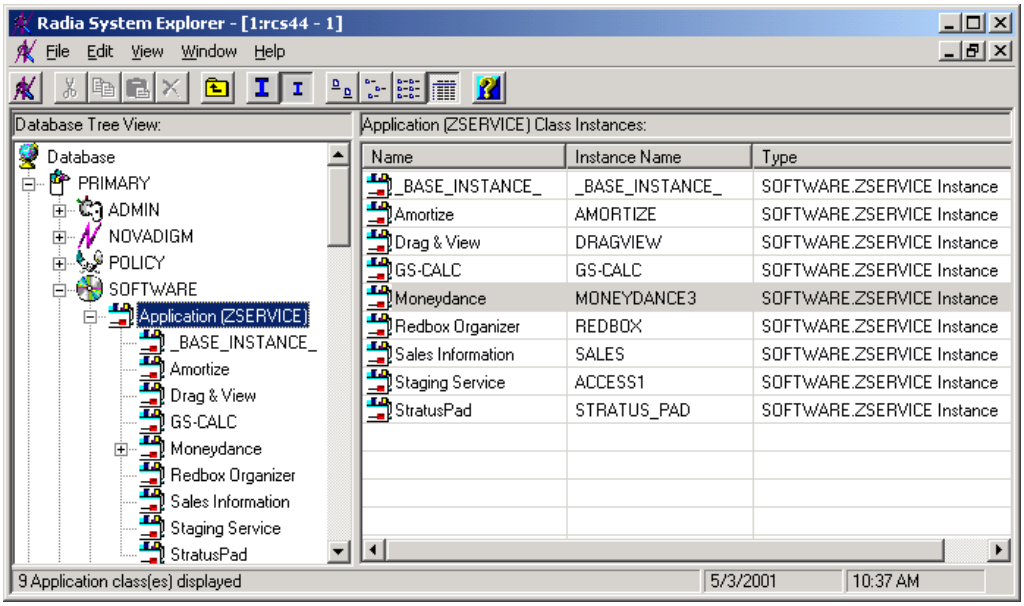

Figure 5.33 ~ New ZSERVICE instance.

Now, you are ready to set up policies identifying *which* subscriber receives *what* software. See the *Implementing Entitlement Policy* chapter starting on page 207 for more information.

Radia Service Groups

Radia manages products that require more than one service-package to establish full product installation or operation. You can use Radia Service Groups when a product requires other service packages or has dependencies on other services.

This includes MSI packaged products where:

- A product may utilize more than one MSI service-package.
- A large product may need to be split into smaller sub-services to install only specific parts of the product suite.

For detailed information on creating Radia Service Groups, refer to the *Radia System Explorer Guide*.

Radia Software Manager Self-Maintenance

Occasionally, HP provides updates to the Radia Software Manager client. You can use Radia to distribute these updates to your subscribers. This is called *self-maintenance* because you are using the Radia product to distribute updates to itself.

This section provides an overall description of the process used to maintain the Radia Software Manager, as well as a guided example.

Important Note

Self-maintenance does *not* manage objects (.EDM files) and does *not* replace anything in IDMLIB.

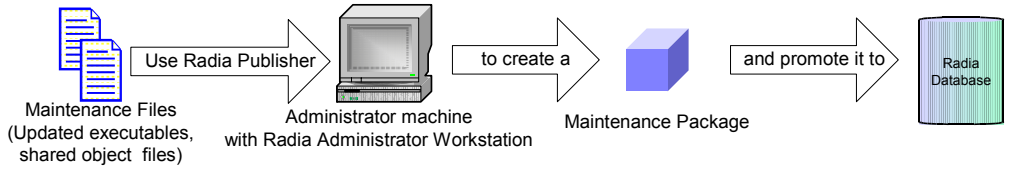

Figure 5.34 ~ Publishing maintenance files.

1. Use the Radia Publisher to package the updated files as maintenance files and promote them to the Radia Database.
2. Use the Radia System Explorer to connect the maintenance package to the **Client Self Maintenance** application instance, located in NOVADIGM.ZSERVICE.

Note

The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

See the *Implementing Entitlement Policy* chapter starting on page 207 and the *Deploying Mandatory Applications for the Radia Software Manager* chapter starting on page 283 for more information on making connections.

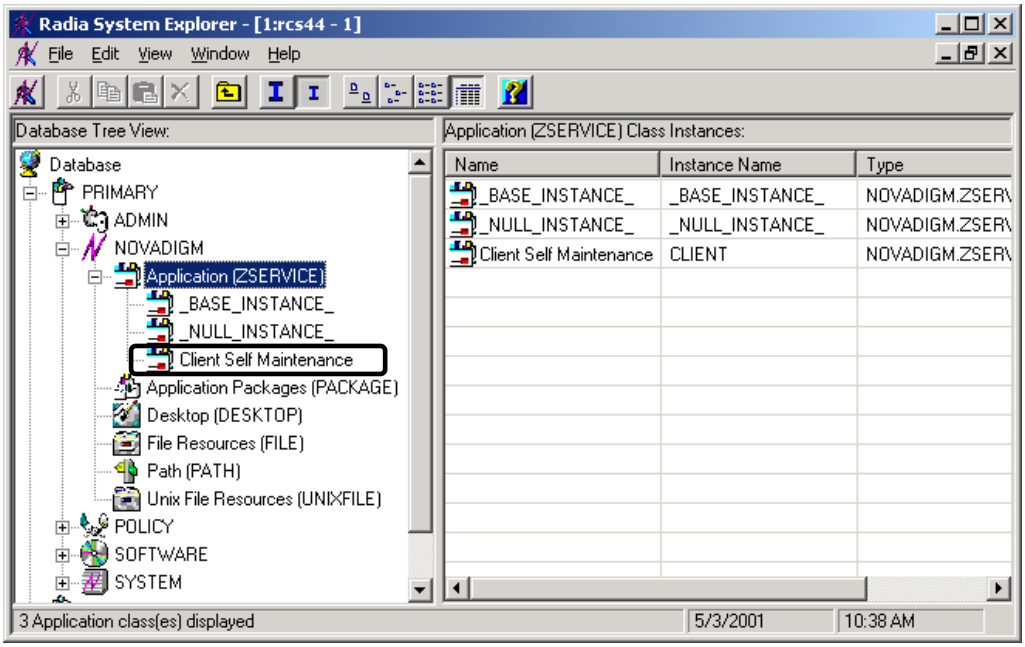

Figure 5.35 ~ Client Self Maintenance application instance.

3. Connect the Client Self Maintenance application instance to the appropriate POLICY class instance.

> **Note**
>
> If you are delivering the maintenance files to all of your subscribers, connect the Client Self Maintenance application instance to the _BASE_INSTANCE_ of the USERS class in the POLICY domain.

At the next Client Connect, the maintenance files are downloaded from the server into a subdirectory called NEW located under the installed Radia Client.

The maintenance files are copied into IDMSYS. If there are existing files that are older than these files, they are replaced.

Example of Client Self-Maintenance

The following example walks you through the steps above based on the scenario below.

Scenario

Imagine that you have 2500 Radia Software Manager clients and need to update the **radtimeq** and **radrexx** Radia executables. Use Radia Notify to push this update out to all 2500 Radia Software Manager clients immediately. The Radia Administrator Workstation is installed on your computer and you have a TCP/IP connection to the Radia Configuration Server.

Step 1: Publishing Maintenance Files

Use Radia Publisher to package the updated files as maintenance files and promote them to the Radia Database. The following procedures show you how to publish the maintenance files that you need to distribute, as specified in the scenario above.

For more information about Component Selection Mode, see *Using Component Selection Mode* beginning on page 137.

To prepare the maintenance files to be published

1. Create a new directory on your local drive. In this example, we named the new directory **/opt/radmaint**.

> **Important Note**
>
> To maintain the cyclic redundancy check (CRC) value for the directory, it *must* have the same path and directory name each time you prepare to deploy self-maintenance to the Radia Software Manager.

2. Copy the files intended for distribution to the client as self-maintenance into your new directory, **/opt/radmaint**.
3. In this example we copied the files **radtimeq** and **radrexx** into **/opt/radmaint**.

> **Note**
>
> When promoting resources for the purpose of self-maintenance, be sure the owner and group characteristics of the file match those of the installed Radia Client. If the client was installed as root and the primary group associated with root is **sys**, then the files published as maintenance should be owned by root with and belong to the 's' group.

To publish maintenance files using the Radia Publisher

This section walks you through the steps used to publish maintenance files. You will use Component Select Mode to prepare the files for distribution. There are some slight, yet important, differences between the way that you package your normal applications and the way that you package files for self-maintenance. These differences are discussed in this section. For a detailed description of all the fields that you will encounter in this exercise, see *Using Component Selection Mode* beginning on page 137.

1. Log in as root.
2. Change your current working directory to the location of the **publishr** executable, and type **./publishr**.
3. In the **Radia Publisher Security Information** dialog box, type your **User ID** and **Password** in the appropriate fields.

> **Note**
>
> The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed during installation. You can also change this by selecting the **Change Password** check box and typing the new password in the **New Password** and **Verify New Password** fields.

4. Click **OK**.
5. Complete the text boxes as shown in Figure 5.36 on page 181.
   - In the **Session Type** area, select **Component Selection Mode**.
   - In the **What to Open** area, leave **New Session** selected.
   - In the **Session ID** text box, type your session ID, such as **M00001**.
   - In the **Description** text box, type a description of the session, such as **Maintenance for Fix # 000001**.

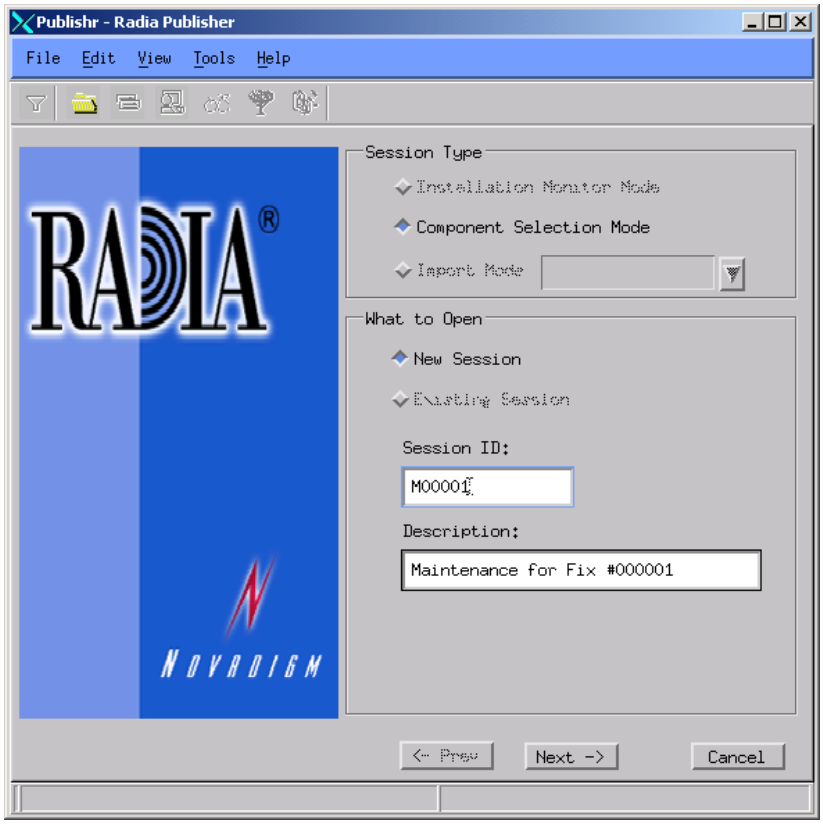

Figure 5.36 ~ Open Publishing Session window (Self Maintenance).

Click **Next** to continue.

6. Complete the text boxes as shown in Figure 5.37 on page 182.

- In the **Package Name** text box, type a name for the package, such as **Maint_00001**.
- In the **Domain** drop-down list, select **NOVADIGM**.

> **Caution**
>
> The **Domain** is normally set to **SOFTWARE**. However, the **NOVADIGM** domain stores self-maintenance packages for the Radia Software Manager.
>
> Therefore, when creating a self-maintenance package, be sure to change the domain to **NOVADIGM**.

- In the **Descript** text box, type a description of the session, such as **Maintenance for Fix # M000001**.
- In the **Release** text box, type a release number, such as **1.0**.

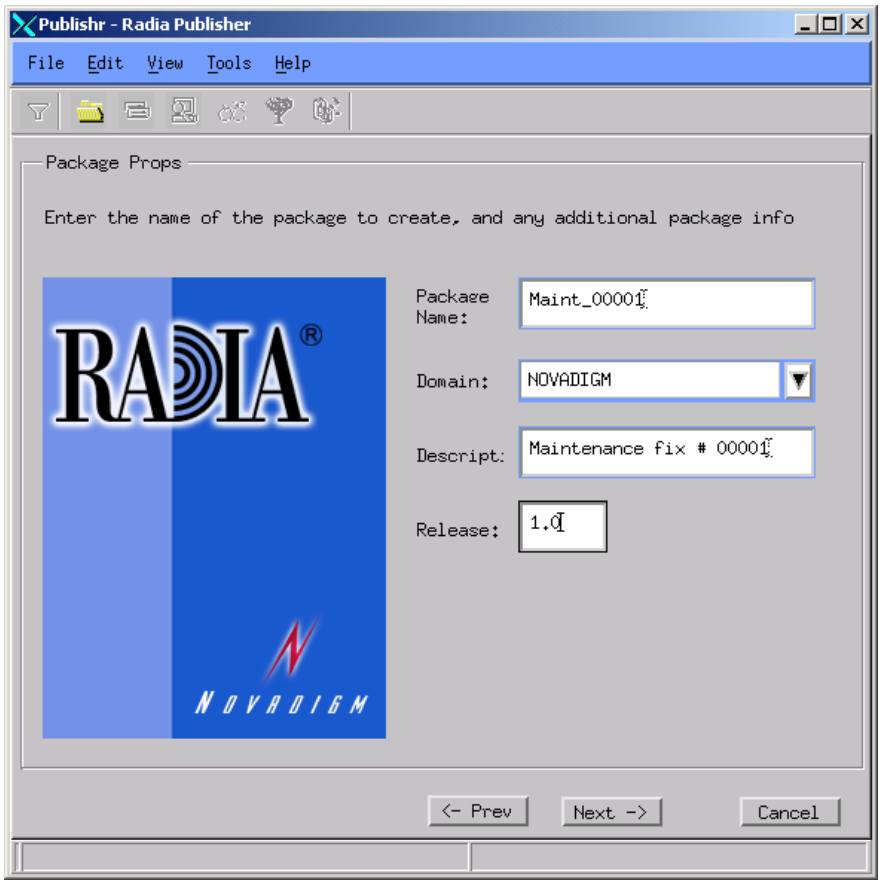

Figure 5.37 ~ Package Properties window (Self Maintenance).

Click **Next** to continue.

7. In the **System Configuration** window, be sure to select the specific operating systems to which the Radia self-maintenance applies.

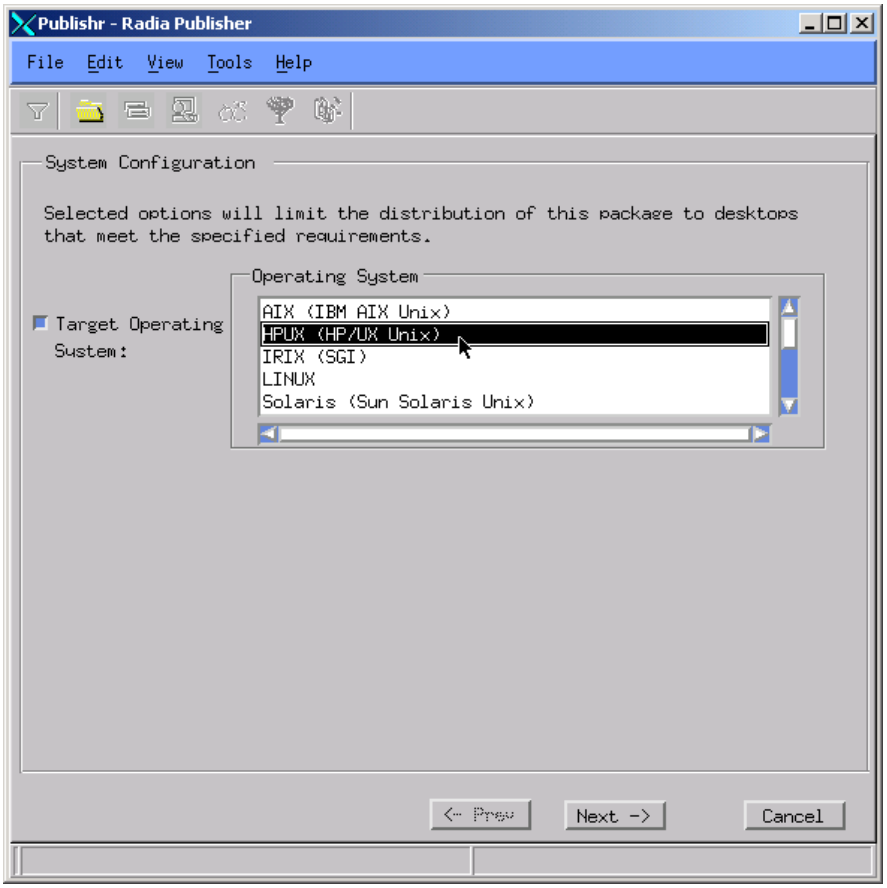

Figure 5.38 ~ System Configuration window (Self Maintenance).

Click **Next** to continue.

8. In the **Availability** window, accept the default settings.

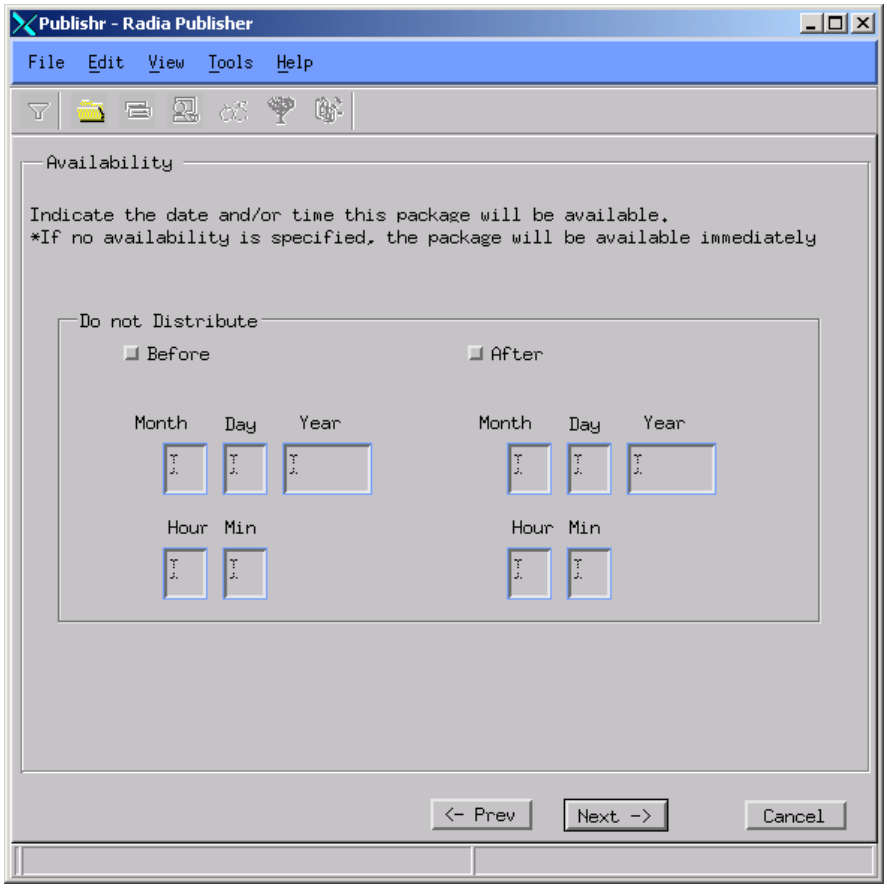

Figure 5.39 ~ Availability window (Self Maintenance).

Click **Next**.

9. In the **Select Files to be Published** window, navigate to the directory (/opt/radmaint) that you created and select its check box.

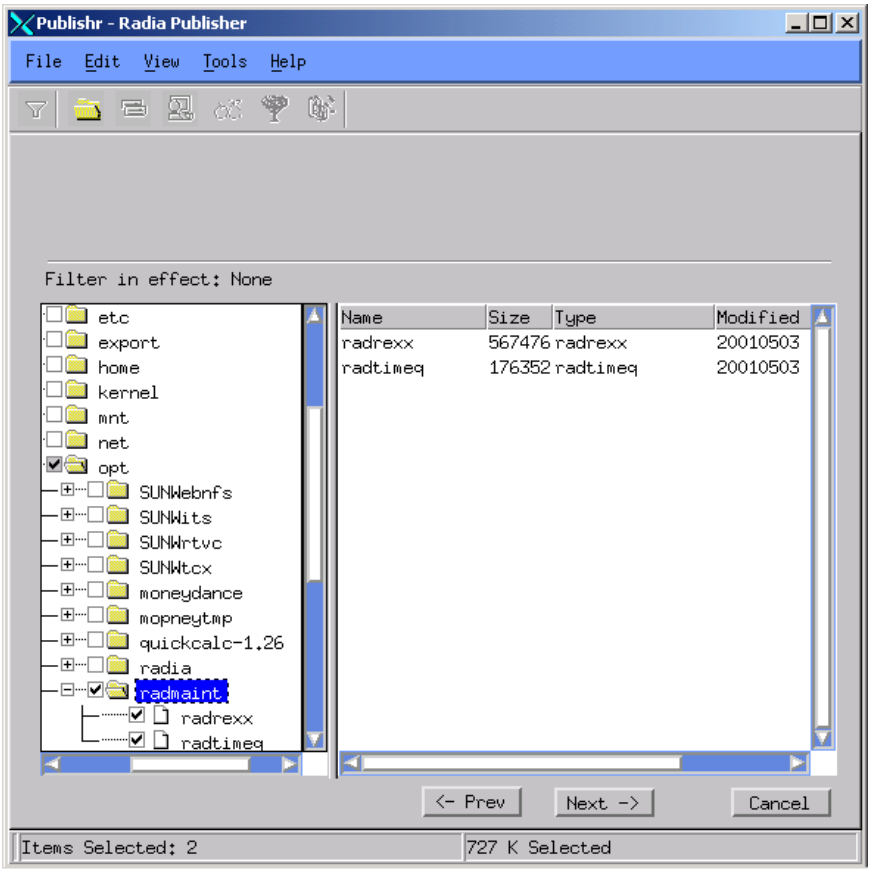

Figure 5.40 ~ Select files to be published window (Self Maintenance).

Then, click **Next**.

10. Right-click **Selected Files**, and then select **Expand All**.

11. Right-click the directory **radmaint**, and from the shortcut menu, select **Set Properties,** and then select **Directory and Files**.

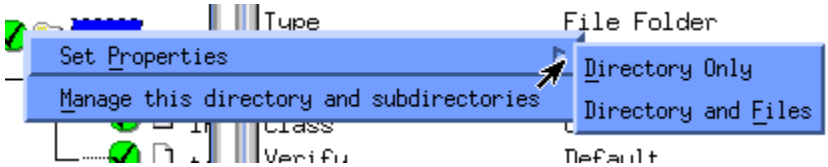

Figure 5.41 ~ Set properties for directory and files.

Note

Manage this directory and subdirectories must not be selected when publishing self-maintenance files. Only select the client files to be managed.

The **Instance Properties** dialog box opens.

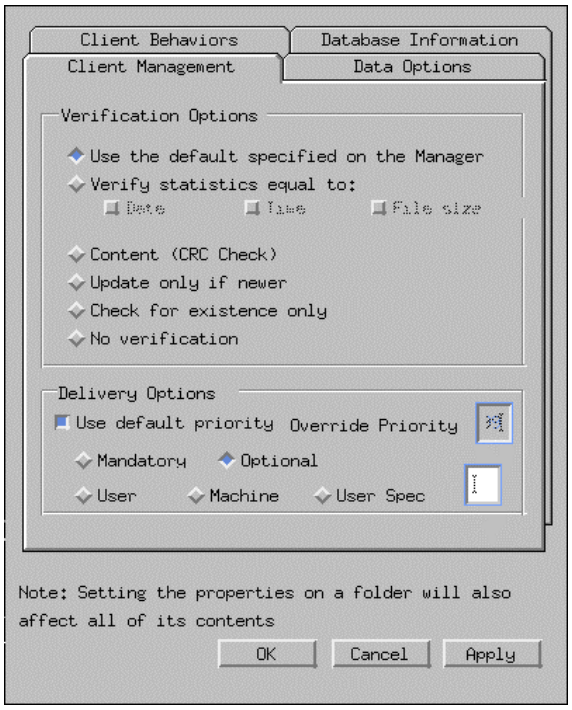

Figure 5.42 ~ Instance Properties dialog box, Client Management tab.

12. On the **Client Management** tab, select **No Verification**. All verification flags are ignored when publishing maintenance files.

13. Click the **Data Options** tab.

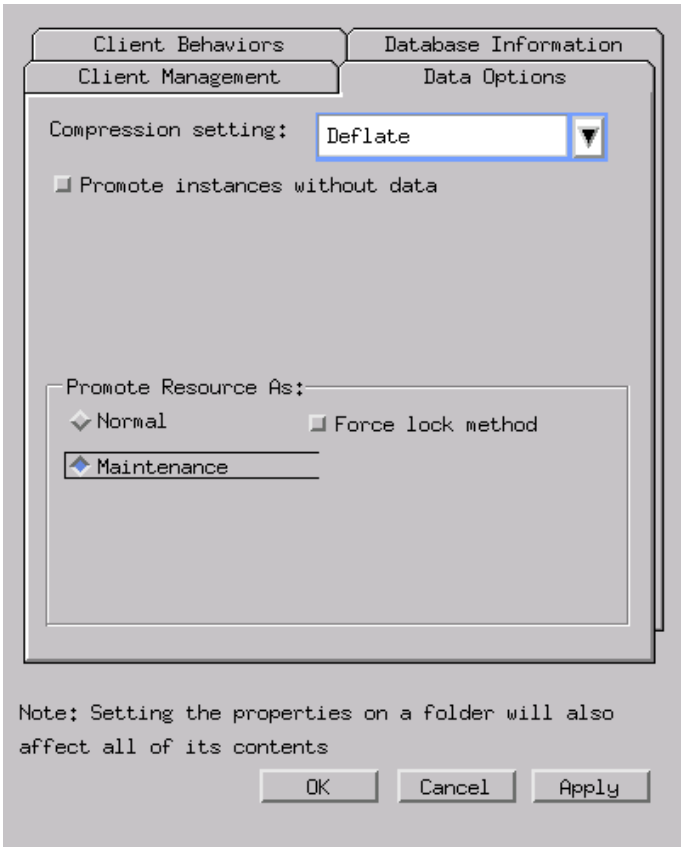

Figure 5.43 ~ Instance Properties dialog box, Data Options tab.

14. In the **Promote Resource As** area, select **Maintenance** to indicate that the files to be deployed are part of a maintenance component of the Radia Software Manager software.

Note

If the **Maintenance** option button is not available, return to the **Client Management tab** and be sure to select **No Verification** in the **Verification Options** area.

15. Click **OK** to close the **Data Options** dialog box. Then, click **Next**.

16. Click **Promote** to compress and transfer the files to the Radia Database.

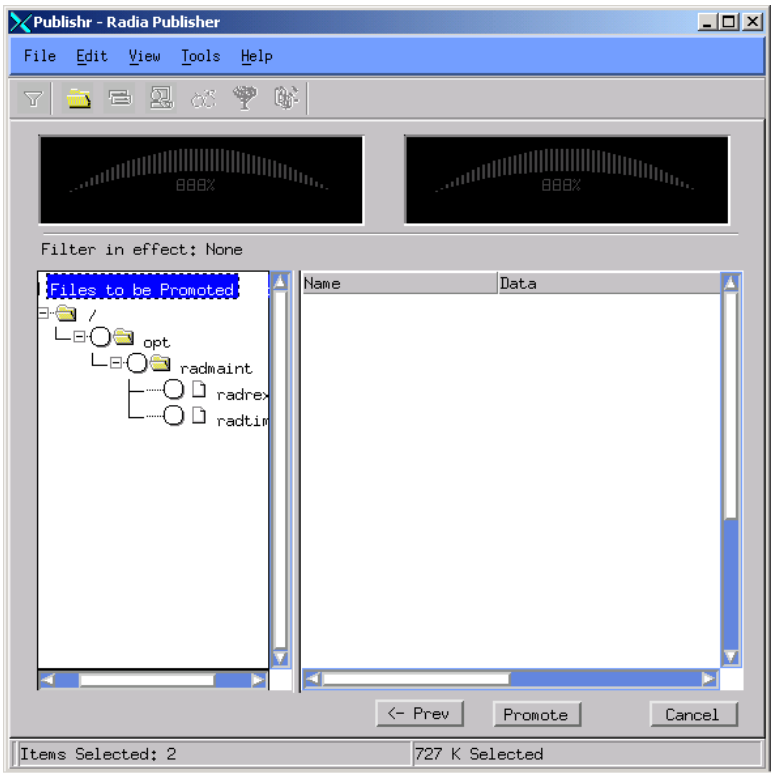

Figure 5.44 ~ Promote Files window.

17. When the promote is done, click **OK**. Then, click **Finish** to close the Radia Publisher.

18. Click **Yes** to confirm that you are ready to close the Radia Publisher. You are now ready to prepare the package for distribution.

Step 2: Connecting the Maintenance Package to a Service

Use the Radia System Explorer to connect the maintenance package to the Client Self Maintenance service, located in NOVADIGM.ZSERVICE. After the package is connected, you will need to modify the maintenance PATH instance so that the maintenance files are distributed to the appropriate place on the subscriber's computer.

To connect the maintenance package to the application

> **Note**
>
> The following instructions use the Radia System Explorer. The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

1. Go to **Start**, **Programs, Radia Administrator Workstation**, and select **Radia System Explorer**.

> **Note**
>
> The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed during installation. You can also change this by selecting the **Change Password** check box and typing the new password in the **New Password** and **Verify New Password** fields.

2. In the **Radia System Explorer Security Information** dialog box, type your **User ID** and **Password** in the appropriate fields.
3. Click **OK**.
4. Navigate to **PRIMARY.NOVADIGM.ZSERVICE** and double-click **Application (ZSERVICE)**.

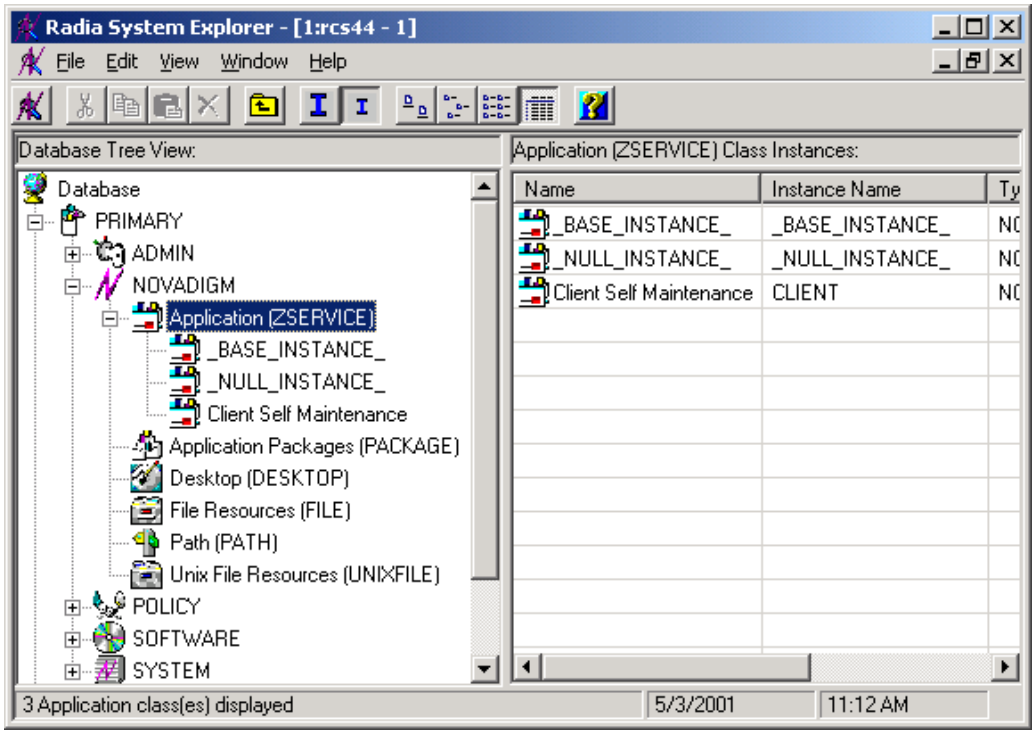

Figure 5.45 ~ Application Packages for Client Self Maintenance.

5. Right-click the **Client Self Maintenance** instance, and from the shortcut menu select **Show Connections**.

The **NOVADIGM.ZSERVICE Connections** dialog box opens.

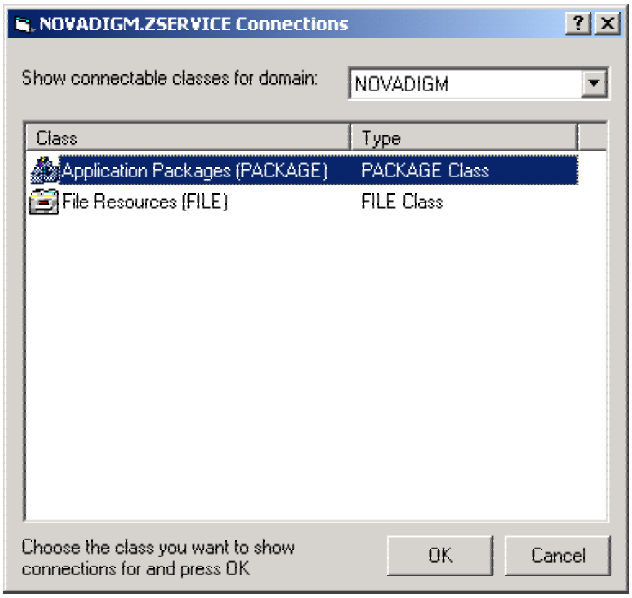

Figure 5.46 ~ NOVADIGM.ZSERVICE Connections dialog box.

6. Double-click **Application Packages (PACKAGE)**. The dialog box closes.

In the Radia System Explorer, a list of the Application Packages appears in the list view. You can connect any of these packages to the Client Self Maintenance application. Notice the package that you published earlier, **Maintenance for Fix #000001**.

