

HP OpenView Application Manager Using Radia

for the Macintosh OS X operating system

Software Version: 3.1

Installation and Configuration Guide

Manufacturing Part Number: T3424-90083

June 2005



Legal Notices

Warranty

Hewlett-Packard makes no warranty of any kind with regard to this document, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Hewlett-Packard shall not be held liable for errors contained herein or direct, indirect, special, incidental or consequential damages in connection with the furnishing, performance, or use of this material.

A copy of the specific warranty terms applicable to your Hewlett-Packard product can be obtained from your local Sales and Service Office.

Restricted Rights Legend

Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause in DFARS 252.227-7013.

Hewlett-Packard Company
United States of America

Rights for non-DOD U.S. Government Departments and Agencies are as set forth in FAR 52.227-19(c)(1,2).

Copyright Notices

© Copyright 1998-2005 Hewlett-Packard Development Company, L.P.

No part of this document may be copied, reproduced, or translated into another language without the prior written consent of Hewlett-Packard Company. The information contained in this material is subject to change without notice.

Trademark Notices

Linux is a registered trademark of Linus Torvalds.

Microsoft®, Windows®, and Windows® XP are U.S. registered trademarks of Microsoft Corporation.

OpenLDAP is a registered trademark of the OpenLDAP Foundation.

Acknowledgements

PREBOOT EXECUTION ENVIRONMENT (PXE) SERVER
Copyright © 1996-1999 Intel Corporation.

TFTP SERVER

Copyright © 1983, 1993

The Regents of the University of California.

OpenLDAP

Copyright 1999-2001 The OpenLDAP Foundation, Redwood City, California, USA.

Portions Copyright © 1992-1996 Regents of the University of Michigan.

OpenSSL License

Copyright © 1998-2001 The OpenSSLProject.

Original SSLeay License

Copyright © 1995-1998 Eric Young (eay@cryptsoft.com)

DHTML Calendar

Copyright Mihai Bazon, 2002, 2003

Support

Please visit the HP OpenView support web site at:

<http://www.hp.com/managementsoftware/support>

This web site provides contact information and details about the products, services, and support that HP OpenView offers.

HP OpenView online software support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valuable support customer, you can benefit by using the support site to:

- Search for knowledge documents of interest
- Submit enhancement requests online
- Download software patches
- Submit and track progress on support cases
- Manage a support contract
- Look up HP support contacts
- Review information about available services
- Enter discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and log in. Many also require a support contract.

To find more information about access levels, go to:

http://www.hp.com/managementsoftware/access_level

To register for an HP Passport ID, go to:

<http://www.managementsoftware.hp.com/passport-registration.html>

Preface

About this Guide

Who this Guide is for

This guide should be used by Radia systems administrators who want to install and use the Radia Application Manager for Macintosh OS X.

What this Guide is about

This guide contains a comprehensive description of the Radia Application Manager for Macintosh OS X. It includes in depth discussions of the following topics:

- How to install the Radia Clients and Radia Administrator Workstation.
- How to publish applications and create packages.
- How to implement entitlement policies.
- How to use the Radia Application Manager.
- What Radia Client objects are.
- How to deploy applications.

Conventions

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

Table P.1 ~ Styles

Element	Style	Example
References	Italic	See the <i>Installing the Radia Application Manager</i> chapter in this book.
Dialog boxes	Bold	The Radia System Explorer Security Information dialog box opens.
Code	Andale Mono	radskman
↵	Arial Unicode MS	When displaying lines of code that extend beyond the defined margins of the manuscript, this symbol indicates that the code continues uninterrupted and indented on the next line. <pre>Radskman ip=<RadiaConfigurationServerIPAddress>,↵ port=<RadiaConfigurationServerport></pre>
Selections	Bold	Open the Admin folder on the installation CD-ROM.

Table P.2 ~ Usage

Element	Style	Example
Drives (system, mapped, CD)	Italicized placeholder	<i>SystemDrive</i> :Novadigm might refer to the location Macintosh HD:Novadigm on your computer where "Macintosh HD" is the local drive's name.
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 Configuration Server Database	Radia Database

Contents

Preface.....	5
About this Guide.....	5
Who this Guide is for	5
What this Guide is about.....	5
Conventions.....	6
1 Introduction	17
About Radia Technology.....	18
Distribution Models	20
The Radia Database	22
Radia Infrastructure	25
Radia Configuration Server.....	25
Radia Management Portal.....	25
Radia Proxy Server	25
Radia Administrator Workstation	26
Management Applications	26
Deployment Strategies	28
Scheduled Deployment Strategy	28
Notified Deployment Strategy.....	29
Creating a Test Environment	30
Setting up a Test Environment	30
About This Guide.....	31
Summary.....	32

- 2 Installing the Radia Client 33
 - System Requirements 34
 - Prerequisites 34
 - Troubleshooting 35
 - About Radia Daemons in the Mac OS X Environment 36
 - Recommendations 37
 - Installation Methods 38
 - Installing the Radia Client 39
 - Graphical Installation 39
 - Local Installation 39
 - Remote Installation Setup 50
 - Non-graphical Installation 61
 - Summary 66

- 3 Installing the Radia Administrator Workstation for Macintosh OS X 67
 - System Requirements 68
 - Prerequisites 68
 - Troubleshooting 68
 - Recommendations 69
 - Installation Methods 69
 - Installing the Radia Administrator Workstation for Mac OS X 71
 - Graphical Installation 71
 - Non-graphical Installation 79
 - Summary 83

- 4 Installing the Radia Administrator Workstation for Windows 85
 - System Requirements 86
 - About the Installation Files 87
 - Installing the Radia Administrator Workstation for Windows 88

Using the Installation Wizard to Install the Radia Administrator Workstation88

Using a Command Line to Install the Radia Administrator Workstation.....96

 Specifying what Features to Install96

 Additional Command Line Arguments97

Removing the Radia Administrator Workstation for Windows.....98

 Using the Installation Wizard to Remove the Radia Administrator Workstation98

 Using a Command Line to Remove the Radia Administrator Workstation.....102

Repairing the Radia Administrator Workstation for Windows103

 Using the Installation Wizard to Repair the Radia Administrator Workstation103

 Using a Command Line to Repair the Radia Administrator Workstation.....107

Modifying the Radia Administrator Workstation Installation.....108

 Using the Installation Wizard to Repair the Radia Administrator Workstation108

 Using a Command Line to Modify the Radia Administrator Workstation Installation
 113

Summary.....114

5 Publishing Applications and Content 115

About Publishing116

Publishing Considerations Checklist118

Setting Default Properties122

 Client Management Tab123

 Verification Options123

 Delivery Options125

 Data Options Tab126

 Client Behaviors Tab128

Mac File Resources (MACFILE)131

 Published Owner, Group, and Permission Considerations133

Using Installation Monitor Mode135

 Recommendations135

 Publishing with Installation Monitor Mode137

 Step 1: Logging On to Radia Publisher137

 Step 2: Completing the Open Publishing Session Window.....138

 Step 3: Entering Package Properties140

 Step 4: Setting the Required System Configuration143

Step 5: Setting Date and Time Constraints.....	145
Step 6: Identifying What to Scan.....	147
Step 7: Identifying What to Scan in the File System.....	149
Step 8: Beginning the Pre-Installation Scan.....	151
Step 9: Installing the Software.....	152
Step 10: Beginning the Post-Installation Scan.....	153
Step 11: Reviewing the Modifications to the File System.....	154
Step 12: Viewing File Properties and Locations.....	155
Step 13: Setting File Properties and Locations.....	156
Step 14: Working with Updated Files.....	167
Step 15: Setting Desktop Properties and Locations.....	168
Step 16: Promoting Packages.....	170
Using Component Selection Mode.....	172
Prerequisites.....	172
Publishing with Component Selection Mode.....	173
Step 1: Logging On to Radia Publisher.....	173
Step 2: Completing the Open Publishing Session Window.....	174
Step 3: Entering Package Properties.....	176
Step 4: Setting the Required System Configuration.....	178
Step 5: Setting Date and Time Constraints.....	180
Step 6: Selecting the Files to Publish.....	181
Step 7: Viewing File Properties and Locations.....	182
Step 8: Setting File Properties and Locations.....	184
Step 9: Setting Desktop Properties and Locations.....	194
Step 10: Promoting Packages.....	196
Creating a Service.....	198
Using the New Application Wizard to Create a Service.....	198
Radia Application Manager Self-Maintenance.....	208
Example of Client Self-Maintenance.....	210
Scenario.....	210
Step 1: Publishing Maintenance Files.....	210
Step 2: Connecting the Maintenance Package to a Service.....	218
Step 3: Connecting the Client Self Maintenance Application to a Policy.....	227
Summary.....	234

6	Implementing Entitlement Policy	235
	Assumptions.....	237
	About the POLICY Domain	238
	Classes in the POLICY Domain	239
	Specifying Policies	240
	Creating Users	240
	Assigning Users to Groups	243
	Connecting Applications to Users.....	249
	Radia Policy Manager	257
	Summary	258
7	Deploying Applications	259
	Deploying Applications.....	260
	Methods of Deployment.....	261
	Scheduling (TIMER).....	262
	Configuring Timers in the Radia Database	264
	Modify the Timer	266
	Configuring the Timer.....	269
	Connecting the Timer to a Service	276
	Troubleshooting Timers.....	282
	Testing Timers	283
	Timer Logs	283
	Notify.....	285
	Requirements to Use Notify	285
	Using Notify	286
	Notifying Subscribers	289
	NOTIFY File Structure.....	296
	Retrying a Notify Operation.....	297
	Special Case Deployments	300
	Restarting the Client Computer	300
	Creating a Mandatory Timer Update	303
	Creating a Drag-and-Drop Notify Command	303
	Versioned Deployments.....	306

The Version Groups (VGROUP) Class	306
The Version (VERSION) Class.....	308
Modeling Versioned Applications.....	310
Version Group Editor.....	313
Creating a Version Group Instance	313
Caching and Local Repair	323
Recommendations for Trouble-Free Deployments	325
Radia Staging Servers and Deployment	325
Summary.....	326
8 Radia Client Objects	327
Radia Objects	328
The PROFILE File.....	329
Basic Hardware Inventory - ZCONFIG	331
Setting Collection of the ZCONFIG Object	336
Application Status – The APPEVENT Object	340
Base Instance Behaviors for Application Events.....	340
Viewing the APPEVENT Object	344
Creating Custom APPEVENT Objects	347
ODBC	349
Summary.....	350
A Naming Conventions	351
Categorizing Information.....	352
Naming Conventions for the POLICY Domain	354
Naming Conventions for the SOFTWARE Domain	355

B Application (ZSERVICE) Attributes..... 357

Glossary..... 367

Lists..... 379

 Figures.....379

 Tables387

 Procedures.....389

Index 393



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. And Radia's solutions automate 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.**
Radia's 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 repack everything.

■ **Self-Managing Infrastructure.**

The object-oriented intelligence of Radia technology incorporates self-managing infrastructure. This capability begins with network-independence, with Radia's 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 software that is being managed.
- **Application Files**
The components that make up the applications.
- **Deployment Source**
The location where the application components are stored so they can be deployed to the users.
- **Deployment Destinations**
The location to which the application and its files will be deployed.

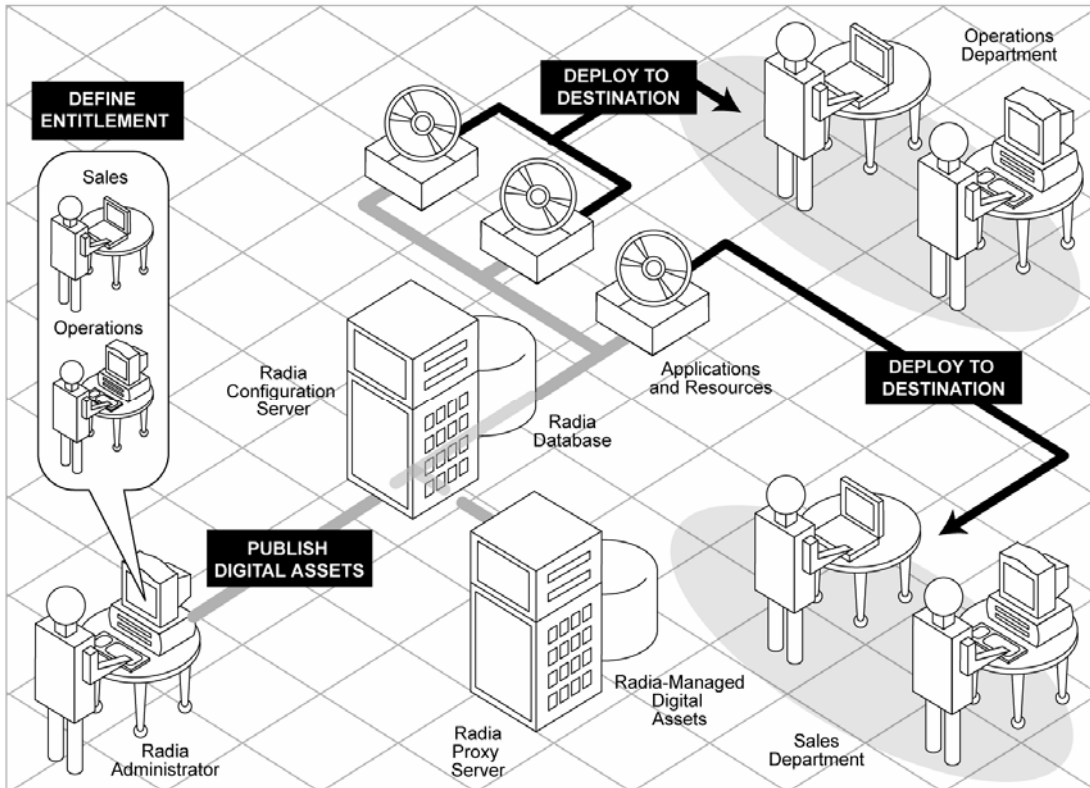


Figure 1.1 ~ Elements in a distribution model.

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 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 <i>Radia Database Reference Manual</i> 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.

Table 1.1 ~ Radia Database Structure

Term	Description
Attribute	An attribute is a data element of a class. The class contains the definition (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.
Attribute Value	

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 Application Manager Self-Maintenance* on page 208.
 - 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 *Chapter 6: Implementing Entitlement Policy* starting on page 235 for more information.
 - The SOFTWARE domain contains information about the software being managed and the methods used to deploy the software. See *Chapter 5: Publishing Applications and Content* starting on page 115 and *Chapter 7: Deploying Applications* starting on page 259.
 - 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 *Chapter 8: Radia Client Objects* starting on page 327.

- 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 *Chapter 7: Deploying Applications* starting on page 259.

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 Radia 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* or the *Radia System Explorer Quick Reference* for more information.
- **Radia Client Explorer**
Use the Radia Client Explorer to view and to manipulate Radia objects on the client computer. In addition to this publication, see the *Radia Client Explorer Quick Reference* for more information.
- **Radia Screen Painter**
Use the Radia Screen Painter to create custom dialog boxes. See the *Radia Screen Painter Quick Reference* for more information.

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 only those clients for which you have obtained a license. The client software is located on the Management Applications CD-ROM.

- **Radia Application Manager (RAM)**

Schedule the distribution of mandatory applications throughout the enterprise. This client is described in this book.

- **Radia Software Manager (RSM)**

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 (RIM)**

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.

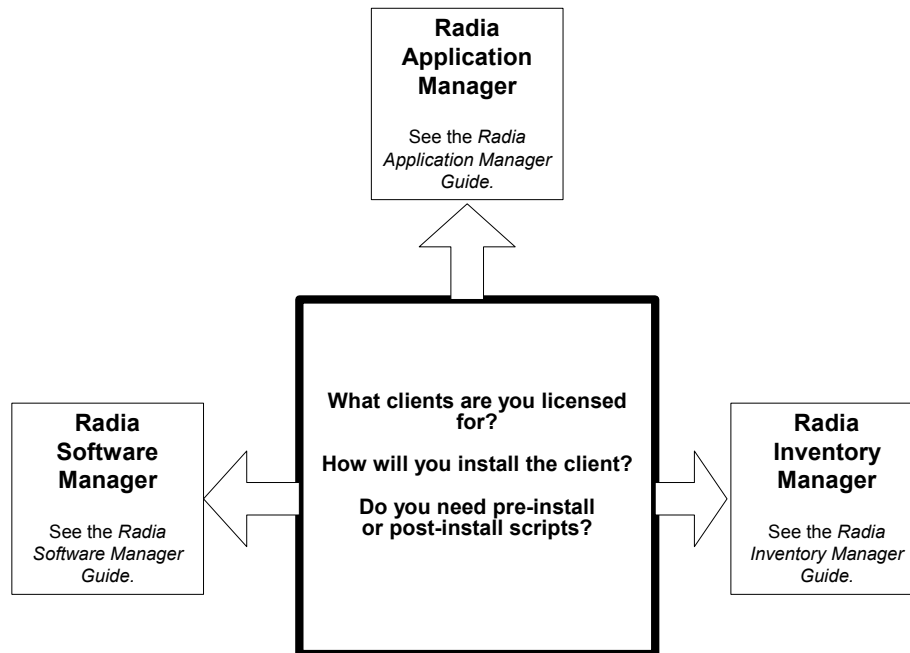


Figure 1.2 ~ Client options.