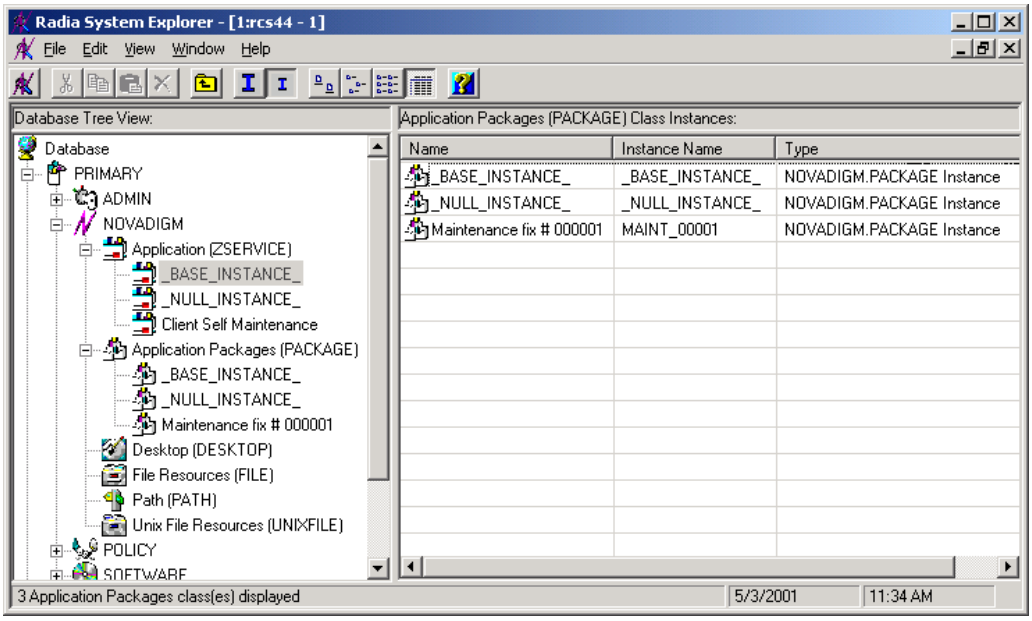

Figure 5.47 ~ Application Packages for Client Self Maintenance.

7. In the list view, drag the **Maintenance for Fix #000001** instance to the tree view and drop it on the **Client Self Maintenance** instance in the **Application (ZSERVICE)** class.
8. When the cursor changes into a paper clip release the mouse button.

The **Select Connection Attribute** dialog box opens.

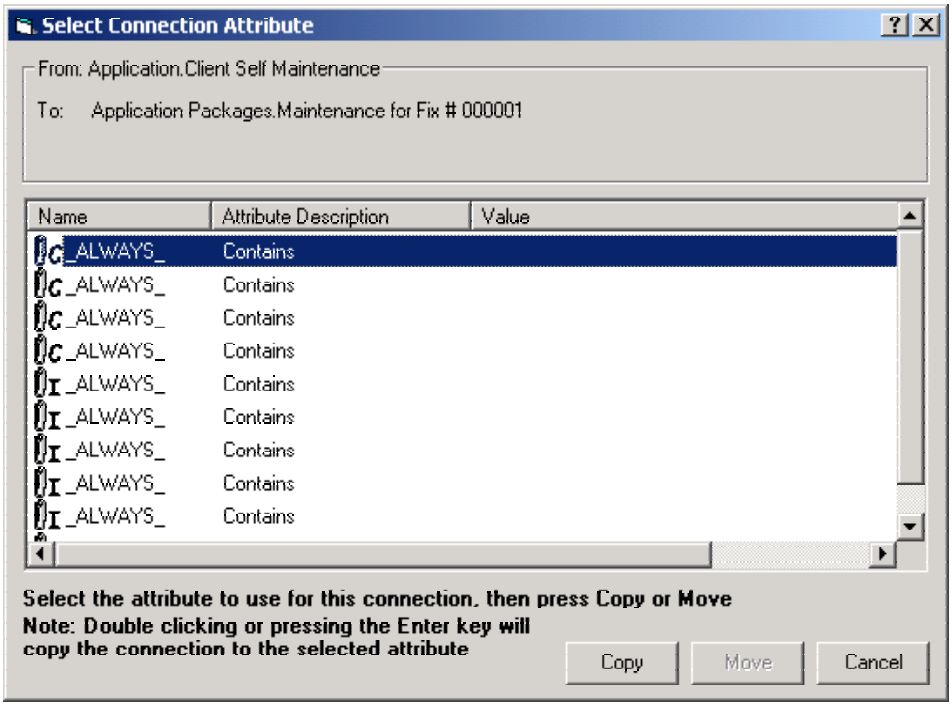

Figure 5.48 ~ Select Connection Attribute dialog box.

9. Click **Copy**.
10. Click **Yes** to confirm that you want to connect **Client Self Maintenance** to **Maintenance Fix # 000001**.
11. Click **OK** to close the confirmation message.

    The connection appears under the **Client Self Maintenance** instance.

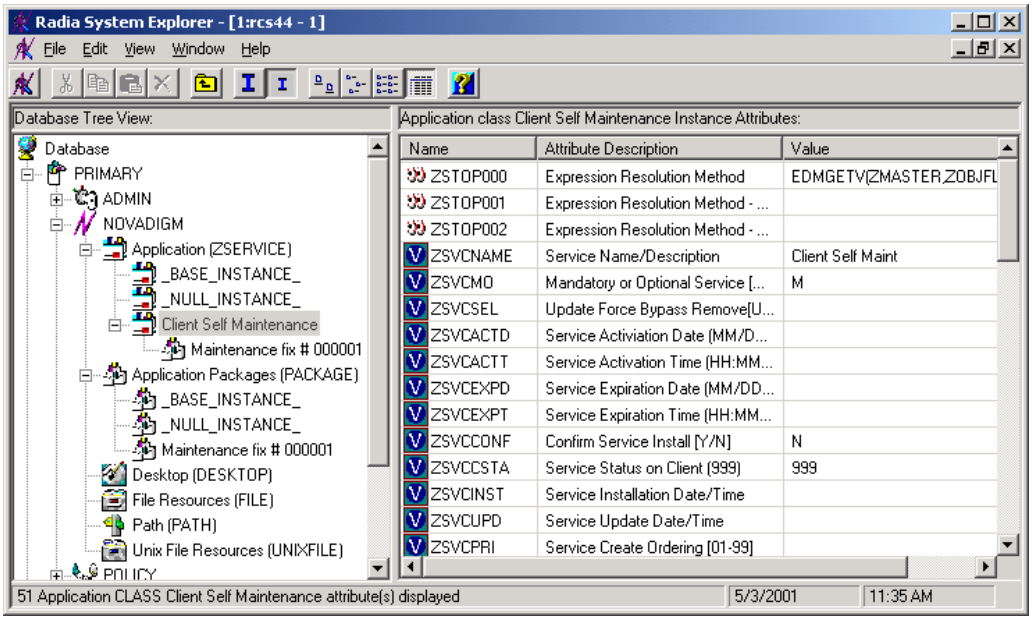

Figure 5.49 ~ Package connected to the Client Self Maintenance application.

To modify the location for the maintenance files

Modify the maintenance PATH instance so that the maintenance files are distributed to the appropriate place on the subscriber's computer.

1. Double-click the **Maintenance fix # 000001** instance located under the **Client Self Maintenance** instance (in NOVADIGM .ZSERVICE).
2. Double-click the Path icon . The tree expands to display the Maintenance path instance.
3. Double-click the Maintenance path instance to display the instance's variables, as shown in Figure 5.50 on page 195.

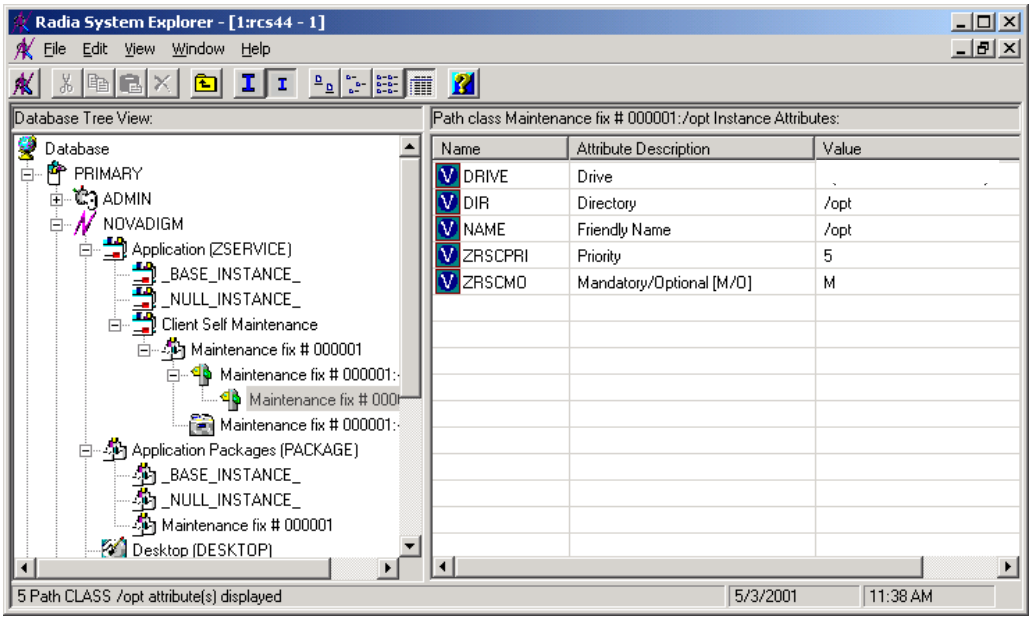

Figure 5.50 ~ Client Self Maintenance path instance variables.

4. In the list view, double-click the **DIR** variable. The **Editing Instance** dialog box opens.

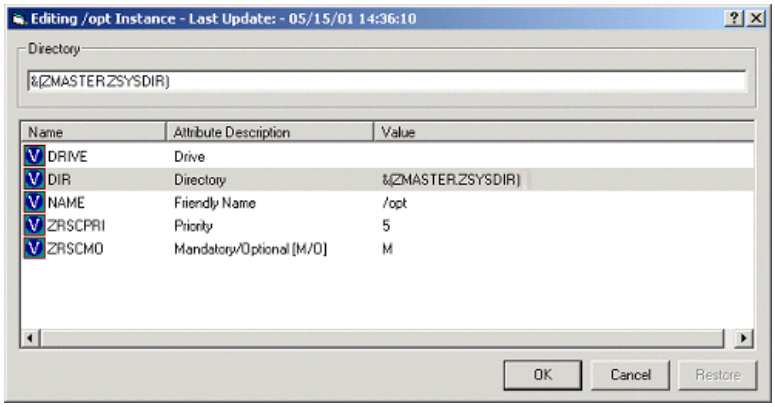

Figure 5.51 ~ Editing Instance dialog box.

Note

The initial ampersand indicates references to be processed with symbolic substitution. See the *Radia System Explorer Help* for more information about symbolic substitution.

- In the **Directory** text box, change the value to **&(ZMASTER.ZSYSDIR)** to ensure that the maintenance files are delivered to the appropriate directory.
- Select the **NAME** variable. In the **Friendly Name** text box, modify the friendly name that will appear in the Radia System Explorer.

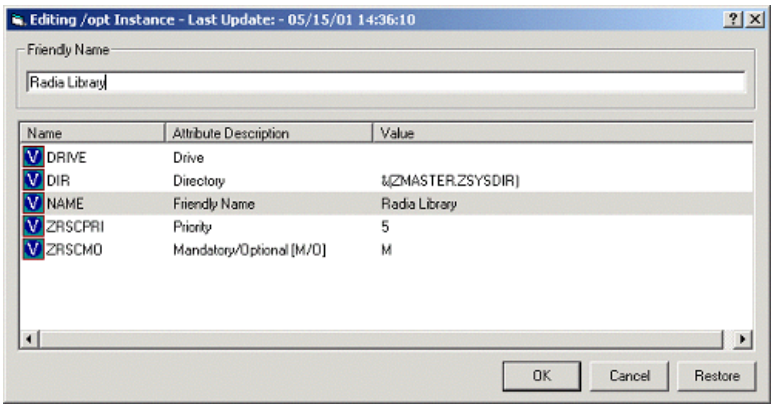

Figure 5.52 ~ Editing Instance dialog box with new values.

5. Click **OK** to save your changes and return to the Radia System Explorer.

Step 3: Connecting the Client Self Maintenance Application to a Policy

Use the Radia System Explorer to connect the Client Self Maintenance application to a POLICY class instance. This distributes the maintenance files for the Radia Software Manager to the appropriate subscribers. In this example, the maintenance files are to be delivered to all 2500 subscribers. Therefore, the Client Self Maintenance instance can be connected to the _BASE_INSTANCE_ of the USER class in the POLICY domain.

For more information about setting up policies, see the *Implementing Entitlement Policy* chapter starting on page 207.

Note

Client Self Maintenance Services can only be successfully installed by the Unix user ID who installed and owns the Radia Client executable directory on each client machine.

To connect the Client Self Maintenance application to the _BASE_INSTANCE_

Note

The following instructions use the Radia System Explorer. The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

1. Navigate to **PRIMARY.POLICY.USER**.

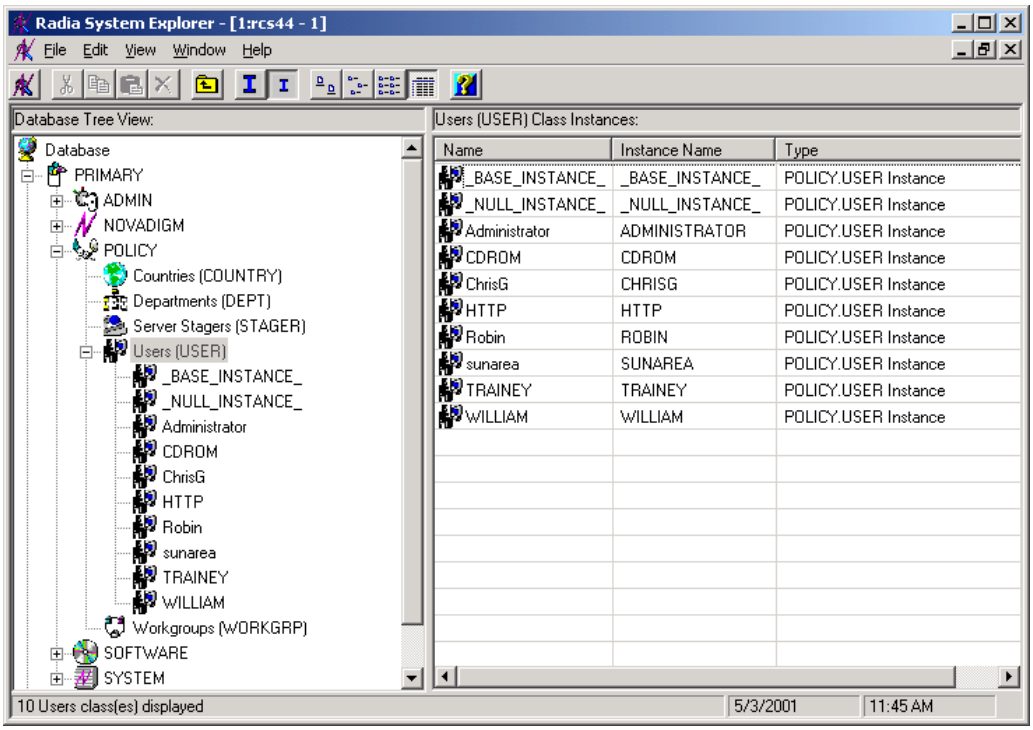

Figure 5.53 ~ Base instance of the USER class.

2. Right-click **_BASE_INSTANCE_**, and then from the shortcut menu select **Show Connections**.

   The **POLICY.USER Connections** dialog box opens.

3. In the **Show connectable classes for domain** drop-down list, select **NOVADIGM**.

4. Double-click **Application (ZSERVICE)**. The **POLICY.USER Connections** dialog box closes and the applications appear in the list view.

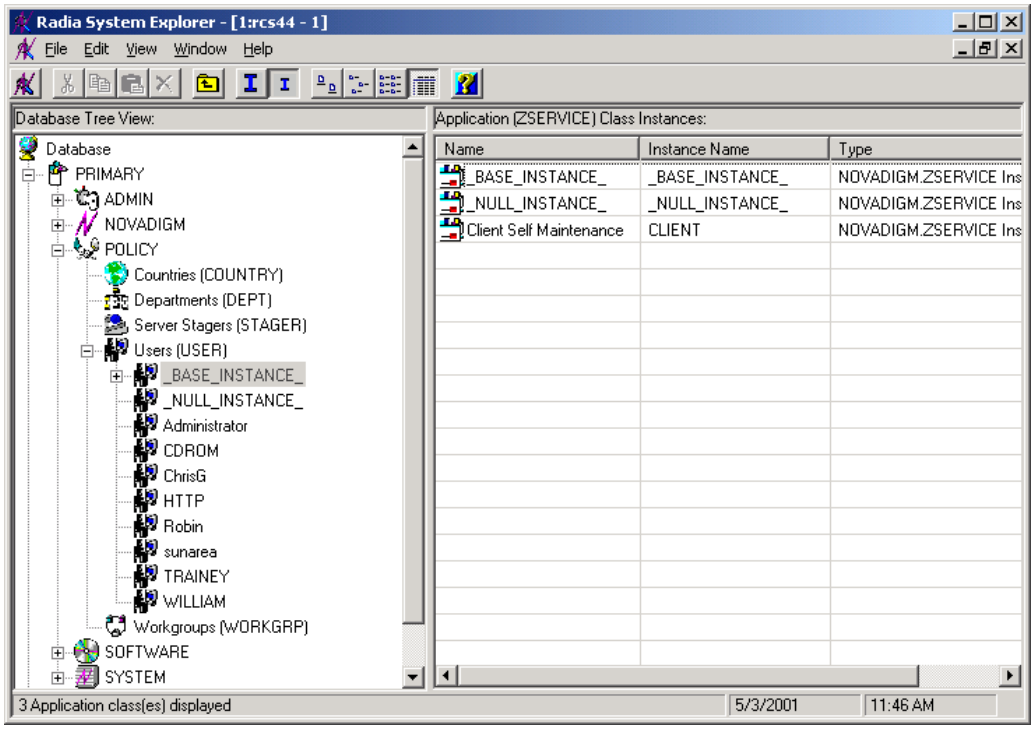

Figure 5.54 ~ ZSERVICE applications displayed.

5. In the list view, drag the **Client Self Maintenance** application instance to the tree view and drop it on the **_BASE_INSTANCE_** in the **Users (USER)** class.

6. When your cursor turns into a paper clip, release the mouse button. The **Select Connection Attribute** dialog box opens.

7. Click **Copy**.

8. Click **Yes** to confirm that you want to connect the Client Self Maintenance application to the _BASE_INSTANCE_.

9. Click **OK** when the message appears indicating that the connection has been made.

Step 4: Initiate a Client Connect to Distribute the Maintenance Files

The maintenance files are ready to be distributed to your subscribers at the next Client Connect. Here we will use Radia Notify to initiate a Client Connect and update the target computers.

For more information about Radia Notify, see the *Deploying Applications* chapter in this book.

To initiate a Client Connect using Radia Notify

> **Note**
>
> The following instructions use the Radia System Explorer. The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

1. Navigate to PRIMARY.NOVADIGM.ZSERVICE.
2. Right-click **Client Self Maintenance**.

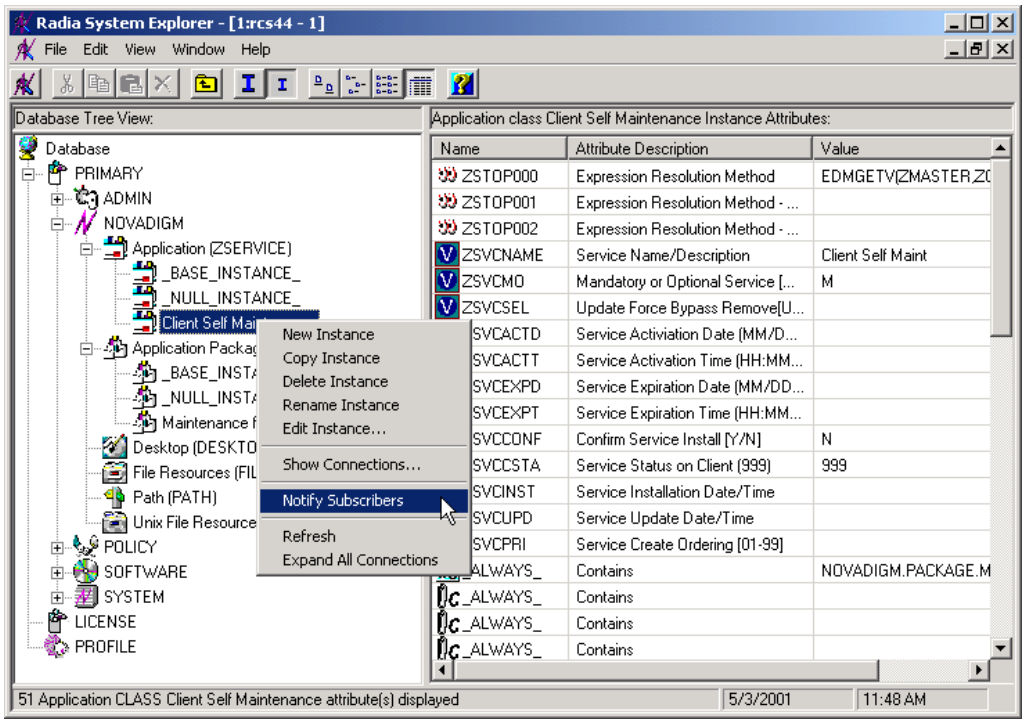

Figure 5.55 ~ Notify Subscribers of Client Self Maintenance.

3. Select **Notify Subscribers**. A message asks if you would like to build an audience list. Click **Yes**.

> **Note**
>
> If you want to send a Notify to subscribers of a particular application, that application must be installed on their computers in order for them to be eligible for notification.

The **Radia Notify Manager** dialog box opens.

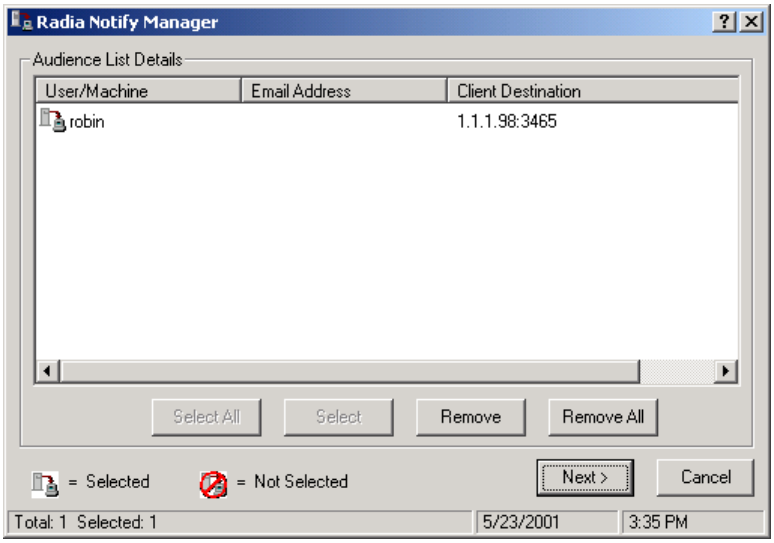

Figure 5.56 ~ Radia Notify Manager dialog box.

4. Select all of the users that you want to notify. By default, all users in the audience list are selected. If you want to select individual subscribers, you can:
   - Click **Remove All**, and then select the appropriate subscribers.
   - Select individual subscribers that you want to remove, and then click **Remove**.
5. Then, click **Next** to select the notification type.

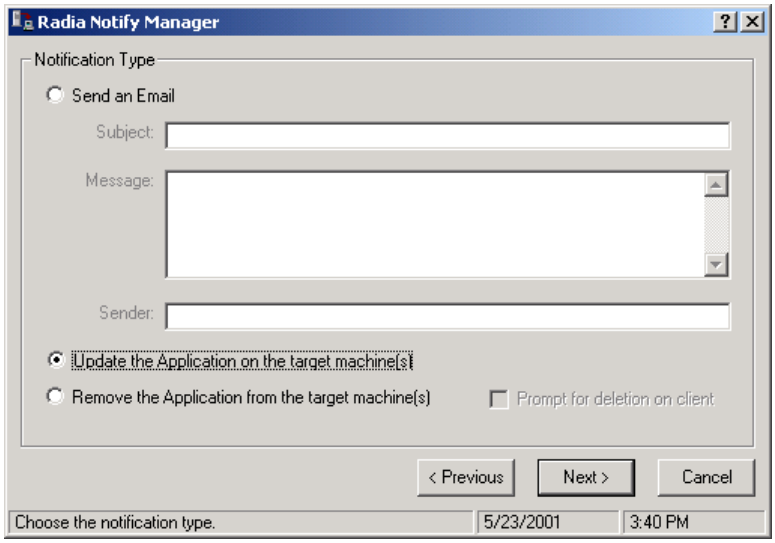

Figure 5.57 ~ Select notification type.

6. Select a notification type (in this example, **Update the Application on the target machines**), and then click **Next**.
7. In the **Notification Details** dialog box, do not select either check box, and then click **Next**.

The **Notification Summary** dialog box appears.

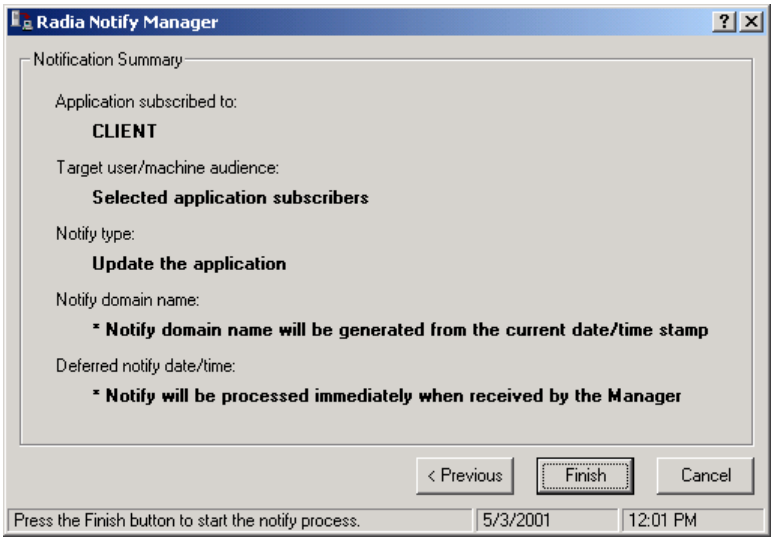

Figure 5.58 ~ Notification Summary dialog box.

8. Review the **Notification Summary** and then click **Finish**. A notification initialization message opens.

If you need to modify your selection, click **Previous**.

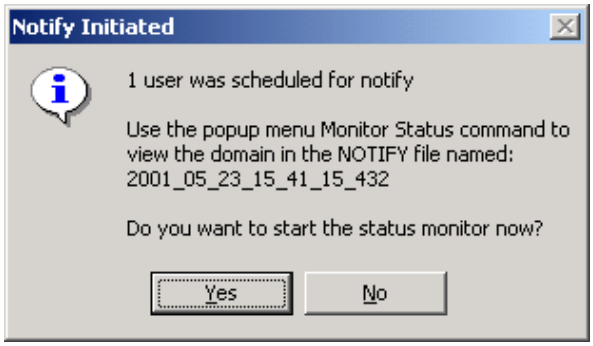

Figure 5.59 ~ Notification initialization message.

9. Click **Yes**. The status monitor opens.

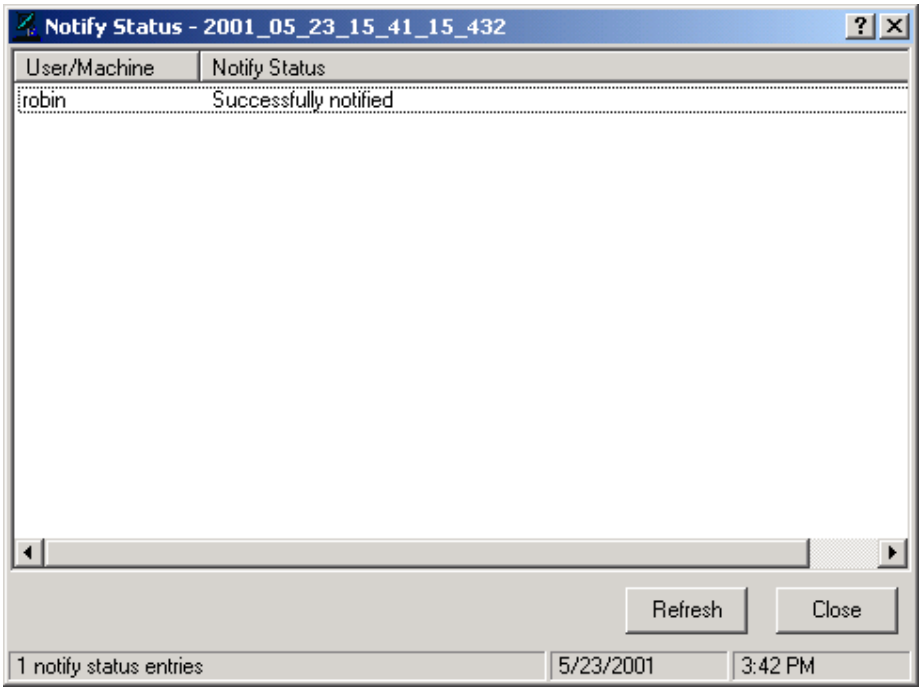

Figure 5.60 ~ Status Monitor (Self Maintenance).

The Radia Software Manager is automatically updated on your subscribers' computers.

Below you can see the directory structure as it appears on the subscriber's computer. The NEW directory stores the maintenance files that you deployed using the Notify function.

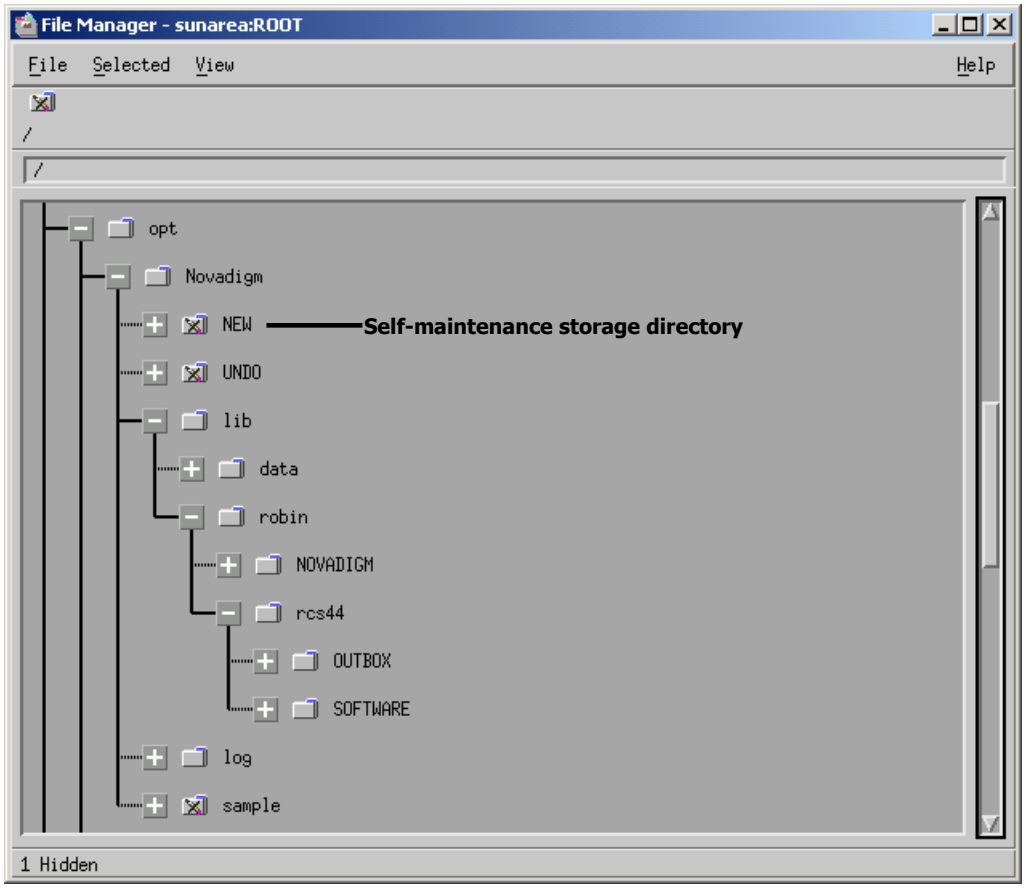

Figure 5.61 ~ Radia Software Manager: self-maintenance directory.

Optimizing Services

Service Optimization uses byte-level differencing and its ability to generate *patches* to recreate original data. A *patch* allows administrators to upgrade data to reflect bug fixes, feature additions, and added information. These patches contain the minimum number of bytes required to fix a flawed program and/or complete software upgrades. These patches are smaller than the data, thus conserving network bandwidth at the expense of CPU overhead.

The Radia Publisher automatically creates components that are eligible for byte-level differencing patching, assuming the component class contains the proper signature attributes as specified in the Radia Configuration Server specifications.

Note

Initially, to allow for the functionality of byte-level differencing, the following limitations are set:

- Patches will be managed at the SOFTWARE.ZSERVICE level between PACKAGES instances that are hierarchically connected together.
- Patches can only be created between components with the same fully qualified names.
- Patches can only be created for components that contain a signature. Initially, only MD5 is supported.
- Components being used for patching must be published from the same location, or computer, to qualify for byte-level differencing patching. This will populate the eight-byte CRC found in the suffix of the instance names.

For detailed information, see the *Radia System Explorer Guide*.

Summary

- Publishing is the process of identifying the components of the software or content and organizing them into packages.
- Radia publishing mode: Component Selection Mode.
- To publish packages, install the Radia Publisher onto a clean computer. To configure applications you must use the Radia System Explorer.
- Install the Radia Publisher onto a machine you will be using for publishing applications.
- You can use Component Selection Mode for packaging simple applications by selecting the individual components that make up the software.
- Use the Radia Publishing Adapter as an alternative to Component Selection Mode.
- After publishing applications, use the New Application Wizard in the Radia System Explorer to create a service—the fundamental unit of content managed by Radia.
- You can use Radia to prepare and distribute maintenance to the Radia Software Manager.

6

Implementing Entitlement Policy

At the end of this chapter, you will:

- Understand how Radia can integrate with your existing policy information.
- Understand the Radia POLICY domain.
- Be able to create new users and assign them to groups for use in simple environments.
- Be able to connect services to groups.

This guide covers the *suggested* implementation for the Radia Software Manager. Although you will tailor this strategy to meet your organization's needs, it is recommended that you review this guide for a comprehensive understanding of the Radia Software Manager. This chapter covers Implementing Entitlement Policy, assigning users to groups, and connecting applications to users.

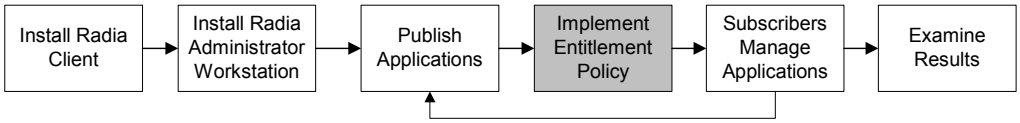

Figure 6.1 ~ Overview of the Radia Application Manager Guide.

About Policy Management and Radia

As your organization grows and changes, it is your job to manage *who* has access to *what* software. You've invested time and money to determine the best way to handle policy information for your organization. Now, you want to use Radia to manage your digital assets. With Radia, you have the advantage of using your *existing* policy information, while using Radia to manage your digital assets.

Radia can use real-time policy information from:

- NT Domains
- Active Directory
- NDS
- iPlanet
- ISOCOR
- SQL Server, Oracle, or Sybase
- SQL 92-compliant (ODBC) data sources
- Any LDAP-compliant directory

You can continue to use the tools that you are already familiar with to administer policies. And, as you modify group assignments, subscriptions to digital assets are kept up-to-date.

Accessing Existing External Policy Information

When a Radia Client connects to the Radia Configuration Server, Radia retrieves policy information in real-time from the appropriate data stores. In the simplest environment, such as a lab used for testing, you might want Radia to search the Radia Database for this information. However, typically, you will want Radia to search your existing policy stores. This information is

sent back to the Radia Configuration Server, which determines which digital assets are to be managed for the user, group, or computer.

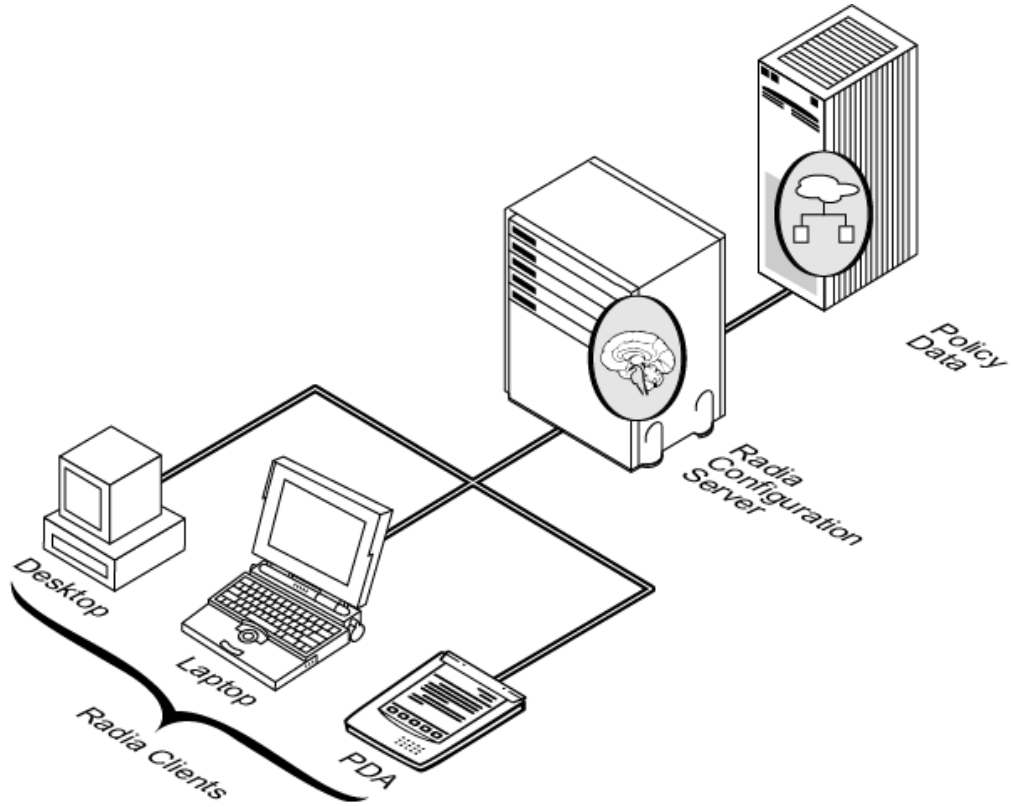

Figure 6.2 ~ Retrieving policy information from an external source.

Radia also supports using multiple Radia Configuration Servers with multiple types of external policy stores. This is especially useful in migration scenarios where you may be consolidating multiple external policy stores over a period of time. During this time, you can continue to use as many existing policy stores as necessary.

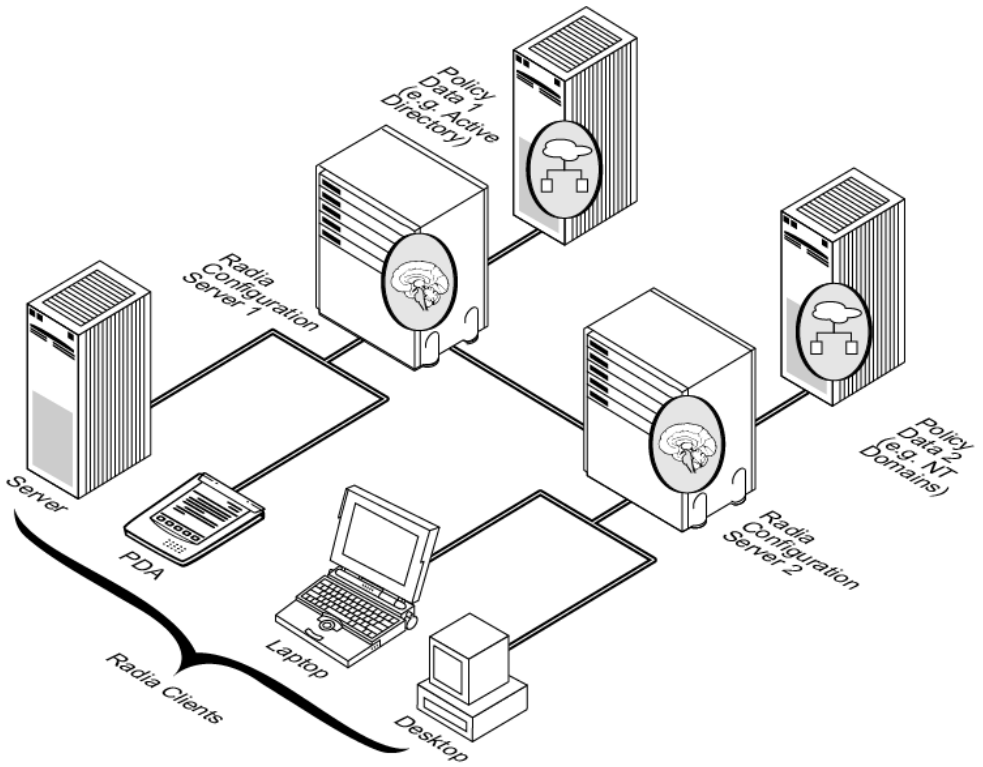

Figure 6.3 ~ Retrieving policy information from multiple external sources.

Integrating with Existing External Policy

In order to use real-time policy information from an external source to manage your digital assets, Radia must communicate with your policy system. Each policy system has its own interface; some are proprietary, some are standardized.

Note

For technical details about integrating your existing policy with Radia, see the HP OpenView web site.

Directories-Based Entitlement

(such as Active Directory and NDS)

If you want to leverage your investment in LDAP-based directory services or SQL-based databases, HP offers the Radia Policy Manager. The Radia Policy Manager is a plug-in to the Radia Integration Server (RIS) used for administration purposes such as mapping services to users in the directory tree. The Radia Configuration Server can be configured to query the Radia Policy Manager to determine what services should be distributed and managed for the client that is currently logged on.

Important Note

The Radia Policy Manager is an optional feature available from HP. Contact your HP sales representative for details.

See the *Radia Policy Manager Guide* for more information.

Radia's integration with existing policy greatly reduces the total cost of ownership of your environment by allowing you to continue to manage policies from your existing repository while Radia manages your digital assets.

About the Radia POLICY Domain

If you are using real-time policy information from an external source to manage your digital assets, you may need to configure a connection from your external policy store to the POLICY domain in the Radia Database. The configuration may vary based on the policy store.

This section is intended to provide you with an overview of the POLICY domain. Most medium to large organizations will use their existing policy information and will have limited use for this domain. However, in the simplest environment, you can use the POLICY domain in the Radia Database to organize subscribers into logical groups in preparation for distributing software.

In this section, you will learn:

- About the classes in the POLICY domain.
- How to create users and groups.
- How to assign users to groups.

Once you are familiar with the POLICY domain and understand the basics of managing policy information within Radia, you can extend that knowledge to learn how to integrate your existing policy information with Radia. This information may also be useful if you want to create a simple lab environment to test the management of your digital assets.

Note

The following section uses the Radia System Explorer, which is available for 32-bit Windows platforms. For more information, refer to the *Radia System Explorer Guide.*

To access the POLICY domain

1. From the **Start** menu, select **Programs**, **Radia Administrator Workstation**, **Radia System Explorer**. The **Radia System Explorer Security Information** dialog box opens.

Note

The **User ID,** as shipped, **RAD_MAST** works with no password required. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, type a **User ID** and **Password**, and then click **OK**. The **Radia System Explorer** window opens.
3. Double-click **PRIMARY**.
4. Double-click **POLICY**.

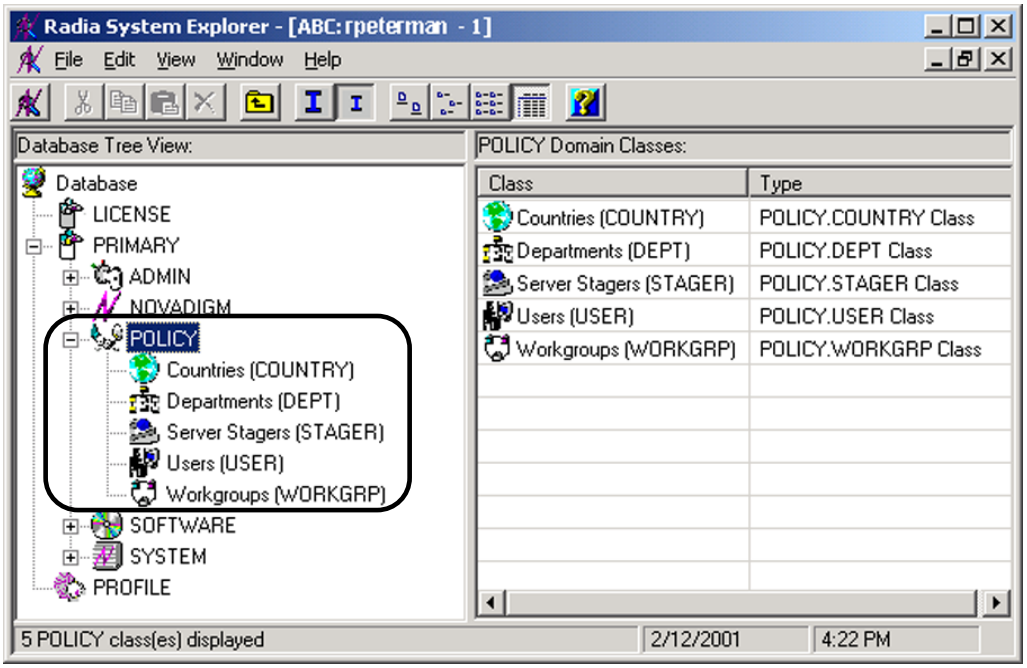

Figure 6.4 ~ The POLICY domain.

Classes in the POLICY Domain

The POLICY domain has five default classes, Countries (COUNTRY), Departments (DEPT), Server Stagers (STAGER), Users (USER), and Workgroups (WORKGRP), as described below.

Table 6.1 ~ Classes in the POLICY Domain

Class	Description	Instance Examples
Countries (COUNTRY)	Use for clock synchronizations with the Radia Configuration Server. Do not assign services to this class.	France, Japan, Italy
Departments (DEPT)	Use to group subscribers into departments.	Finance, Customer Service, Manufacturing
Server Stagers (STAGER)	Use to define Radia Staging Servers within your distribution network. Also, use to define storage locations on a Radia Staging Server computer.	CDROM, Stager, Server001
Users (USER)	Use to define individual subscribers.	William, John Doe, SSampson
Workgroups (WORKGRP)	Use to group subscribers into functional groups. For example, a project team may be made up of subscribers from several different departments.	Project Planning, Managers, ABC Project Team

You can also add other classes to the POLICY domain, as per your organization's needs. For example, if your organization is an insurance company, you may add an AGENTS or OFFICES class. Or, if your organization is a bank, you might add classes such as BRANCHES or TELLERS to organize your subscribers.

Note

See the *Radia System Explorer Guide* for information about creating new classes.

Creating Users or Groups in Radia

There may be times when you need to create individual users or groups in Radia. For example, you might want to create a lab environment used to test the distribution and management of your digital assets. To create a simple environment, you may want to create several users, assign them to groups, and then assign services to the groups.

In this section, you will learn how to create a user in the Users (USER) class in the POLICY domain of the Radia Database. You can follow the same steps to create a new Workgroups (WORKGRP) instance or Departments (DEPT) instance by substituting the appropriate class name.

In the following example, you will use the Radia System Explorer to create a new user (Robin) in the USER class.

> **Note**
>
> The following instructions use the Radia System Explorer. The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, see the *Radia System Explorer Guide*.

To create a new user

1. From the **Start** menu, select **Programs**, **Radia Administrator Workstation**, **Radia System Explorer**. The **Radia System Explorer Security Information** dialog box opens.

> **Note**
>
> The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, type a **User ID** and **Password**, and then click **OK**. The **Radia System Explorer** window opens.
3. Double-click **PRIMARY**.
4. Double-click **POLICY**.
5. Right-click **Users (USER)**.

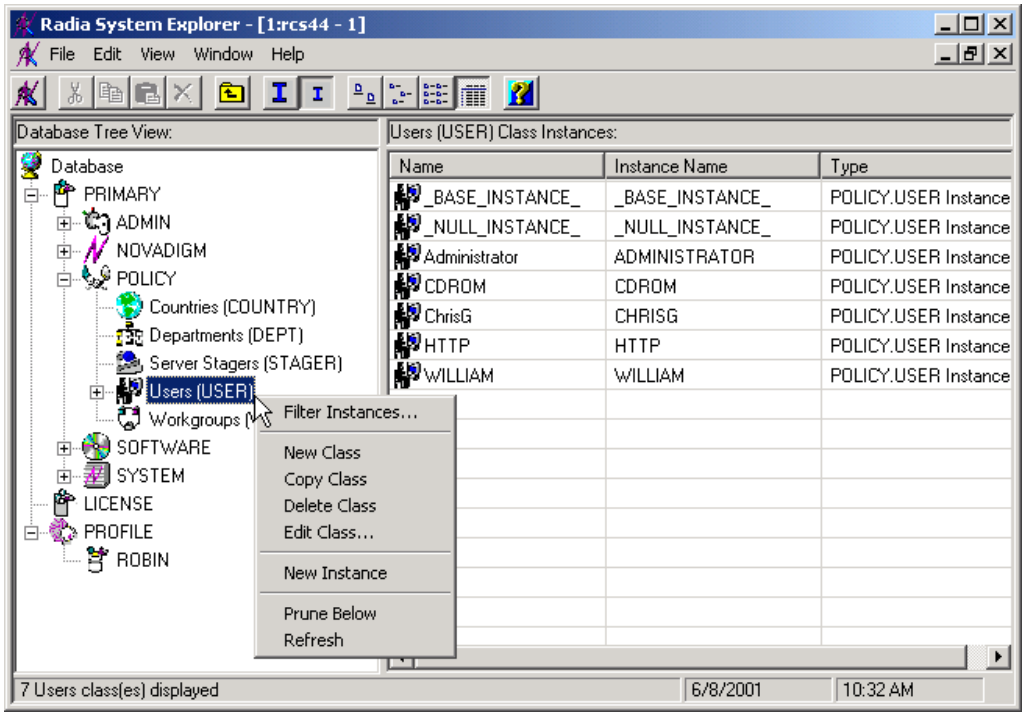

Figure 6.5 ~ Shortcut menu for the USER class.

6. Select **New Instance**.
7. In the **Create Instance** dialog box, type a display name (up to 25 characters) and instance name (up to 25 characters).

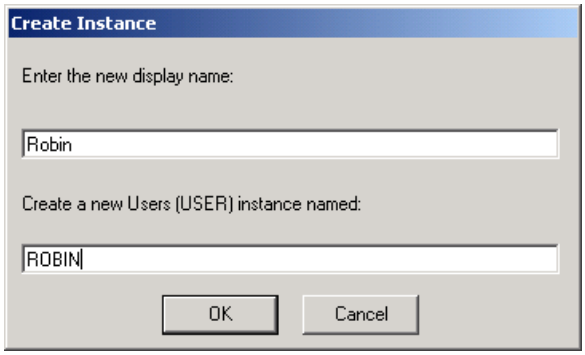

Figure 6.6 ~ Create Instance dialog box.

8. Click **OK**.

The user instance, Robin, is created.

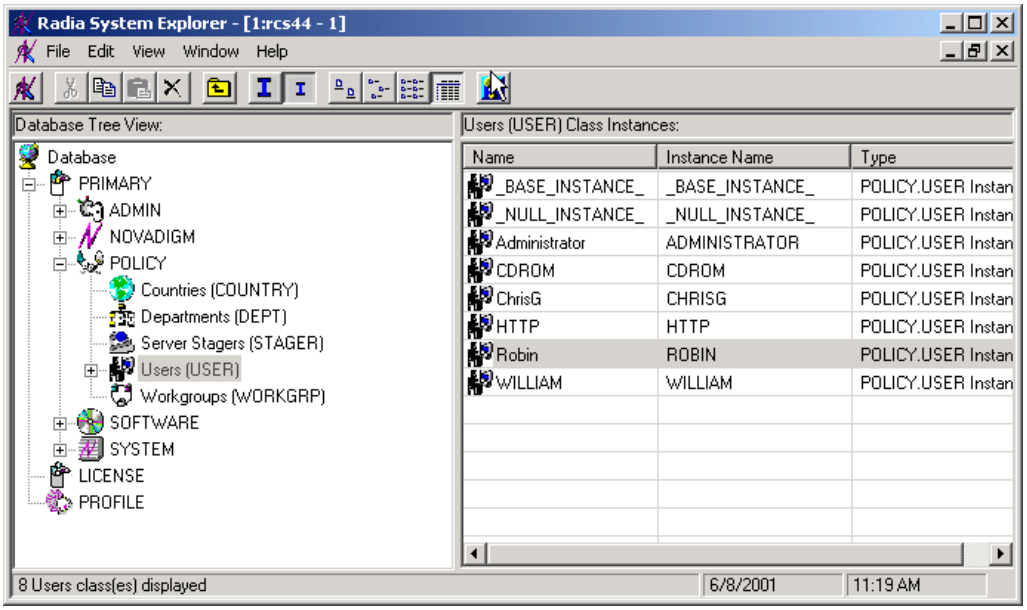

Figure 6.7 ~ The Robin USER instance.

Assigning Users to Groups

If you have created several users, you might want to assign them to one or more groups. In the following example, we will use the Radia System Explorer to assign the user Robin to the Sales department.

Note

The Sales instance, shown in the Departments (DEPT) class in Figure 6.13 on page 225, may not appear in your Radia Database. To add this instance (or instances that are appropriate to your organization), follow the procedure *To create a new user* on page 215. However, instead of right-clicking USER, you would right-click the appropriate class, such as Departments (DEPT).

Note

The following instructions use the Radia System Explorer. The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, see the *Radia System Explorer Guide*.

To assign a user to a department

1. From the **Start** menu, select **Programs**, **Radia Administrator Workstation**, **Radia System Explorer**. The **Radia System Explorer Security Information** dialog box opens.

Note

The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, type a **User ID** and **Password**, and then click **OK**. The **Radia System Explorer** window opens.
3. Double-click **PRIMARY**.
4. Double-click **POLICY**.
5. Double-click **Users (USER)** to open the list of all user instances.
6. Right-click the user instance (in this example, Robin) and select **Show Connections**.

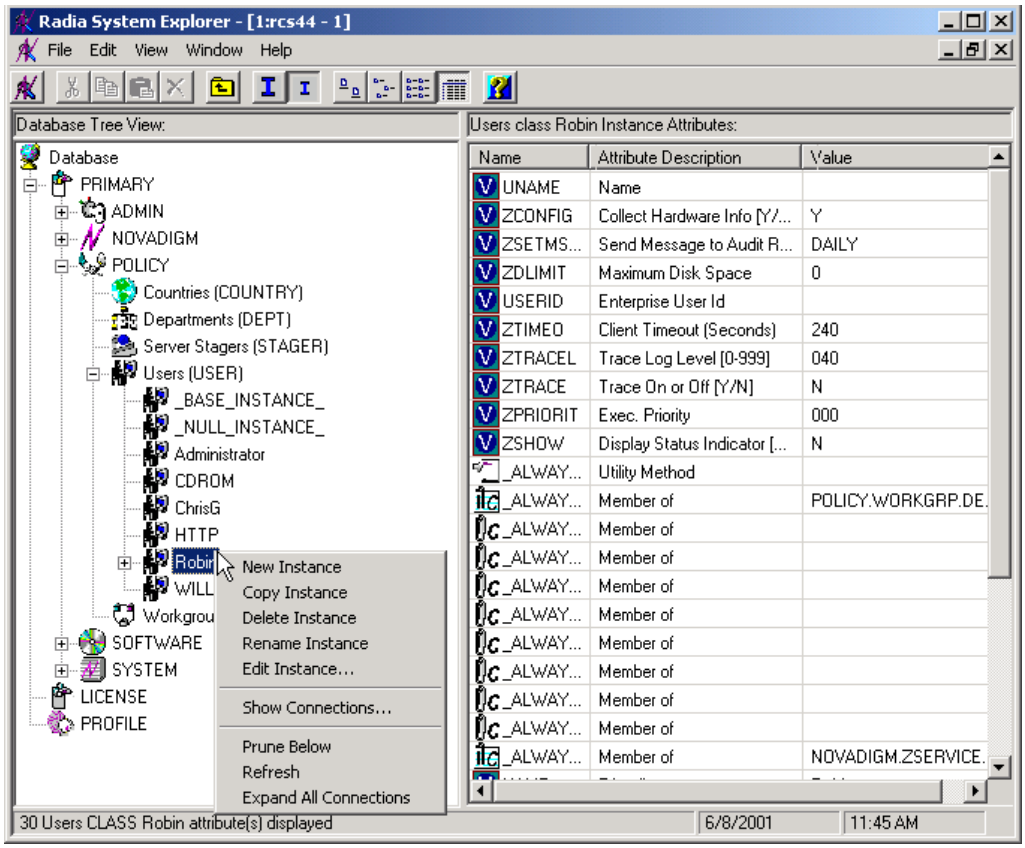

Figure 6.8 ~ Show the connectable classes for Robin.

The **POLICY.USER Connections** dialog box opens. This dialog box displays a list of classes that you can connect the selected instance to.

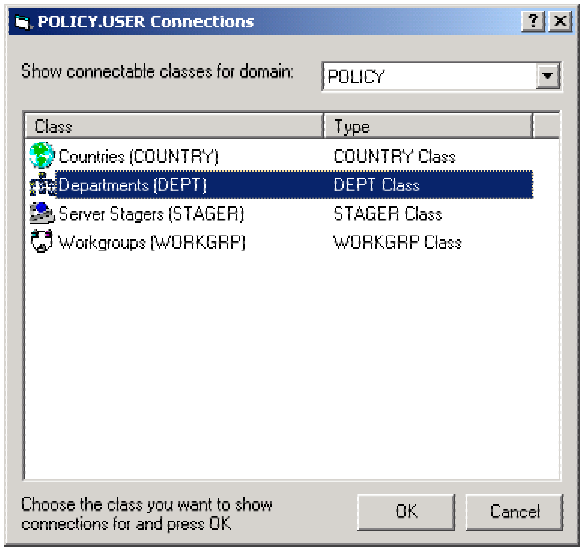

Figure 6.9 ~ The POLICY.USER Connections dialog box.

7. Select **Departments (DEPT)** and then click **OK**. The DEPT class instances appear in the list view of the Radia System Explorer. This allows you to easily make a connection between an instance in the DEPT class and an instance in the USER class.

8. Select the **Sales** instance from the list view and drag it to the appropriate Users instance (in this example, Robin). When your cursor turns into a paper clip, release the mouse button.

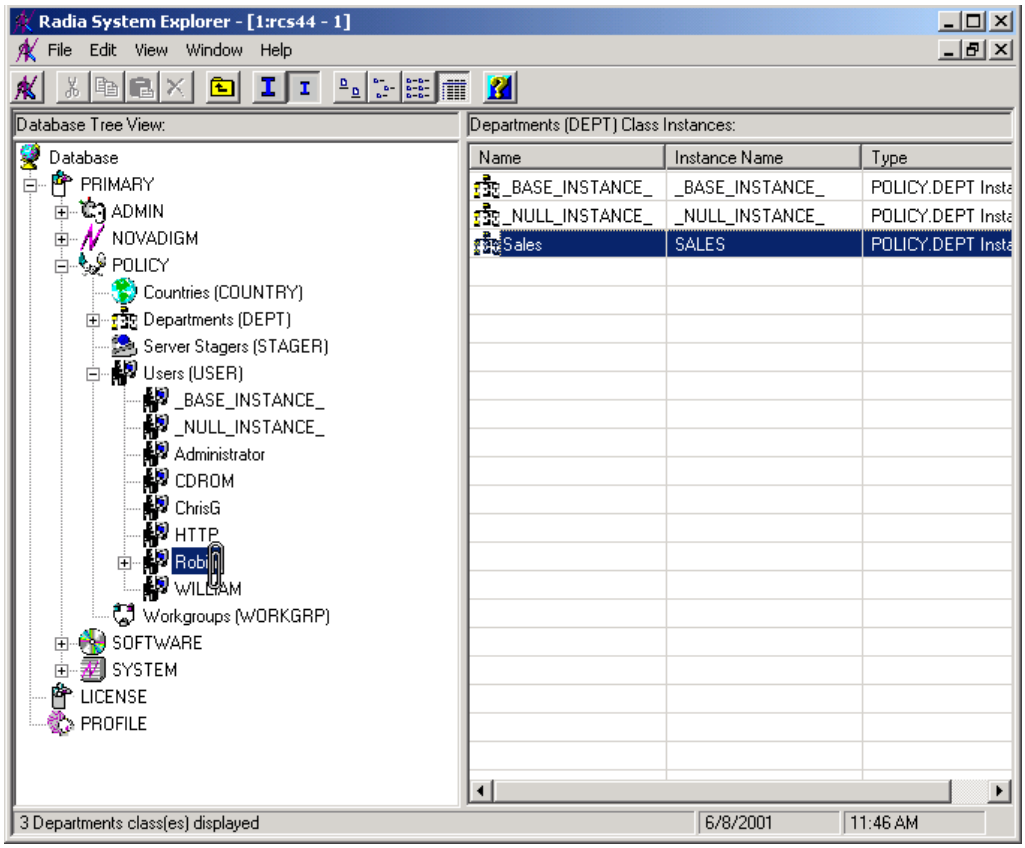

Figure 6.10 ~ Connect USERS.Robin to DEPT.Sales.

9. The **Select Connection Attribute** dialog box opens.

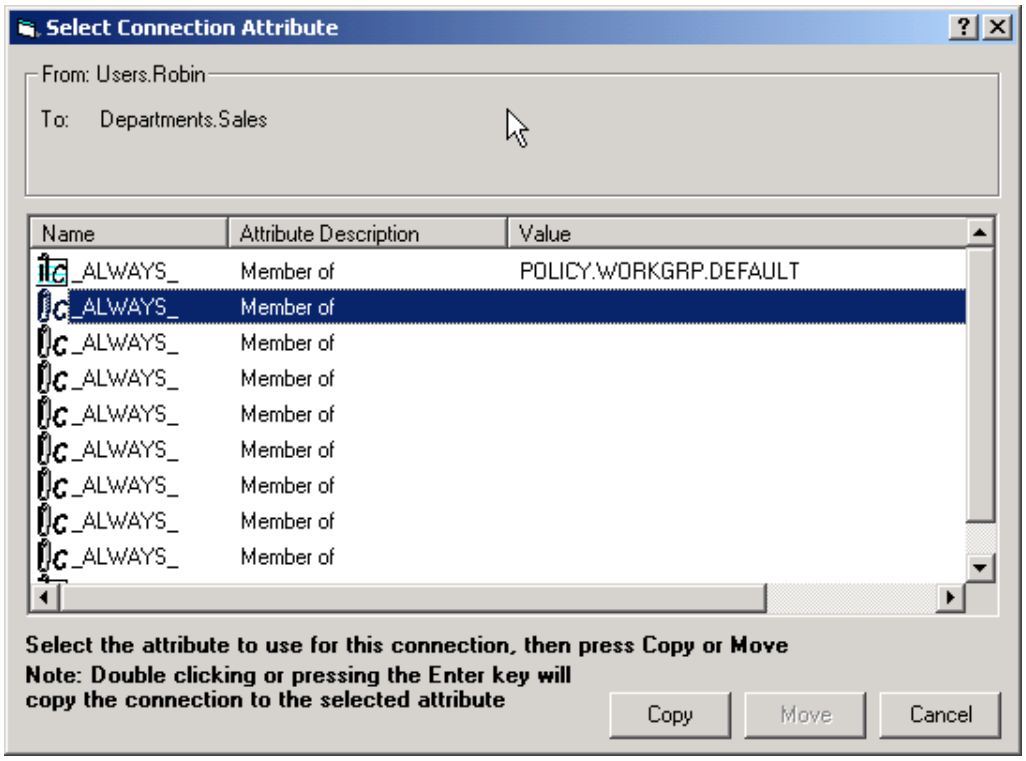

Figure 6.11 ~ Select the attribute for the connection.

10. Click **Copy** to create the connection from **Users.Robin** to **Department.Sales**.

11. Click **Yes** to confirm the connection.

12. Click **OK** when you receive the confirmation that "Robin has been connected to Sales."

In the Radia System Explorer tree view (Figure 6.12 on page 223), notice that **Sales** is now listed under the **Robin** user instance, which indicates that Robin is part of the Sales department.

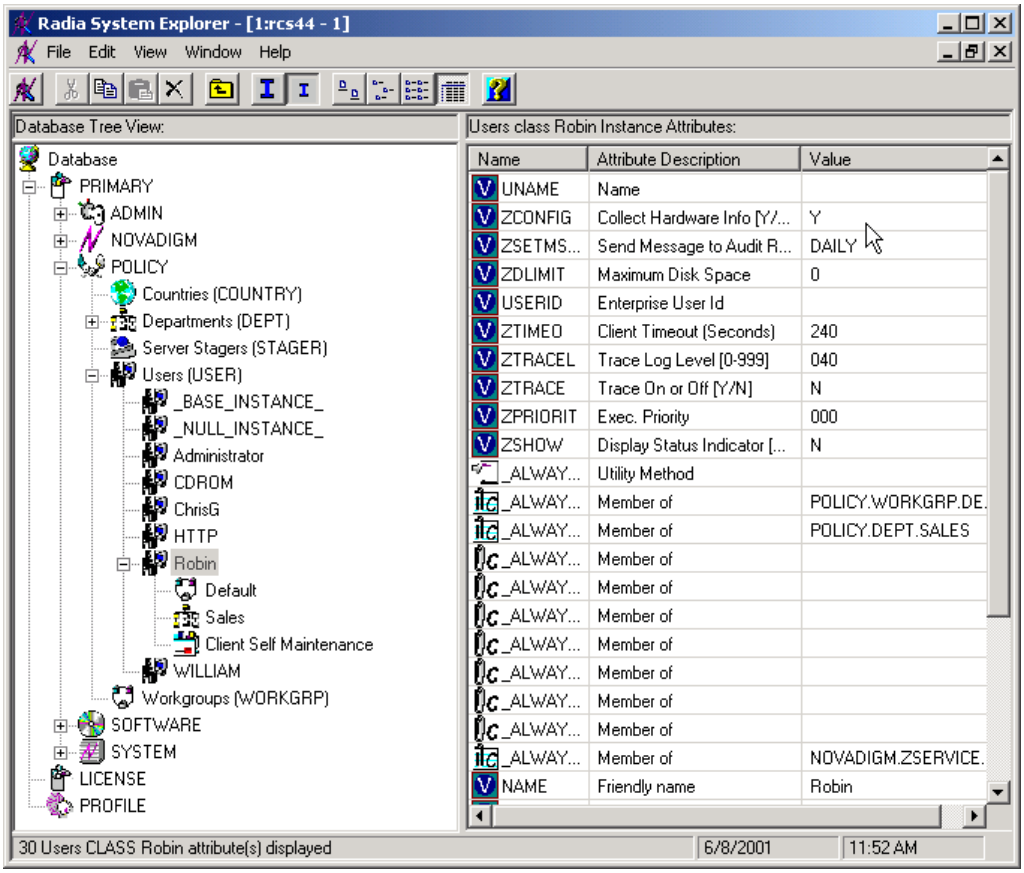

Figure 6.12 ~ Robin is connected to the Sales department instance.

Connecting Services to Groups

Whether you are using an external policy source, or you are managing policy within Radia, you will need to define the services that your subscribers will receive.

> **Note**
>
> If you are using the Radia Policy Manager, see the *Radia Policy Manager Guide* for more information.

In this section, you will learn how to connect users and groups to the services that Radia will manage. In the following example, we will use the Radia System Explorer to authorize all subscribers in the **Sales** department for the **Moneydance** application.

> **Note**
>
> The following instructions use the Radia System Explorer. The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, see the *Radia System Explorer Guide*.

To connect the Moneydance application to the Sales Department

1. From the **Start** menu, select **Programs**, **Radia Administrator Workstation**, **Radia System Explorer**. The **Radia System Explorer Security Information** dialog box opens.

   > **Note**
   >
   > The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, type a **User ID** and **Password**, and then click **OK**. The **Radia System Explorer** window opens.
3. Double-click **PRIMARY**.
4. Double-click **POLICY**.
5. Double-click **Departments (DEPT)** to open the Departments class.

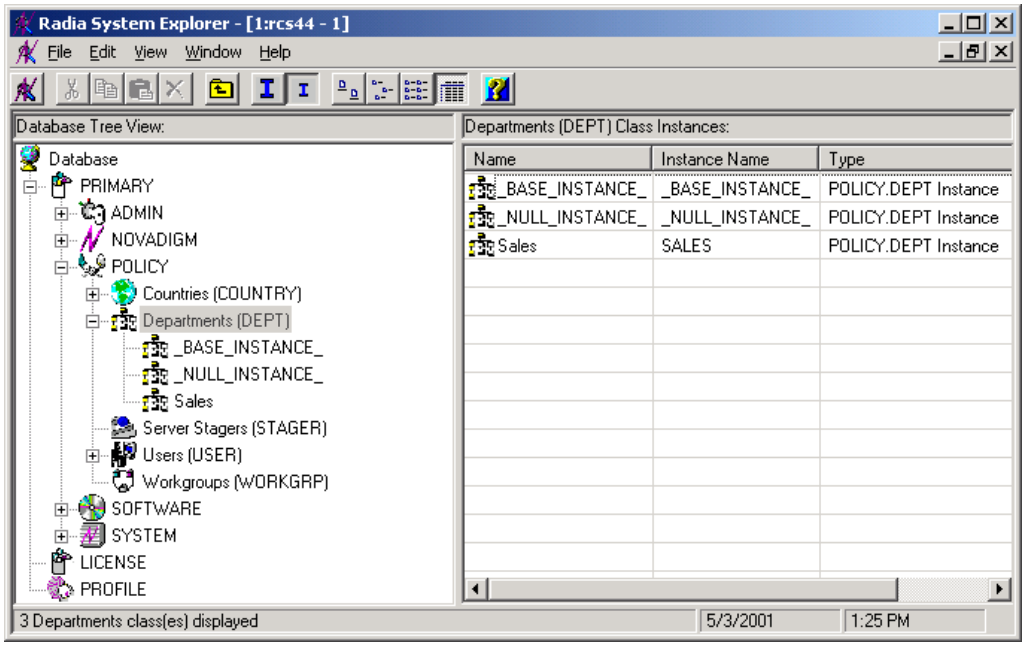

Figure 6.13 ~ The Departments (DEPT) class.