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.

Deployment Strategies

Below are two *suggested* strategies for implementing the RAM client: scheduled and notified deployment. Choose the best strategy based on your enterprise needs. You can use them separately or in combinations.

Scheduled Deployment Strategy

The scheduled deployment strategy ensures that an initial set of mandatory applications is installed when you install the RAM, and that new mandatory applications are checked at an interval you designate.

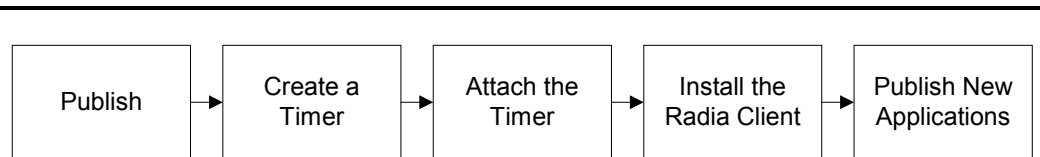


Figure 1.3 ~ Scheduled Deployment Strategy.

Note

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

1. **Publish** your mandatory applications. See *Chapter 5: Publishing Applications and Content* starting on page 115.
2. **Create a timer** with the appropriate parameters. This ensures that new mandatory applications will be deployed when the timer expires. See *Scheduling (TIMER)* on page 262.
3. **Attach a timer** to the Client Self Maintenance Service. This ensures that all subscribers will receive the timer during Radia Application Manager installation. See *Scheduling (TIMER)* on page 262.
4. **Install the Radia Application Manager client** and download all pre-configured mandatory applications. See *Chapter 2: Installing the Radia Client* starting on page 33.
5. **Publish the new mandatory applications.** The next time the timer expires on the client computer, the new applications will be deployed.

Notified Deployment Strategy

The Notified Deployment strategy allows you to send out an application or applications for immediate installation after installing the Radia Application Manager.

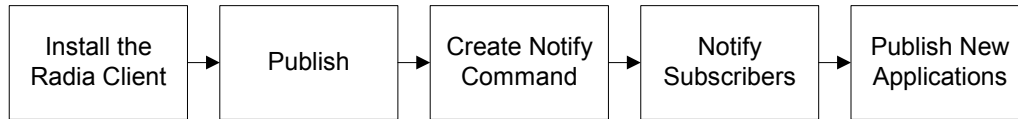


Figure 1.4 ~ Immediate notification deployment strategy.

Note

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

- 1. Install the Radia Application Manager client** and register the client computer in the PROFILE file in the Radia Database. See *Chapter 2: Installing the Radia Client* starting on page 33.
- 2. Publish** your mandatory applications. See *Chapter 5: Publishing Applications and Content* starting on page 115.
- 3. Create a notification command** that runs the RADSKMAN executable with the appropriate parameters. See *Creating a Drag-and-Drop Notify Command* on page 303.
- 4. Drag the appropriate users** to the notification command.
- 5. Publish the new mandatory applications** and drag the user or group of users to the notification command.

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. In this section, we will:

- Prepare a "new" application for deployment.
- Use a command line to distribute the new mandatory application.

This section is intended to introduce you to using the Radia Application Manager to install mandatory applications in a test environment. For detailed information on HP's recommended deployment strategy, see *Deployment Strategies* on page 28.

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 Configuration Server Installation Guide* 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 Application 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 Application 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 Application 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.

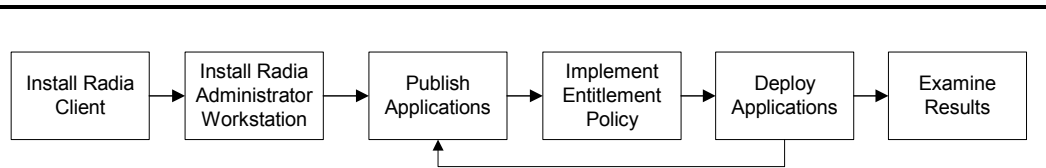


Figure 1.5 ~ Tasks completed in this guide.

The *Radia Application Manager Guide* covers the following:

- **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, how to create new users and assign them to groups in simple environments, and how to connect services to groups.
- **Deploying Applications**
This chapter explains how to deploy applications to your client computers.
- **Radia Client Objects**
This chapter shows you how to examine the results of your Radia implementation.

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.
- HP provides 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.

Installing the Radia Client

At the end of this chapter, you will:

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

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

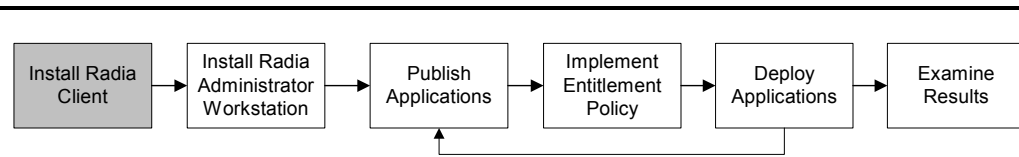


Figure 2.1 ~ Overview of the Radia Application Manager Guide.

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

- Mac OS X – Minimum Operating System Requirement is 10.1.5
- TCP/IP connection to a computer running Radia Configuration Server.
- Radia Client requires 20 MB free disk space.

Prerequisites

- We strongly recommend installing the Radia Clients as root or a Mac OS X administrator who is capable of issuing sudo commands.
- Install the Radia Client on a local file system.
- The installation program must be run from within the Darwin Subsystem.

Note

We strongly recommend you refrain from performing any other tasks and operations while the installation program is running.

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, Radia executables and library files will not be changing with the same frequency as that of your site's user files.

After the Radia Client is installed, a file called **.nvdprof** is placed in the HOME directory of the Mac OS X user ID who performed the installation. This file contains the Radia initialization data required by the Radia Client.

Troubleshooting

Should you encounter any problems while installing the Radia 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. Be able to provide the log file created during the invocation of the install, which defaults to the location `/tmp/setup/setup.log`.

Note

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

About Radia Daemons in the Mac OS X Environment

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 under Mac OS X shall install sample startup scripts under Mac OS X POSIX style path `/Library/StartupItems/Radexecd` and `/Library/StartupItems/Radsched`.

Recommendations

- We strongly recommend that you install and run the Radia Client as root or use a Mac OS X user ID that is able to perform sudo-based commands.
- After you perform an installation, make sure the Radia Application 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.
 - ◆ Replicate precise installation details on multiple clients.
 - ◆ Use a pre-installation method that runs any script or executable before the Radia Client installation.
 - ◆ Use a post-installation method, which runs any script or executable after the Radia Client is installed.
 - ◆ Configure the installation to force a client connection to the Radia Configuration Server immediately after the installation.
 - ◆ Pre-configure the IP address and port number of the Radia Configuration Server that the Radia Client will be connecting 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 2.1 below describes the installation parameters.

Table 2.1 ~ 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.
-logdir	./install -logdir /System/Library/Radia	Overrides the default installation log directory (which defaults to /tmp/setup).
-logfile	./install -logfile Radia_client_install.log	Overrides the default installation log filename of setup.log.

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 Mac OS X.

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).

Note

Using the **Browse** button during the graphical installation may cause the **Back** and **Next** buttons to appear disabled (faded) when in fact these buttons are operational.

Local Installation

This section describes how to install the Radia Clients to a local computer using a GUI. Installation of the Radia Clients requires Administrator authority in order to install the Radia Daemons. Since Mac OS X does not ship with the root account enabled, you should install the Radia Clients as root or under a Mac OS X user ID who is able to perform sudo-based commands.

Note

If the Radia daemons were selected for startup after the client installation (the default behavior), you may see the Mac OS X system startup dialog. This is normal behavior.

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 61.

1. On your Mac OS X media, double-click **Radia31.dmg**. A Radia31 disk image is created on your desktop.

Installing the Radia Client

2. Open a terminal window and change your current working directory to `/Volumes/Radia31/client`.
3. Type `sudo ./install`, and then press ENTER.

The **Welcome** window opens.

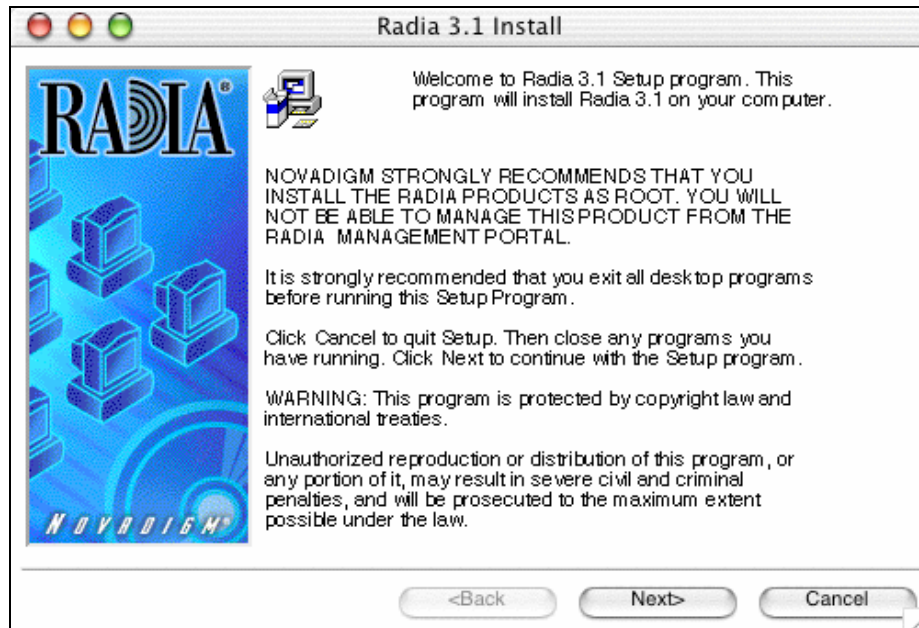


Figure 2.2 ~ Welcome window of the Radia Products Setup program for a local installation.

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**.

4. Click **Next**.

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



Figure 2.3 ~ Select Components to Install window.

6. From the displayed panel, select the **Radia Application Manager** check box.
7. Click **Next**.

The **Select Installation Type** window opens.



Figure 2.4 ~ Select Installation Type window.

8. 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.

9. Type the name of the directory where you want to install the Radia Client, or click **Browse** to navigate to it.
10. 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.

11. 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.
12. Click **Next**.
The **Log Directory** window opens.



Figure 2.7 ~ Log Directory window.

13. 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.
14. Click **Next**.

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



Figure 2.8 ~ Radia Configuration Server IP Address window.

15. 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 host name recognized by the client workstation.
16. Click **Next**.

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



Figure 2.9 ~ Radia Configuration Server Port Number window.

17. Type the Radia Configuration Server's port number (default is 3464).
18. Click **Next**.

The **Package Settings** window opens.



Figure 2.10 ~ Package Settings window.

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

The **Installation Progress** window opens.

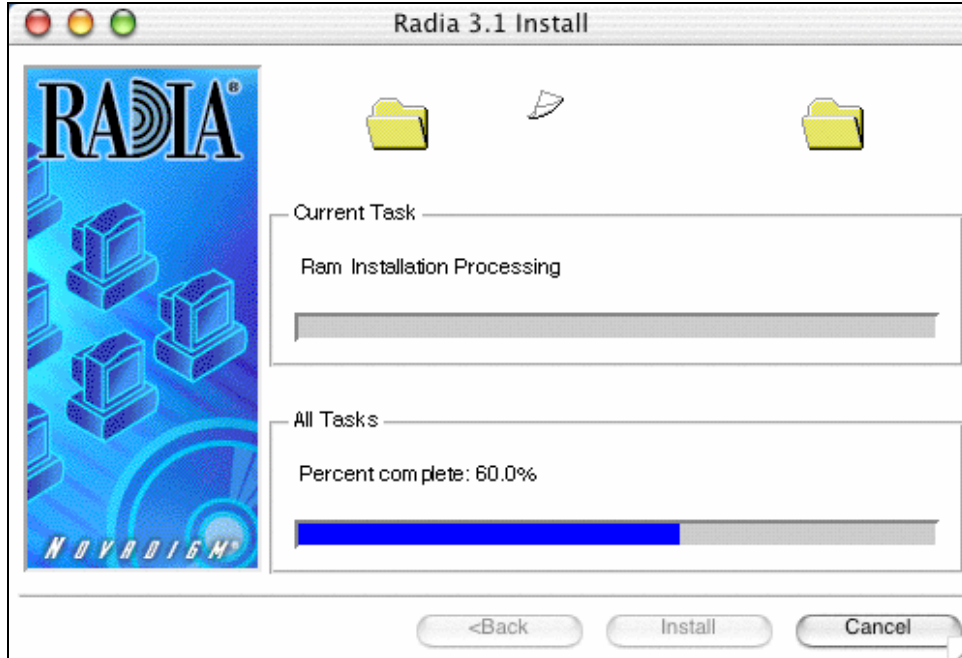


Figure 2.11 ~ Installation Progress window.

When the installation is finished, the **Successful Installation** window (Figure 2.12 on page 50) opens.



Figure 2.12 ~ Successful Installation window.

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

The Radia Client has been successfully installed.

Note

If the Radia daemons were selected for startup after the client installation (the default behavior), you may see the Mac OS X system startup dialog box. This is normal behavior.

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. On your Mac OS X media, double-click **Radia31.dmg**. A Radia31 disk image is created on your desktop.
2. Open a terminal window and change your current working directory to `/Volumes/Radia31/client`.

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

The **Welcome** window opens.

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.
6. Select **Radia Application Manager** and click **Next**.

The **Select Installation Type** window opens.



Figure 2.13 ~ Select Installation Type window.

7. 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.

8. Click Next.

The **Radia Client Location** window opens.

9. 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.

10. Click **Next**.

The **Lib Directory** window opens.

11. 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.

12. Click **Next**.

The **Log Directory** window opens. .

13. 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.

14. Click **Next**.

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

15. 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 host name recognized by the client workstation.

16. Click **Next**.

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

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

18. Click **Next**.

The **Package Location** window opens.



Figure 2.14 ~ Package Location window.

-
19. 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.
 20. Click **Next**.

The **Package Configuration Name** window opens.



Figure 2.15 ~ Package Configuration Name window.

21. 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.

22. Click **Next**.

The **Package Settings** window opens.



Figure 2.16 ~ Package Settings window.

23. Review the settings displayed in the **Package Settings** window.
24. Click **Continue** to build the Remote Installation Package.

The **Installation Progress** window opens.

When the installation is finished, the **Successful Installation** window opens.



Figure 2.17 ~ Successful Installation window.

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

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 2.2 below.

Table 2.2 ~ Configuration File Variables		
Variable	Sample Value	Description
REMOTE	0	0 designates a local installation. 1 designates a Remote Installation Setup.
INSTDIR	/Applications/Novadigm	The default installation directory.
IDMLOG	/Applications/Novadigm/log	This can be defined to designate a directory for IDMLOG other than the default INSTDIR/log.
IDMLIB	/Applications/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.
PREPARAM		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.
POSTPARAM		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.
ALIASCREATE Radia Software Manager only	Y	Create the Radia Software Manager Alias. Default value is Y when the Radia Software Manager is selected during the installation.
ALIASLOCAT Radia Software Manager only	D	Location where the Radia Software Manager alias will be created. Options: D – Desktop A – Applications F – Folder (location defined in the ALIASFOLDER parameter)

Table 2.2 ~ Configuration File Variables

Variable	Sample Value	Description
ALIASFOLDER Radia Software Manager Only	/Applications/RSM	When ALIASLOCAT is set to F , the location to place the Radia Software Manager alias. Must be a fully qualified POSIX path to an existing directory.
ALIASC_OPTS Radia Software Manager Only	C	Instructions if an alias already exists. Options: C – Copy. Leave existing file alone and create a new enumerated alias for example, SoftwareManager.app01) R – Replace. Delete existing alias and create a new one. N – No-replace. Do not create a new alias if one already exists. Only needed if SoftwareManager.app already exists and it is not a link to the SoftwareManager in the newly installed installation directory.
STARTDAEMONS	Y	Start the radexecd and radsched daemons. Default value is Y .