6. Right-click the **Sales** instance (in the tree view), and from the shortcut menu select **Show Connections**. The **POLICY.DEPT Connections** dialog box opens. This dialog box displays a list of classes that you can connect the selected instance to.
7. From the **Show connectable classes for domain** drop-down list, select **SOFTWARE**.

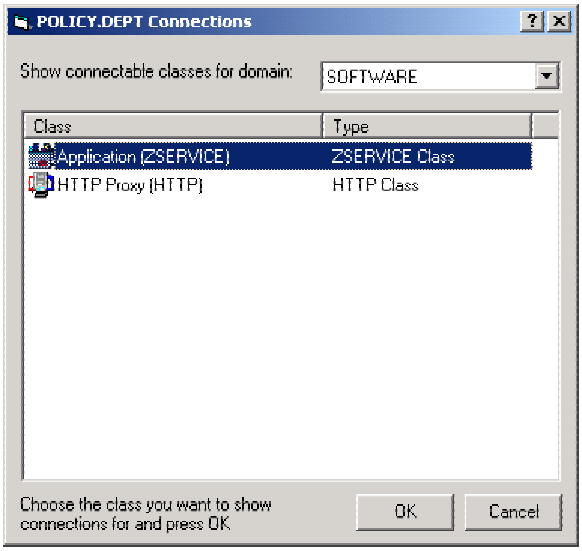

Figure 6.14 ~ The POLICY.DEPT Connections dialog box.

8. Click **Application (ZSERVICE)**, and then click **OK**. The instances in the ZSERVICE class appear in the list view.

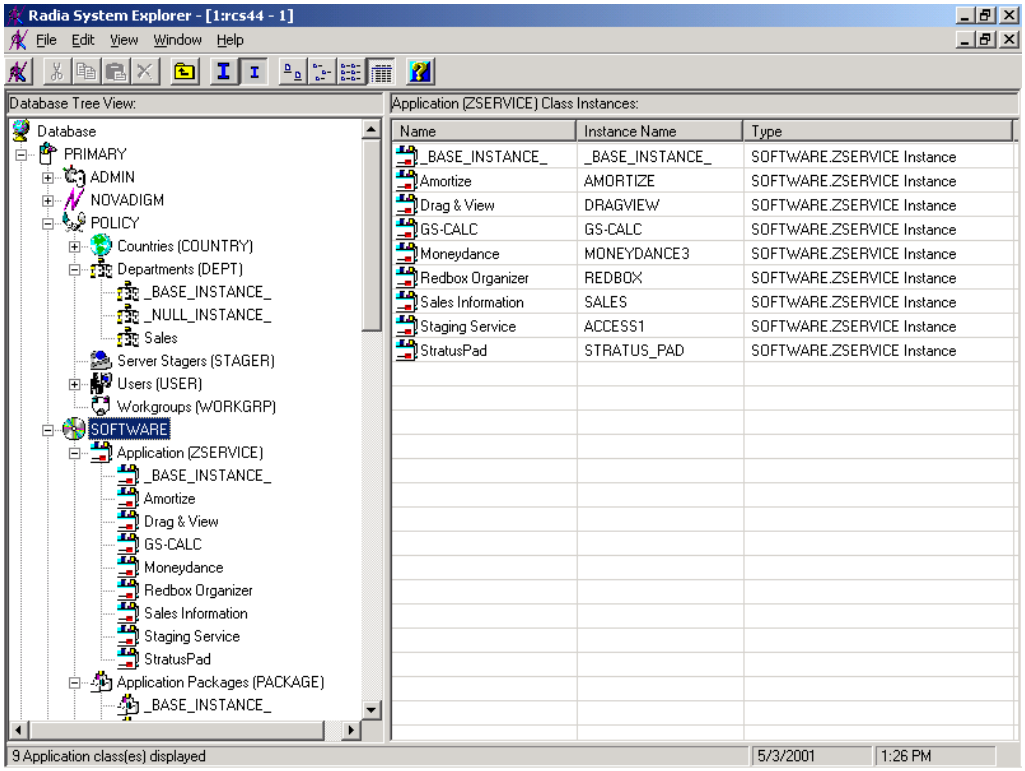

Figure 6.15 ~ ZSERVICE class instances in the list view.

9. Select the **Moneydance** instance from the list view and then drag it to the appropriate Departments instance (in this example, **Sales**). When your cursor turns into a paper clip (see Figure 6.16 on page 228), release the mouse button.

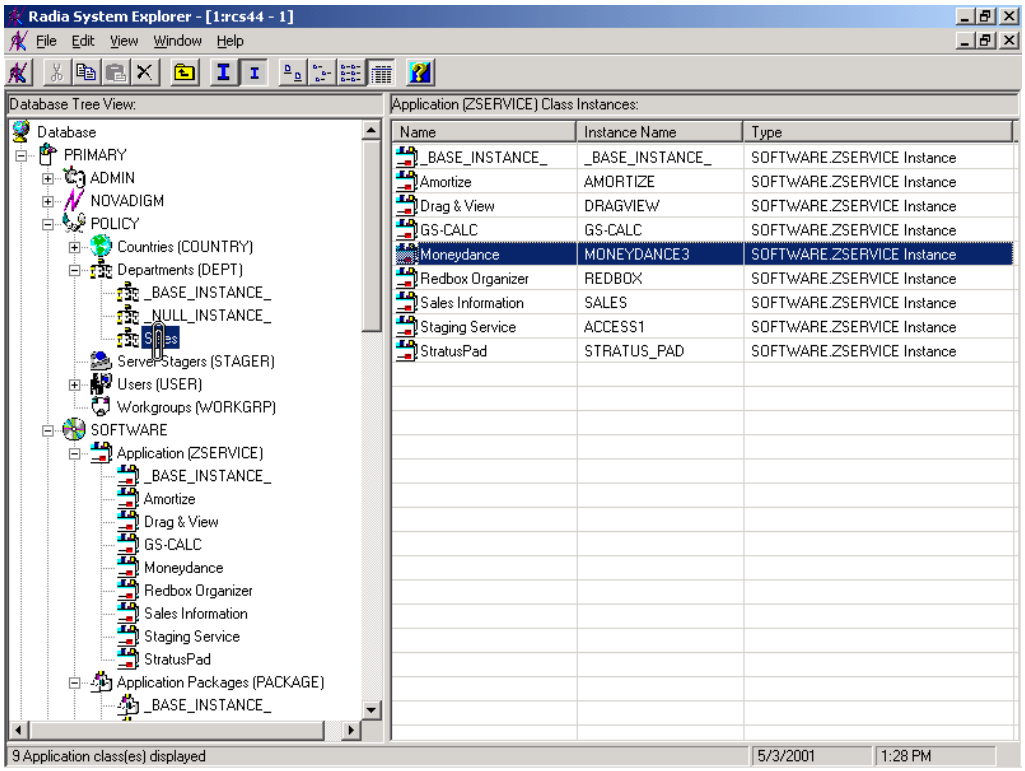

Figure 6.16 ~ Connect Moneydance to Sales.

10. The **Select Connection Attribute** dialog box opens.

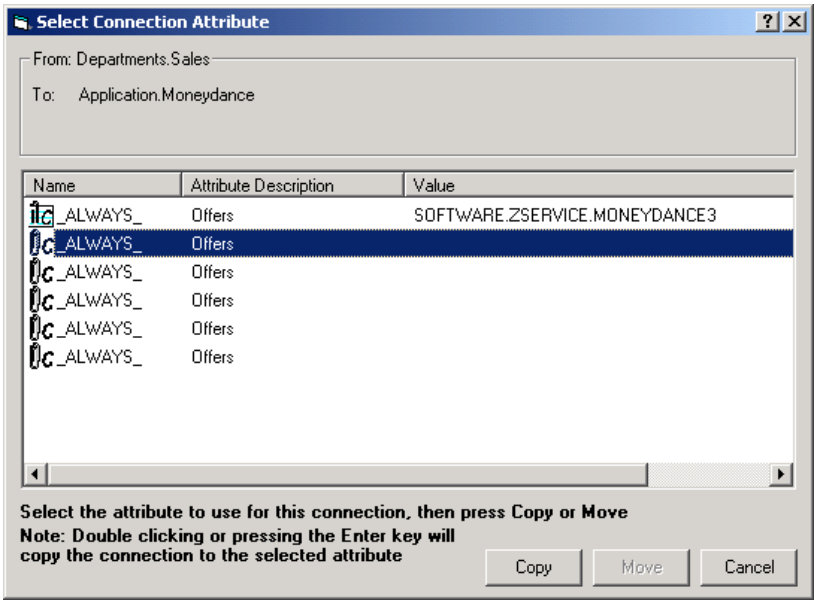

Figure 6.17 ~ Select Connection Attribute dialog box.

11. Click **Copy** to create the connection from **Departments.Sales** to **Application.Moneydance**.

12. Click **Yes** to confirm the connection.

13. Click **OK** when you receive the confirmation that "Sales has been connected to the Moneydance."

In the Radia System Explorer tree view (see Figure 6.18 on page 230), notice that Moneydance is listed under the Sales department instance, which indicates that the entire Sales department is now authorized to receive the Moneydance application.

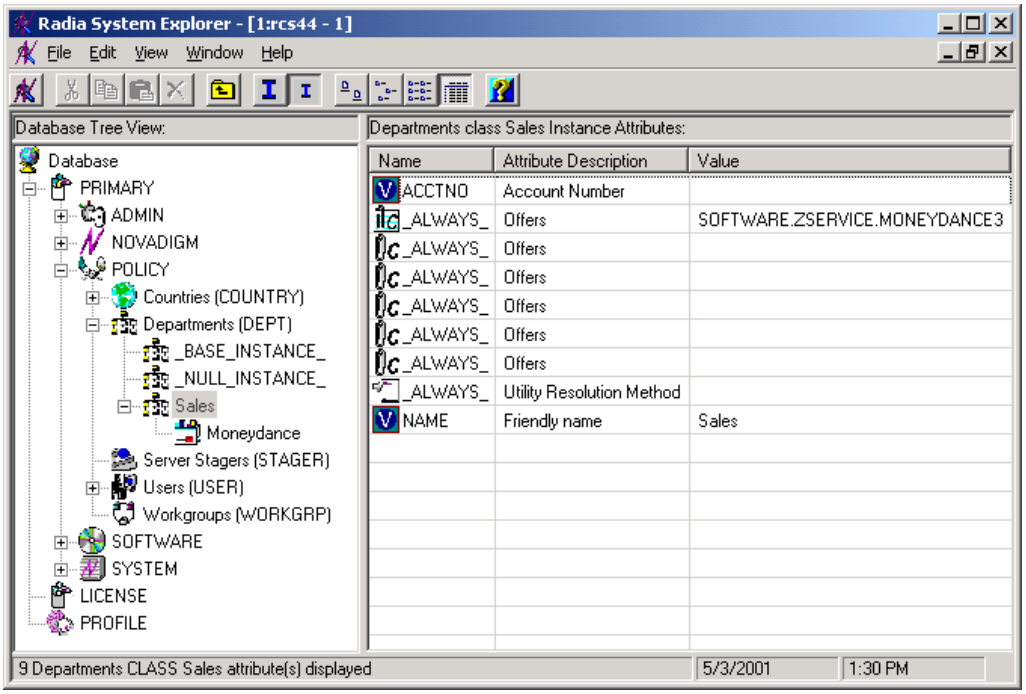

Figure 6.18 ~ The Moneydance application is authorized for the Sales department.

In Figure 6.19 on page 231, notice that Robin, listed in the Users (USER) class, is part of the Sales department. You can also see that the Moneydance application has been authorized for the entire Sales department. Therefore, as long as Robin is part of the Sales department, Radia will manage the Moneydance application on his computer.

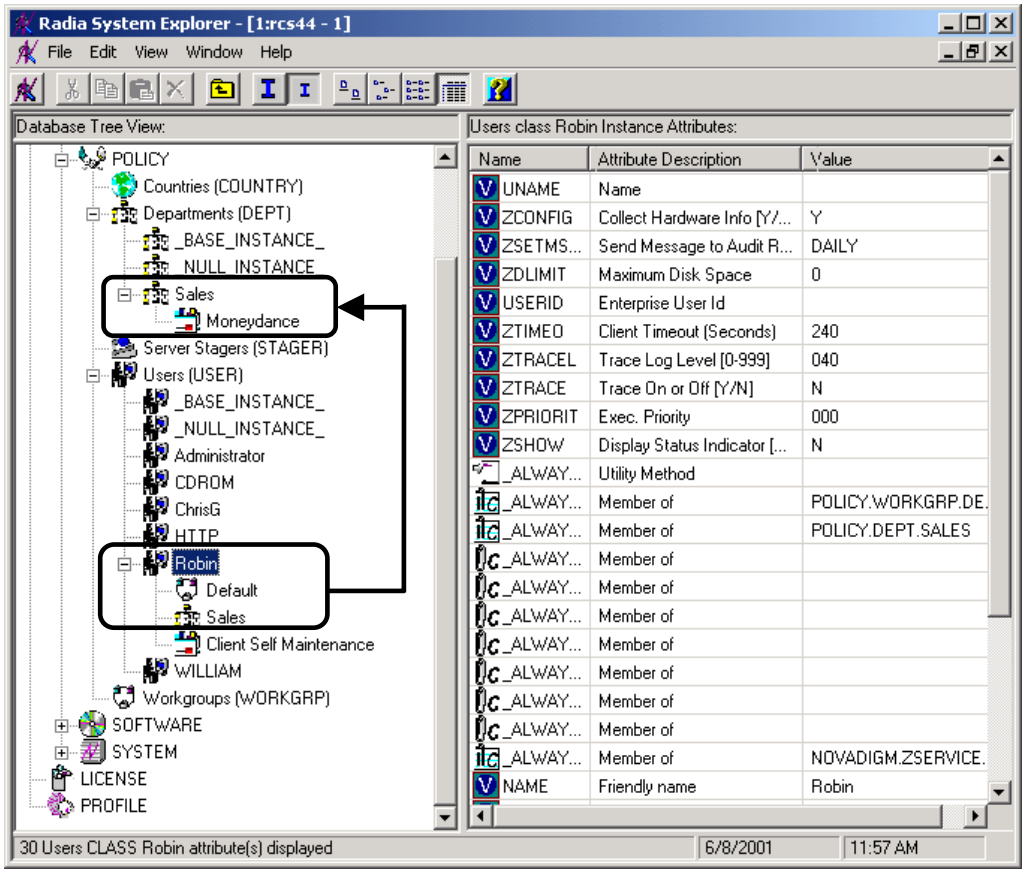

Figure 6.19 ~ Radia manages Moneydance for the Sales department.

You can see how using groups simplifies assigning applications to users. You can modify the applications that the individuals in the Sales department are authorized for, simply by manipulating the connections between the applications and the Sales department group. And, you can add users to the Sales department, quickly authorizing them for a series of applications. Or, you can remove users from the Sales department, taking away their authorization to applications.

Summary

- Radia can integrate with your existing policy information.
- The Radia POLICY domain organizes subscribers into logical groups.
- You can create new users and assign them to groups.
- Assign the services to be managed by Radia to the appropriate groups.

7

Radia Software Manager User Interface

At the end of this chapter, you will:

- Know how to customize the Radia Software Manager.
- Understand how your subscribers can access the Radia Software Manager user interface.
- Be able to use the Radia Software Manager user interface, from a subscriber's perspective.

This guide covers the *standard* implementation for the Radia Software Manager. Although you will tailor this strategy to meet your organization's needs, we recommend that you review this guide for a comprehensive understanding of the Radia Software Manager. This chapter covers customizing the Radia Software Manager client and using the Radia Software Manager user interface.

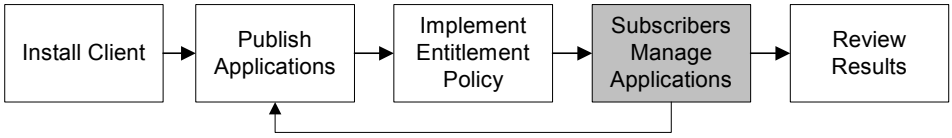

Figure 7.1 ~ Overview of the Radia Software Manager Guide.

Subscribers use this interface to install, update, verify, or remove applications from their computers.

Note

The term *application* refers to software or content that is available to the subscriber.

About the Radia Software Manager User Interface

This section describes how to use the Radia Software Manager user interface in detail. Although your subscribers will be using the user interface, you should be familiar with how it works.

Accessing the Radia Software Manager User Interface

Note

Before running the Radia Software Manager for Unix, make sure your DISPLAY environment variable is set. Refer to Table 2.1 on page 31 for more information.

To access the user interface

1. Change your current working directory to the directory where you installed the Radia Software Manager (default /opt/Novadigm/).
2. Type `./radiaui`, and press ENTER.

   The **Radia Subscriber Security Information** dialog box opens.

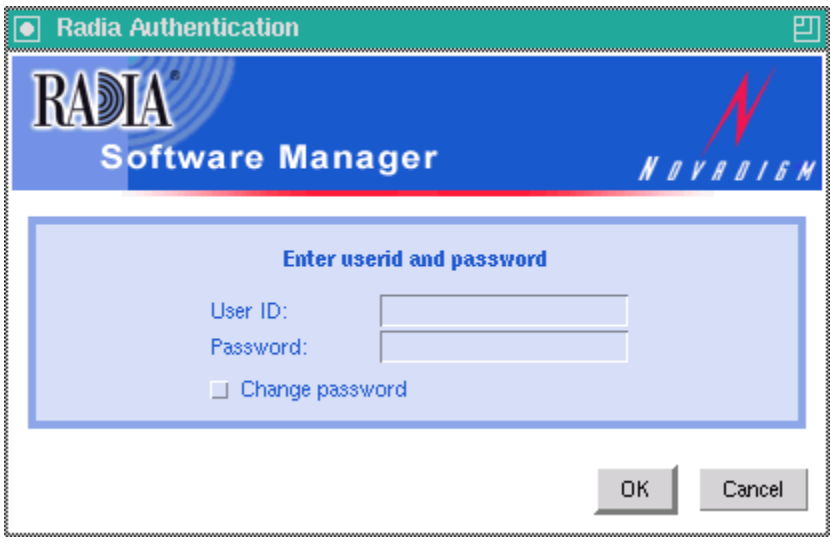

Figure 7.2 ~ Radia Subscriber Security Information dialog box.

3. If necessary, type your **User ID** and **Password**. If you do not know what these are, contact your network administrator.
4. Click **OK**. The user interface opens.

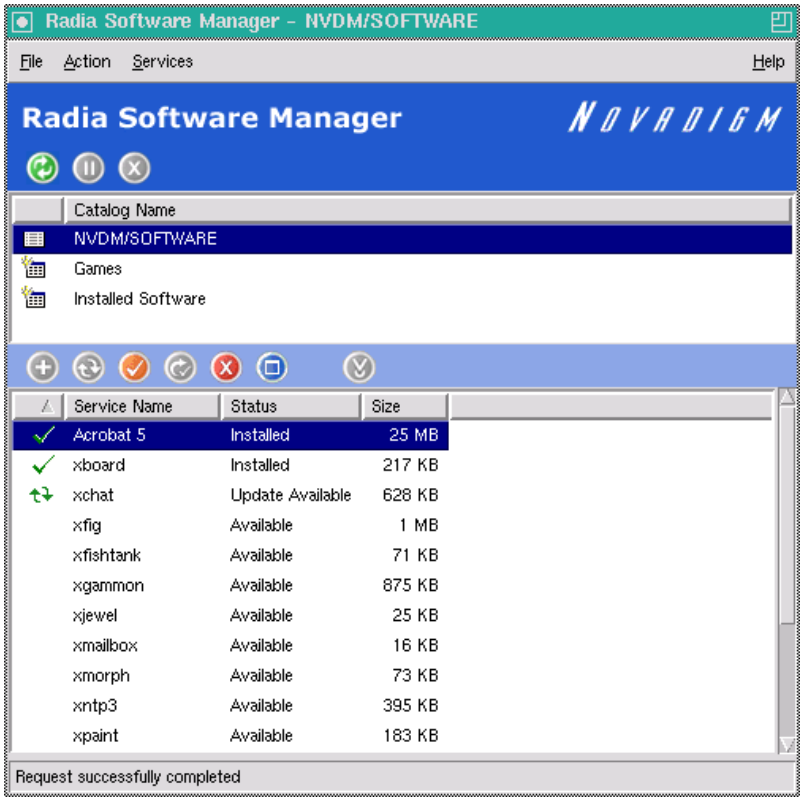

Figure 7.3 ~ Standard Radia Software Manager.

Using the Radia Software Manager User Interface

The Radia Software Manager user interface has four main sections.

- **Global Toolbar**
  Allows you to refresh the catalog, pause the current action, or cancel the current action.
- **Catalog List**
  Lists the different software catalogs available.
- **Service List**
  Lists the applications that you are entitled to.
- **Radia Software Manager menu options**
  Each section contains specific Radia Software Manager options.

Global Toolbar

The **Global Toolbar** allows you to refresh the catalog, pause the current action, or cancel the current action. Once an action has been paused, no other action can take place until you either resume the action, by clicking the **Pause** button again, or cancel the paused action by clicking the **Cancel** button.

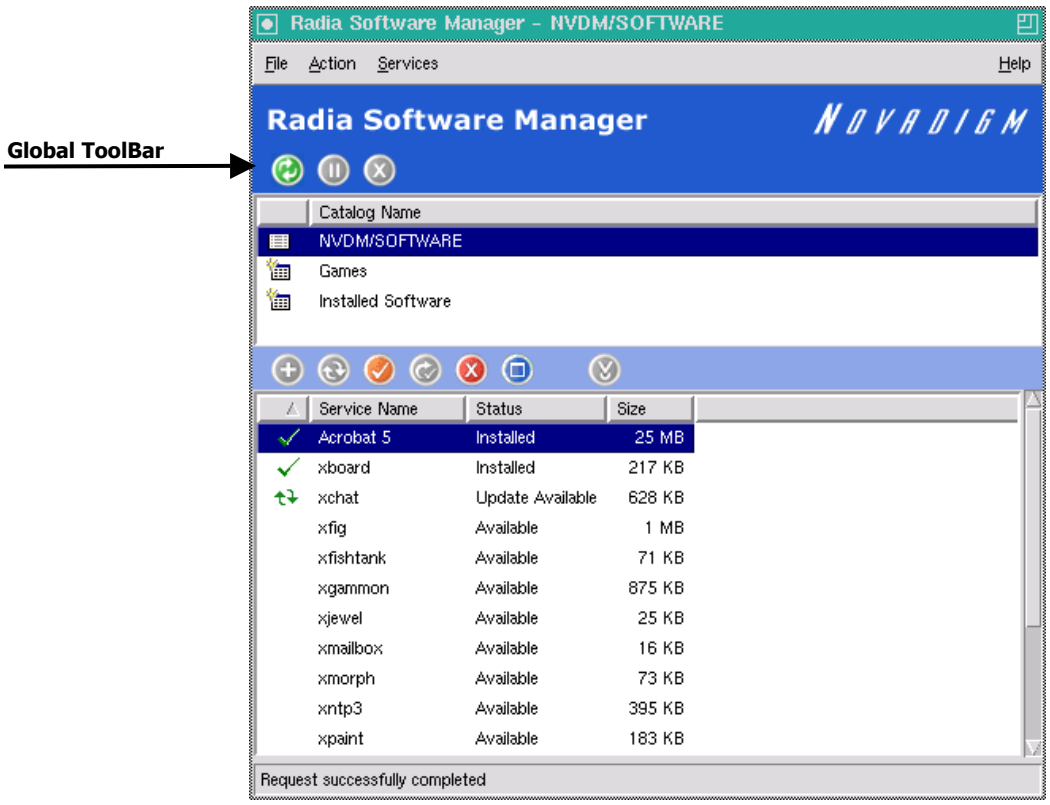

Figure 7.4 ~ Global Toolbar.

Any time one of the buttons in the **Global Toolbar** is not available for the current action, they will appear grayed-out.

To refresh the catalog

- To refresh the selected catalog using the **Global Toolbar,** click **Refresh** .

To pause or resume the current action

- To pause the current action using the **Global Toolbar,** click **Pause** .
- To resume a paused action, click **Resume** . (The **Pause** button is replaced with this button after you pause an action).

To cancel the current action

- To cancel the current action using the **Global Toolbar,** click **Cancel**  .

The Catalog List

The **Catalog List** section lists the available software catalogs and any virtual catalogs.

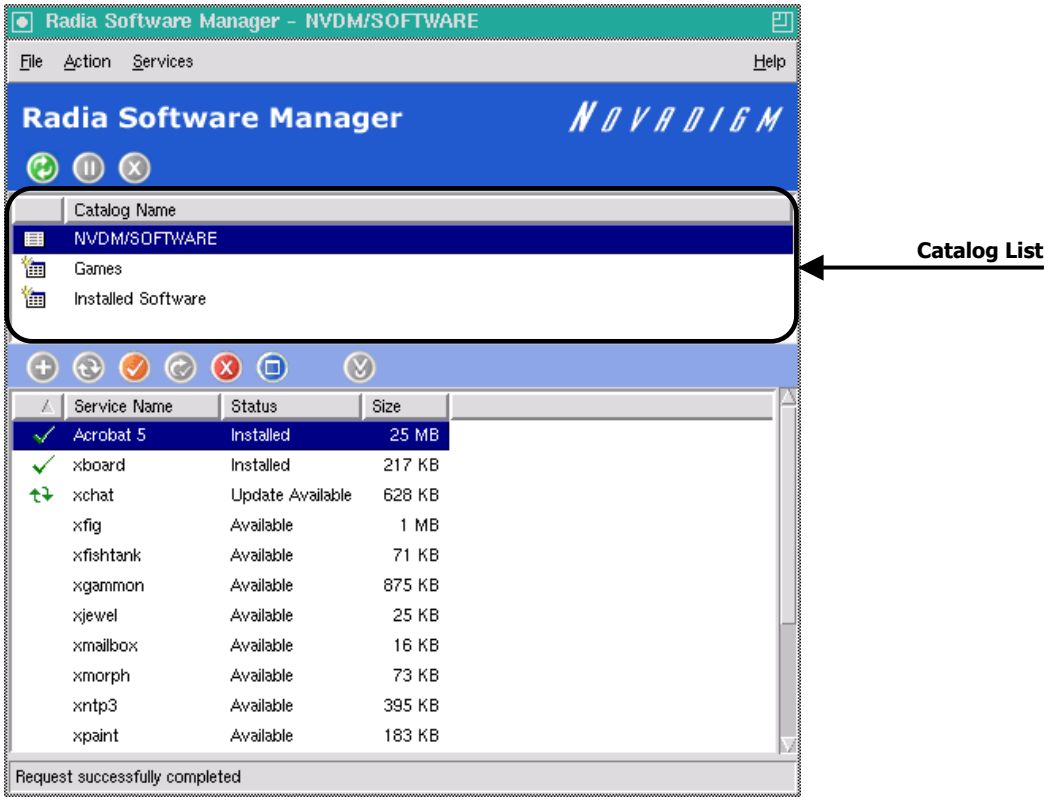

Figure 7.5 ~ The Catalog List section.

To select a catalog

- In the **Catalog List,** click on the Radia Configuration Server catalog you would like to view in the Service List section. Refresh the catalog at any time by clicking the **Refresh** button in the **Global Toolbar.**

Virtual Catalogs

Virtual catalogs are subsets of the default catalog defined by specifying a name in the CATGROUP value for a service. Any services with the same CATGROUP value will be grouped together in a virtual catalog.

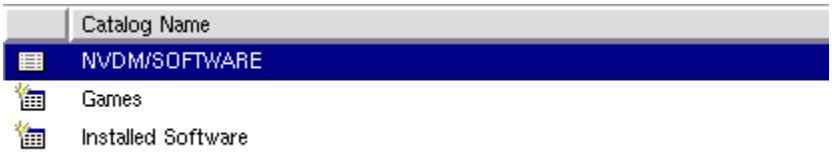

Figure 7.6 ~ Catalog List with virtual catalog.

To set the CATGROUP attribute

Note

The following example uses the Radia System Explorer, which is available for 32-bit Windows platforms.

1. From the **Start** menu, select **Programs**, **Radia Administrator, Radia System Explorer**. The **Radia System Explorer Security Information** dialog box opens.

Note

The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, type a **User ID** and **Password**, and then click **OK**. The **Radia System Explorer** window opens.
3. Double-click **PRIMARY**.
4. Double-click **SOFTWARE**.
5. Double-click the name of the service you would like to add to a virtual catalog.
6. Double click the **CATGROUP** attribute and type the name of the virtual catalog you would like to add the service to.
7. Click **OK**

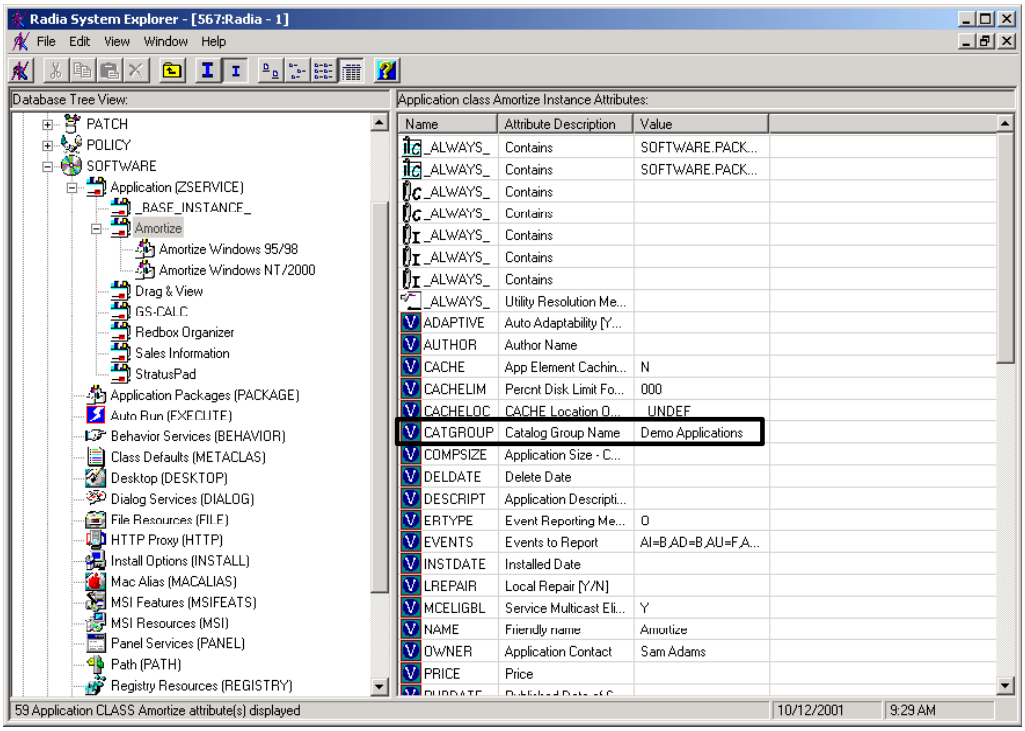

Figure 7.7 ~ CATGROUP attribute in the Radia System Explorer.

The Service List

The **Service List** section lists the applications available to you. A check mark appears next to software that is already installed. The column headings displayed can be changed to suit your needs, see *Preferences* on page 245 for more information.

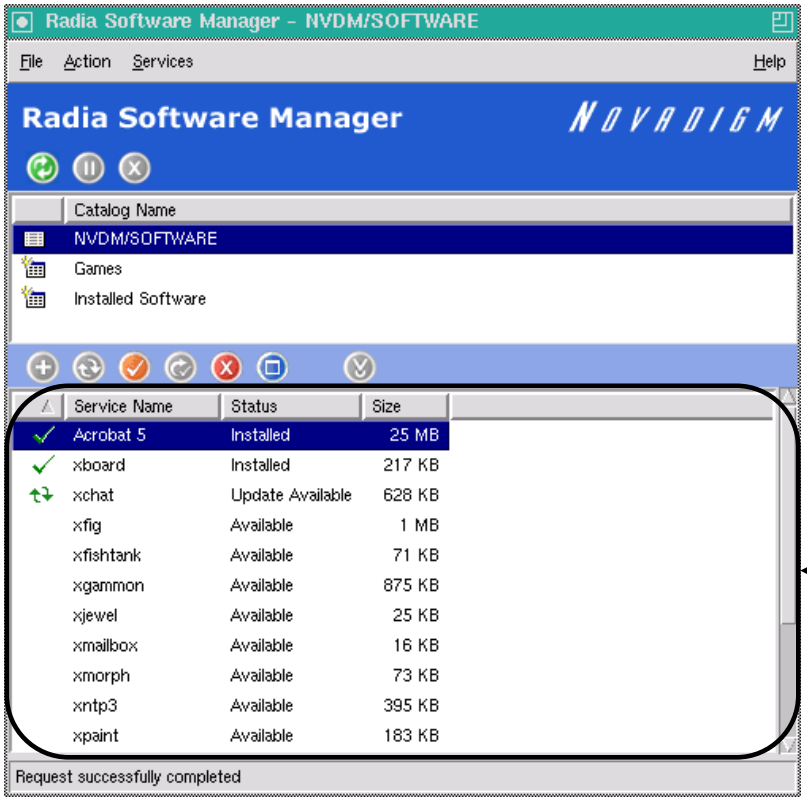

Figure 7.8 ~ Service List section.

Table 7.1 ~ Buttons in the Radia Service List Section

Button	Action	Description
	Install	Installs the selected service on your machine
	Update	Updates the selected service.
	Verify	Verifies the files for the selected service.

Table 7.1 ~ Buttons in the Radia Service List Section

Button	Action	Description
	Repair	Repairs the selected service.
	Remove	Removes the selected service from your machine.
	Expand/Collapse	Expands or collapses the selected service.
	Download Only	Download selected service from catalog into local cache without installing.

Note

The buttons in the Radia Service List section will be gray when they are not available for the selected application.

Some of the buttons in the Radia Service List section are only available when the **Show advanced operations** box is checked in the Service List options section of the Preferences. See *Preferences* on page 245 for more information.

The Radia Software Manager Menu Options

Use the **Radia Software Manager Menu** options to configure and customize your Radia Software Manager.

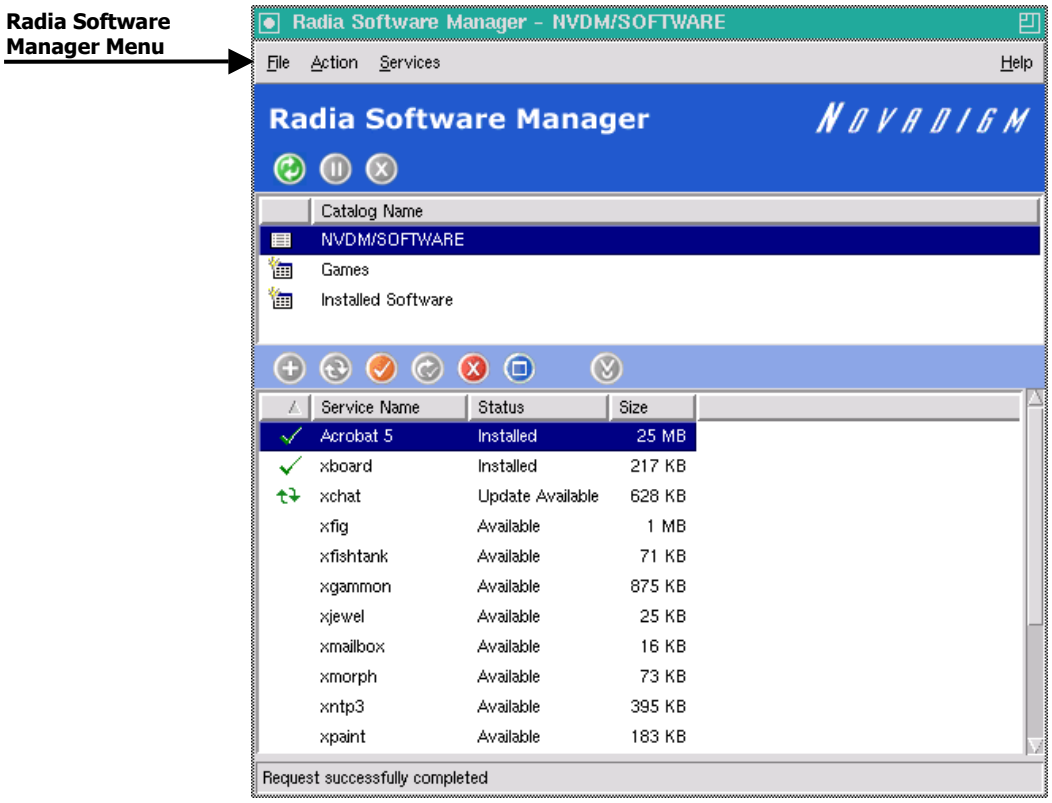

Figure 7.9 ~ Radia Software Manager Menu.

The following sections explain each option in the Radia Software Manager Menu in detail.

File

Use the **File** menu option to exit the Radia Software Manager.

Action

Use the **Action** menu option to navigate between software catalogs, refresh the catalog, or view history or preference options.

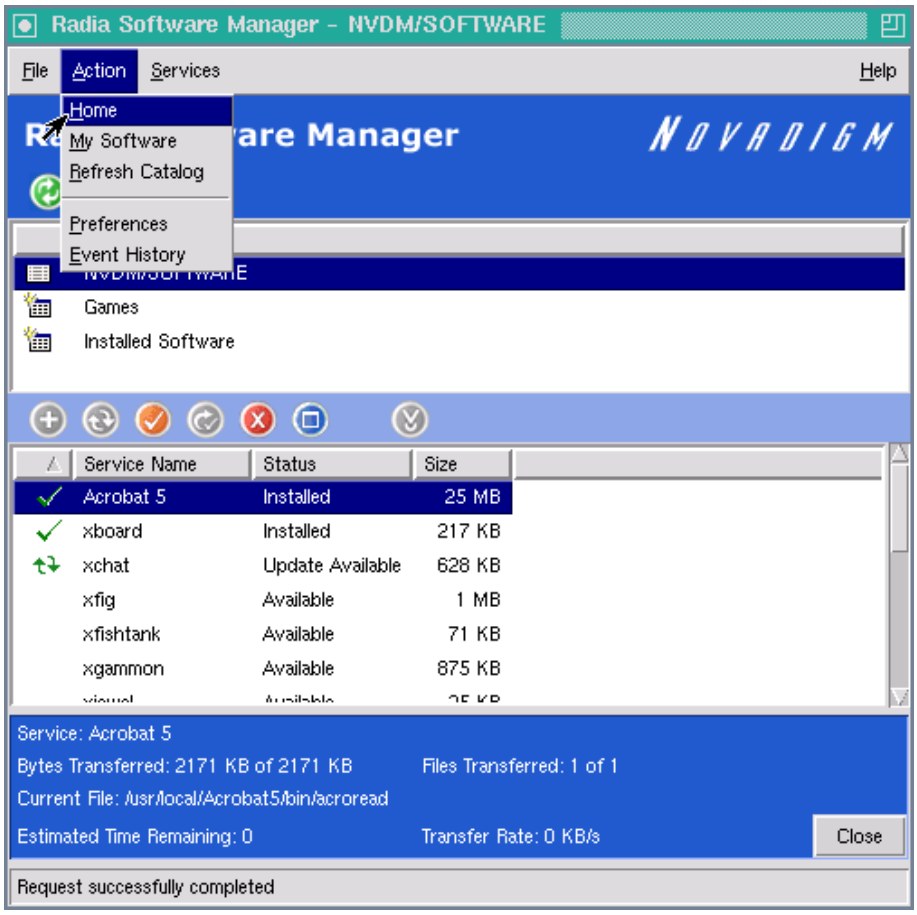

Figure 7.10 ~ Action Menu.

- **Home**
  Click **Home** to return to the main Radia Service List, displaying all available services in the Radia Configuration Server Database.
- **My Software**
  Select this option to display only services that you have installed.
- **Refresh Catalog**
  Select this option to refresh the catalog, and check for updates to any available Services.
- **Preferences**
  Select this option to access various display options, service list options, and connection options for the Radia Software Manager.

At any point you can click on **Save**, or **Cancel** in the bottom right corner of the Preferences section to keep or disregard any changes you make.

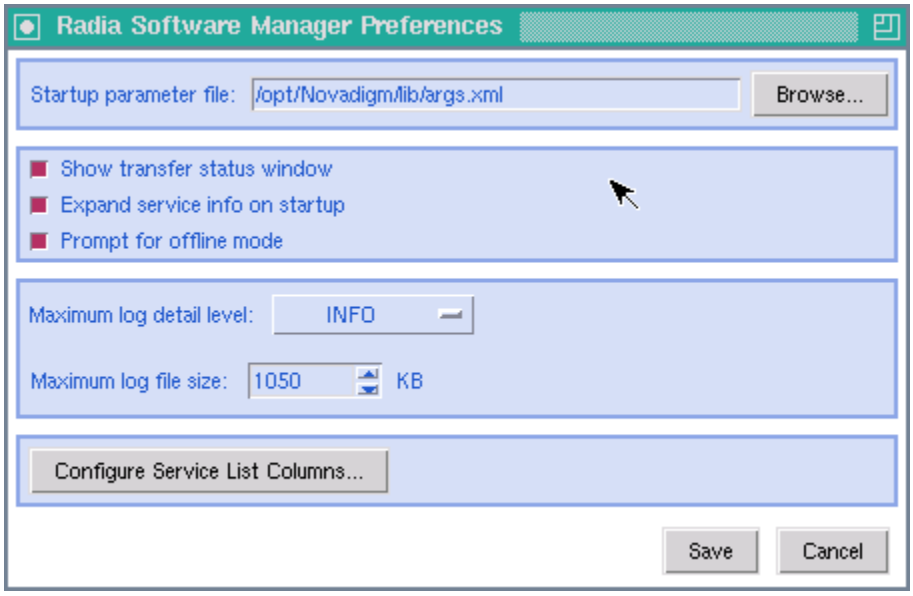

Figure 7.11 ~ Radia Software Manager Preferences.

- **Startup parameter file**
  Enter the name and location of your Startup parameter file (by default: /opt/Novadigm/lib/args.xml). Use the **Browse** button to manually locate the file.
- **Show transfer status window**
  Select this check box to display the transfer status window at the bottom of the Service List.
- **Expand service info on startup**
  Select this check box to display the Service info at the bottom of the service list for the selected service.
- **Prompt for offline mode**
  Select this check box if you would like to be prompted to work offline if a connection to the Radia Configuration Server is not available.
- **Maximum log detail level**
  Select the Log detail level you would like: **ERROR, WARNING, INFO, DEBUG,** or **TRACE.**
- **Maximum log file size**
  Select the maximum log file size using the up and down arrows or by typing the log size into the text box.
- **Configure Service List Options**
  Use the **Configure Service List Columns** button**,** as shown in Figure 7.11 on page 246, to modify the appearance of the Service List.

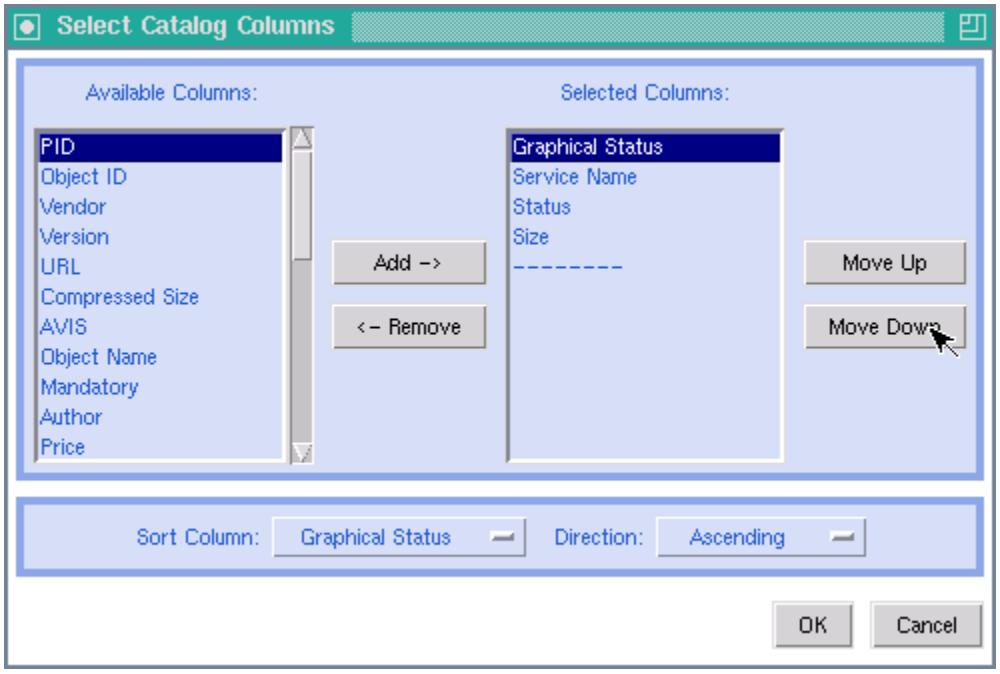

Figure 7.12 ~ Preferences button, Service List Options.

- **Customizing the Column Names in the Service List**

  Use the columns area to customize the columns that appear in your service list. The right-hand column lists the column names currently displayed in your service list. For a description of each available column heading, see Table 7.2 on page 249.

To add columns to the Service List

1. In the **Available Columns** list box, select the column name you would like to add.
2. Click **Add.** The selected column is listed in the **Selected Columns** list box.
3. To change the order of the columns in the **Selected Columns** list, use the **Move Up** and **Move Down** buttons.
4. To set the default order of Services in the Service List, use the **Sort Column** and **Direction** buttons.
5. Click **OK** to return to the Preferences Menu.
6. Click **Save** to keep your changes and return to the Radia Software Manager.

To remove columns from the Service List

1. In the **Selected Columns** list box, select the column you would like to remove.

2. Click **Remove**. The selected column is removed from the **Selected Columns** list box and returned to **Available Columns.**
3. Click **OK** to return to the Preferences Menu.
4. Click **Save** to keep your changes and return to the Radia Software Manager.

Table 7.2 ~ Column Headings Available for the Service List

Column Heading	Description
Author	The author of the service.
CompressedSize	The size of the compressed service (bytes).
Description	A short description of the service.
InstalledDate	The date the service was installed on your computer.
LocalRepair	If data is repairable locally (cached on your computer).
Mandatory	The Mandatory or Optional flags are displayed.
OwnerCatalog	The originating application domain name.
Price	Price of the service.
PublishedDate	The date the service was published to the catalog.
RepublishedDate	The date the service was republished to the catalog.
Service Name	Name of the Service (cannot be removed from the column display).
Size	The size of the service (bytes). **Note**: You need this amount of free space on your computer to successfully install the service.
Status	Current status of the software • Available • Installed • Update Available • Broken
UpgradedDate	The date the service was upgraded.
Url	The software vendor's url.
Vendor	The software vendor who supplied the service.
VerifiedDate	The date the service was last verified.
Version	The version of the service.

- **History**
  Select this option to display a history of the current session.

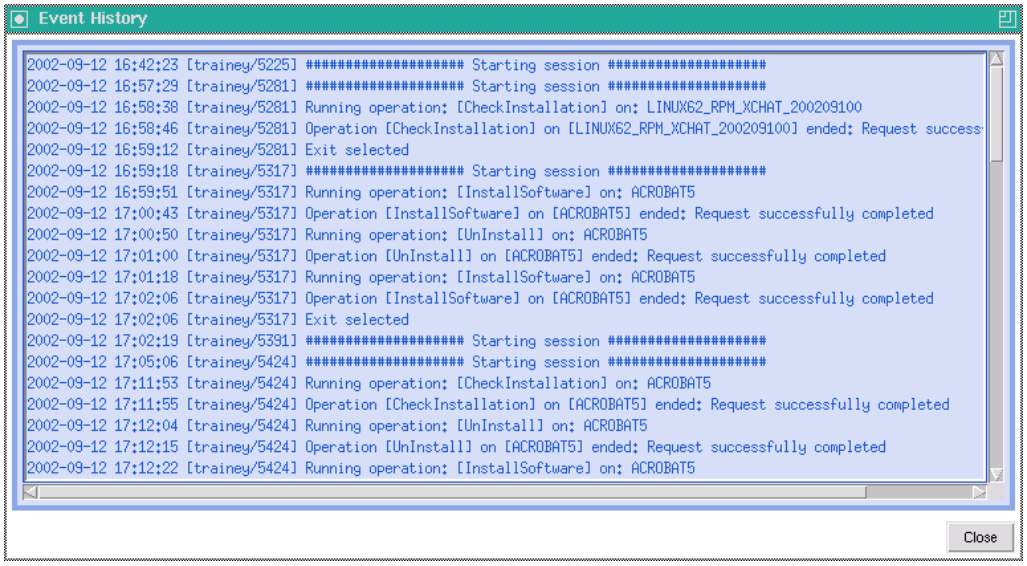

Figure 7.13 ~ Current activity history.

Services

The Services menu options are:

- Install
- Download
- Update
- Verify
- Repair
- Remove
- Information
- Schedule

Each Service option can be accessed by selecting a Service in the Service List and selecting the Service option from the Services Menu. You can alternatively use the Service List buttons to perform these actions as well. The Service options are explained in detail in the following section.

Using the Radia Software Manager User Interface

Installing Software

The applications that are available to you are listed in the Service list. You can install one or more of these applications at any time.

To install software

1. In the **Service List**, click the name of the software that you want to install.
2. Click **Install**  .

   Some installations may display a set of dialog boxes. If so, follow the instructions. Otherwise, the installation begins immediately.

   A progress bar displays the installation progress.

   - Click **Cancel**  in the **Global Toolbar** to cancel the installation.
   - Click Pause  in the **Global Toolbar** to pause the installation. If you pause an action, you will not be able to perform any other actions until you either cancel or resume the currently paused action.

Refreshing the Catalog

The catalog is refreshed whenever you log on to the Radia Software Manager user interface. While you are logged on, if you believe that the list of applications that you're authorized to use has changed, or that updates to your installed applications have become available, click **Refresh Catalog**  in the **Global Toolbar** to retrieve the updated list of applications.

Viewing Information

You may want more information about an application than the Service List provides. If you would like to know the vendor, version, size, and date the application was installed, you can either add these columns to the Service List or double-click the selected Service.

Click **OK** to close the Service Information window.

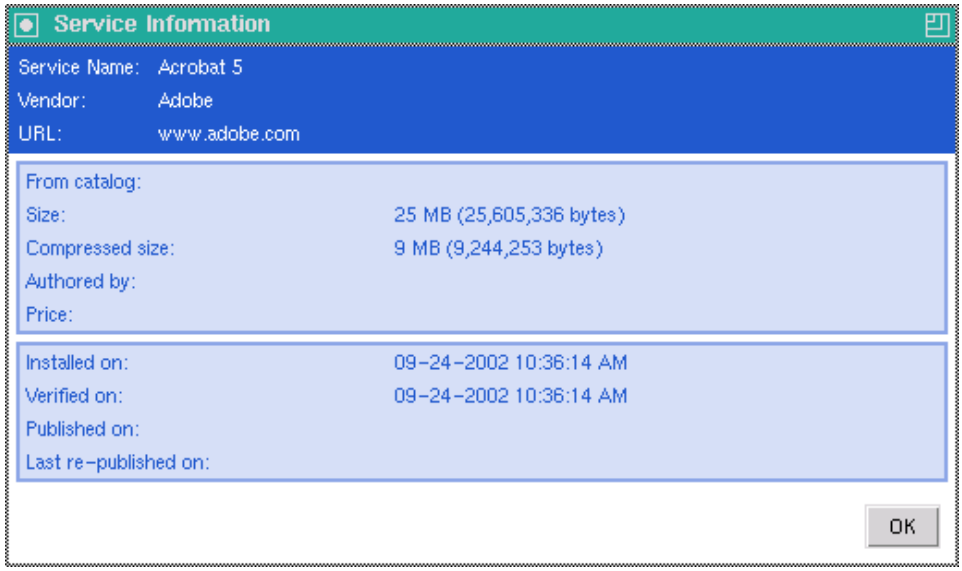

Figure 7.14 ~ Service Information.

Scheduling Timed Events

After selecting an installed service, select **Schedule** from the Services menu to specify a schedule that will automatically update the applications that are installed on your computer. For example, you can schedule updates to occur during non-business hours, when you are not using your computer and network traffic is slower.

Note

The Scheduling dialog box is only enabled when an Application Service (ZSERVICE) has the SCHEDOK attribute set to Y, indicating the Radia Administrator authorized local scheduling capabilities on the selected service.

To schedule updates for an installed application

1. In the Radia Software Manager user interface, select an installed application.
2. Select **Schedule** from the Services menu.

The **Scheduling** dialog box opens.

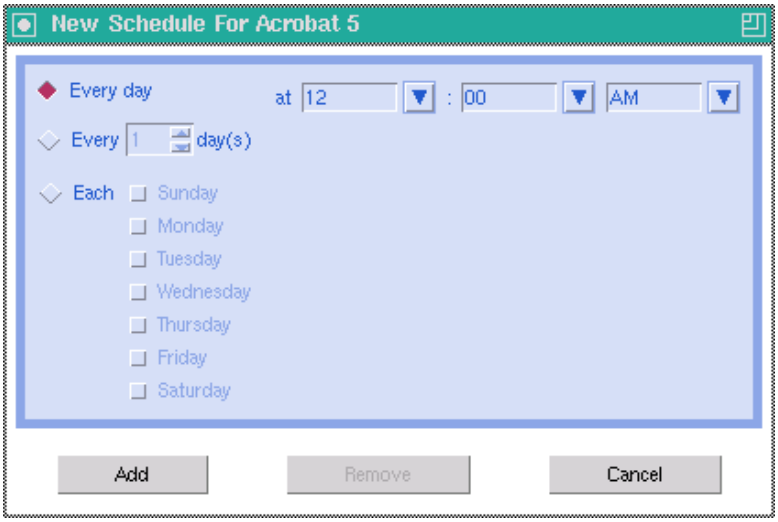

Figure 7.15 ~ Scheduling dialog box.

3. Select one of the following:
   - **Every day**
     Updates occur every day at the specified time.
   - **Every *n* days**
     Updates occur every *n* days. Use the up and down arrows next to the **Every** option button to select the frequency of updates.
   - **Each *weekday***
     Updates occur every *weekday* whose check box is selected. You may select more than one day.
4. Use the up and down arrows or type in the box labeled **at** to specify a specific time for the update.
5. Click **Add** to close the dialog box and accept the scheduled update.

Verifying Software

To check the installation of an application

1. In the Service List, select the installed service that you would like to verify.
2. Click **Verify**  .

- If the application passes verification, the date and time of verification will appear in the **Verified Date** column for the application.
- If the application fails verification, a **Verification Failed** window will open displaying the problem with the application. **Broken** will appear in the **Status** column in the Service List.

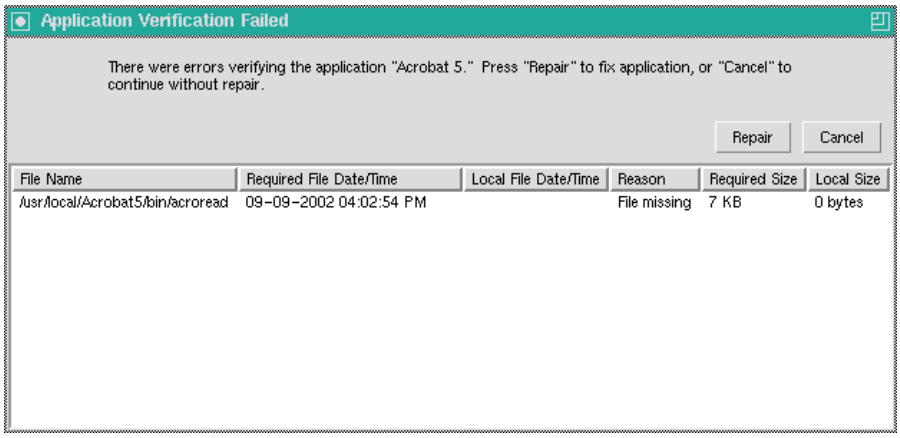

Figure 7.16 ~ Verification failed window.

3. To repair the software, either click **Repair** in the **Verification Failed** window, or click **Repair** in the Service List.

Repairing Software

If there is something wrong with an application, click **Repair**  to fix it.

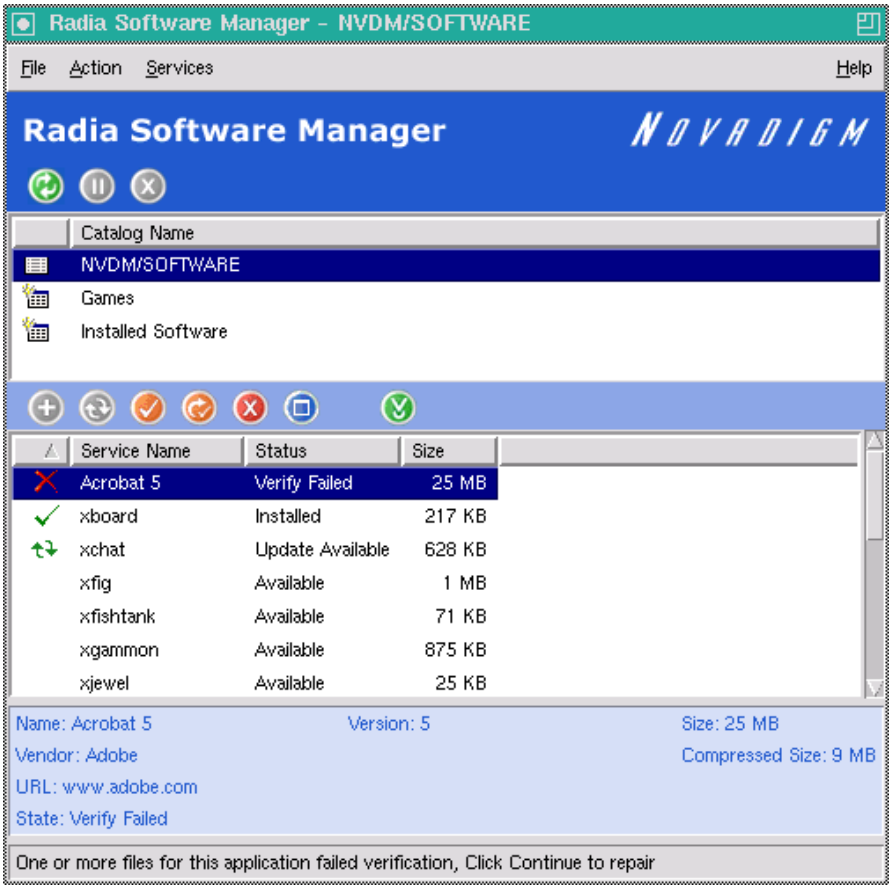

Figure 7.17 ~ Broken Acrobat 5 application.

Note

If you want your subscribers to be able to check installations and repair software without being connected to the Radia Configuration Server, see *Appendix B: Mobile Support for Radia Clients* starting on page 299.

To repair software

1. Select an application that needs to be repaired (This is designated by an **X** in the first column, and **Broken**, in the **Status** column).
2. Click **Repair**  . Radia retrieves the files needed to fix the application.

Removing Software

Use the **Remove** button  to remove software from your computer.

To remove software

1. Select the software that you want to remove.
2. Click **Remove**  .
3. Click **Yes** if you are asked to confirm that you want to remove the application.

Consolidated Client Logs

In previous versions of Radia, each of the main client modules — **radskman**, **radpinit**, and **radconct** — created its own log, which would be overwritten each time the module ran. Use these logs to help you troubleshoot deployment problems. Beginning with Radia 3.x, you can:

- Create a single log for all of these modules.
- Append information to the log if you prefer to see all of the activity.
- Name the log, which may be useful for debugging deployments or for collecting information from your client computers. For example, you might name your logs based on the date and time. Then, if you notice a problem occurring on a certain date, you can retrieve only the logs that you need to review.

Each of the three main client modules takes command line parameters in the following format:

```
Keyword = value (in comma-delimited format)
```

Therefore, you can use the following optional parameters on the command line if you want to name the log file or append information to an existing file. For example, you could add the log parameter to a **radskman** command line in a Notify to specify a particular log name.

Table 7.3 ~ Parameters for Log Files

Parameter	Description	Default	Example
Alog	The name of the log file to append to. If you do not specify the alog parameter, the log specified in the log parameter will be appended to. Use a valid filename without a path. By default logs are stored in the IDMLOG folder.	N/A	Alog=Application1.log
Log	The name of the log file to create. Use a valid filename without a path. By default logs are stored in the IDMLOG folder. If there is an existing log file with the same name, Radia creates a backup of that file called *logname*.bak. If there is already a *logname*.bak, Radia will overwrite it.	Connect.log	Log=20010524.log

The value for the log parameter is stored in the LOGNAME attribute, located in the ZMASTER object in the catalog and application directories.

Summary

- Subscribers use the Radia Software Manager user interface to install, update, verify, and remove software on their computers.
- Customize the user interface using the **Preferences** Action menu option.

8

Radia Client Objects

At the end of this chapter, you will:

- Be familiar with key Radia Client objects.
- Know the hardware attributes that the Radia Software Manager for UNIX client collects.
- Understand the APPEVENT object.
- Know how Open Database Connectivity (ODBC) can help you generate reports with information from the objects.

This guide covers the *suggested* implementation for the Radia Software Manager. Although you will tailor this strategy to meet your organization's needs, it is recommended that you review this guide for a comprehensive understanding of the Radia Software Manager. This chapter covers Radia client objects.

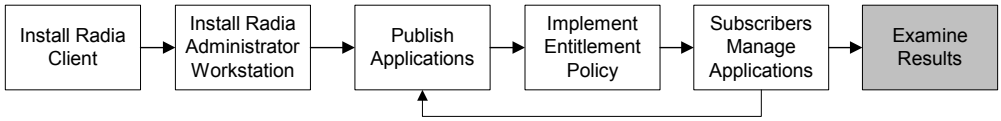

Figure 8.1 ~ Overview of the Radia Software Manager Guide.

Radia Objects

After installing the Radia Software Manager client, and installing a service, you may want answers to the following questions:

- What is the hardware configuration of the client computer?
- Was the service successfully installed?
- When was the service installed?

Note

The term *computer* is used to refer to a workstation or server.

Use Radia Client objects to answer these questions. When a client computer connects to the Radia Configuration Server, information is exchanged between the client and the Radia Configuration Server. This exchange is called the *resolution process*. During resolution, Radia checks the status of services, and objects from the client computer are updated on the Radia Configuration Server. Use the Radia System Explorer or the Radia Client Explorer to view these objects.

Note

The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, see the *Radia System Explorer Guide*.

The PROFILE File

The objects that are received during a Client Connect are stored in the PROFILE file. This information is for viewing and reporting only. Each client computer or user ID is stored as a domain within the file, and each object is stored as a class within that domain. Each class is identified by the computer name, the user ID, or by a customized variable.

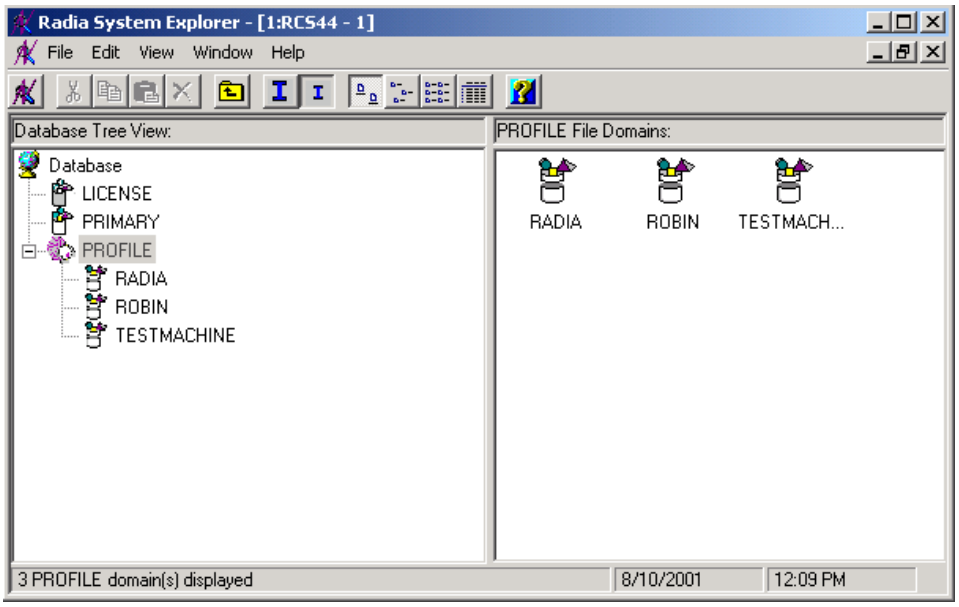

Figure 8.2 ~ PROFILE file.

Under each domain or client computer, there are at least two instances created, ZCONFIG and ZMASTER.

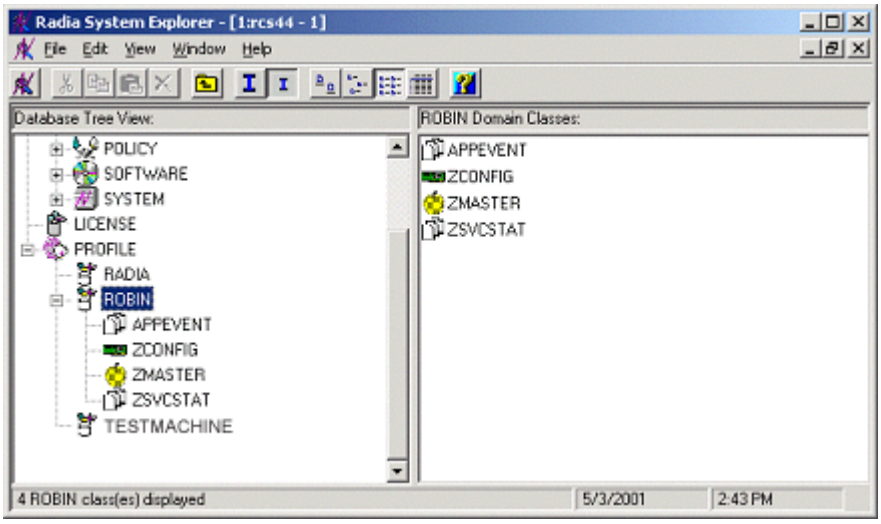

Figure 8.3 ~ Client computer in the PROFILE file.

After a service is installed, the APPEVENT and ZSVCSTAT objects are created. These provide information about the configuration of the client computer. Other objects may appear based on your configuration.

Table 8.1 ~ Objects in the PROFILE File

Instance	Information Recorded
APPEVENT	Provides information about an event such as success or failure on installation.
ZCONFIG	Contains basic hardware information for the client computer. Includes practical hardware information such as processor, operating system, and drives.
ZDELSVC	Displays only when you remove a service. Contains one instance per service. Each instance includes information such as time of removal, Radia Configuration Server name, and service name.
ZMASTER	Contains information that identifies the subscriber, and other information necessary to run the Radia Software Manager.
ZSVCSTAT	Contains one instance per service. Each instance includes information such as time of installation, Radia Configuration Server name, and service name.

ZCONFIG and APPEVENT are primarily used to describe the current configuration on the client computer, and are described in depth in this chapter. For more information on ZMASTER and ZSVCSTAT, see the HP OpenView web site.

Basic Hardware Inventory - ZCONFIG

The ZCONFIG object stores hardware configuration information from the client computer. Use the Radia System Explorer or the Radia Client Explorer to view the ZCONFIG object. To view the ZCONFIG object that was most recently collected from the client computer, use the Radia System Explorer. If the ZCONFIG object is not current because the client computer has not recently connected to the Radia Configuration Server, or cannot be viewed using the Radia System Explorer, then use the Radia Client Explorer. You may need to use the Radia Client Explorer to examine the hardware inventory if the client computer is unable to connect to the Radia Configuration Server. The Radia Client Explorer can be used to view only the local client computer (the machine where the Radia Client Explorer has been installed).

Note

The following instructions use the Radia System Explorer. The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, see the *Radia System Explorer Guide*.

To view the ZCONFIG object using the Radia System Explorer

1. From the **Start** menu, select **Programs, Radia Administrator Workstation, Radia System Explorer**. The **Radia System Explorer Security Information** dialog box opens.

Note

The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, type a **User ID** and **Password**, and then click **OK**. The **Radia System Explorer** window opens.
3. Double-click **PROFILE**.
4. Double-click the user ID or client computer name.
5. Double-click **ZCONFIG**.
6. Double-click **HARDWARE_**.
7. Double-click **HARDWARE_SCAN**.

   The ZCONFIG object is displayed in the list view.