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 2.18 below is part of a shell script that initiates the connection to the Radia Configuration Server and processes mandatory applications.

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

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

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

Figure 2.18 ~ 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 or using a Mac OS X user ID that is able to perform sudo-based commands.

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 2.3 on page 61 describes these.

Table 2.3 ~ 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 <i>Customizing the Installation Configuration File</i> on page 56.
-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 <i>Customizing the Installation Configuration File</i> on page 56.

Non-graphical Installation

This section describes a non-graphical (using a command line) installation of the Radia Client Mac OS X.

To install the Radia Client for Mac OS X using a command line

Note

These instructions guide you through the local non-graphical installation of the Radia Client for Mac OS X. For the graphical installation, see *Graphical Installation* on page 39.

1. On your Mac OS X media, double-click **Radia31.dmg**. A Radia31 disk image is created on your desktop.
2. Open a terminal window and change your current working directory to `/Volumes/Radia31/client`.
3. Type **sudo ./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 2.19 ~ Radia Client non-graphical installation.

4. Type C, and press ENTER.

Select Components to Install

Radia Application Manager 3.1

Install? Y|N (Y):

Figure 2.20 ~ Select Components to install: Radia Application Manager.

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

Radia Software Manager 3.1

Install? Y|N (N):

Figure 2.21 ~ Select Components to install: Radia Software Manager.

6. Type Y to install the Radia Software Manager, then press ENTER.

OR

Press ENTER to accept the default to skip the installation of the Radia Software Manager.

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

Figure 2.22 ~ 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: /Applications/Novadigm/
```

Figure 2.23 ~ 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: /Applications/Novadigm/lib/
```

Figure 2.24 ~ 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: /Applications/Novadigm/log/
```

Figure 2.25 ~ 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 2.26 ~ 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 2.27 ~ 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 Application Manager 3.1
Package Settings:

Radia Components Location = /Applications/Novadigm/
Lib Directory = /Applications/Novadigm/lib/
Log Directory = /Applications/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 2.28 ~ 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 2.29 ~ Complete the Radia Client installation.

- 15.** When you're satisfied with the settings, press ENTER to install the Radia Client.
The Radia Client has been successfully installed.

Summary

- We strongly recommend that you install and run the Radia Clients as root or a Mac OS X user ID capable of issuing **sudo** commands.
- Install the Radia Clients using either the graphical or non-graphical modes.

Installing the Radia Administrator Workstation for Macintosh OS X

At the end of this chapter, you will:

- Understand the system requirements and permissions necessary to install the Radia Administrator Workstation for Mac OS X.
- 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, we recommend that you review this guide for a comprehensive understanding of the Radia Software Manager. This chapter focuses on installing the Radia Administrator Workstation for Mac OS X.

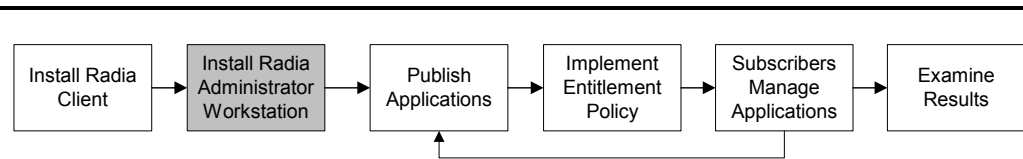


Figure 3.1 ~ Overview of the Radia Software Manager Guide.

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

- Mac OS X – minimum operating system version 10.1.5
- 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 or as a Mac OS X administrator user ID who is capable of issuing **sudo** commands.
- Install the Radia Client on a local file system.

Troubleshooting

Should you encounter any problems while installing the Radia Client, please perform the following steps:

- Enable diagnostic tracing by appending the text **-loglevel 9** to the installation command line and re-run the installation.
- Be able to provide the log file created during the invocation of the install, which defaults to the location `/tmp/setup/setup.log`.

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 or a Mac OS X Administrator user ID who is capable of issuing sudo commands.

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 3.1 below describes these.

Table 3.1 ~ Command Line Parameters

Parameter	Example	Description
-mode plain	<code>./install -mode plain</code>	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	<code>./install -mode text</code>	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.

Table 3.1 ~ Command Line Parameters

Parameter	Example	Description
-logdir	./install -logdir /System/Library/Radia	Overrides the default installation log directory which defaults to /tmp/setup.
-logfile	./install -logfile Radia_admin_install.log	Overrides the default installation log filename of setup.log.

Installing the Radia Administrator Workstation for Mac OS X

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

Graphical Installation

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

To install the Radia Administrator Workstation for Mac OS X 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 Macintosh user ID of the person performing this 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. On your Mac OS X media, double-click **Radia31.dmg**. A Radia31 disk image is created on your desktop.
2. Open a terminal window and change your current working directory to `/Volumes/Radia31/admin`.
3. Type **sudo ./install**, and then press ENTER.

The **Welcome** window opens.

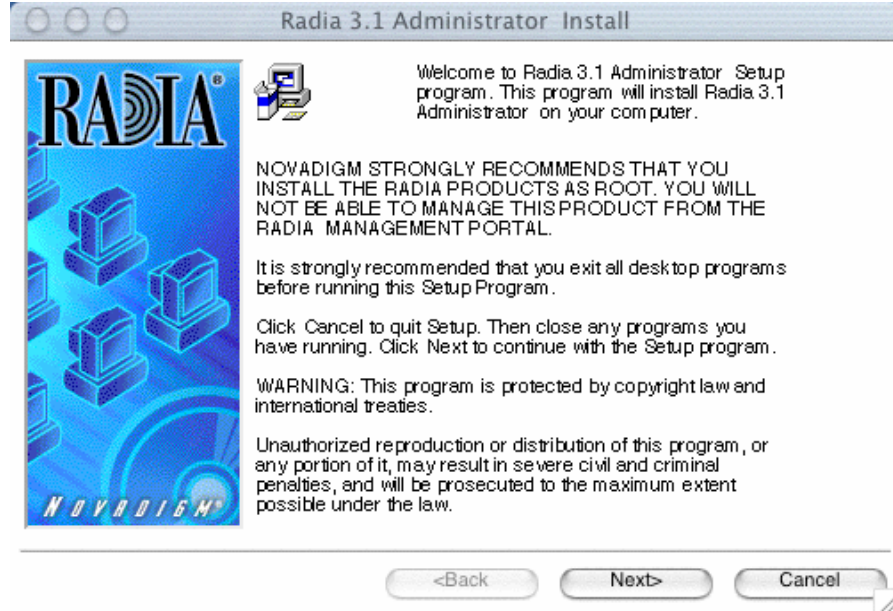


Figure 3.2 ~ Radia Administrator Workstation Welcome window.

4. Click Next.

Note

If you are installing the Radia Administrator Workstation to a computer with the same Mac 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 needed only 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.

5. Type the name of the directory where you are installing the Radia Administrator Workstation, or click **Browse** to navigate to it.
6. 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.

7. 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.
8. Click **Next**.

The **Log Directory** window opens.



Figure 3.5 ~ Log Directory window.

9. 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.
10. Click **Next**.

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



Figure 3.6 ~ Radia Configuration Server IP Address window.

- 11.** Type the IP address (format: xxx.xxx.xxx.xxx) or host name of the Radia Configuration Server to which you will be publishing.
- 12.** Click **Next**.

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



Figure 3.7 ~ Radia Configuration Server Port Number window.

13. Type the port number of your Radia Configuration Server (default is 3464).
14. Click **Next**.

The **Package Settings** window opens.

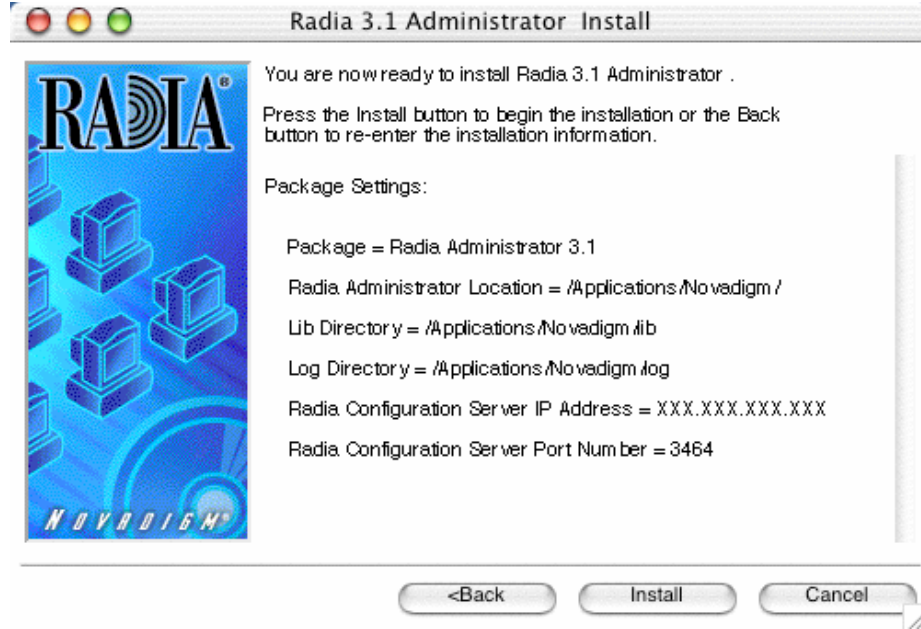


Figure 3.8 ~ Package Settings window.

15. 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.

16. 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 Mac OS X.

To install the Radia Administrator Workstation for Mac OS X 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* starting on page 71.

Note

If you are installing the Radia Administrator Workstation to a computer with the same Mac 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 needed only if you are installing the Radia Administrator Workstation to a computer that does not have a Radia Client already installed.

1. On your Mac OS X media, double-click **Radia31.dmg**. A Radia31 disk image is created on your desktop.
2. Open a terminal window and change your current working directory to `/Volumes/Radia31/admin`.
3. Type **`sudo ./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.

4. Type C, and then press ENTER.

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

Figure 3.10 ~ Specify the Radia Administrator Workstation installation location.

5. 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: /Applications/Novadigm/lib/
```

Figure 3.11 ~ Specify the location for the lib directory.

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

```
Radia Administrator 3.1
Specify the directory for the log files pProduced by the Radia Administrator 3.1
Log Directory
Default value: /Applications/Novadigm/log/
```

Figure 3.12 ~ Specify the location for the log directory.

7. 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.

8. 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.

9. 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 = /Applications/Novadigm/

Lib Directory = /Applications/Novadigm/lib/

Log Directory = /Applications/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.

- 10.** Review the installation settings you've chosen.
- 11.** 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.

- 12.** 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 or as a Macintosh OS X administrator user ID capable of issuing sudo commands.
- Install the Radia Administrator Workstation for Macintosh OS X using the graphical or non-graphical mode.

Installing the Radia Administrator Workstation for Windows

At the end of this chapter, you will:

- Be able to install the Radia Administrator Workstation for Windows.

This guide covers the *suggested* 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 focuses on installing the Radia Administrator Workstation for Windows.

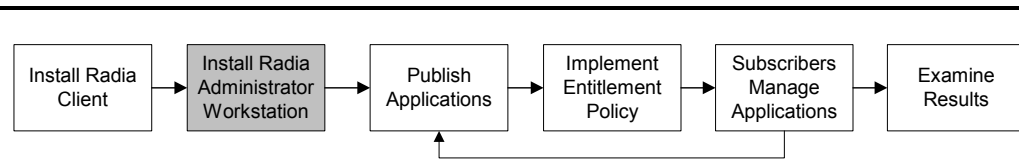


Figure 4.1 ~ Overview of the Radia Software Manager Guide.

The Radia Administrator Workstation for Windows includes the Radia System Explorer, which is required for manipulating the Radia Database. You will need the Radia System Explorer if you will be updating, adding to, or changing the Radia Database.

Install the Radia Administrator Workstation for Windows onto a 32-bit Windows platform.

The Radia Administrator Workstation installation program for Windows 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 Administrator Workstation 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 for Windows

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

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

The **Radia Administrator Workstation Installation Wizard** opens.



Figure 4.2 ~ Welcome window for the Installation Wizard.

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.

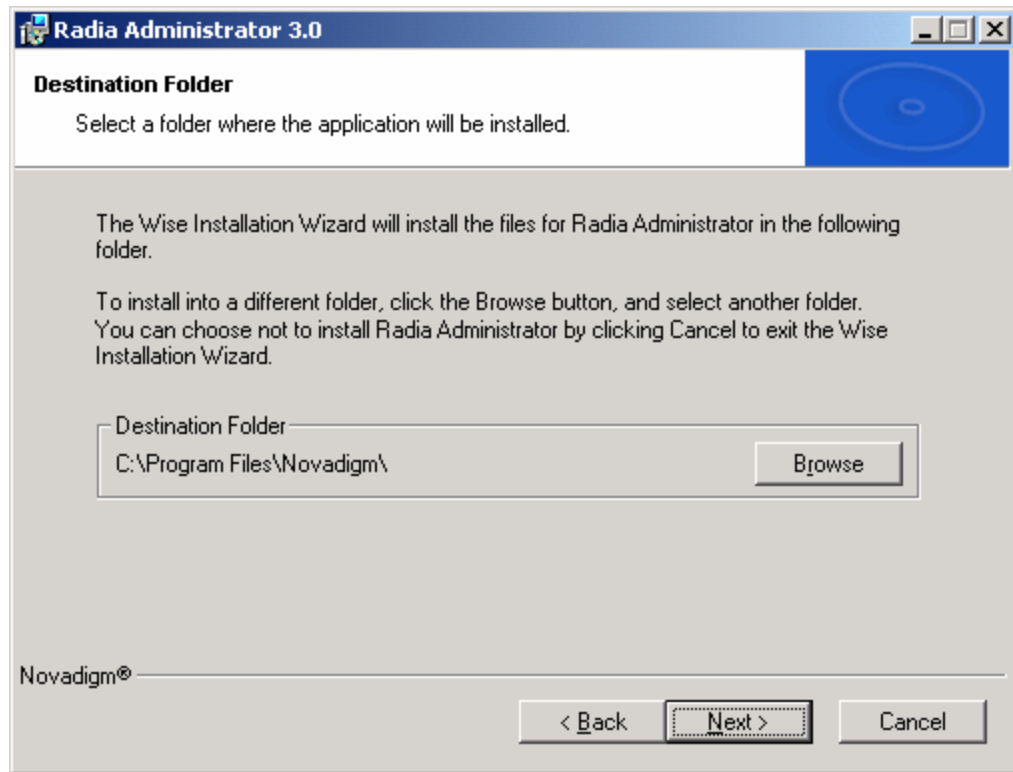


Figure 4.3 ~ Destination Folder window.

If you want to select a different destination for the Radia Administrator Workstation, click **Browse** to navigate to it.

Click **OK** to continue.

3. Click **Next**.

The **Radia Configuration Server** window opens.