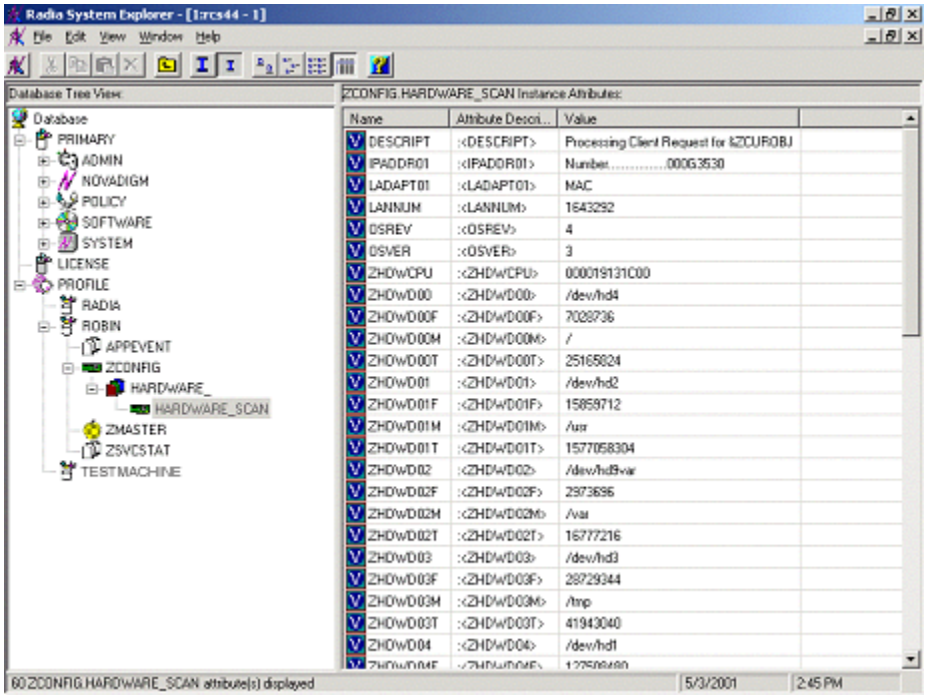

Figure 8.4 ~ Viewing the ZCONFIG object in Radia System Explorer.

Note

To view the attributes in alphabetical order, click **Name** at the top of the column in the list view.

To view the ZCONFIG object using Radia Client Explorer

1. View the **ZCONFIG.EDM** file in the client computer's IDMLIB directory. IDMLIB defaults to **/opt/Novadigm/lib**.
2. Change your current working directory to the directory containing **radobjed** (default directory is **/opt/Novadigm)** and type **./radobjed**.

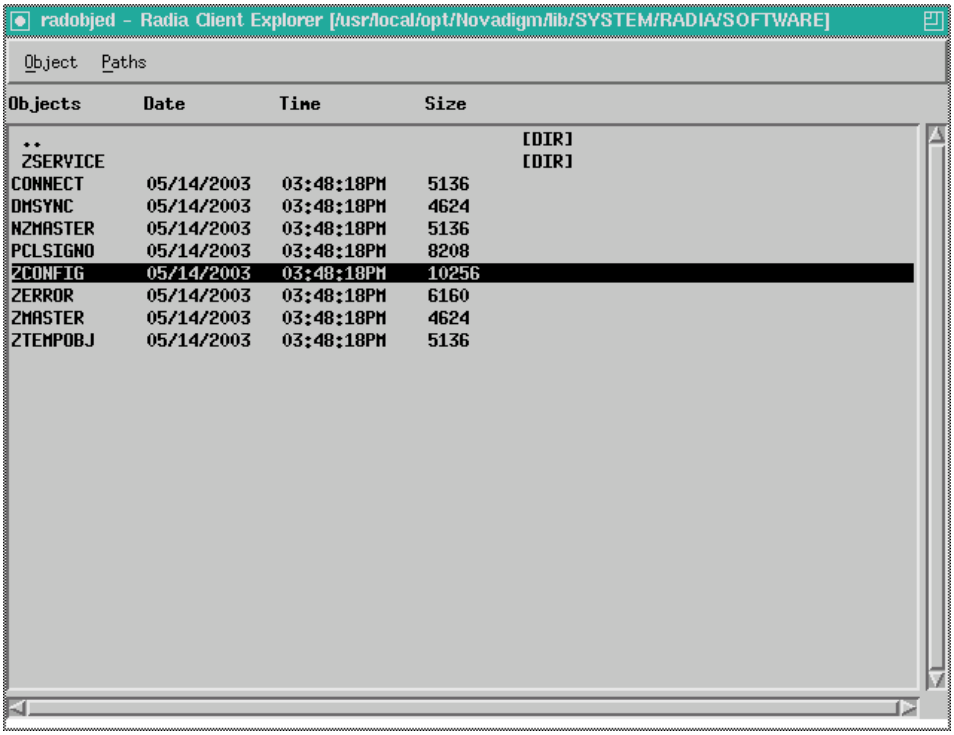

Figure 8.5 ~ Radia Client Explorer.

3. Double-click **ZCONFIG**. The ZCONFIG dialog box displays the hardware inventory for the client computer.

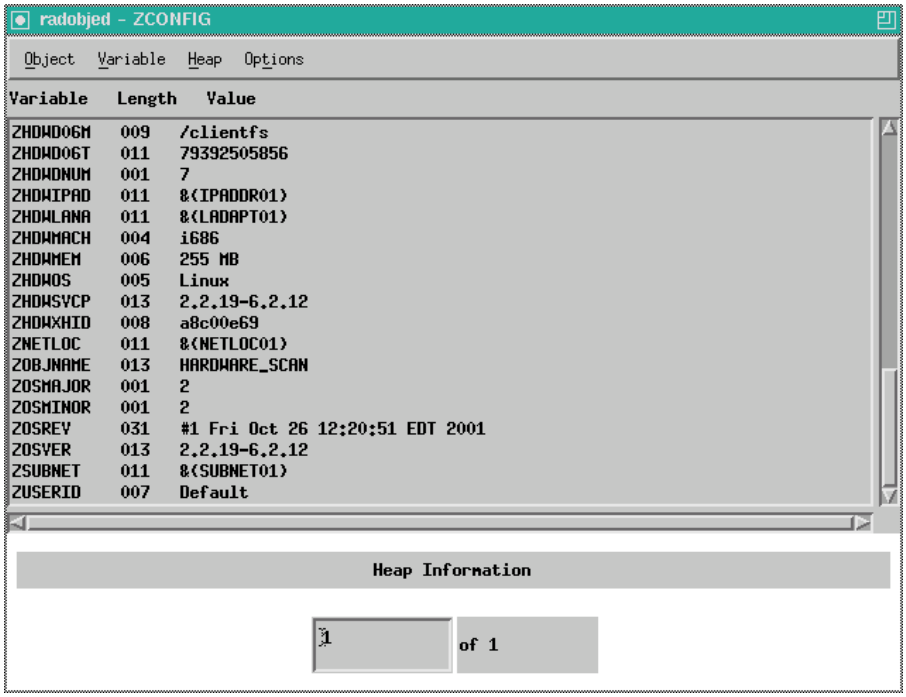

Figure 8.6 ~ ZCONFIG object on client computer.

4. From the **Object** menu, select **Close** when you are finished viewing ZCONFIG.

Table 8.2 ~ Attributes in ZCONFIG below describes the attributes of ZCONFIG arranged in alphabetical order.

> **Note**
>
> The attributes that appear in the ZCONFIG object may vary depending on the client computer configuration.

Table 8.2 ~ Attributes in ZCONFIG

Variable	Description	Example
IPADDR01	IP address of first network adapter	xxx.xxx.xxx.xxx
LADAPT01	Hardware (Ethernet MAC) address of first Ethernet adapter	000502AB3A63
LANDEV01	Device name of first Ethernet adapter	en0

Table 8.2 ~ Attributes in ZCONFIG

Variable	Description	Example
NETLOC01	Network (subnet) location of first Ethernet adapter	xxx_xxx_xxx_x
SUBNET01	Subnet mask of first Ethernet adapter	255.255.255.0
ZGATEWAY	Gateway address of primary Ethernet adapter	xxx.xxx.xxx.x
GATEWY01	Gateway address of first Ethernet adapter	xxx.xxx.xxx.xxx
ZHDWCOMP	Computer node name	Linuxdoc
ZHDWCPU	CPU type	i686
ZHDWD00	First hard disk device	/dev/hda5
ZHDWD00F	First hard disk free space	1898426368
ZHDWD00M	First mount point	/
ZHDWD00T	First hard disk total space	6006796288
ZHDWDNUM	Number of drive letters assigned	2
ZHDWIPAD	IP Address of primary Ethernet adapter	xxx.xxx.xxx.xxx
ZHDWLANA	Hardware address of primary Ethernet adapter	003065488F96
ZHDWMACH	Machine type	i686
ZHDWMEM	Total physical memory	201326592
ZHDWSVCP	OS version	2.2.19-6.1.12
ZNETLOC	Network (subnet) location of primary Ethernet adapter	xxx_xxx_xxx_x
ZOBJNAME	Object instance name	HARDWARE_SCAN
ZOSMAJOR	Operating System major version	2
ZOSMINOR	Operating System minor version	2
ZOSREV	Operating System revision	#1 Friday Oct 26
ZOSVER	Operating System version	2.2.19-6.2.12
ZSUBNET	Subnet mask of primary Ethernet adapter	255.255.255.0
ZUSERID	User ID	DEFAULT

Setting Collection of the ZCONFIG Object

By default, the ZCONFIG object is collected for all client computers. Use the ZCONFIG variable located in POLICY domain USER class to specify whether you want to copy the ZCONFIG object from the client computer to the Radia Configuration Server.

To collect the ZCONFIG object

> **Note**
>
> The following instructions use the Radia System Explorer. The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, see the *Radia System Explorer Guide*.

1. From the **Start** menu, select **Programs**, **Radia Administrator Workstation**, **Radia System Explorer**. The **Radia System Explorer Security Information** dialog box opens.

> **Note**
>
> The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, type a **User ID** and **Password**, and then click **OK**. The **Radia System Explorer** window opens.
3. Double-click **PRIMARY**.
4. Double-click **POLICY**.
5. Double-click **USER**.

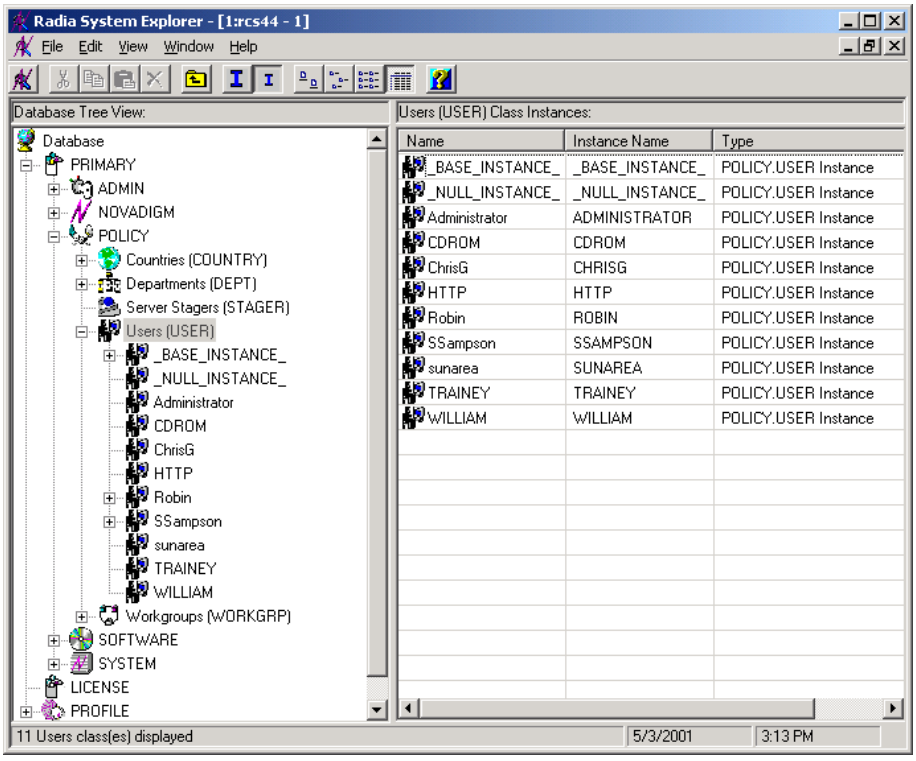

Figure 8.7 ~ USER class in the POLICY domain.

6. Double-click **_BASE_INSTANCE_**.

The attributes of the base instance appear in the list view.

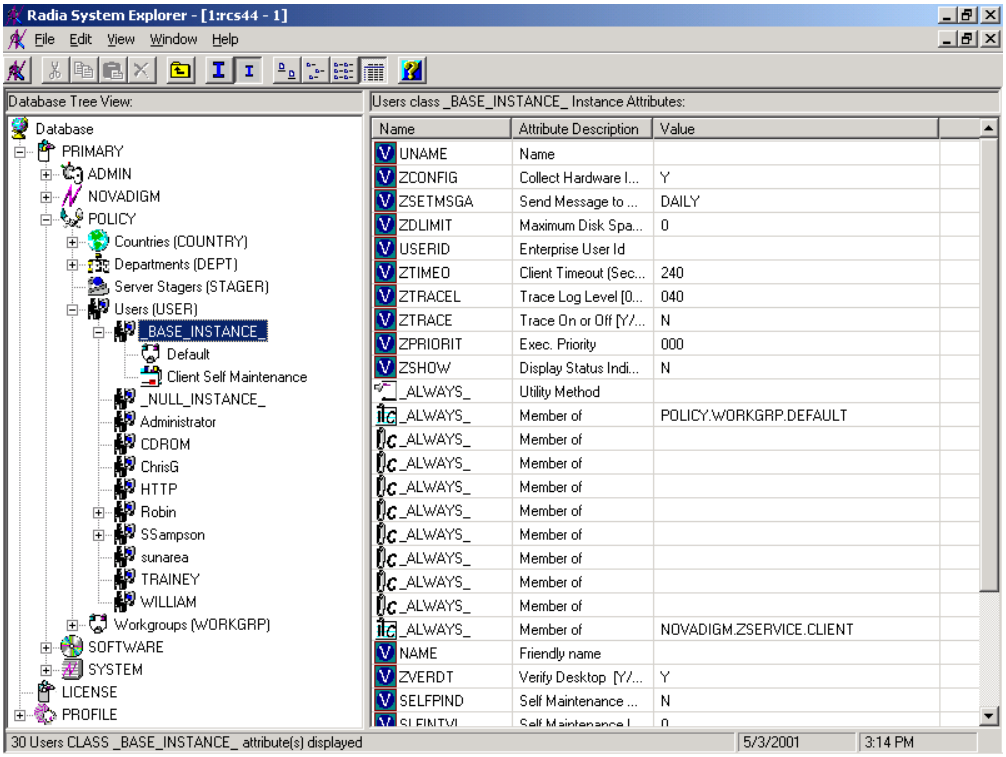

Figure 8.8 ~ Base instance of the USER class.

Note

Variables set in the base instance of the USER class in the POLICY domain apply to all new subscribers. Since ZCONFIG is set to **Y** by default, you should not have to change it to collect information for all users.

If you want to specify whether to collect information for only one subscriber, then double-click that subscriber's USER instance, and continue as follows.

7. Double-click **ZCONFIG** in the list view.

The **Editing Instance** dialog box opens with ZCONFIG already selected.

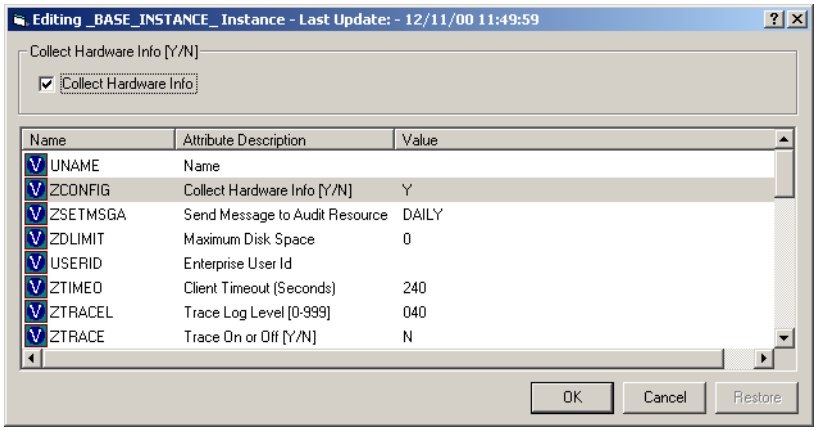

Figure 8.9 ~ Editing Instance dialog box.

8. Select **Collect Hardware Info** to collect the ZCONFIG object, or clear the check box to stop collection of the ZCONFIG object.
9. Click **OK** to close the **Editing Instance** dialog box and return to the Radia System Explorer.

Application Status – The APPEVENT Object

The APPEVENT object reports on the most recent *event* of an Application (ZSERVICE). An event is the action that the service performs, such as installing, updating, or removing an application. For example, use the APPEVENT object to check the status of an installation. If the installation failed, you should troubleshoot the issue. By default, all services are configured to send some application event information to the Radia Configuration Server. You control what information is captured for the application by changing the EVENTS attribute in the Application instance.

Base Instance Behaviors for Application Events

The base instance of the ZSERVICE class, located in the SOFTWARE domain, specifies what information to collect for each application event. *Table 8.3 ~ Base Instance Values for ZSERVICE that Apply to the APPEVENT Object* below describes the base instance values. You can select which events are reported on when you create the service in the New Application Wizard as shown in the *Publishing Applications and Content* chapter starting on page 115, or by directly editing the values in the Radia System Explorer.

Table 8.3 ~ Base Instance Values for ZSERVICE that Apply to the APPEVENT Object

Variable	Default	Explanation
ERTYPE	O	Send an APPEVENT object to the Radia Configuration Server.
EVENTS	AI=B	AI = Report on success or failure of Application Install.
	AD=B	AD = Report on success or failure of Application Deinstall.
	AU=F	AU = Report on failure of Application Update.
	AR=N	AR = Do not report on Application Repair.
	VA=F	VA = Report only on failure for Version Activation.
	VD=F	VD = Report only on failure for Version Deactivation.

Note

The following instructions use the Radia System Explorer. The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, see the *Radia System Explorer Guide*.

To edit the events reported to APPEVENT using Radia System Explorer

1. From the **Start** menu, select **Programs**, **Radia Administrator Workstation**, **Radia System Explorer**. The **Radia System Explorer Security Information** dialog box opens.

Note

The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, type a **User ID** and **Password**, and then click **OK**. The **Radia System Explorer** window opens.
3. Double-click **PRIMARY**.
4. Double-click **SOFTWARE**.
5. Double-click **Application (ZSERVICE)**.

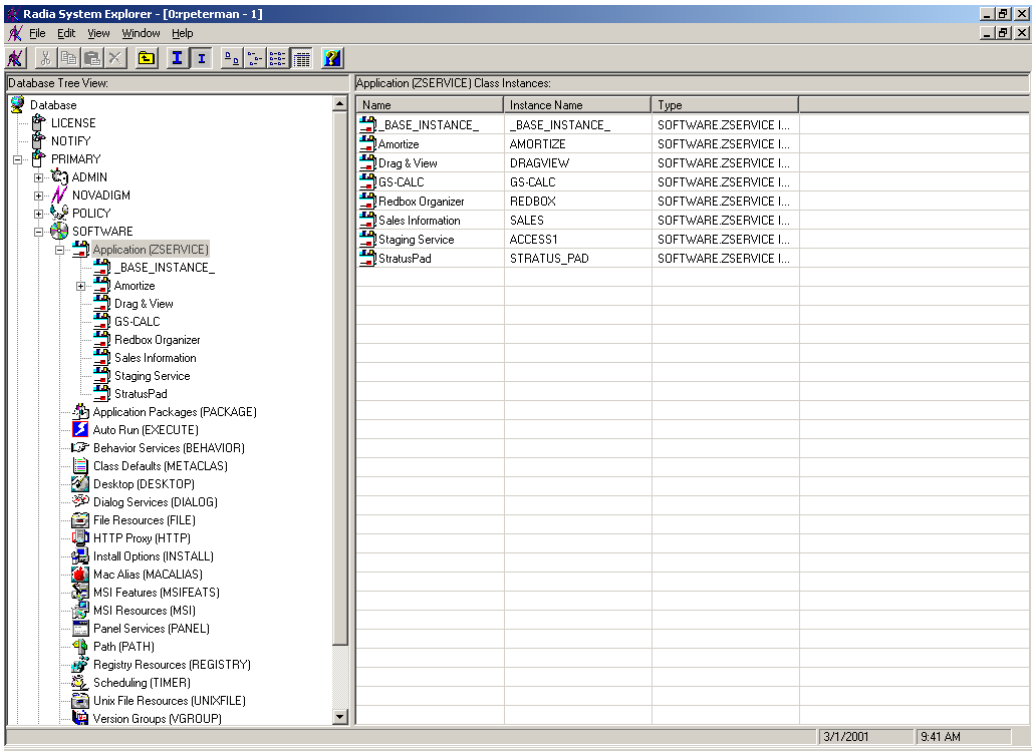

Figure 8.10 ~ Application (ZSERVICE) class.

6. Double-click the appropriate application instance.

Note

If you want to make these changes for all new application instances, double-click the **_BASE_INSTANCE_** and make your modifications there.

7. Double-click the **EVENTS** attribute for the application instance.

The **Editing Instance** dialog box opens.

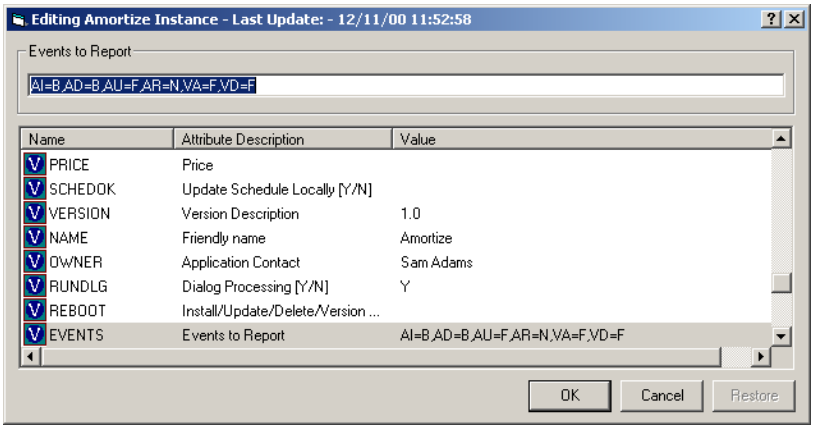

Figure 8.11 ~ Editing EVENTS attribute for the application instance.

8. Edit the **EVENTS** attribute using values from the following tables. Create your events to report by equating a keyword from Table 8.4 below with a value from Table 8.5 on page 275. For example, **AI=S**, **AD=S**, **AU=S**, **AR=S**, **AV=S**, **VA=S**, **VD=S** reports on the success of each possible event.

Table 8.4 ~ Events and Keywords

Event to Report	Keyword
Install	AI
Deinstall	AD
Update	AU
Repair	AR
Verify	AV
Version Activation	VA
Version Deactivation	VD

Table 8.5 ~ Event Status to Report	
Status	**Value**
Success	S
Failure	F
Both Success and Failure	B
None (Default)	N

9. Click **OK** to close the **Editing Instance** dialog box and return to Radia System Explorer.

Viewing the APPEVENT Object

Use the Radia System Explorer to confirm successful completion of the application event, or view other information about the application event. Each service stores information from the APPEVENT object as an instance in the APPEVENT class. This instance is located in the client computer's domain in the PROFILE file.

Note

The following instructions use the Radia System Explorer. The Radia System Explorer is currently available for 32-bit Windows platforms. For more information, see the *Radia System Explorer Guide*.

To view the APPEVENT instance using the Radia System Explorer

1. From the **Start** menu, select **Programs**, **Radia Administrator Workstation**, **Radia System Explorer**. The **Radia System Explorer Security Information** dialog box opens.

Note

The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, type a **User ID** and **Password**, and then click **OK**. The **Radia System Explorer** window opens.

3. Double-click **PROFILE**.

4. Double-click the user ID or client computer.

5. Double-click **APPEVENT**.

6. Double-click the appropriate application. The attributes for the APPEVENT instance for that application appear in the list view. See the table at the end of this section for information on the attributes.

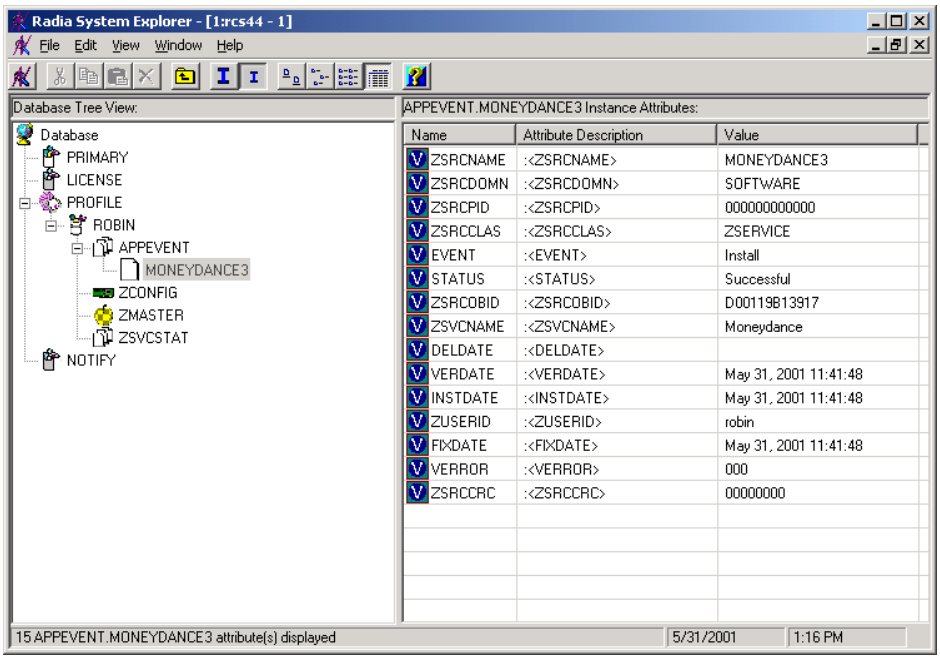

Figure 8.12 ~ Example of the APPEVENT object.

Table 8.6 below describes the attributes for the APPEVENT object.

Table 8.6 ~ Attributes in APPEVENT

Attribute	Description	Example
DELDATE	Deletion date	Feb 1, 2001 15:14:09
EVENT	Application Event that last occurred for this service. Possible values are: Install Uninstall Update Repair Verify Version Activation Version Deactivation	Uninstall
FIXDATE	Fix date	Feb 1, 2001 15:06:21
INSTDATE	Installation Date	Feb 1, 2001 15:06:21
STATUS	Event status	Successful
VCOMMENT	Text string for error code in VERROR (only used for Versioned Deployments)	
VERDATE	Verification Date	Feb 1, 2001 15:06:21
VERROR	Error code generated for a version change (only used for Versioned Deployments)	
VERSION	Contains friendly name of the version (only used for Versioned Deployments)	
ZSRCCLAS	Service class	ZSERVICE
ZSRCCRC	Service CRC	00000000
ZSRCDOMN	Service domain	SOFTWARE
ZSRCNAME	Service name	DRAGVIEW
ZSRCOBID	Service object ID	D001FBD32FFE
ZSVCNAME	Service friendly name	Drag & View
ZUSRID	User ID	alee

Creating Custom APPEVENT Objects

You may decide that there is additional information that you want to collect from the client computer. To do this, use a REXX script to create an APPMERGE object that defines your custom variables. Your custom variables can be either static or dynamic.

- **Static variables**
  store information that does not change between events. For example, this information might contain a specific key that the customer needs in the Radia Database to report on the APPEVENT object. All static variable names contain the prefix **S_**. For example, if the customer needs a special variable for storing the Application ID, they would create a variable, **S_APPID** that equals **11111111**. Every APPEVENT object sent from the client would include the **S_APPID** variable.
- **Dynamic variables**
  store information specific to an event. For example, you can create separate variables for Install Events and Uninstall Events. An *install failed* message would not make sense when you are trying to uninstall an application. Dynamic variables do not have any special naming convention, except that they do not begin with **S_**. Any non-static variable is considered to be a dynamic variable. After the merge, the dynamic variables are deleted from the object.

Figure 8.13 below is an example of a REXX script for APPMERGE. For information on creating REXX scripts, see the *REXX Programming Guide* and the HPOpenView web site.

```
/*****************************************************************************/
/* properly set APPMERGE object for specifies criteria                       */
/* ************************************************************************/

RC = EDMGET('APPMERGE',0);               /* Get the Client APPMERGE object */

APPMERGE.V001 = 'A'
APPMERGE V002 = 'B'
APPMERGE V003 = 'C'
APPMERGE.V004 = 'D'
APPMERGE.V005 = 'E'

APPMERGE.S_V001 = 'KEEPER'
APPMERGE.OBJDATE = DATE('S')
APPMERGE.OBJTIME = TIME()

RC = EDMSET ('APPMERGE')

RETRUN;
```

Figure 8.13 ~ Sample REXX script setting APPMERGE object.

The newly created APPMERGE object with your variables is created in the application directory. If the APPMERGE object does not exist, then the objects merge process is bypassed. In the REXX script, you define the additional variables that will be merged into the APPMERGE object.

For more information on creating custom APPEVENT objects, see the *REXX Programming Guide*.

ODBC

The Radia System Explorer and Radia Client Explorer allow you to view only one object at a time. Therefore, you may wish to store your Radia objects in an Open Database Connectivity (ODBC) data source. Once the data has been transferred to an ODBC-compliant database, use any reporting tool capable of reading that database to generate reports.

Before storing object data in an ODBC-compliant database, the Radia Database must be configured to execute a method that writes the contents of selected fields from a Radia object to the ODBC-compliant database table. The ODBC data source must be defined on the Radia Configuration Server, but the database can reside on any computer that the Radia Configuration Server connects to.

Summary

- Use the Radia System Explorer or Radia Client Explorer to review the information collected from a client computer. This information is stored in the PROFILE file.
- Use the APPEVENT object to see the status of application deployments.
- You can connect to an ODBC database to view Radia objects or generate reports.

9

Deploying Mandatory Applications for the Radia Software Manager

At the end of this chapter, you will:

- Know how to designate applications as mandatory.
- Be familiar with the ways in which you can deploy mandatory applications and where to get more information.

By now, you have a detailed understanding of the Radia Software Manager client. Your subscribers install, update, verify, and remove applications from their computers with the Radia Software Manager user interface. Subscribers have control, which means that the software available in the Radia Software Manager user interface is considered optional. Subscribers have the option to install it or not.

However, there may be times when you want to retain control over the management of your digital assets. For example, you may want to distribute a mandatory application, such as a price list, to your subscribers. The price list may need to be updated on a regular basis and you don't want to rely on your subscribers to remember to request the updates, or even to create a schedule to receive the updates. To do this, you can use the Radia Application Manager client to handle the deployment, without relying on your subscribers.

Installing the Radia Application Manager with the Radia Software Manager, allows you to handle both mandatory and optional applications because it installs both the Radia Software Manager client *and* the Radia Application Manager client.

Important Note

You must have the proper license in order to enable the Radia Application Manager along with the Radia Software Manager. Contact your HP sales representative for details.

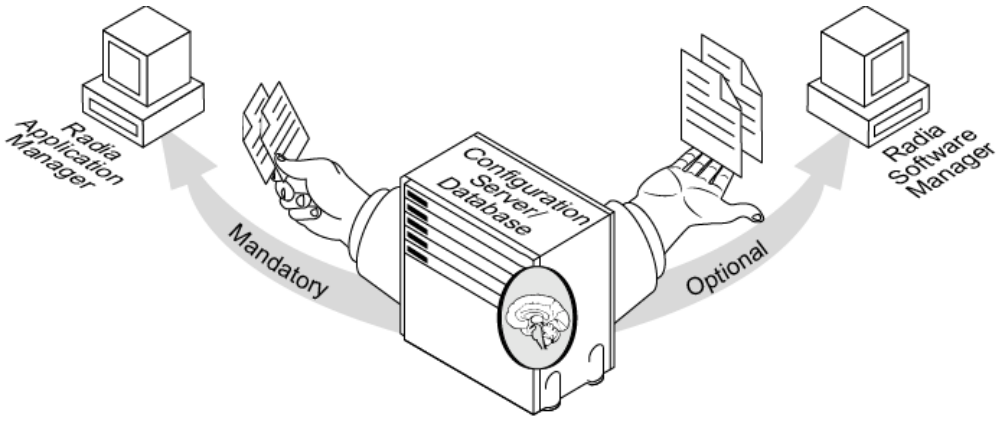

Figure 9.1 ~ Enabling both Radia Software Manager and Radia Application Manager.

This chapter introduces some of the additional capabilities that are available with the Radia Application Manager Feature Set. For detailed information about the Radia Application Manager client, refer to the *Radia Application Manager Guide for UNIX* on the HP OpenView web site.

Distributing Mandatory Applications with the Radia Software Manager Client

In addition to using the Radia Application Manager to handle mandatory applications, you can also configure the Radia Software Manager to process mandatory applications.

To process mandatory applications, you must designate the appropriate applications as mandatory.

Configuring Mandatory Applications

To designate an application as mandatory or optional:

- When you use the New Application Wizard to create a service for the first time, you will encounter the Application Target Type dialog box. Select **Application Manager** to designate that you are creating a mandatory service or **Software Manager** to designate that you are creating an optional service. See *Creating a Service* on page 166 for more information.

  OR

- Use the Radia System Explorer to modify the ZSVCMO attribute for the application instance in the Application (ZSERVICE) class. This is initially set based on your selection in the New Application Wizard but you can use the Radia System Explorer to modify the attribute.

This section covers how to configure mandatory applications using the Radia System Explorer.

To designate an application as mandatory

1. From the **Start** menu, select **Programs**, **Radia Administrator, Radia System Explorer**. The **Radia System Explorer Security Information** dialog box opens.

> **Note**
>
> The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, type a **User ID** and **Password**, and then click **OK**. The **Radia System Explorer** window opens.
3. Double-click **PRIMARY**.
4. Double-click **SOFTWARE**.
5. Double-click **Application (ZSERVICE)**.
6. Double-click the application, such as **Sales Information**, whose ZSVCMO attribute you want to change.

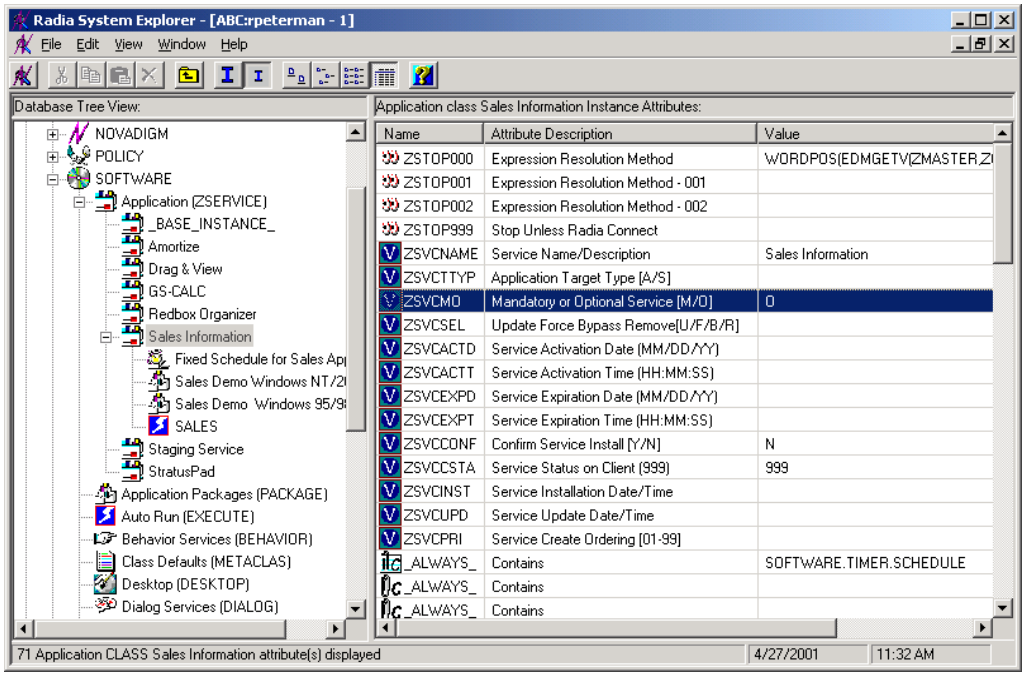

Figure 9.2 ~ Attributes for the Sales Information application.

7. Double-click **ZSVCMO**. The **Editing Instance** dialog box opens.

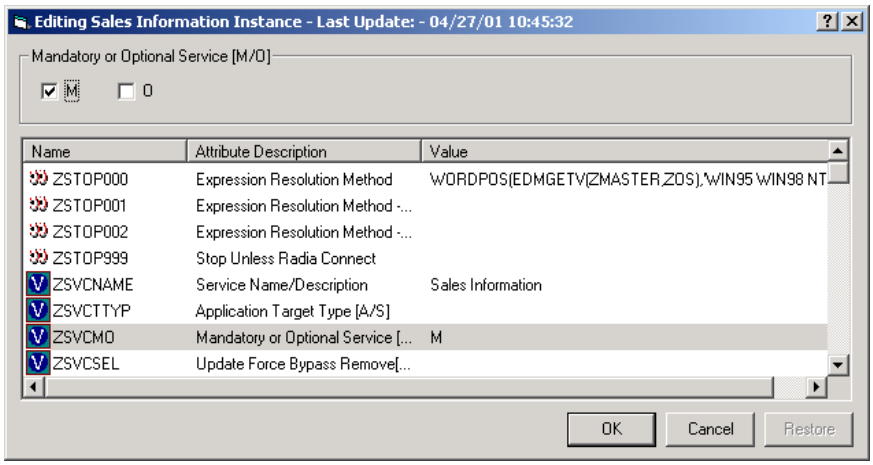

Figure 9.3 ~ Editing Instance dialog box.

8. Clear the **O** check box, and then select the **M** check box.

9. Click **OK**.

10. Click **Yes** when you are asked if you want to save the changed instance attributes. The Sales Information application is now considered a mandatory service.

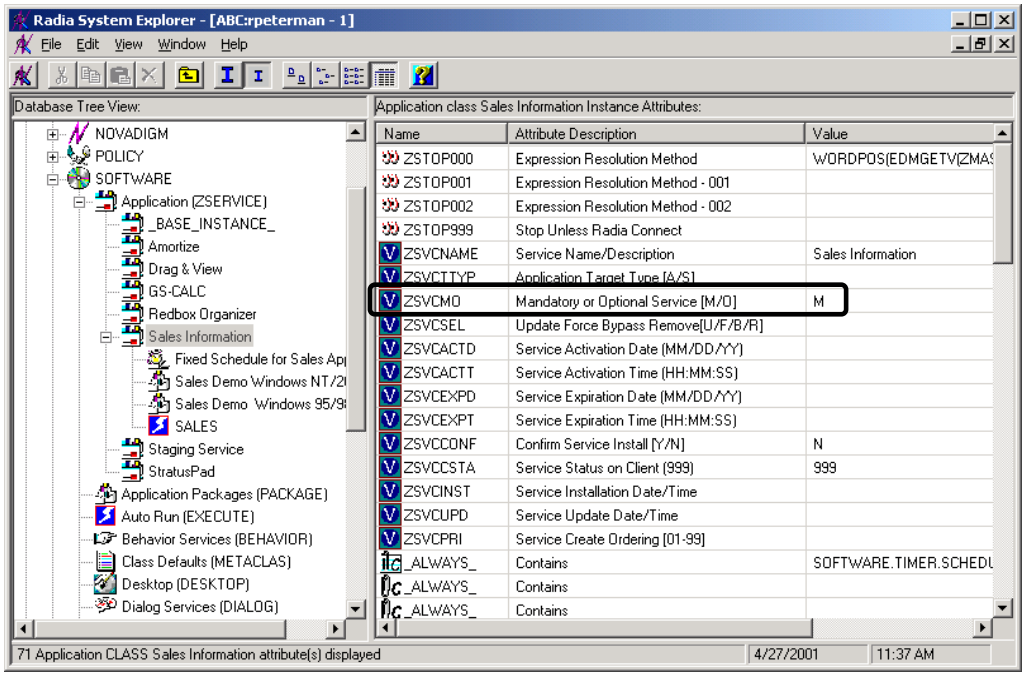

Figure 9.4 ~ The Sales Information application is mandatory.

Deploying Mandatory Applications with the Radia Application Manager Client

The Radia Application Manager client allows you to retain complete control over the deployment of mandatory applications without relying on the subscriber to connect to the Radia Configuration Server.

This section introduces you to some of the deployment methods available with the Radia Application Manager. For detailed information about implementation strategies and these methods, refer to the *Deploying Applications* chapter of the *Radia Application Manager Guide for UNIX* on the HP OpenView web site.

Scheduler

Use the Radia Scheduler service to deploy a service or run any command line at a specific time.

To do this, create a timer, set the appropriate values for the attributes in the timer, and then connect it to the appropriate service. The next time the client computer connects to the Radia Configuration Server, a ZTIMEQ object is created on the client computer, and the timer attributes and their values are transferred to the ZTIMEQ object. The Scheduler service "wakes up" once a minute and checks the timer object (ZTIMEQ) to see if there are any scheduled items to execute.

Radia Notify

Use Radia Notify to force one or more client computers to connect to the Radia Configuration Server to install, update, or remove an application. Each client computer runs the Radia Notify service in the background. This service waits to receive a Notify message from the Radia Configuration Server. When a message is received, the client computer connects to the Radia Configuration Server and performs the action initiated by the Notify operation. Radia Notify can also send e-mail notification to client computers.

Version Groups

Normally, applications are deployed and activated immediately. You can use Version Groups to roll out a new version of an application to your subscribers and then activate it upon delivery, or at a later time. If the installation of the new version fails, Radia automatically rolls back to the previous version. If you discover problems with a new version after installation, you can deactivate the new version and roll back to the previous version for some, or all, subscribers.

After versioning is configured, the compressed files are stored on the Client computer, and the versioning action takes place on the client machine. The roll forward/roll backward activity can be entirely local, not requiring any data to be transferred at the version change time, or partially local, with a minimum of data transmitted.

To deploy mandatory applications

On the client computer in the IDMROOT directory, there is a file **args.xml**. This file contains parameter settings for the Radia Software Manager. In order for mandatory applications to be automatically deployed, a parameter must be added.

1. Open the **args.xml** file using a text editor.
2. Add the line:

   ```
   <enterprisemanagement>auto</enterprisemanagement>
   ```

3. Save and close the **args.xml** file.

   The next time you start the Radia Software Manager, mandatory applications will be deployed.

Summary

- To process mandatory applications use the Radia System Explorer to designate the application as mandatory.
- You can process mandatory applications automatically when the Radia Client connects to the Radia Configuration Server.
- You can retain control over deployment of mandatory applications by using one or more of the deployment methods available.

Naming Conventions

This appendix discusses the use of naming conventions to help you organize the software stored in the Radia Database.

When publishing applications, subscribers may have varying requirements such as:

- Different operating systems.
- Varying amounts of free space on their hard drives.
- Different processors, memory, and so on.
- Different data or applications, depending upon their job function, or other factors.

Due to these varying requirements, you might need to create several packages for a single application. To keep your digital assets organized in the Radia Database, we recommend that you create a naming convention to be used within your organization.

This section provides some recommendations that you can use as a starting point to create your own standards.

Categorizing Information

In general, consider using unique high-level identifiers with an underscore (_) to categorize information in the Radia Database. The Radia System Explorer groups instances based on the identifier that precedes the underscore.

> **Note**
>
> If you decide to use a high-level identifier *without* an underscore (_), you can use the Radia System Explorer's filtering capabilities to display only the instances with that identifier.
>
> See the *Radia System Explorer Help* for more information.

For example, if you had a Windows 95/98 version and a Windows NT/2000 version of an application to calculate loan amortizations, you might name the packages **AMORTIZE_95/98** and **AMORTIZE_NT/2000** as shown in Figure A.1 on page 295.

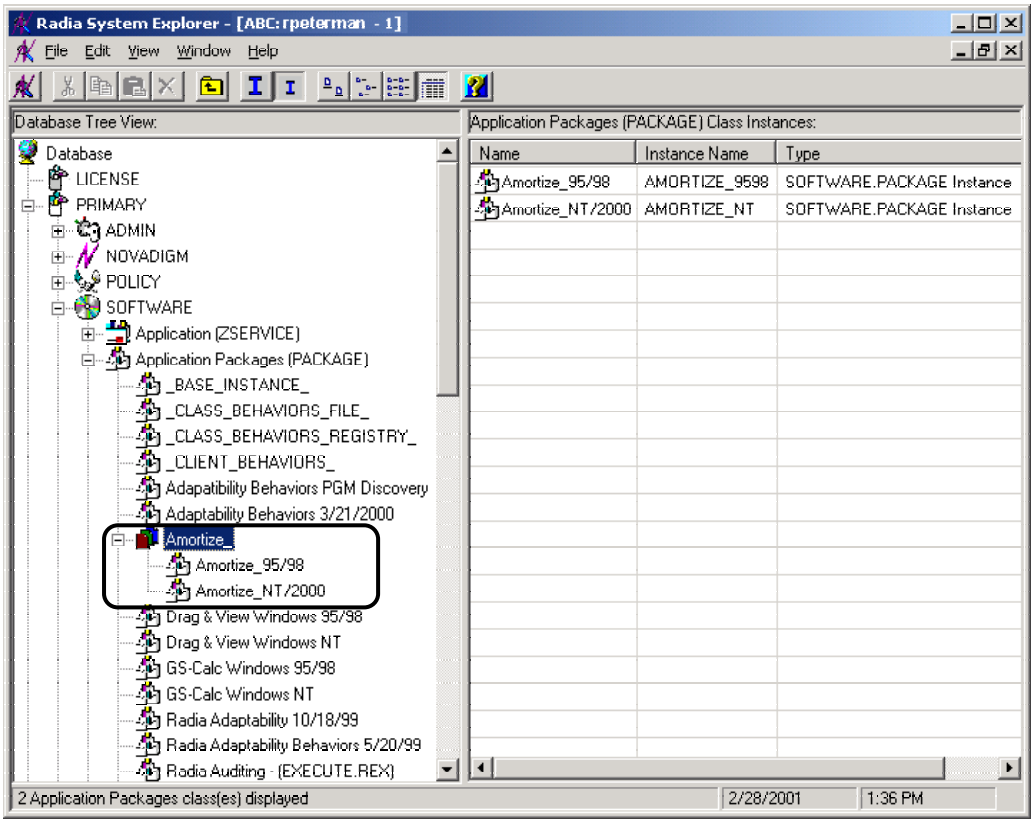

Figure A.1 ~ Instances grouped by identifier.

Naming Conventions for the POLICY Domain

We recommend that you use a variation of the following standards.

Table A.1 ~ Naming Conventions for the USER Class

Format	Description	Example
USERID	Identifies the subscriber.	SJones

When naming instances in a workgroup, use information that groups your subscribers appropriately. For example, if your company is organized by division and location, you might use conventions such as the following:

Table A.2 ~ Naming Conventions for the WORKGRP Class

Format	Description	Example
DIV_LOC_DESC	Defines ownership or assignment.	CTS_CLE_EVERYONE
• DIV	Identifies the division.	CTS (Corporate Technology Services)
• LOC	Identifies the location.	CLE (Cleveland)
• DESC	Provides additional description of the group.	EVERYONE (all users)

Naming Conventions for the SOFTWARE Domain

In a company organized by division and location, you might organize your digital assets using the following standards.

Table A.3 ~ Naming Conventions for the PACKAGE Class

Format	Description	Example
DIV_LOC_APPNAME_VER_OS	Defines the application.	CTS_CLE_PATCH_80_HPUX
• DIV	Identifies the division.	CTS (Corporate Technology Services)
• LOC	Identifies the location.	CLE (Cleveland)
• APPNAME	Identifies the application.	Patch
• VER	Identifies the version of the application.	80
• OS	Identifies the operating system that the application runs on.	HPUX

Table A.4 ~ Naming Conventions for Delivery and Auditing Classes*

*All other classes in the SOFTWARE domain.

Format	Description	Example
REG_DIV_LOC_APPNAME_VER_OS	Defines the application.	NAM_CTS_CLE_PATCH
• REG	Identifies the region.	NAM (North America)
• DIV	Identifies the division.	CTS (Corporate Technology Services)
• LOC	Identifies the location.	CLE (Cleveland)
• APPNAME	Identifies the application.	Patch

Determining the conventions that make sense for your organization may take some time. However, creating a convention up front and communicating it to all of your Radia administrators will keep you organized in the future.

B

Mobile Support for Radia Clients

The following appendix covers how Radia manages mobile devices. Below are some of the features:

- Resuming disrupted connections.
- Caching and local repair.

Resuming Disrupted Connections

If an installation fails due to network conditions, the problem may be fixed if the computer is restarted or the installation is retried. The ability to retry provides a dramatic improvement in user experience, elapsed time, and network file transfer activity.

Radia can resume disrupted connections for data downloads. Note that this does not work when downloading objects after resolution.

If your subscribers are using the Radia Software Manager user interface to download data from the Radia Configuration Server and the session is interrupted, a message appears. This message displays the amount of data and the files downloaded from the Radia Configuration Server. Subscribers can also cancel or retry the data download by starting a new session with the Radia Configuration Server.

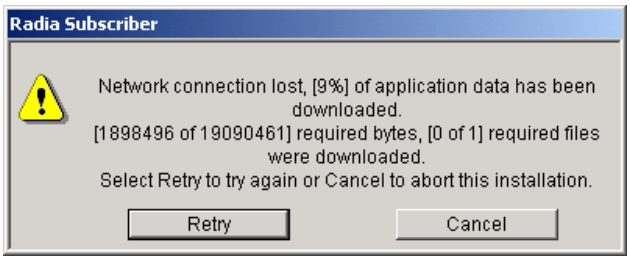

Figure B.1 ~ Message displaying the data and files downloaded.

See the procedure, *To add the RETRYINT and RETRYLIM attributes* on page 301, for information about how to add these attributes to the USER class in your Radia Database.

Table B.1 ~ Attributes for Retry

Attribute	Description	Syntax or Options
RETRYINT	Retry interval (in seconds). Specify the length of time to wait before attempting the next connection to the Stager or the Radia Configuration Server.	The default setting is 00, which indicates that you want to reconnect immediately. You can set this from 00 – 99.
RETRYLIM	Limits the number of attempts.	Default value is 0, which means do not attempt after a failure. You can set this from 00 – 10.

Caution

If you are running Windows 2000, this feature works only when the Radia Configuration Server disrupts the connection. If the client disrupts the connection, set the ZDISCONN attribute in the ZSERVICE to Y so that the client disconnects from the Radia Configuration Server.

To add the RETRYINT and RETRYLIM attributes

1. From the **Start** menu, select **Programs**, **Radia Administrator, Radia System Explorer**. The **Radia System Explorer Security Information** dialog box opens.

Note

The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, type a **User ID** and **Password**, and then click **OK**. The **Radia System Explorer** window opens.
3. Double-click **PRIMARY**.
4. Double-click **POLICY**.
5. Right-click **Users (USER)** and select **Edit Class**. The **Editing USER Class** dialog box opens.

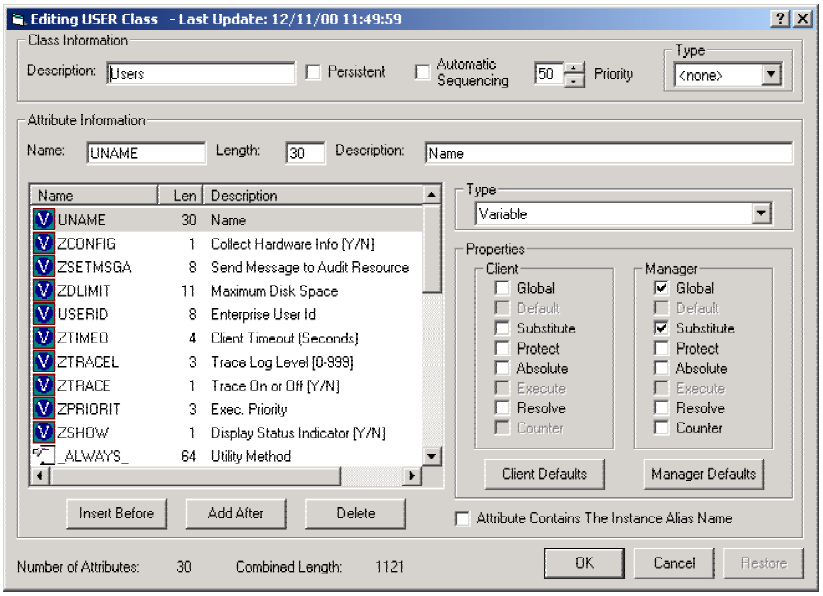

Figure B.2 ~ Editing USER Class dialog box.

6. In the list of attributes, scroll to the end and click **ZGRPINFO**.

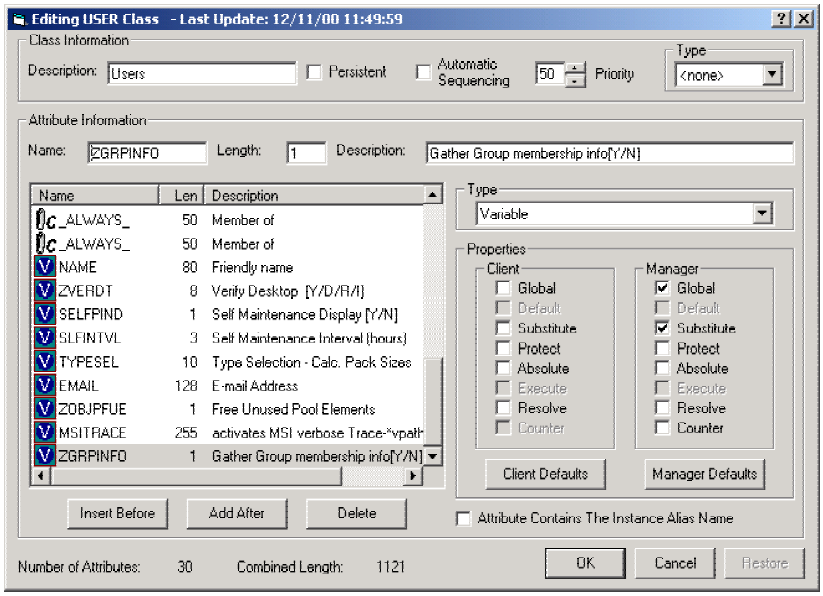

Figure B.3 ~ Scroll to the end of the list of attributes in the Editing USER Class dialog box and select ZGRPINFO.

7. Click **Add After**.
8. In the **Name** field, type **RETRYINT**.
9. In the **Length** field, type **2**.
10. In the **Description** field, type **Time to wait in seconds to reconnect**.
11. In the **Type** drop-down list box, select **Variable**.
12. In the **Properties, Manager** area, select **Global**. No other properties in the Client or Manager areas should be selected.

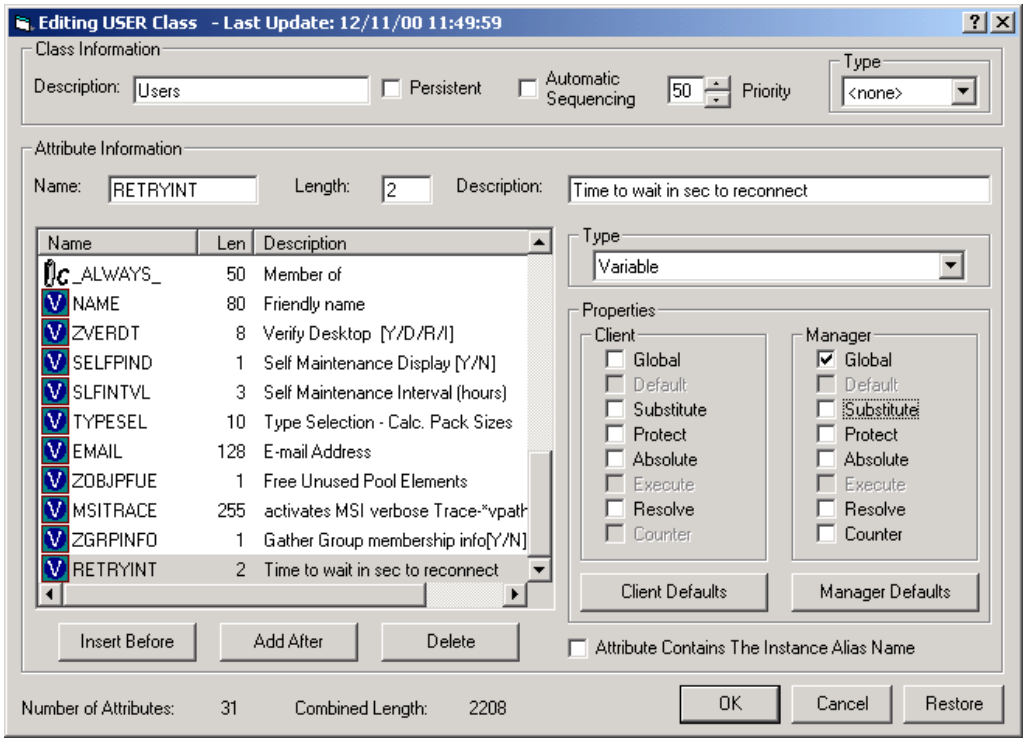

Figure B.4 ~ RETRYINT attribute added to the USER class.

13. Click **Add After**.

14. In the **Name** field, type **RETRYLIM**.

15. In the **Length** field, type **2**.

16. In the **Description** field, type **Number of attempts to reconnect**.

17. In the **Type** drop-down list box, select **Variable**.

18. In the **Manager Properties** area, select **Global**. No other properties, in the Client or Manager areas, should be selected.

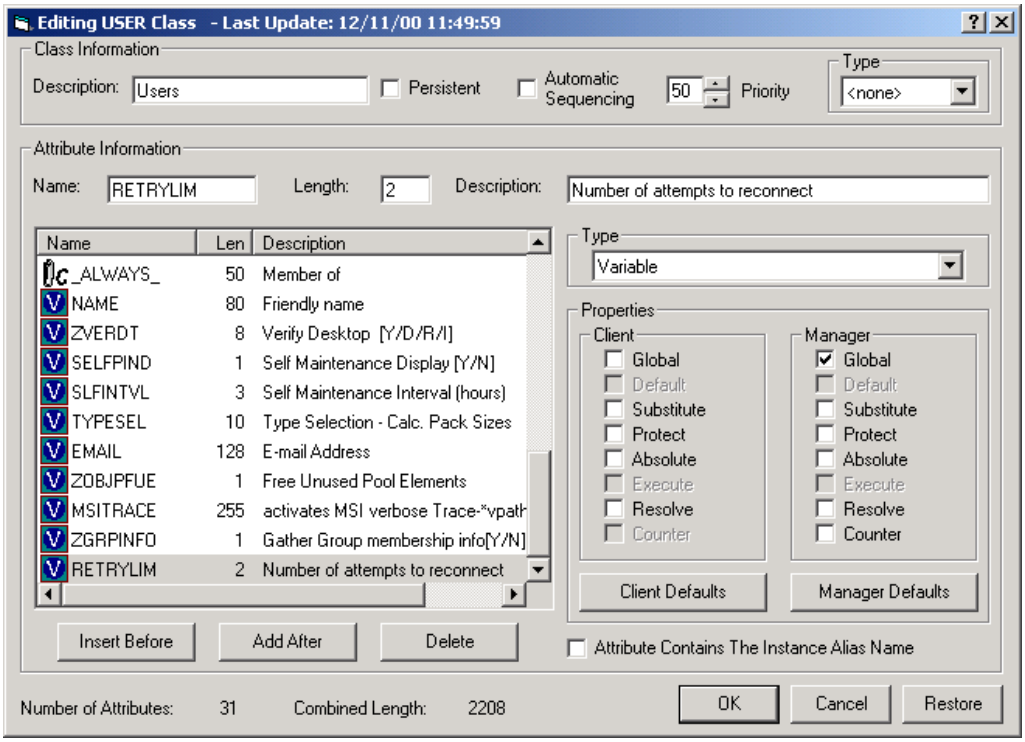

Figure B.5 ~ RETRYLIM attribute added to the USER class.

Caching and Local Repair

Radia caches files delivered to the client computer during installation. This is especially useful when working with Windows Installer-enabled packages, because there is no longer redundant network traffic from the Administrative Installation Point.

Caching provides the following advantages:

- **Prevents redundant file activity.**
  If the installation fails, the files that have already been transferred remain on the computer in compressed format.
- **Reduces network traffic**.
  When a file is requested, Radia checks for the file in the local cache first. If the file is found, it is picked up from the cache rather than being transferred through the network.
- **Allows for local repair of broken applications.**
  If an application is broken because of missing files, the compressed files (stored locally) can be used to repair the application.

> **Caution**
>
> There must be enough disk space available to store the compressed data.

By default, the folders are cached in IDMDATA. The default location for IDMDATA is **/opt/Novadigm/lib/data**.

Use the following attributes for caching and local repair.

Table B.2 ~ Caching Attributes

Attribute	Class	Description	Default or Syntax
CACHE	ZSERVICE	Enables caching. (Windows Installer Applications only)	Default is N. Type Y or N.
LREPAIR	ZSERVICE	Enables local repair.	Default is N. Type Y or N.
CACHELIM	ZSERVICE	*For Windows Installer applications only.* Cache limit, which is defined as the percentage of used drive space. If the percentage of used space is greater than the cache limit, then all of the cached files for the product are removed and the cache folder is deleted. This is checked after every file is cached on the disk.	Default is 000. Type a number between 000 and 100.
PRODGUID	MSI	*For Windows Installer applications only.* Unique product identifier, created by the manufacturer or vendor. The Radia Publisher records this identifier in the PRODGUID field in the MSI instance.	Default is _UNDEF_.
CACHELOC	ZSERVICE	*For Windows Installer applications only.* Location of the folder on the client computer that is used to cache the compressed application files needed for the product. Radia support for Windows Installer tags the PRODGUID value to this value to create the folder. For example, If: **CACHELOC=C:\progra~1\Novadigm**, and: **PRODGUID = 12345_XXXX\cache**, the cache folder would be: **c:\progra~1\Novadigm\12345_XXXX\cache** **Note:** The folder **\cache** is automatically appended to PRODGUID. If you are not deploying a Windows Installer-enabled application, the files will be cached in IDMDATA.	Default is _UNDEF_.

Using the Radia Software Manager User Interface to Repair Applications Locally

After successfully logging on to the Radia Software Manager user interface, the Radia Configuration Server scans the Radia Database and lists the applications that your subscribers are assigned to, then, subscribers install, update, verify, or remove applications from their computers.

However, if a subscriber has a broken application, he may want to repair it immediately with the files that are stored locally on his computer. To do this, you must configure the client computer and the services to allow your subscribers to repair applications without accessing the network.

C

Restarting the Client Computer

The following appendix covers how to:

- Restart the client computer after installing, updating, or removing an application.

Note

As of the intended LA release of the Radia Software Manager, rebooting the client workstation through the Radia Software Manager is not supported, however, a reboot of the client workstation can be achieved through the Radia Application Manager providing the UNIX user ID running the Radia Application Manager is root.

Some applications require that the client computer be restarted after installing, removing, or updating software. You can use the REBOOT attribute in the Application (ZSERVICE) instance to specify whether you want the client computer to reboot on a per service basis.

To modify REBOOT

1. From the **Start** menu, select **Programs**, **Radia Administrator, Radia System Explorer**. The **Radia System Explorer** dialog box opens.

Note

The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, enter a **User ID** and **Password**, and then click **OK**. The **Radia System Explorer** window opens.
3. Double-click **PRIMARY**.
4. Double-click **SOFTWARE**.
5. Double-click **Application (ZSERVICE)**.
6. Double-click the appropriate application instance, such as **Sales Information**.

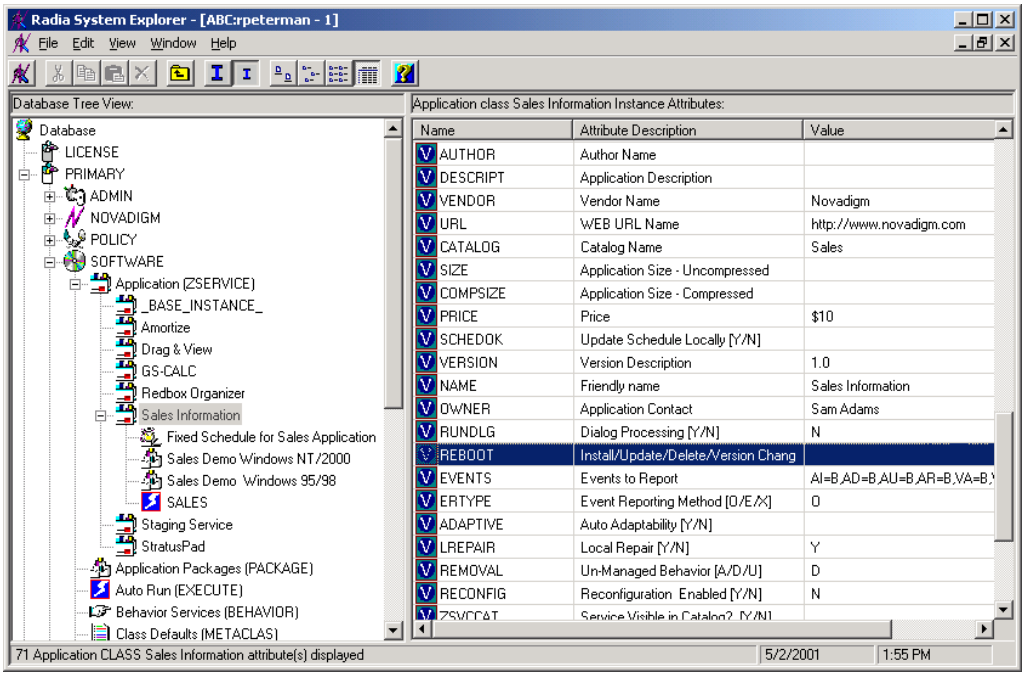

Figure C.1 ~ REBOOT attribute for Sales Information.

7. Double-click the **REBOOT** attribute.

The **Editing Instance** dialog box opens.

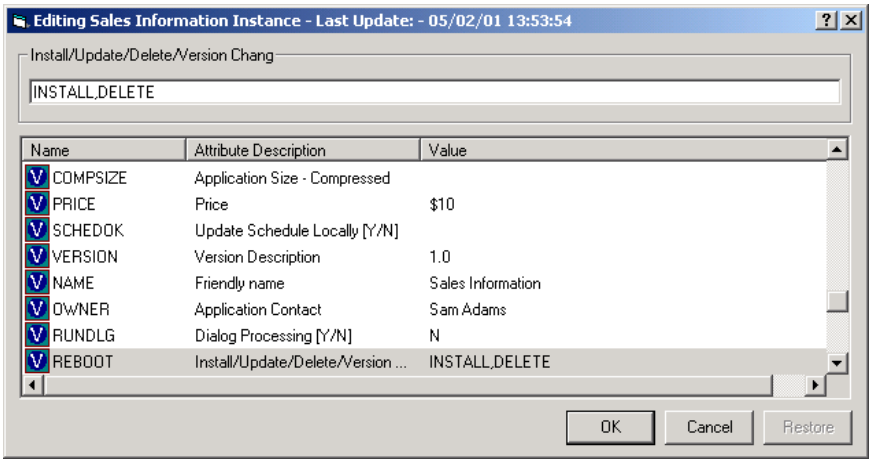

Figure C.2 ~ Editing Instance dialog box.

8. In the text box, type the appropriate value as needed. The value that you type is a text string that indicates which events cause the client computer to restart. Type one or more events, separated by commas, as shown in the following examples.

Table C.1 ~ Sample Values for the REBOOT Attribute

Attribute Value	Use
Blank	Restart only if a file being distributed is already in use by an application on the client computer.
INSTALL,DELETE	Restart if an application is installed or deleted, or if a file being distributed is already in use.
UPDATE	Restart if an application is updated or repaired during the Client Connect process, or if a file being distributed is already in use.

9. Click **OK** to close the **Editing Instance** dialog box and return to Radia System Explorer.

D

Application (ZSERVICE) Attributes

This appendix describes the attributes that you will see if you open an Application (ZSERVICE) instance in the Radia System Explorer.

Many of the values for these attributes are set when using the Radia Administrator Workstation, such as the Radia Publisher or the New Application Wizard in the Radia System Explorer. You can also use the Radia System Explorer to modify the values of these attributes in the SOFTWARE.ZSERVICE class.

You may notice that some attributes do not have values, or their values are not displayed in the Radia System Explorer. The Radia Client uses these attributes. For example, an attribute such as INSTDATE is used to record the date the service was installed on the client computer. The value for this attribute is stored in the PROFILE file for the client computer in the Radia Database.