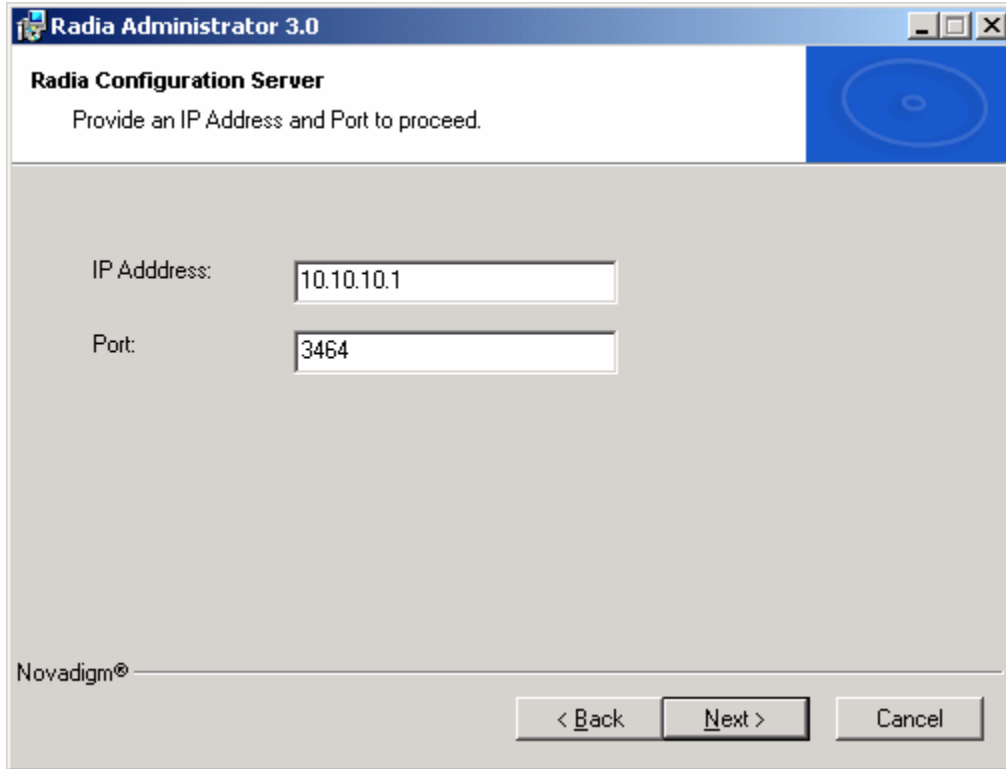


Figure 4.4 ~ Radia Configuration Server window.

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 port number is 3464).
6. Click **Next**.

The **Select Features** window opens.

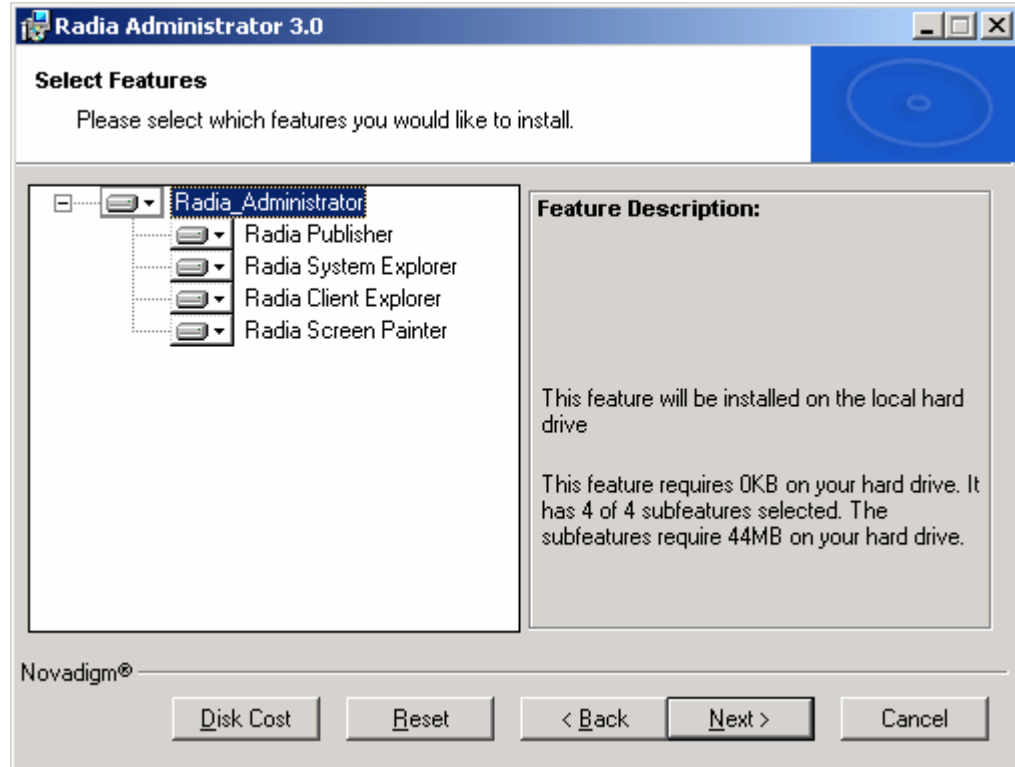



Figure 4.5 ~ Select Features window.

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** 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.

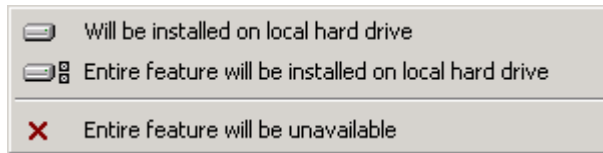


Figure 4.6 ~ Feature set installation options.

8. From the shortcut menu, select an installation option. These options are described in Table 4.1 below.

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.

9. Click **Next**.

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

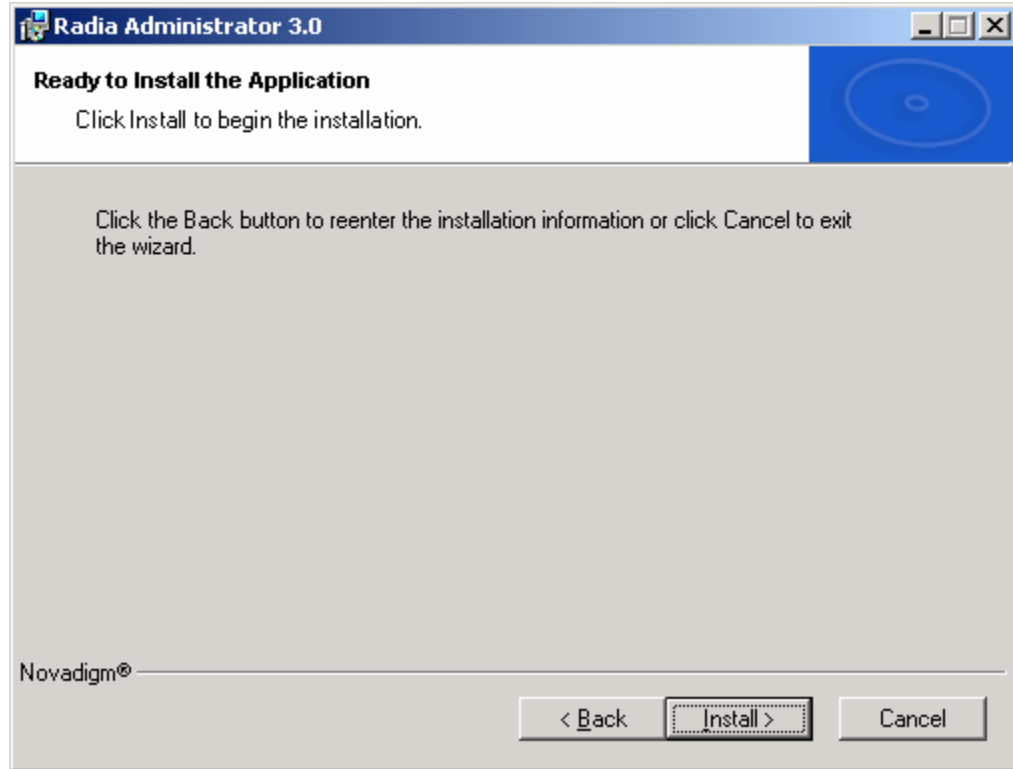


Figure 4.7 ~ Ready to Install the Application window.

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

When the installation is done, the **Successful Installation** window opens.



Figure 4.8 ~ 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 what 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 to set to "Will be installed on local hard drive".
ADDSOURCE	Type a comma-delimited list of features that you want to set to "Will be installed to run from network".
ADVERTISE	Type a comma-delimited list of features that you want to set to "Feature will be installed when required".
REMOVE	Type a comma-delimited list of features that you want to 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 <i>drive:\install.log</i>	Creates a detailed Windows Installer log. Note: This option may impact the performance of the installation.
/a TARGETDIR= <i>drive:\targetdirectory</i>	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 for Windows

The Windows Installer installation program offers the ability to remove the Radia Administrator. This section describes how to remove the Radia Administrator Workstation for Windows 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 the Radia Administrator Workstation for Windows using the Installation Wizard.

To remove the Radia Administrator Workstation for Windows using the Installation Wizard

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

The **Application Maintenance** window opens.

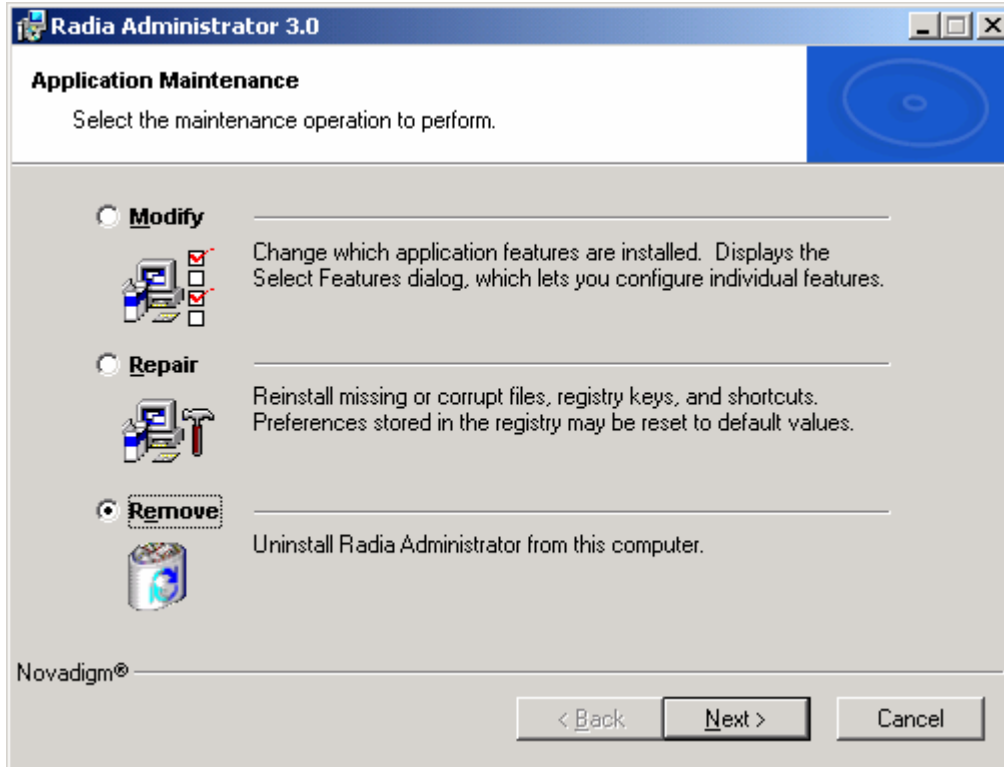


Figure 4.9 ~ Application Maintenance window for removing the Radia Administrator Workstation.

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

The **Radia Administrator Uninstall** window opens.

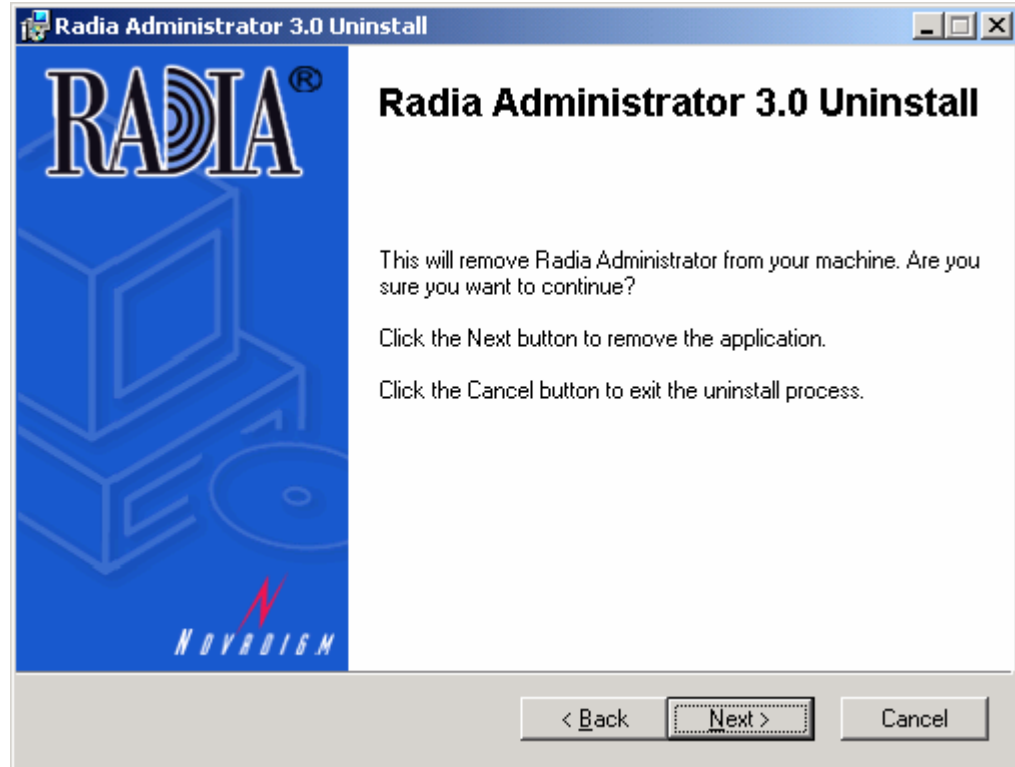


Figure 4.10 ~ Radia Administrator Uninstall window.

4. Click Next.

The files for the Radia Administrator Workstation are removed from the computer. If you would like to specify which Radia Clients to remove, modify the REMOVE attribute on the command line (see the description of REMOVE in Table 4.2 on page 96).

The **Successful Uninstallation** window opens.

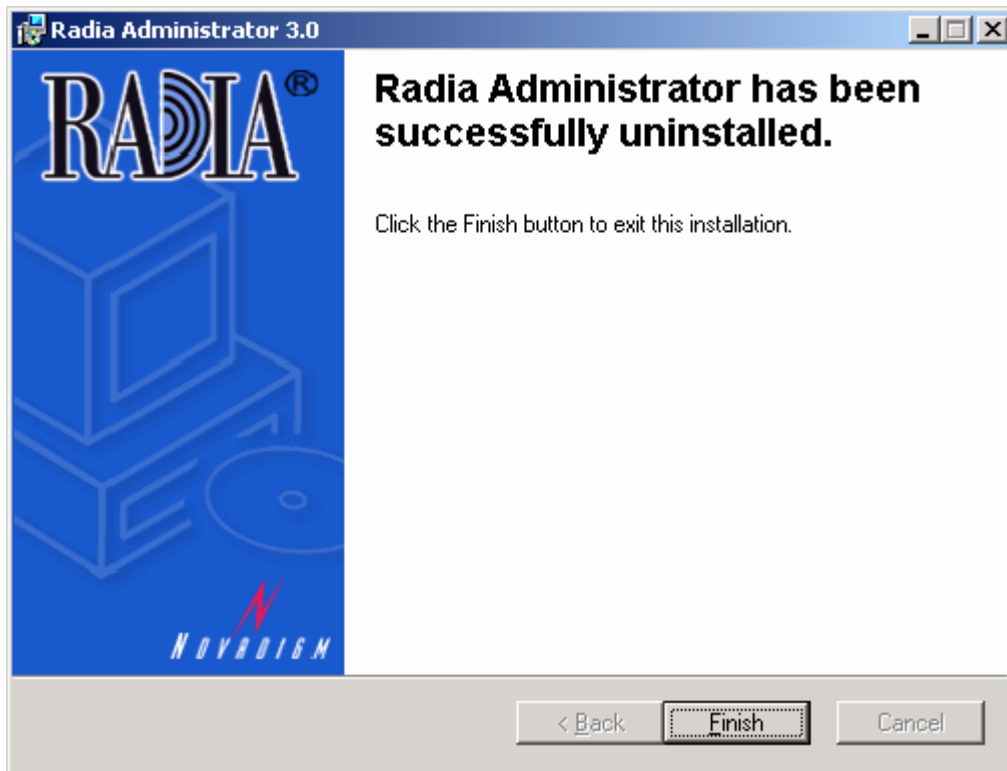


Figure 4.11 ~ Successful uninstallation window.

5. Click **Finish**.

Using a Command Line to Remove the Radia Administrator Workstation

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

To remove the Radia Administrator Workstation for Windows 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 the Radia Client Explorer, type:

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

Note

Reference the features for the Radia Administrator Workstation 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 for Windows

The Windows Installer installation program offers the ability to repair the Radia Administrator Workstation. For example, if you are missing a 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 for Windows 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 for Windows using the Installation Wizard.

To repair the Radia Administrator Workstation for Windows using the Installation Wizard

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

The **Application Maintenance** window opens.

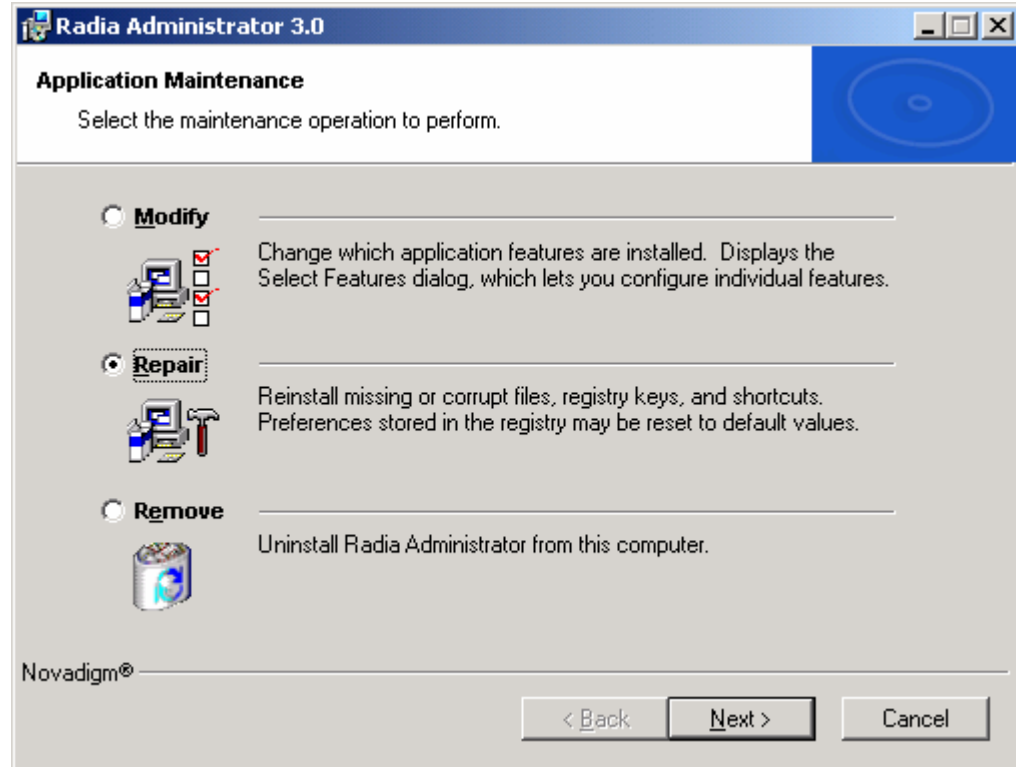


Figure 4.12 ~ Application Maintenance window for repairing the Radia Administrator Workstation.

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

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

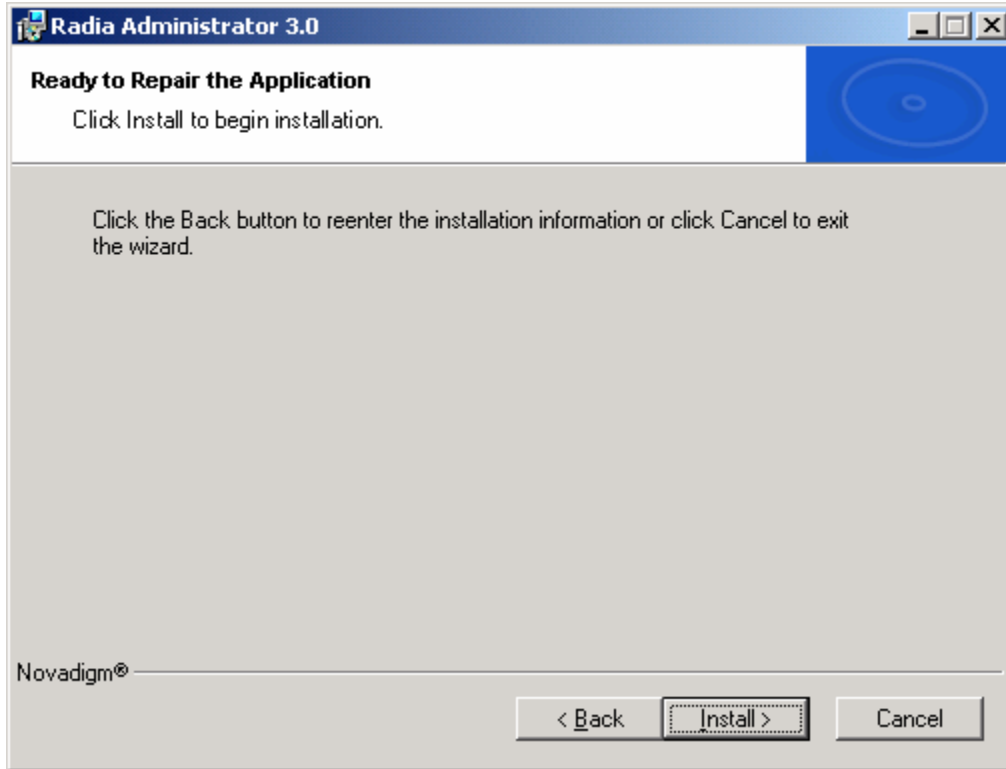


Figure 4.13 ~ Ready to Repair the Application window.

4. Click Next.

When the repair is done, the **Successful Installation** window opens.

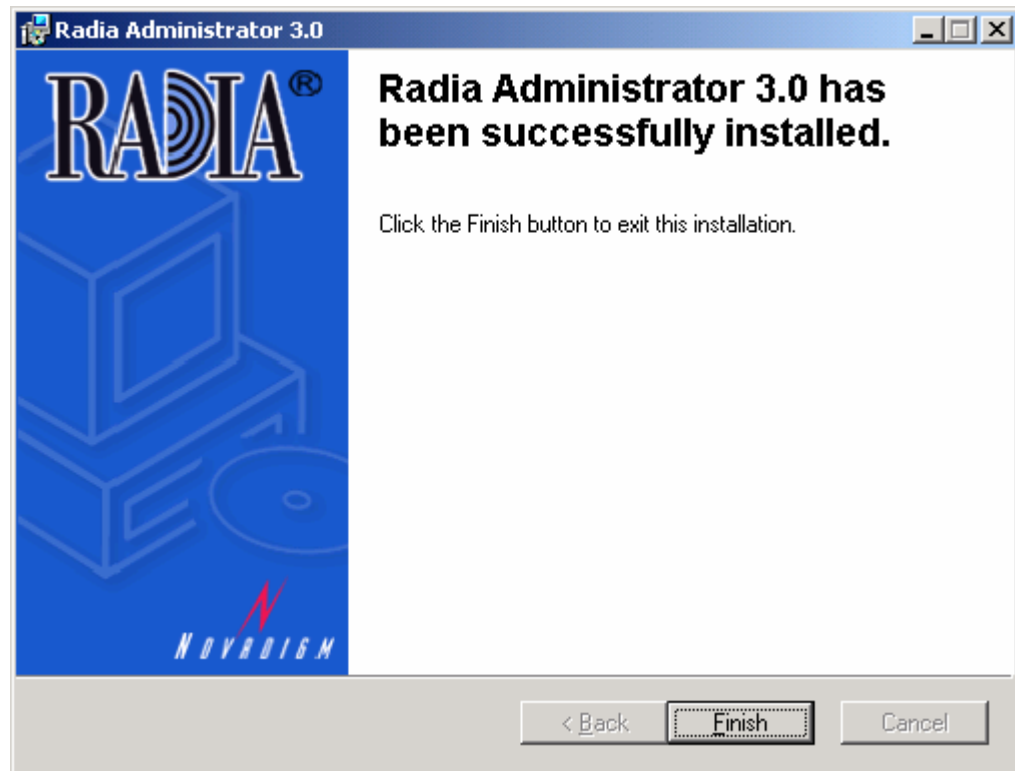


Figure 4.14 ~ Successful Installation window.

5. Click **Finish**.

Using a Command Line to Repair the Radia Administrator Workstation

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

To repair the Radia Administrator Workstation for Windows 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 Administrator Workstation installation. This section describes how to modify the installation of the Radia Administrator Workstation for Windows using the Installation Wizard and using a command line.

Using the Installation Wizard to Repair the Radia Administrator Workstation

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

To modify the Radia Administrator Workstation installation for Windows using the Installation Wizard

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

The **Application Maintenance** window opens.

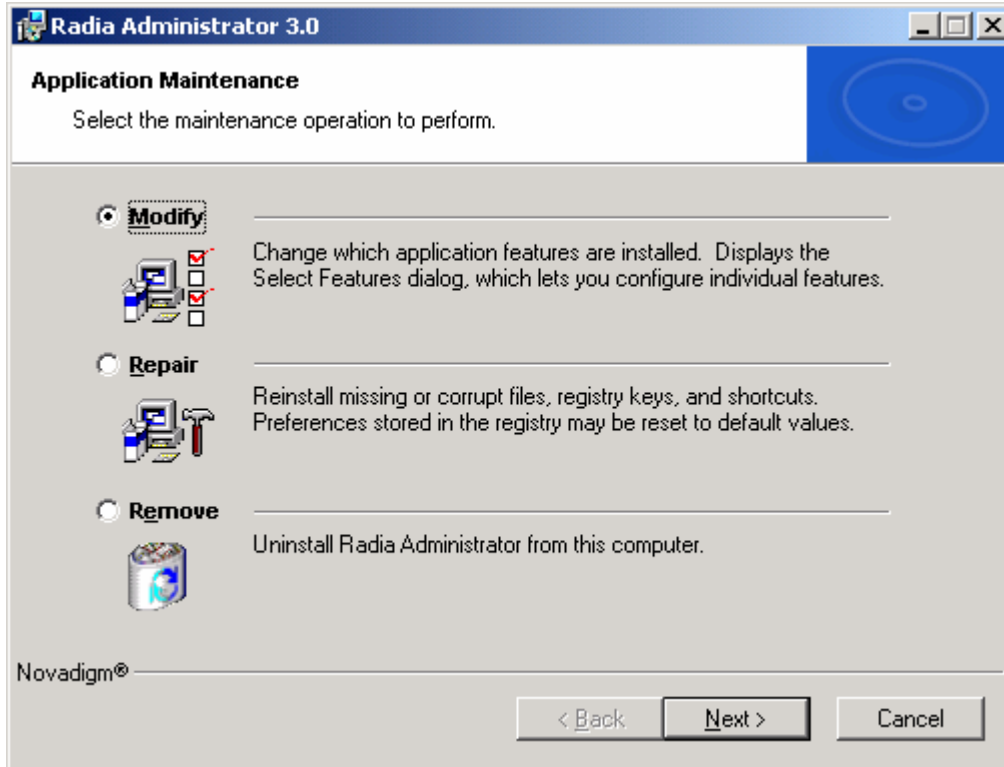


Figure 4.15 ~ Application Maintenance window for modifying the Radia Administrator Workstation installation.

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

The **Select Features** window opens. See *Installing the Radia Administrator Workstation for Windows* on page 88 for information about how to use this window.

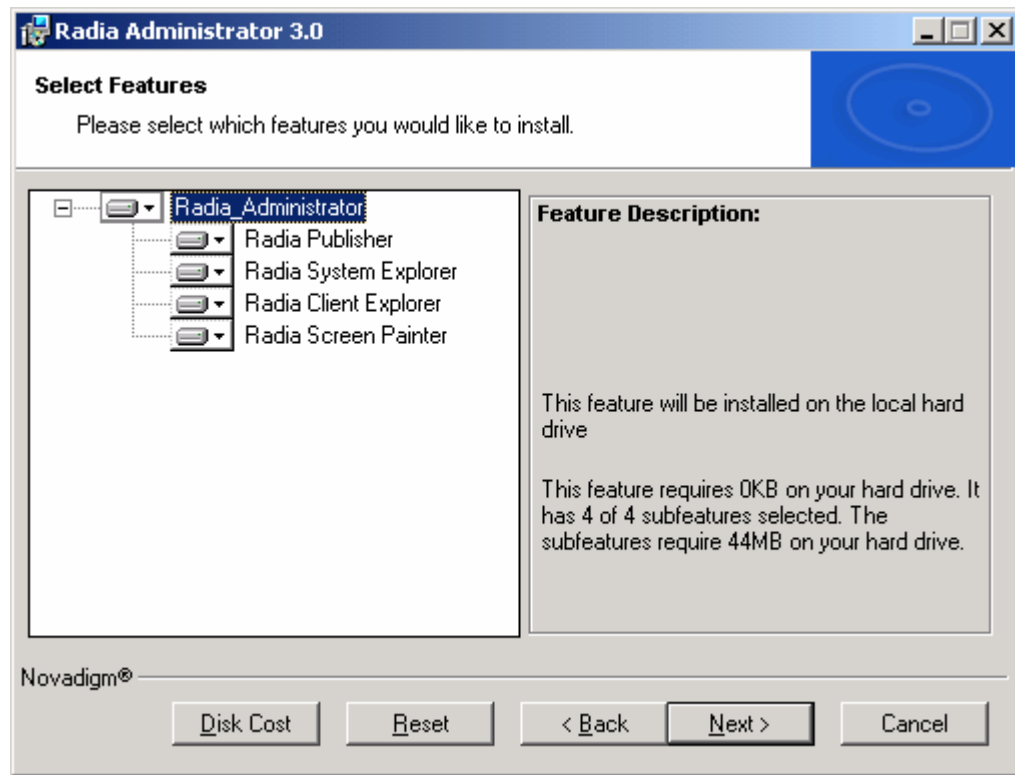


Figure 4.16 ~ Select Features window.

4. Click **Next**.

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

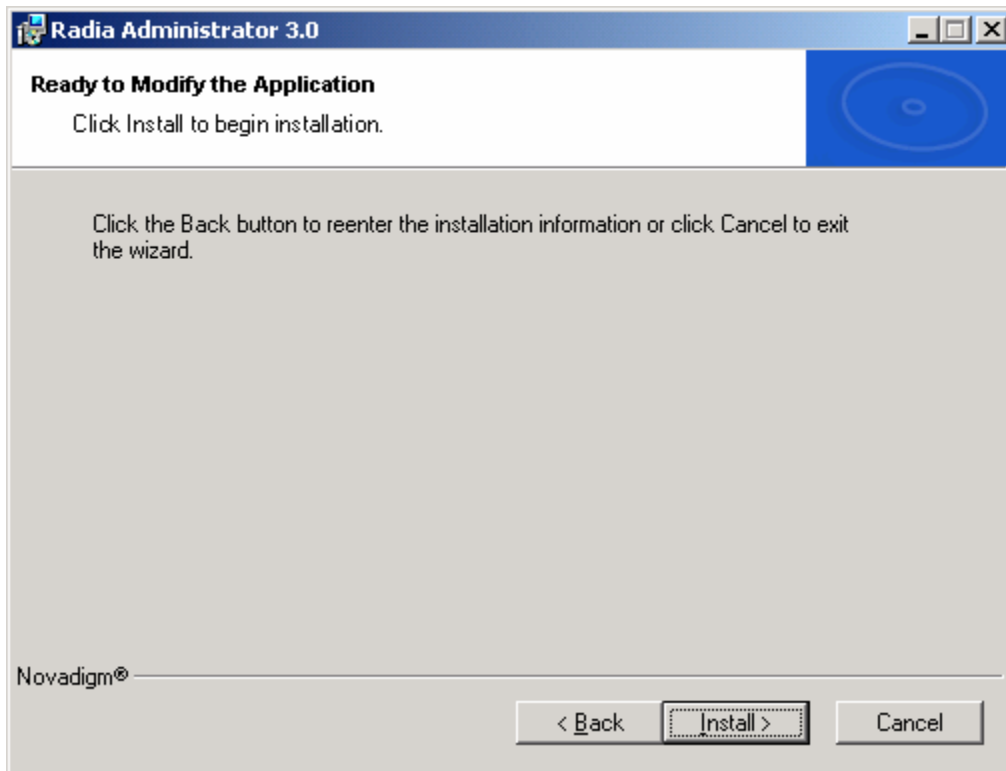


Figure 4.17 ~ Ready to Modify the Application window.

-
5. Click **Next**.