Table D.1 ~ SOFTWARE.ZSERVICE Attributes

Attribute	Description	Parameters	Default or Base Instance Value
ZSTOPnnn	Stops resolution if the expression evaluates to TRUE.	N/A	<blank>
ZSVCNAME	Name of the service used for descriptive purposes only. Value is set initially in the **Short Description** field in the New Application Wizard (used to create a service).	Maximum length of 24.	Unknown
ZSVCTTYP	Indicates which Radia Client will receive this application. Value is set initially in the New Application Wizard (used to create a service).	**A** = Application Manager **S** = Software Manager	<blank>
ZSVCMO	Designates a service as mandatory or optional. When using the Radia Application Manager, services *must* be marked as mandatory. When using the Radia Software Manager, services *must* be marked as optional. Value is set initially based on the setting for the application target type (ZSVCTTYP) in the New Application Wizard (used to create a service).	**M** = Mandatory **O** = Optional	O
ZSVCSEL	*Reserved for future use.*	N/A	N/A
ZSVCACTD	*Reserved for future use.*	N/A	N/A
ZSVCACTT	*Reserved for future use.*	N/A	N/A
ZSVCEXPD	*Reserved for future use.*	N/A	N/A
ZSVCEXPT	*Reserved for future use.*	N/A	N/A
ZSVCCONF	*Reserved for future use.*	N/A	N/A
ZSVCCSTA	Status code for the service that leads you to the reason why files for a service may not be deployed correctly.	000-999	999
ZSVCINST	N/A	N/A	N/A
ZSVCUPD	N/A	N/A	N/A
ZSVCPRI	Set the priority level for the service.	01 – 99 If disk space is not available on the client computer, services are downloaded based on: **01** = Highest priority **10** = Default value **99** = Lowest priority	<blank>

Table D.1 ~ SOFTWARE.ZSERVICE Attributes

Attribute	Description	Parameters	Default or Base Instance Value
ALWAYS	Any method that you specify for this attribute is unconditionally executed when this object is resolved.	A valid method name such as ZSYSTEM.ZMETHOD .PUTHIST_ZERROR	<blank>
ZCREATE	Name of method to install the service.	N/A	<blank>
ZINIT	Name of method to initialize the service.	N/A	<blank>
ZDELETE	Name of method to delete the service.	N/A	<blank>
ZUPDATE	Name of method to update the service.	N/A	<blank>
ZVERIFY	Name of the method to verify the service.	N/A	<blank>
ZREPAIR	Name of the method to repair the service.	N/A	<blank>
ZAVIS	The Radia Client manages and maintains this attribute to show the different states of the application in the catalog. The four states are: • **Available** indicates whether a service is available from the Radia Configuration Server. • **Verified** indicates whether a service has been verified. • **Installed** indicates whether the service has been installed. • **Synchronized** indicates whether the installed service has all of the latest changes from the Radia Configuration Server.	**Y** = Yes **N** = No **X** = Unknown	YXNX
PUBDATE	*Reserved for future use.*	N/A	N/A
VERDATE	Indicates when the application was last verified (in local time) on the client computer. The Radia Client manages and maintains this attribute. Use the Radia System Explorer to access the APPEVENT object, stored in the PROFILE file on the Radia Configuration Server. This attribute is useful for reporting purposes.	MMM DD,YYYY HH:MM:SS For example: Jul 28, 2002 16:10:00	<blank>
UPGDATE	Indicates when the application was last updated (in local time) on the client computer. The Radia Client manages and maintains this attribute. Use the Radia System Explorer to access the APPEVENT object, stored in the PROFILE file on the Radia Configuration Server. This attribute is useful for reporting purposes.	MMM DD,YYYY HH:MM:SS For example: Jul 28, 2002 16:10:00	<blank>
UPDDATE	*Reserved for future use.*	N/A	N/A

Table D.1 ~ SOFTWARE.ZSERVICE Attributes

Attribute	Description	Parameters	Default or Base Instance Value
INSTDATE	Indicates when the application was installed (in local time) on the client computer. The Radia Client manages and maintains this attribute. Use the Radia System Explorer to access the APPEVENT object, stored in the PROFILE file on the Radia Configuration Server. This attribute is useful for reporting purposes.	MMM DD,YYYY HH:MM:SS For example: Jul 28, 2002 16:10:00	<blank>
DELDATE	Indicates when the application was removed (in local time) from the client computer. The Radia Client manages and maintains this attribute. Use the Radia System Explorer to access the APPEVENT object, stored in the PROFILE file on the Radia Configuration Server. This attribute is useful for reporting purposes.	For example: Jul 28, 2002 16:10:00	<blank>
AUTHOR	Name of the author of the service that appears in the properties for the service in the Service List. Value is set initially in the **Author** field in the New Application Wizard (used to create a service).	N/A	<blank>
DESCRIPT	Description of the service that appears in the properties for the service in the Service List. Value is set initially in the **Long Description** field in the New Application Wizard (used to create a service).	N/A	<blank>
VENDOR	Name of the vendor of the service. This appears in the properties for the service in the Service List. Value is set initially in the **Vendor** field in the New Application Wizard (used to create a service).	N/A	<blank>
URL	Address of a Web page where the subscriber can find additional information about the service. This appears in the properties for the service in the Service List. Value is set initially in the **Web URL** field in the New Application Wizard (used to create a service).	N/A	<blank>
CATALOG	Type in a name for the catalog to be displayed to subscribers when they click **Properties** in the Radia Software Manager user interface.	N/A	<blank>
SIZE	The size of the uncompressed application displayed to the subscribers when they click **Properties** in the Radia Software Manager user interface. Cumulative value of the SIZE defined in the PACKAGE class.	N/A	<blank>

Table D.1 ~ SOFTWARE.ZSERVICE Attributes

Attribute	Description	Parameters	Default or Base Instance Value
COMPSIZE	The size of the compressed application displayed to the subscribers when they click **Properties** in the Radia Software Manager user interface. Cumulative value of the COMPSIZE defined in the PACKAGE class.	N/A	<blank>
PRICE	Type in the price of an application to be displayed to subscribers when they click **Properties** in the Radia Software Manager user interface.	N/A	<blank>
SCHEDOK	Specifies if the subscribers are allowed to change the update schedule for the service locally.	**Y** = Subscriber is allowed to change the schedule. **N** = Radia Configuration Server controls the update schedule.	<blank>
VERSION	Version of the software. This appears in the properties for the service in the Service List. Value is set initially in the **Version** field in the New Application Wizard (used to create a service).	N/A	<blank>
NAME	Friendly Name for the service. This appears in the properties for the service in the Software Catalog. Value is set initially in the **Short Description** field in the New Application Wizard (used to create a service).	N/A	<blank>
OWNER	N/A	N/A	*Reserved for future use.*
RUNDLG	Specifies whether to enable processing of dialog boxes during the installation of the service. For more information on using dialog boxes, see *Radia Installation Tailoring* on the Technical Support Web site.	**Y** = Yes **N** = No	N

Table D.1 ~ SOFTWARE.ZSERVICE Attributes

Attribute	Description	Parameters	Default or Base Instance Value
REBOOT	Used to restart the client computer based on application event. Note: REBOOT=S (soft boot) is not supported for Unix Radia clients. REBOOT=H (hard boot) is not supported for Macintosh Radia clients. Reboot Panels are not supported for Radia Application Manager Unix clients.	**Event to report on:** **AI** = Install **AD** = Deinstall **AU** = Update **AR** = Repair **AV** = Verify **Type of reboot:** **S** = Soft Boot (Default of type **Y** panel.) **H** = Hard Boot (Default of type **A** panel.) **N** = None **Type of panel:** **Q =** No panel. **A =** **OK** button only. **Y =** **OK** and **Cancel** button. **Type of connect:** **None specified:** Reboot on Machine connect (context = m). **U** = reboot on user connect only (context = u). **MU =**reboot when both machine and user parts of the service have been installed. **Example:** AI=S performs a soft boot on application installation	

Table D.1 ~ SOFTWARE.ZSERVICE Attributes

Attribute	Description	Parameters	Default or Base Instance Value
EVENTS	Indicates which events to report on.	**Event to report on:** **AI** = Application Install **AD** = Application Deinstall **AU** = Application Update **AR** = Application Repair **AV** = Application Verify **VA** = Version Activation **VD** = Version Deactivation **What (about the event) to report on:** **S** = Success **F** = Failure **B** = Both Success and Failure **N** = None	AI=B,AD=B,AU=F,AR=N,VA=F,VD=F
ERTYPE	Set on the Radia Configuration Server, this sends an APPEVENT object to the Radia Configuration Server. Currently supports object format only.	**O** = Object *Currently supports object format only*.	O
ADAPTIVE	Indicates whether the installed package is dependent on client settings that must be monitored periodically. If the settings change, the client must reconnect to the Radia Configuration Server to get new or different components. Useful for "plug and play" services.	**Y** = Yes **N** = No	<blank>
LREPAIR	Enables local repair of broken applications. If an application is broken because of missing files, the files (stored locally) can be used to repair the application.	**Y** = Yes **N** = No	N

Table D.1 ~ SOFTWARE.ZSERVICE Attributes

Attribute	Description	Parameters	Default or Base Instance Value
REMOVAL	Controls removal of the service.	**If ZSVCMO is set to M, set REMOVAL to:** **A** = Abandon (deletes the objects, but not the components) **D** = Delete (deletes the objects and components) **If ZSVCMO is set to O, set REMOVAL to:** **A** = Abandon (deletes the objects, but not the components) **D** = Delete (deletes the objects and components) **U** = Unmanage (does not delete the objects or components)	D
RECONFIG	Indicates whether an application can be relocated after it has been installed. For example, this allows you to move an application that was installed on the C drive to the D drive without removing and re-installing the application.	**Y** = Yes **N** = No	<blank>
ZSVCCAT	Specifies whether the service is visible in the Service List.	**Y** = Yes **N** = No *Set to **N** for mandatory applications.*	<blank>
UIOPTION	Controls whether the status window appears. Radia Software Manager only.	**NONE** = No interface appears. **FULL** = Interface appears and **Cancel** button is available. **INFO** = Interface appears with no option to cancel.	<blank>
CACHE	Enables caching.	**Y** = Yes **N** = No	N

Table D.1 ~ SOFTWARE.ZSERVICE Attributes

Attribute	Description	Parameters	Default or Base Instance Value
CACHELOC	*For Windows Installer applications only.* Location of the folder on the client computer that is used to cache the compressed application files needed for the product. Radia support for Windows Installer tags the PRODGUID value to this value to create the folder. For example, If **CACHELOC=C:\progra~1\Novadigm** and **PRODGUID = 12345_XXXX** the cache folder would be: **c:\progra~1\Novadigm\12345_XXXX\cache** **Note:** The folder **\cache** is automatically appended to PRODGUID. If you are not deploying a Windows Installer-enabled application, the files will be cached in IDMDATA.	N/A	_UNDEF_
CACHELIM	Cache limit, which is defined as the percentage of used drive space. **Note**: Used for Windows Installer applications only. If the percentage of used space is greater than the cache limit, then all of the cached files for the product are removed and the cache folder is deleted. This is checked after every file is cached on the disk.	Type a number between 000 and 100.	000
ZDISCONN	Allows the client to disconnect from the Radia Configuration Server if there is an open session with the Radia Configuration Server.	**Y** = Disconnects the client from the Radia Configuration Server. **N** = Does not disconnect from the client from the Radia Configuration Server.	N
ZSYSACCT	Specifies whether to install the service under the system account or the user's account. *Windows and Macintosh OS/X Radia Clients only.*	**Y** = The application is installed using the system rights. **N** = The application is installed using the rights of the user who is logged on.	N
MCELIGBL	Indicates if the application is eligible for multi-casting.	**Y** = Yes **N** = No	Y

Adding Attributes to the Radia Database

The following procedure shows you how to add an attribute (also known as a *variable*) to your Radia Database.

Caution
Be sure to create a backup of your Radia Database before adding an attribute to it.

At a minimum, you will need the following information before you make the changes to your Radia Database:

- The name of the class that you are editing.
- The name of the new attribute.
- The length of the new attribute.
- A description for the new attribute.

To add an attribute to a class template

1. From the **Start** menu, select **Programs**, **Radia Administrator, Radia System Explorer**. The **Radia System Explorer Security Information** dialog box opens.

Note

The **User ID**, as shipped, is **RAD_MAST**. No password is necessary. This may have been changed in your installation. Check with your Radia security administrator to obtain your own **User ID** and **Password**, if necessary.

2. If necessary, type a **User ID** and **Password**, and then click **OK**. The Radia System Explorer window opens.
3. Navigate to the class that you want to edit. For example, you might go to **PRIMARY.SOFTWARE.ZSERVICE**.

Note

If you do not see the name of the class (such as ZSERVICE) in the tree view, you can modify the Radia System Explorer options. To do this:

On the **Radia System Explorer** tool bar, click **View**, and select **Options**. In the **Options** dialog box, click the **General** tab, and then select the **Show Class Names Next to Descriptions** check box.

4. Right-click the class that you want to edit, such as **Application (ZSERVICE)**.

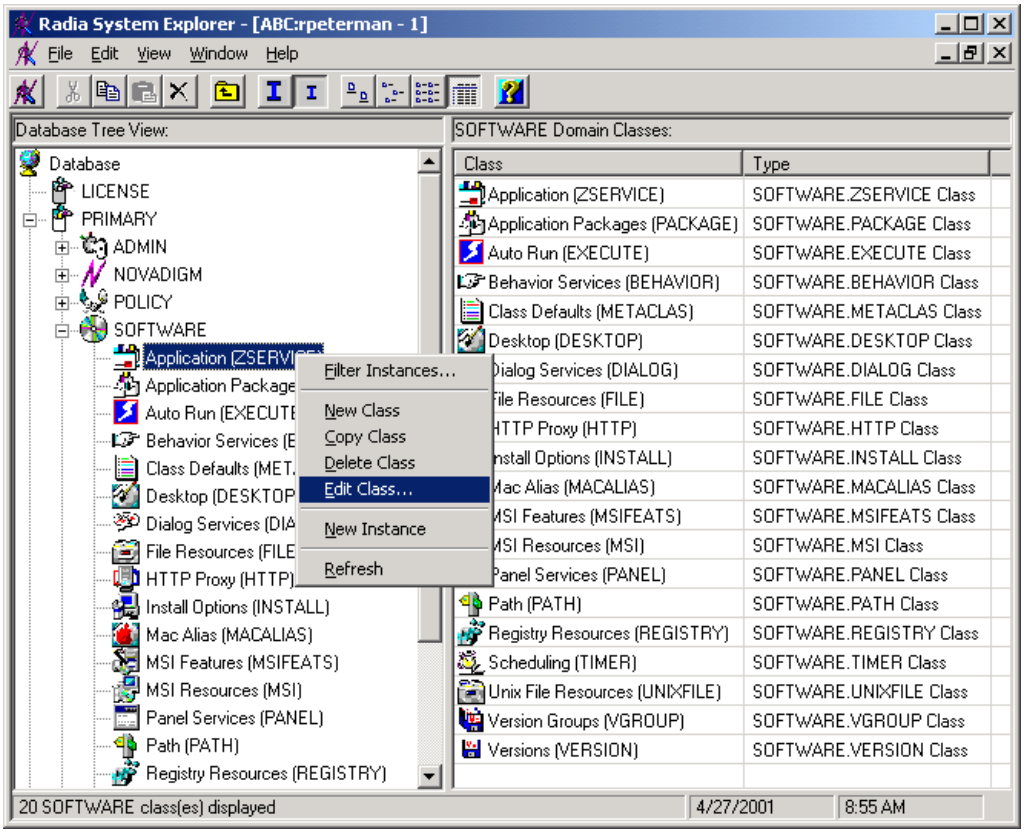

Figure E.1 ~ Edit the ZSERVICE class.

5. Select **Edit Class**. The **Editing Class** dialog box opens. For detailed information about the **Editing Class** dialog box, see the *Radia System Explorer Guide*.
6. Determine where, in the **Attribute List**, the attribute should be inserted.
7. In the list of attributes, select the attribute adjacent to where you want to insert the new attribute.

Note

If the **Automatic Sequencing** check box is **not** selected, attributes are processed during resolution in the order in which they appear in the Attribute List.

If the **Automatic Sequencing** check box is selected, the attributes of the class are processed in the following order: Expressions, Attributes, Classes (Connections), and then Methods.

See the *Radia System Explorer Guide* for more information.

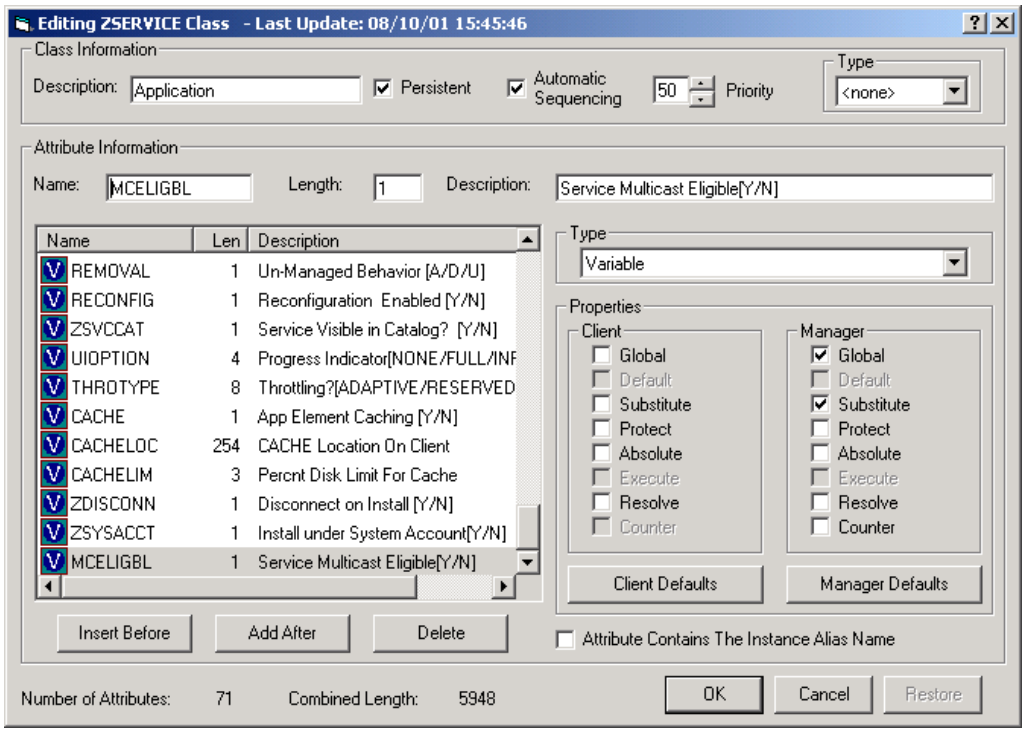

Figure E.2 ~ Select an attribute in the Editing Class dialog box.

8. Click **Insert Before** to insert the attribute before the selected one.

OR

Click **Add After** to add the new attribute after the selected one.

A blank attribute appears.

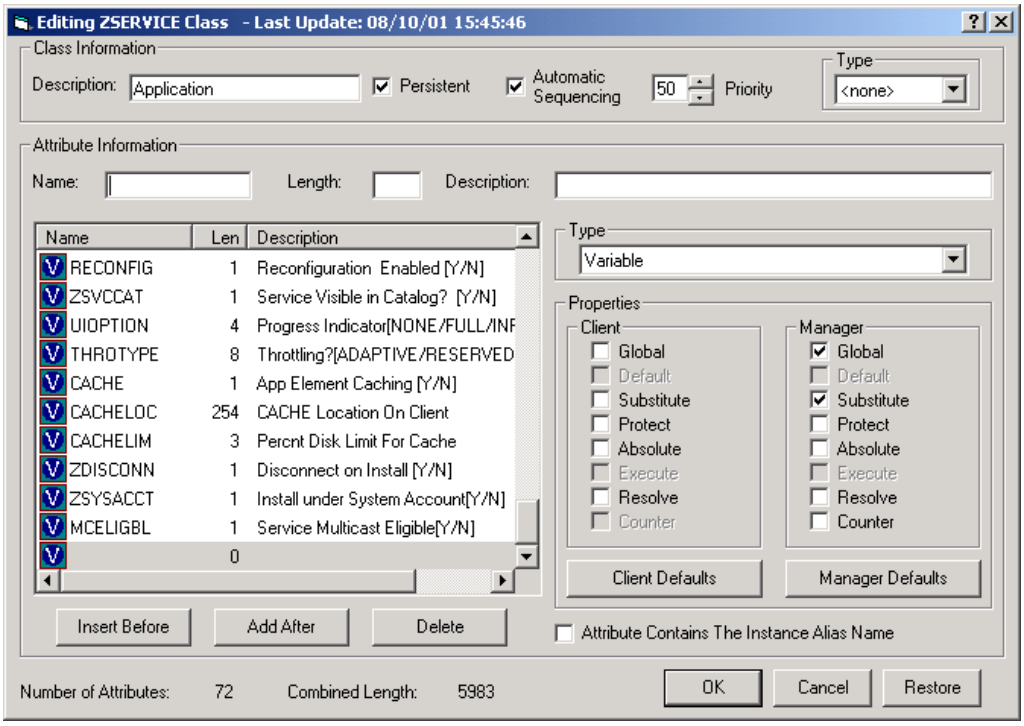

Figure E.3 ~ A blank attribute.

9. In the **Name** field, type the name of the new attribute.

10. In the **Length** field, type the length for the attribute.

11. In the **Description** field, type a description for the attribute.

12. In the **Type** drop-down list, select **Attribute**.

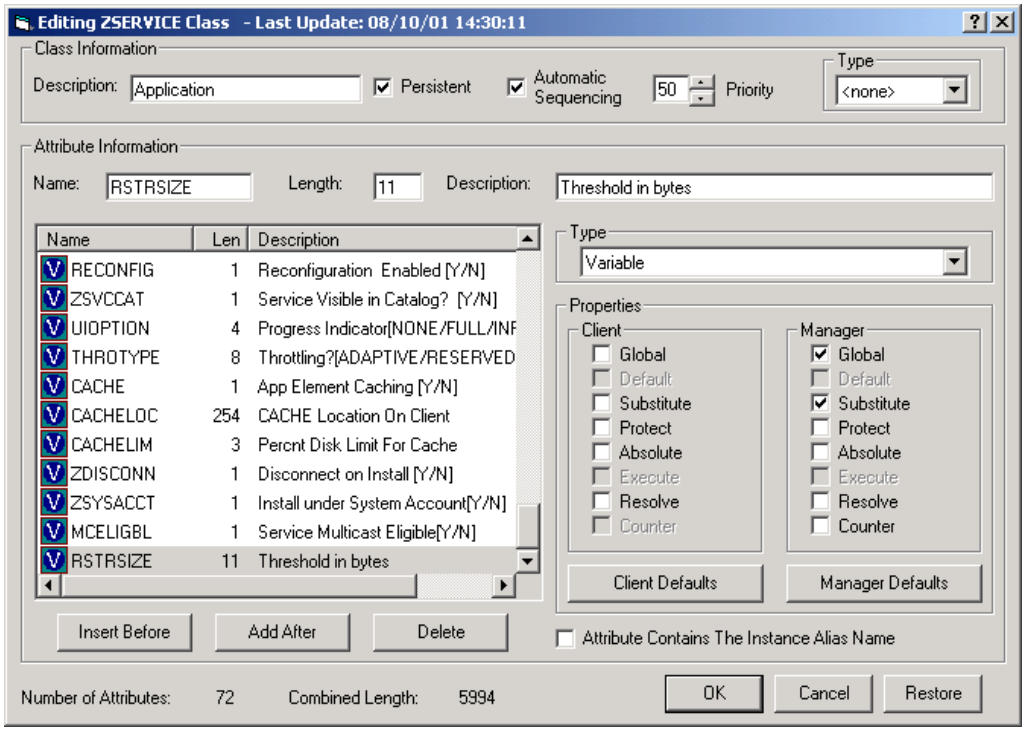

Figure E.4 ~ New attribute information.

13. If the document that contains the information about the new attribute specifies **Client** or **Manager Properties**, select the appropriate check boxes.

14. Click **OK**.

15. Click **Yes** to confirm the changes to the class.

Glossary

Active Component Server

See *Radia Configuration Server*.

Administrative Installation Point (AIP)

An **AIP** is a server share or local directory structure that contains all of the files needed to run setup for a Windows Installer-enabled application.

APPEVENT

APPEVENT is the client object that provides information about an application event, such as success or failure of the installation.

Application Manager

See *Radia Application Manager*.

applications

Also called software, data, or services.

Applications are one type of content that Radia can manage on subscriber computers. Use the Radia Publisher to create packages of data to be managed on your subscribers' computers.

attribute

Also called *field, variable,* or *property*.

An **attribute** is a single, descriptive data item in a class. The class template contains a definition (e.g., the name, data type, description, and length) for each attribute that makes up the class. Class instances contain a set of attributes and each attribute contains a value.

attribute property

An **attribute property** controls some aspect of how an attribute is processed on the Radia Configuration Server and client computer. Each attribute defined in a class template has a set of Radia Configuration Server properties and a set of client properties.

audience list

An **audience list** is a directory of the subscribers for an application used by Radia Notify.

base instance

The **base instance** contains the default values for the attributes that make up a class. When you create a new instance in that class, the attributes in the new instance inherit the default values, as specified in the base instance.

byte-level differencing

Byte-level differencing is the process of publishing a patch containing updates or corrections to a resource. The patch is calculated by differencing an existing copy of the resources in the Radia Database against the resources currently being published.

class

A **class** defines a category of the distribution model to be managed. It is conceptually similar to a schema in a relational database structure or a file layout in a traditional flat file. Each of the required elements of a distribution model (e.g., users, applications, etc.) is defined in the Radia Database by its class.

class connection variable

A **class connection variable** determines the path of resolution for a client's distribution model during the Client Connect process. It is a branch in the resolution process.

A class connection is resolved and resolution continues using the target instance identified in the class connection variable if the class connection variable attribute's name is _ALWAYS_, INCLUDES, REQUIRES, or if the name of the attribute matches the current value of the system message.

class instance

Also called *instance*.

A **class instance** is an object in the Radia Database that contains a specific occurrence of a class. This is analogous to a row in a relational data table or a record in a traditional flat file.

clean computer

A **clean computer** is a computer on which the operating system has just been installed, and no further changes have been made.

Client

See *Radia Client*.

client computer

A **client** computer is a subscriber's computer that has the Radia Client software installed on it.

Client Explorer

See *Radia Client Explorer*.

client object

A **client object** is a file located on the client computer that contains information about the configuration of services or hardware.

component class

A **component class** is a type of class used to identify the items (files, registry entries, links, icons, and so forth) that make up the content identified by a Radia Configuration Server class instance. Typically, this class' instances have distributable data associated with them such as FILE, REGISTRY, or DESKTOP.

Use the Radia System Explorer's Class Editor to set the class type to "Component".

configuration class

A **configuration class** identifies content to be managed on subscribers' computers by grouping together instances of component classes. Typically, a configuration class' instances do not have distributable data associated with them. They are connected to instances of one or more component classes, perhaps through an instance of another configuration class. Examples: ZSERVICE, PACKAGE, VGROUP, VERSION, and so forth.

Use the Radia System Explorer's Class Editor to set the class type to "Configuration".

Configuration Server

See *Radia Configuration Server*.

Database

See *Radia Database*.

desired state

The **desired state** embodies the content that Radia manages for a specific subscriber's computer. A model representing the desired state for each subscriber's computer is stored in the Radia Database. The desired state model is created and managed using the Radia System Explorer.

domain

A **domain** logically partitions a file in the Radia Database to group "like" classes together.

Examples: POLICY domain; SOFTWARE domain; SYSTEM domain

- The POLICY domain contains the classes that identify users individually and by their association with groups of other users.
- The SOFTWARE domain contains the classes needed to define and deploy applications. Radia administrators will do most of their work in the POLICY and SOFTWARE domains of the PRIMARY file.
- The SYSTEM domain contains the classes that contain administrative and process control definitions.

dual mode

The **dual mode** installation program installs both Radia Clients (the Radia Application Manager and Radia Software Manager) simultaneously.

expression variable

An **expression variable** contains a single line REXX command that is executed during resolution. If the expression evaluates to **true** in an attribute named ZSTOP, it causes resolution of the current instance to end. Resolution continues in the calling instance with the variable following the one that called the instance containing the expression variable.

file

A **file** is the highest level in the hierarchy of the Radia Database and it groups similar domains together.

Example: PRIMARY file

The PRIMARY file is used to define and maintain the distribution model. This is one of the pre-configured files distributed with the Radia Configuration Server and installed when you first install Radia. Others are the NOTIFY file and the PROFILE file. Radia administrators will do most of their work in the PRIMARY file.

instance

Also called *class instance*.

An **instance** is a Radia Database object containing a specific occurrence of a class. This is analogous to a row in a relational data table or a record in a traditional flat file. The attributes of an instance contain the data describing one specific entity of that class.

Manager

See *Radia Configuration Server*.

mandatory service

A **mandatory service** is a service that is required on the subscriber's computer. Services are made mandatory by setting the ZSVCMO variable in the Application instance to **M**.

method

A **method** is a program that performs functions that are meaningful in the context from which they are called.

Methods can be written in REXX or in a language that produces an executable that can validly run on the platform where it is invoked. The HP-supplied REXX run-time environment interprets REXX methods.

Client methods run on the subscriber's computer, while Radia Configuration Server methods run on the Radia Configuration Server computer.

method variable

The **method variable** identifies the method, or program, to be executed as part of the resolution process.

For Radia Configuration Server methods, it contains a reference to an instance of the SYSTEM domain PROCESS class that identifies the method to execute and the parameters to be passed to the method. Radia Configuration Server methods are located in the Radia Configuration Server BIN subdirectory for .exe methods or in the Manager REXX subdirectory for REXX methods.

For Radia Client methods, it contains the name of the method to execute on the subscriber's computer. The name of a method variable that executes a Radia Client method identifies the event (such as installing or removing software) for which the method should be executed. Client methods are located in the IDMSYS location on the subscriber's computer.

Notify

A **notify** forces one or more client computers to connect to the Radia Configuration Server to update or remove an application or send an e-mail to subscribers of a particular service.

null instance

The **null instance** of a class is used when an instance of that class that does not exist. During resolution, if a connection is attempted to a non-existent instance of a class, the Null Instance is used. This provides a resolution path that handles broken connections.

object

An **object** is a data structure containing variables stored in a file with an .EDM suffix on the client computer. An object can consist of one or more instances. Each instance contains the same set of variables. The values held in the variables can vary from instance to instance.

Use the Radia Client Explorer to view, edit, or create objects.

optional service

An **optional service** is a service that is available to subscribers via the Service List of the Radia Software Manager user interface. Services are made optional by setting the ZSVCMO variable in the Application instance to "O".

package

A **package** is the data that is published as an individual unit.

policy

A **policy** determines *which* subscribers (or computers) have access to *what* software. The POLICY domain class instances identify users. Connections to the POLICY class instances identify the content to be managed for those subscribers.

promote

When you **promote** a package that was created with the Radia Publisher, you are storing the package in the Radia Database.

publish

To bundle a set of related data into a single unit that can be managed by Radia.

Publisher

See *Radia Publisher*.

Radia Application Manager

The **Radia Application Manager** Radskman is the Radia Client executable that manages mandatory services. The Radia administrator uses the Radia System Explorer to specify the services that the Radia Application Manager manages on the subscriber's computer. No user interface is available.

Radia Client

The **Radia Client** (Radia Application Manager and/or Radia Software Manager) runs on the subscriber's computer. It communicates with the Radia Configuration Server to receive information about the desired state of the subscriber's computer, and compares that information to the actual state of the subscriber's computer. Then, the Radia Client makes any adjustments necessary to make the actual state match the desired state.

Radia Client Explorer

The **Radia Client Explorer** (Object Editor) can be used to view or edit local objects, or create new objects. You can also use the Radia Client Explorer to view objects located on a file server or on other computers to which you are connected via a local area network (LAN).

Radia Configuration Server

Also called *Active Component Server* or *Manager*.

The **Radia Configuration Server** distributes applications to client computers. It runs on the server and maintains the Radia Database, which stores information that the Radia Configuration Server needs to manage digital assets for distribution to client computers.

Radia Database

The **Radia Database** stores all of the information necessary to manage digital assets on a client computer, including:

- The software and/or data that Radia distributes.
- The desired state of each client computer with respect to the Radia-managed content.
- The policies determining which subscribers can subscribe to which packages.
- Security and access rules for Radia administrators.

Use the Radia System Explorer to manipulate the Radia Database.

Radia Inventory Manager

The **Radia Inventory Manager** is a policy-driven, inventory management tool that automatically discovers information about software and hardware, and consolidates the results into Web-based reports. The Radia Inventory Management client is a WBEM (Web-based Enterprise Management) consumer.

Radia Publisher

The **Radia Publisher** is used to create packages of data and store them in (i.e., promote them to) the Radia Database.

Radia Scheduler

The **Radia Scheduler** service (radsched), installed with the Radia Application Manager, allows you to deploy a service at a specific time.

Radia Software Manager

The **Radia Software Manager** (radiaui) is the Radia Client used to manage optional services. The Radia administrator uses the Radia System Explorer to specify the services that are available to the subscriber.

The subscriber installs and manages data that is available from the Radia Software Manager user interface (Service List).

Radia Staging Server

The **Radia Staging Server** is used to store data required for deploying applications on a computer other than the computer with the Radia Configuration Server.

Radia System Explorer

The **Radia System Explorer** is used to manipulate the contents of the Radia Database.

resolution

Resolution occurs when the Radia Configuration Server accomplishes a unit of work in response to a service request. The unit of work is defined by the contents of the Radia Database and parameters included in the service request itself.

In other words, what Radia does depends upon what information is stored in the Radia Database and what information accompanies the request for Radia to perform some action.

For example, the Radia Client Connect submits service requests by sending an object to the Radia Configuration Server. The Radia Configuration Server then performs resolution in response to each request. The parameters that control the processing of the service request are in the input object.

resource

Also called *file*.

A **resource** is a single component that is bundled into a package. Examples of resources are files, desktop links, and sets of registry keys.

Scheduler

See *Radia Scheduler*.

service

Also called a software application, application, or software.

A **service** is a group of related packages.

session

A **session** identifies a packaging exercise in Radia Publisher that results in the creation of one Radia package.

Software Manager

See *Radia Software Manager*.

staging server

See *Radia Staging Server*.

subscriber

A **subscriber** is the person who uses Radia-managed applications on a client computer.

symbol

A **symbol** is the name of a variable in global memory, preceded by an ampersand.

symbolic substitution

Database instances and client objects consist of variables that contain values. The value of a variable can contain a specification that refers to the value of another variable. During the resolution process, Radia can substitute the value of the second variable to replace the reference in the first variable.

References to be processed with symbolic substitution are specified using an initial ampersand.

For example, one of the _ALWAYS_ connection variables in the SYSTEM.PROCESS .ZMASTER instance of the Database contains the value POLICY.USER.&(ZMASTER .ZUSERID). The reference &(ZMASTER.ZUSERID) refers to the ZMASTER object's ZUSERID variable, which contains the user ID typed into the Radia logon dialog box on the Radia Client, when the subscriber visits the Radia Software Management Web page. If the user typed in JDOE for the user ID, symbolic substitution would render the effective value of the _ALWAYS_ connection variable as POLICY.USER.JDOE.

The substitution is not permanent, i.e., the value in the Radia Database doesn't change. Only the value in the in-storage object derived from the Radia Database instance for the current resolution process contains the substituted value.

The parentheses are required only if the reference is qualified, i.e., contains a period. If the reference is unqualified, the parentheses are optional.

For example, these symbolic substitution specifications are correct:

&(ZMASTER.ZUSERID)

&(ZUSERID)

&ZUSERID

and this is incorrect:

&ZMASTER.ZUSERID

System Explorer

See *Radia System Explorer*.

Timer

See *Radia Scheduler*.

variable

A **variable** is a piece of named storage that contains a changing value. The variable's value forms a part of the client's resolved distribution model and can influence the resolution process through messaging or symbolic substitution.

version group

A **version group** is a collection of one or more versions of one application that Radia deploys and manages. Use version groups to roll out a new version of an application to the appropriate subscribers, and activate it upon delivery or at a pre-determined time.

Web-based Enterprise Management (WBEM)

Web-Based Enterprise Management (WBEM) is an initiative from the Distributed Management Task Force (DMTF) to develop standard technologies for accessing management information in an enterprise-computing environment.

Windows® Management Instrumentation (WMI)

Windows® Management Instrumentation (WMI) is the Microsoft implementation, for Windows platforms, of Web-Based Enterprise Management (WBEM). WMI provides support for WBEM's Common Information Model (CIM).

ZCONFIG

The **ZCONFIG** object contains basic hardware information for the client computer such as processor, operating system, and drives.

ZMASTER

The **ZMASTER** object contains information about the client computer that is necessary to run the Radia Application Manager such as the identity of the subscriber and the IP address of the client computer.

ZTIMEQ

The **ZTIMEQ** object is created, based on information in the Scheduler (TIMER) instance, when a timer is deployed to the client computer.

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