The **Successful Installation** window opens.

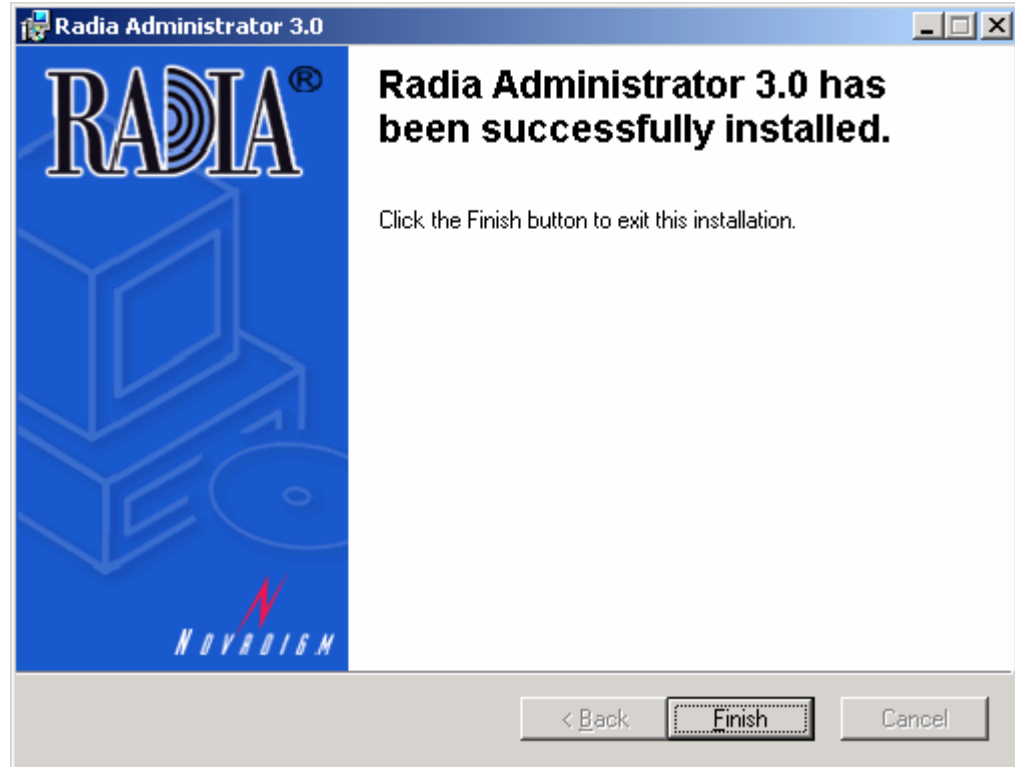


Figure 4.18 ~ Successful Installation window.

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

Using a Command Line to Modify the Radia Administrator Workstation Installation

This section describes how to modify the installation of the Radia Administrator Workstation for Windows using a command line.

To modify the Radia Administrator Workstation installation for Windows 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 96 for more information.

Example

If you want to install the Radia Publisher to the local hard drive, and 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 97 for additional arguments.

Summary

- The Radia Administrator Workstation for Windows includes the Radia System Explorer, which is required to manipulate the Radia Database.
- Install the Radia Administrator Workstation for Windows to a clean computer.
- Make sure you have administrative rights before you install the Radia Administrator Workstation for Windows.

Publishing Applications and Content

At the end of this chapter, you will:

- Understand the publishing process.
- Be able to publish an application using Component Selection Mode or Installation Monitor Mode.
- 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, we recommend that you review this guide for a comprehensive understanding of the Radia Software Manager. This chapter focuses on publishing.

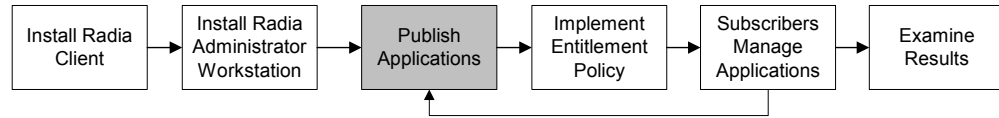


Figure 5.1 ~ Overview of Radia Software Manager Guide.

About Publishing

Publishing is the process of identifying the components of the software and organizing them into *packages*. Packages contain the files and aliases 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, such as Microsoft Office for distribution to Macintosh subscribers.

Two publishing modes are available for Macintosh:

- **Component Selection Mode**

In Component Selection Mode, you select the individual components that make up the application, such as files, directories, registry entries, and links. We recommend this mode for packaging simple data or applications.

- **Installation Monitor Mode**

In Installation Monitor Mode, the Radia Publisher determines what to package by scanning the computer before and after installing the software. It *differences* the before and after scans to determine what changes were made to the computer. These differences make up the package that you promote to the Radia Database. We recommend this mode for packaging when you do not know all of the components that make up the application.

Note

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

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 **File Resources (MACFILE)** instance for each file in the package.
- One **Mac Alias (MACALIAS)** instance for each alias 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.

Note

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

Publishing Considerations Checklist

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

General

- What do you know about the data to be published?
 - If it is a simple package and you know everything about it, use Component Selection Mode.
 - If it is a more complex package and you do not know everything about it, use Installation Monitor Mode.
- 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* for Installation Monitor Mode on page 143 or for Component Selection Mode on page 178 for more information.

- What operating systems are your target computers (workstations or servers) using?
- How much RAM is necessary to handle the data?
- What is the minimum processor necessary to handle the data?

Activation Options

- When do you want to activate the application - immediately on distribution or later?

See *Setting Date and Time Constraints* for Installation Monitor Mode on page 143 or for Component Selection Mode on page 180 for more information.

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

See Chapter 7: Deploying Applications starting on page 259 for more information.

Data Options

See *Data Options Tab* for Installation Monitor Mode on page 162 or for Component Selection Mode on page 189 for more information.

- What type of compression do you want to use?
- Will your data be stored in the Radia Database or on a staging server?
- Are you distributing maintenance to the Radia Software Manager client?
- How do you want to promote the resources? Will you use the force lock method?
- Are you sending out an update and only want to deploy the changes?

Verify Options

See *Client Management Tab* for Installation Monitor Mode on page 158 or for Component Selection Mode on page 185 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* for Installation Monitor Mode on page 158 or for Component Selection Mode on page 185 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 services/files with the Radia Application Manager.

Client Behaviors

See *Client Behaviors Tab* for Installation Monitor Mode on page 164 or for Component Selection Mode on page 191 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 folders 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 folder from the Set Properties and Locations window.

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 FILE or MACALIAS class.

To log on to Radia Publisher

1. Go to the directory where you installed the Radia Administrator Workstation and double-click the **publishr** executable (default, *Drive:Applications:Novadigm*).
2. The **Radia Publisher Security Information** dialog box opens. In the appropriate text boxes, type your **User ID** and **Password**.

Note

The **User ID**, as shipped from HP, 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** text boxes.

3. 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 three tabs: Client Management, Data Options, and Client Behaviors.

Client Management Tab

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

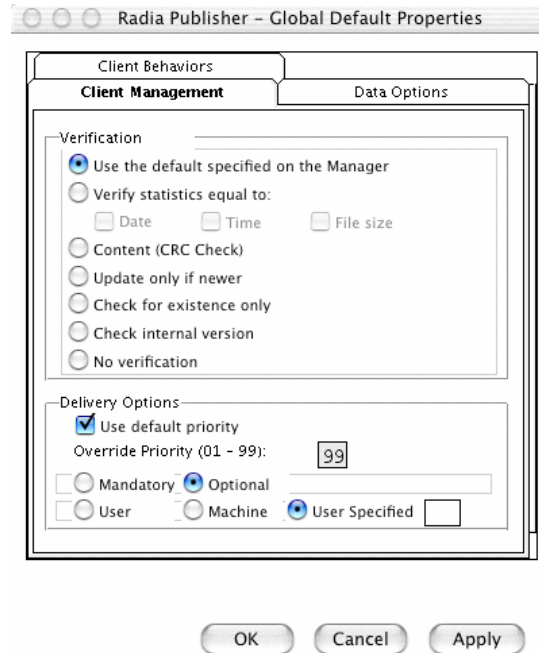


Figure 5.2 ~ Global Default Properties dialog box, Client Management tab.

Verification Options

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

Table 5.1 ~ Verification Options

Verification Option	Usage	ZRSCVRFY Setting
Use the default specified on the Manager	Select this option to inherit verification options for the file from the MACFILE, MACALIAS class' base instance in the Radia Database.	ZRSCVRFY=<blank space>
Verify statistics equal to	Select this option to cause the Radia Software Manager to check the selected statistics (Date [D], Time [T], or File Size [S]) of the file on the subscriber's computer. If they differ from the file in the Radia Database (or Radia Staging Server) the file is deployed.	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 Software Manager checks the statistics Content (CRC) of the file on the client computer. When the file is verified, the file will <i>first</i> be checked based on the Date, Time, and File Size. To save time during the verify, the CRC will be checked <i>only</i> if the file passes the Date, Time, and File Size verification. Then, the Radia Configuration Server (or Radia Staging 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 to deploy a file from the Radia Database (or Radia Staging Server) only if it has a later date/time stamp than the one on the subscriber's computer.	ZRSCVRFY=U
Check for existence only	Select this option so that the file is deployed if it is not on the subscriber's computer. No action is taken if the file already exists on the subscriber's computer, even if the file's statistics differ from those of the file in the Radia Database.	ZRSCVRFY=E
Check internal version	Select this option to compare the version of the file being deployed against the version that may already exist on the client computer. This ensures that the correct file is being updated if more than one version exists. This feature applies to the following file types: DLL, .EXE, .OCX, .SYS, .VBX.	ZRSCVRFY =V
No verification	Select this option to deploy the file 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 in this dialog box set the corresponding variables in the base instance of the MACFILE and MACALIAS classes. Use the Radia System Explorer to view or modify the appropriate variables.

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 <i>only</i> 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
User	Select this option to indicate that the file will be deployed only to the subscriber logged on when the application is initially deployed.	ZCONTEXT=U
Machine	Select this to indicate that the file will be deployed to all users of the computer.	ZCONTEXT=M
User Specified	<i>This option is for future use.</i>	<i>For future use.</i>

Data Options Tab

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

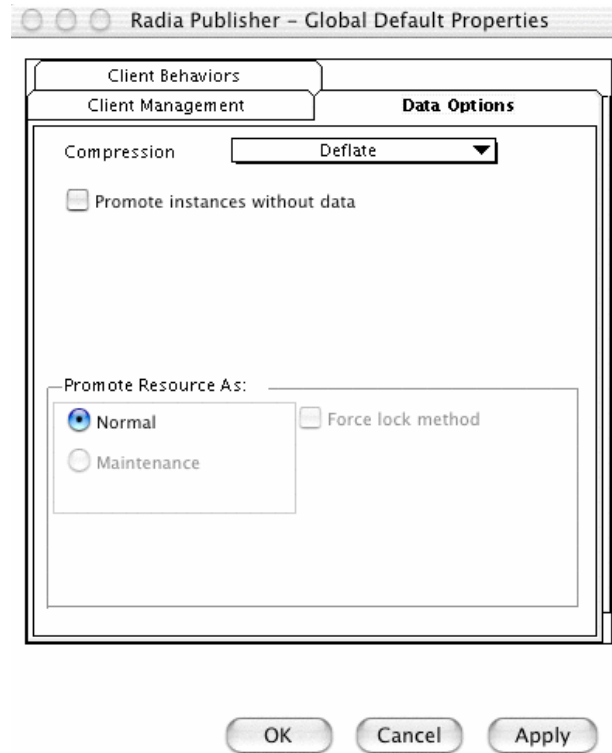


Figure 5.3 ~ Global Default Properties dialog box, Data Options tab.

Table 5.3 ~ Data Options

Data Option	Usage
Compression setting	<p>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.</p> <ul style="list-style-type: none"> • Select Deflate for the most efficient compression, which produces smaller compressed images. • Select None if the files are already compressed. If you are packaging an application that contains one or more compressed files, do <i>not</i> have Radia Publisher compress them as well. The files may actually grow in size if they are compressed again.
Promote instances without data	<p>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. IDMDATA is located in the folder where you installed the Radia Client, within the Lib folder. See <i>Chapter 2: Installing the Radia Client</i> starting on page 33 for more information.</p> <p>You can manually place files on staging servers if you have connectivity to the staging server and do not want a copy of the files in the Radia Database.</p>
Promote Resource As	<ul style="list-style-type: none"> • 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 <i>locked file method</i> for deploying the files. <p>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.</p> <p>If necessary, the files are decompressed and stored locally in a folder. The Client Connect process forces a restart when it ends and the files are deployed to their correct locations during startup.</p>

Client Behaviors Tab

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

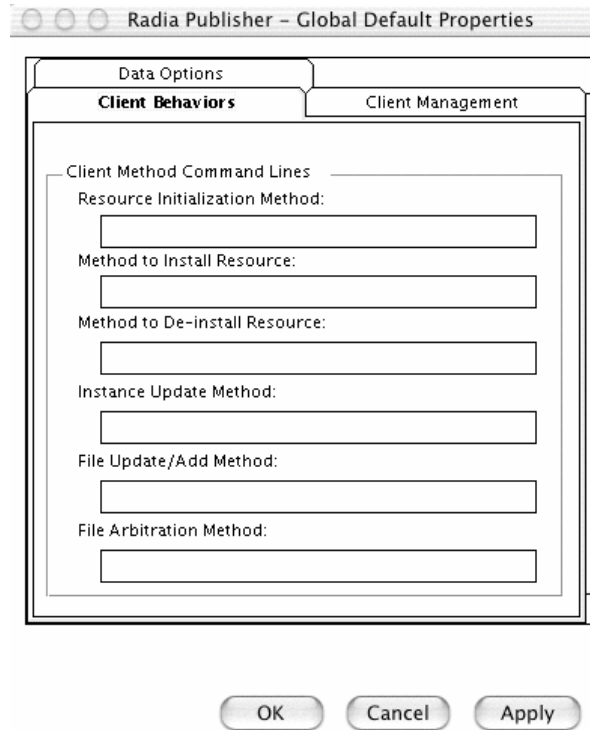


Figure 5.4 ~ Global Default Properties dialog box, Client Behaviors tab.

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

In Figure 5.5 ~ Command lines stored in the MACFILE class instance below you can see the command line, stored in a MACFILE class instance that was typed into the **Method to De-install Resource** text box.

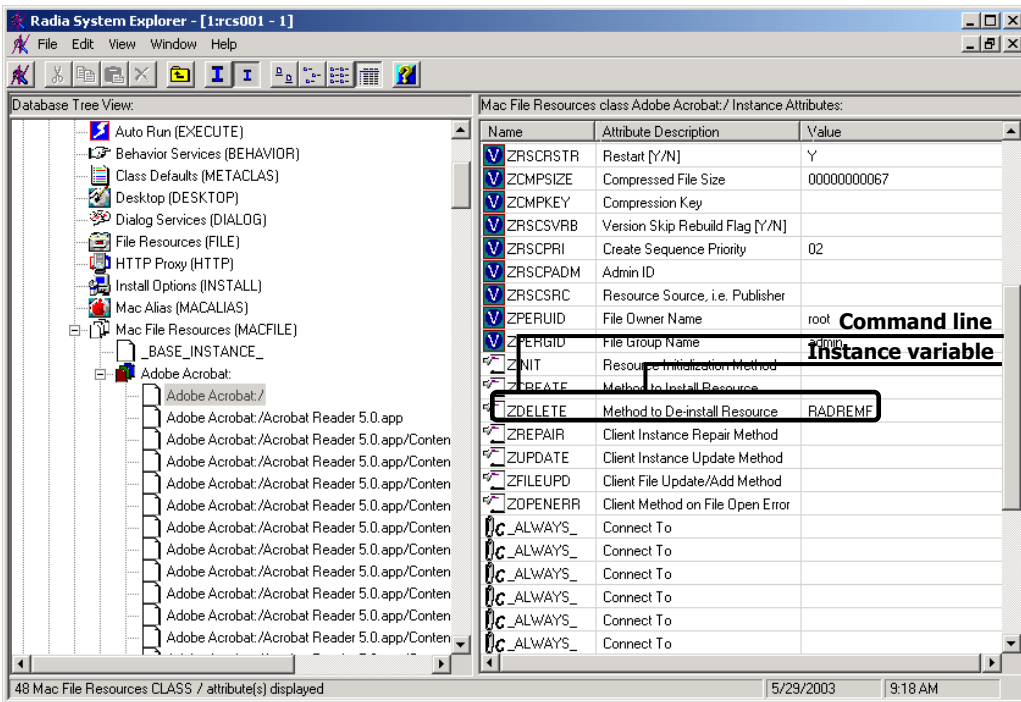


Figure 5.5 ~ Command lines stored in the MACFILE class instance.

The following table describes the fields available on the Client Behaviors tab, as shown in *Figure 5.4 ~ Global Default Properties dialog box, Client Behaviors tab* on page 128.

Table 5.4 ~ Client Method Commands	
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 a shared DLL 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 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.

Mac File Resources (MACFILE)

During the publication process, the MACFILE attributes are defined. These attributes define the owner and group associations and permissions of each published resource. Each published package has a corresponding MACFILE instance within the PRIMARY.SOFTWARE 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 MACFILE 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 from HP, 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**.
3. The **Radia System Explorer** window opens.
4. Double-click **PRIMARY**.
5. Double-click **SOFTWARE**.
6. Double-click **Mac File Resources (MACFILE)**.
7. Double-click the appropriate application. The attributes for the MACFILE 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.

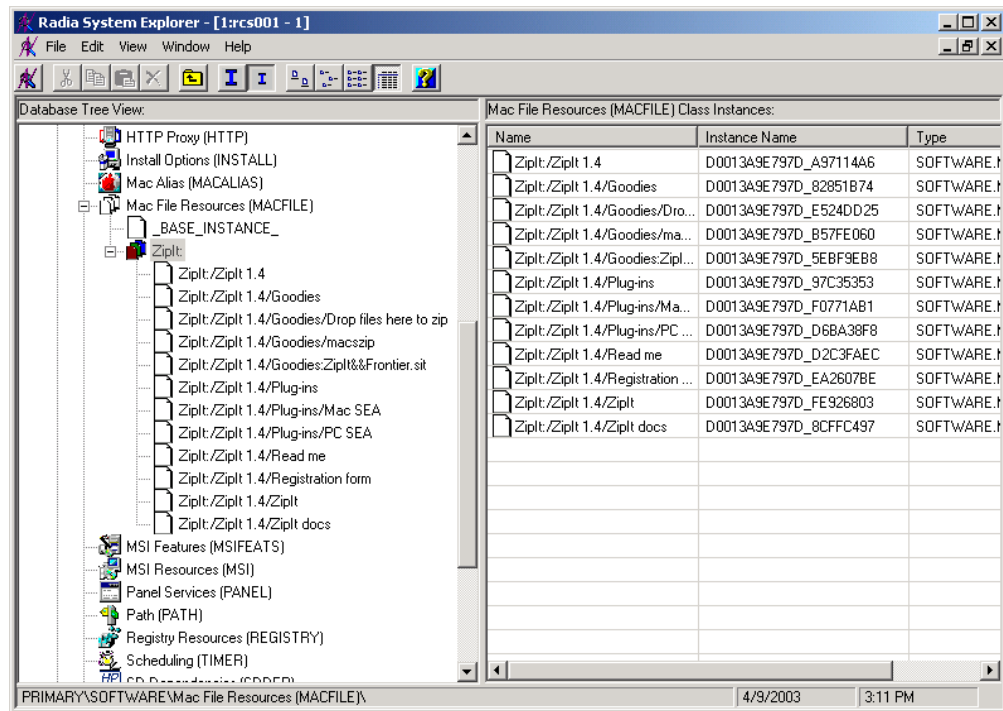


Figure 5.6 ~ Example of a MACFILE class instance.

Published Owner, Group, and Permission Considerations

The MACFILE 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 MACFILE.ZRSCRASH attribute. These attributes can be changed using the Radia System Explorer.

Table 5.5 ~ Attributes Exclusive to the MACFILE Class

Attribute	Description
ZPERUID	User ID associated with the promoted resource. The resource will be owned by this user ID when deployed, providing the Radia Software Manager is run by root and the user ID exists on the client workstation.
ZPERGID	Group ID associated with the promoted resource. The resource will be associated with this group when deployed, providing the Radia Software Manager 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 Software Manager 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 MACFILE 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.**

If the Radia Software Manager 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 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 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).

Using Installation Monitor Mode

In Installation Monitor Mode, the Radia Publisher determines what to package by scanning the computer before and after installing the software. It *differences* the before and after scans to determine what changes were made to the computer. These differences make up the package that you will promote to the Radia Database.

We recommend this mode for packaging when you do not know all of the components that make up an application.

Publishing in Installation Monitor Mode involves five phases:

1. **Defining** the application's hardware, software, and operating system requirements.
2. **Analyzing** (scanning) the hardware and software on the computer.
3. **Installing** the software you are publishing.
4. **Analyzing** (scanning) the hardware and software on the computer again. The difference between the pre- and post-scans represents the software you installed.
5. **Promoting** the package to the Radia Database.

Recommendations

The scans performed in Installation Monitor Mode are highly effective. Therefore, we will highlight some of the subtleties that you might want to keep in mind. If you are already familiar with systems management software, some of this material may be repetitive.

Before publishing your application in Installation Monitor Mode:

- Set up a clean computer.
A clean computer has the same operating system as your target audience and the Radia Publisher installed. Do not make any other changes to the computer.
- Use the same operating system and language version as the target computers for all publishing activities.

Caution

There are distinct differences between the national language implementations of operating systems. These differences may include different directory locations, which can create a significant operational gap between the expected behavior of the packaged application and the actual operation of the application.

For example, if you are installing the French version of Office for Macintosh on computers using the French language version of Mac OS X, publish the application on a computer with the French language version of the target operating system.

- Publish on a computer with a static IP address.
If your publishing computer uses Dynamic Host Configuration Protocol (DHCP) to obtain a dynamic IP address, each time the computer is restarted you will receive a different IP address. If you are using Installation Monitor Mode, and the software you are packaging causes the computer to restart, the IP address in the registry will change. Therefore, we recommend publishing on a computer with a static IP address.

Publishing with Installation Monitor Mode

This section guides you through publishing a package using Installation Monitor Mode, and also provides detailed information about each of the screens that you will encounter.

In this example, you will publish an evaluation copy of ZipIt, a simple shareware application.

Use this example to familiarize yourself with Installation Monitor Mode. However, please remember that there are many variables when publishing software.

Step 1: Logging On to Radia Publisher

1. Go to the directory where you installed the Radia Administrator Workstation and double-click the **publishr** executable.
2. The **Radia Publisher Security Information** dialog box opens. In the appropriate text boxes, type your **User ID** and **Password**.

Note

The **User ID**, as shipped from HP, 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** text boxes.

3. Click **OK**.

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.

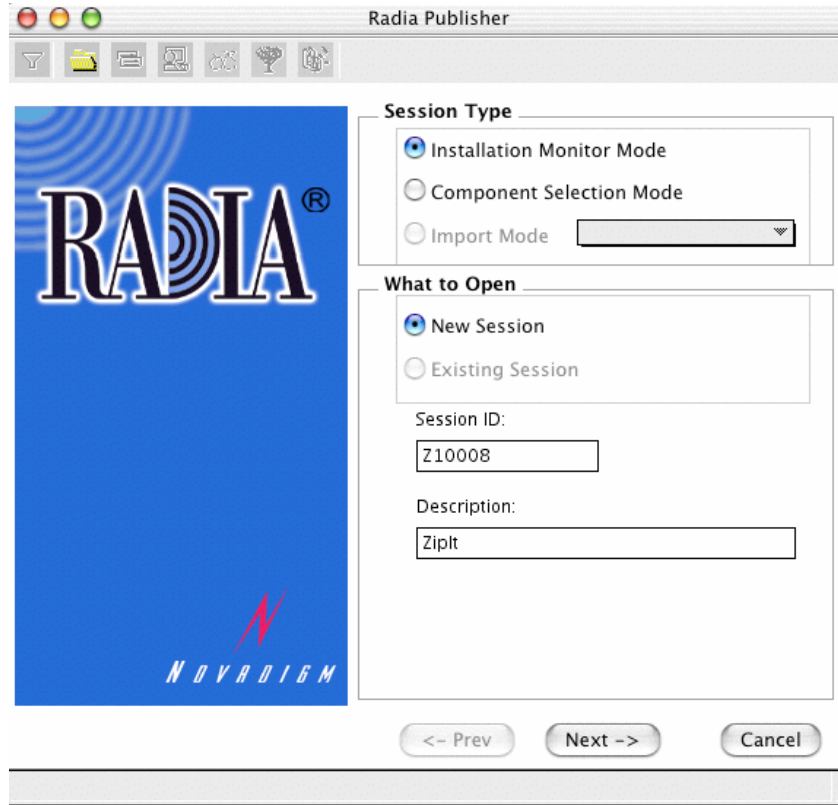


Figure 5.7 ~ Open Publishing Session window (Installation Monitor Mode).

At the end of a *publishing session*, you will have a Radia package – or a unit of distributable software 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 describes the options on the **Open Publishing Session** window, as shown above.

Session Type Area

■ Installation Monitor Mode

Use this mode to create Radia packages when you do not know the structure of the software or data. Radia Publisher performs a scan of your computer, and then prompts you to install the software using the native install program. After the software is installed, Radia Publisher performs another scan and then compares the scans. The differences are packaged and promoted to the Radia Database.

■ 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

Use this mode to import packages from other applications and create Radia packages. Currently, this feature is not supported on the Macintosh platform.

What To Open Area

■ New Session

Select **New Session** to begin a new publishing session. You must complete the **Session ID** and **Description** text boxes.

■ Existing Session

Select **Existing Session** to resume a previous session.

■ Session ID

Type a *unique* identifier that is one to six characters long.

■ Description

Type a description of the session.

In the example shown in *Figure 5.7 ~ Open Publishing Session window*, **Installation Monitor Mode** is selected to begin a **New Session**. The **Session ID** is **Z10008** and is described as **ZipIt**.

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.

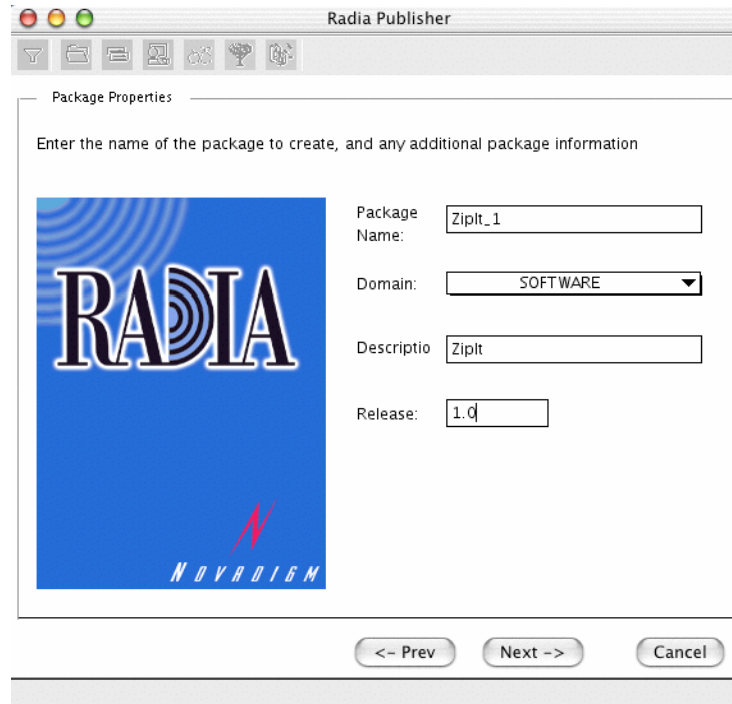


Figure 5.8 ~ Package Properties window (Installation Monitor Mode).

■ 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 Package 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 351 for more information.

- **Domain**

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

See Chapter 1: Introduction for more information about the domains.

- **Description**

Type a description for the package.

- **Release**

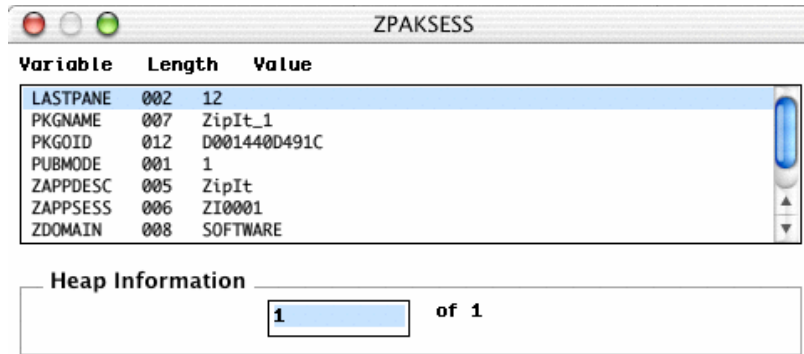
Type the release number of the software.

In the example shown in *Figure 5.8 ~ Package Properties window* on page 140, the package was named **ZipIt_1** and given the description and release number, **ZipIt** and **1.0** respectively.

Note

The current session information is stored on the *SystemDrive* under the POSIX path */Applications/Novadigm/Lib* in the object called ZPAKSESS.EDM on your computer. Use the Radia Client Explorer to view this object. For more information, see the *Radia Client Explorer Quick Reference*. Below is an example of ZPAKSESS.EDM.

If you decide to close this publishing session and do not plan to complete the session, you can delete this object. You can also use the Radia System Explorer to delete the PACKAGE instance from the Radia Database.



The screenshot shows a window titled "ZPAKSESS" with a table of session variables and a "Heap Information" section below it.

Variable	Length	Value
LASTPANE	002	12
PKGNAME	007	ZipIt_1
PKGID	012	D001440D491C
PUBMODE	001	1
ZAPPDESC	005	ZipIt
ZAPPSISS	006	ZI0001
ZDOMAIN	008	SOFTWARE

Below the table is a "Heap Information" section with a text box containing the number "1" and the text "of 1".

Figure 5.9 ~ ZPAKSESS.EDM, current session information (Installation Monitor Mode).

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 installed RAM.

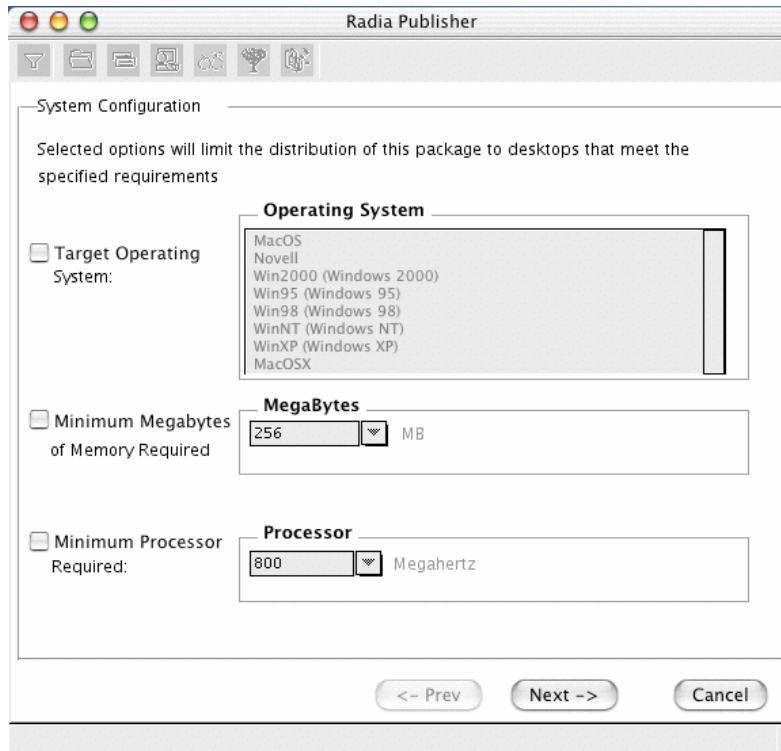


Figure 5.10 ~ System Configuration window (Installation Monitor Mode).

■ Target Operating System

Select this check box to make the **Operating System** list box available. Then, select one or more operating systems required for this package.

- To select multiple, consecutive operating systems, hold down the SHIFT key and click the appropriate items.
- To select multiple, non-consecutive operating systems, hold the CTRL key and click the appropriate items.

■ **Minimum Megabytes of Memory Required**

Select this check box to make the **Megabytes** options available. Then, select the minimum number of megabytes of RAM required for this package. If no option is selected, the package will be available to subscribers with any amount of available memory.

■ **Minimum Processor Required**

Select this check box to make the **Processor** options available. Then, select the minimum processor that is required for this package. If no option is selected, the package will be made available to subscribers with any processor.

If none of the options is selected, the package will be available to all eligible subscribers.

In the ZipIt example, as shown in *Figure 5.10 ~ System Configuration window* on page 143, the defaults were left so as not to set any restrictions.

Click **Next** to go to the **Availability** window.

Step 5: Setting Date and Time Constraints

Use the **Availability** window to specify the date and/or time when the package will be available for deployment. The date and time are based on the system clock, on 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.

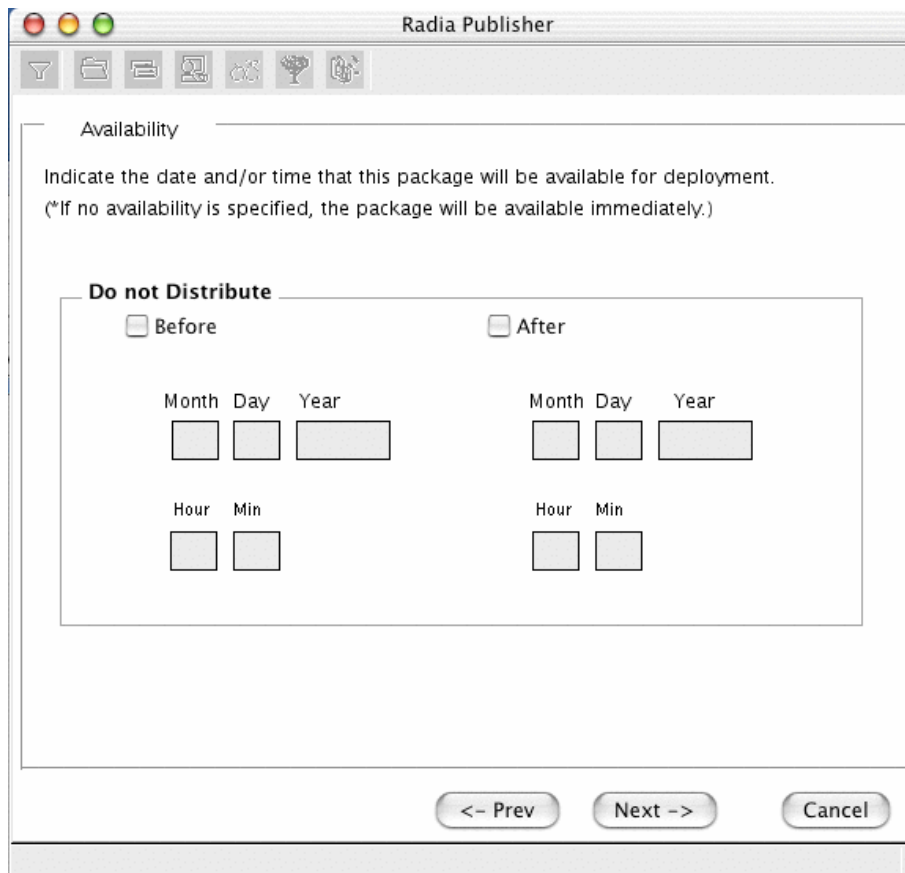


Figure 5.11 ~ Availability window (Installation Monitor Mode).

- **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** text boxes 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** text boxes to specify the date and time.

Click **Next** to go to the **What to Scan** window.

Step 6: Identifying What to Scan

Use the first **What to Scan** window to identify areas where the software may make changes to the target computer. You can choose to scan the desktop, file system, or to compare file content.

Before you install the application, the Radia Publisher scans the selected areas and takes a *snapshot* that records their current states. After you install the application, the Radia Publisher takes another *snapshot*. Radia compares these before and after snapshots, and the differences make up the package.

If you do not know how the installation of the application will affect the target computers, scan all areas to ensure that all changes made by the application are recorded.

The more information that you have about the software that you are publishing, the easier it will be to package and deploy. One benefit of knowing the application is that you can save time during scanning. Below are some examples of this.

- If you are publishing some favorites to Internet Explorer and you know that Internet Explorer stores favorites in individual .URL files, you can choose to scan only the **file system** to pick up the changes.
- If you are publishing several bookmarks to Netscape Navigator and you know that Netscape Navigator stores bookmarks in a single .HTM file, you can choose to include this file in the **File Contents to be Scanned** list, select the **File Content Comparison** check box, and Radia Publisher picks up the changes to the bookmark file. *Currently, this feature is not supported on the Macintosh platform.*

You can see how the more information you have, the less time you will spend on scanning.

Note

Radia does *not* support the packaging of files from the IDMSYS, IDMLIB and IDMLOG directories.

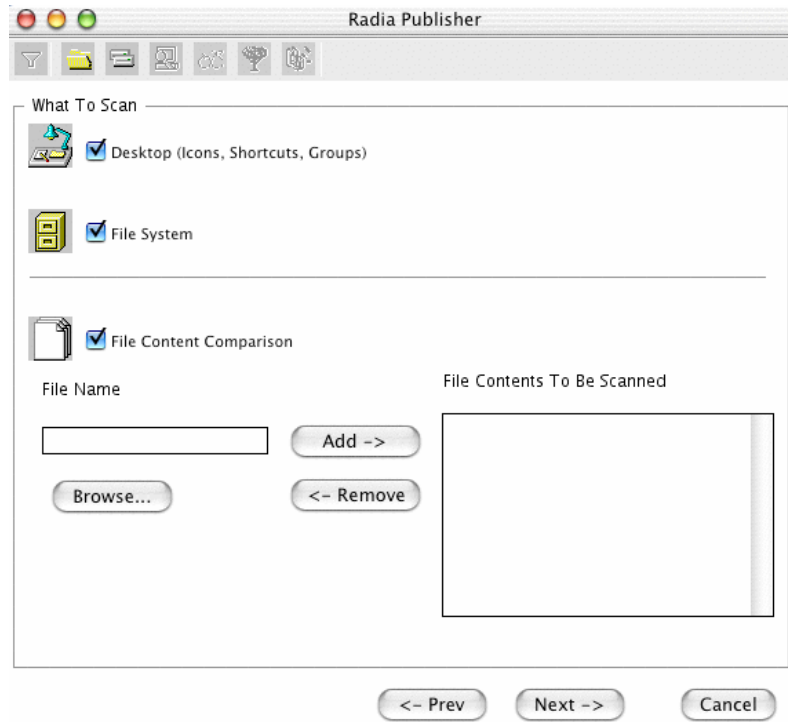


Figure 5.12 ~ What to Scan window (Installation Monitor Mode).

Note

Adding and removing files to be scanned is not currently supported on Macintosh platforms.

- Click **Next** to go to the next **What to Scan** window.

Step 7: Identifying What to Scan in the File System

Use this **What to Scan** window to select the areas of the file system to scan. All of the drives (local and network) connected to your computer are considered the *file system*. Many factors, including the computer's hardware and software, affect the amount of time it takes to scan the system.

Note

This window opens *only* if you selected the **File System** check box in the previous **What to Scan** window.

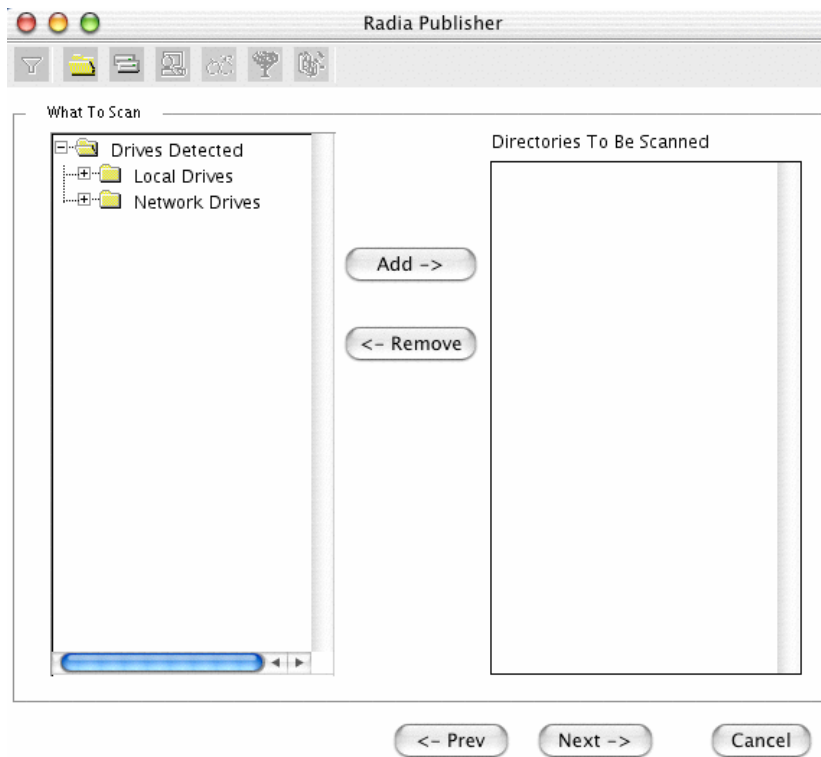


Figure 5.13 ~ What to Scan window (Installation Monitor Mode).

To set the drives to scan

1. Select *all* of the folders or drives that will be affected by the installation.

Caution

We recommend that you do *not* scan network drives. These can take longer due to the overhead transmission across the network. Also, the mapping of network drives may vary from one user to another.

2. Click **Add** to move your selections into the **Directories to be Scanned** list.
Click **Next** to go to the **Pre-Installation Scan** window.

Step 8: Beginning the Pre-Installation Scan

Use the Pre-Installation Scan window to begin the scan. A check mark appears next to each area as the scan is finished. The Radia Publisher alerts you when the scan is done.

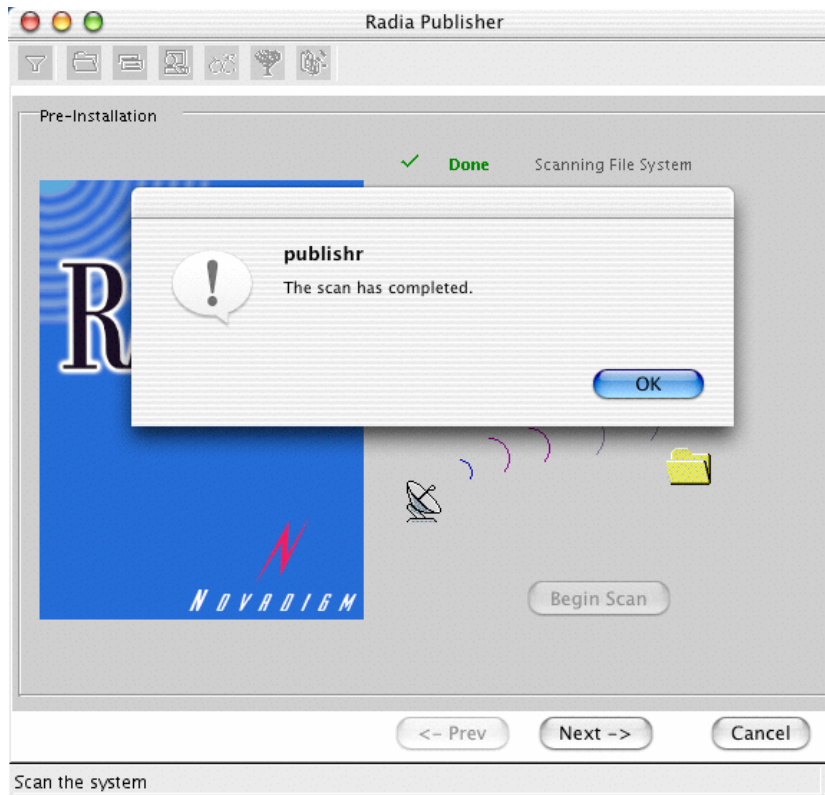


Figure 5.14 ~ Pre-Installation scan window (Installation Monitor Mode).

To begin the Pre-Installation Scan

1. Click **Begin Scan**. When the scan is done, a message box opens.
2. Click **OK**.

Step 9: Installing the Software

After the pre-installation scan is finished, you must install the software.

To install the software

1. Click **Next** on the **Pre-Installation Scan** window. The message box in *Figure 5.15 ~ Message to install the software* below opens.

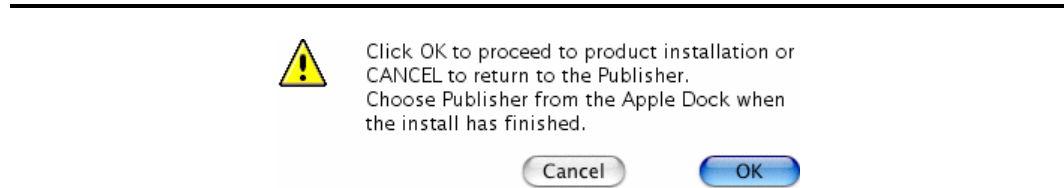


Figure 5.15 ~ Message to install the software (Installation Monitor Mode).

2. Click **OK**. The Radia Publisher exits and a Radia Publisher icon appears in the Apple Dock.



Figure 5.16 ~ Radia Publisher icon in the Apple dock (Installation Monitor Mode).

3. Install the application using its native installation.

Caution

Do *not* do anything other than install the application. If you do, you risk making changes to the file system and aliases. Radia will detect these (unrelated) changes during the post-installation scan and include them in the package.

4. When the application is installed, click the Radia Publisher icon in the Apple dock to return to the Radia Publisher.

Step 10: Beginning the Post-Installation Scan

Use the Post-Installation Scan window to begin the final scan. Then, Radia Publisher compares the results of the pre- and post-installation scans and alerts you when it is done. After closing the alert, you will see information about the number of changes made to files, directories, or Mac aliases.



Figure 5.17 ~ Post-Installation scan window (Installation Monitor Mode).

To begin the Post-Installation Scan

1. Click **Begin Scan**. When the scan is done, a message box opens.
2. Click **OK**.
3. Click **Next** to go to the **Summary** window.

Step 11: Reviewing the Modifications to the File System

Use the Summary window, shown in *Figure 5.18 ~ Summary window* below, to review the changes made when you installed the software to your computer. Two tabs are available: Files and Aliases.

- Click the **Files** tab to review the files that were added, deleted, or updated.
- Click the **Aliases** tab to review the program aliases/icons that were added, deleted, or updated.

Detailed information about the Files and Aliases tabs begins with *Step 12: Viewing File Properties and Locations* on page 155.

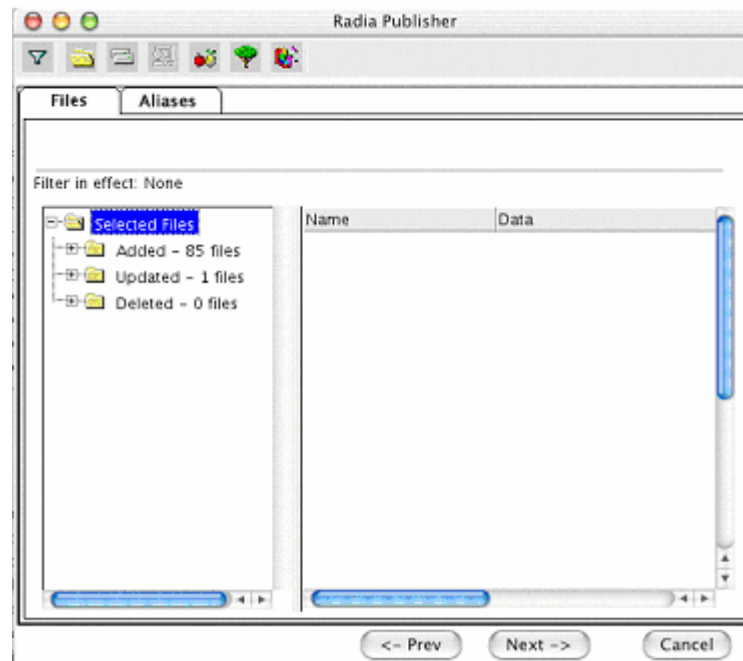


Figure 5.18 ~ Summary window (Installation Monitor Mode).

Step 12: Viewing File Properties and Locations

Use the **Files** tab in the **Summary** window to see the files and folders to be included in the package.

To view the selected files and folders

1. Hold down the Apple key and click **Selected Files**, then select **Expand All**. Check marks indicate that the properties for the file have been specified and the Radia Publisher is ready to promote them.

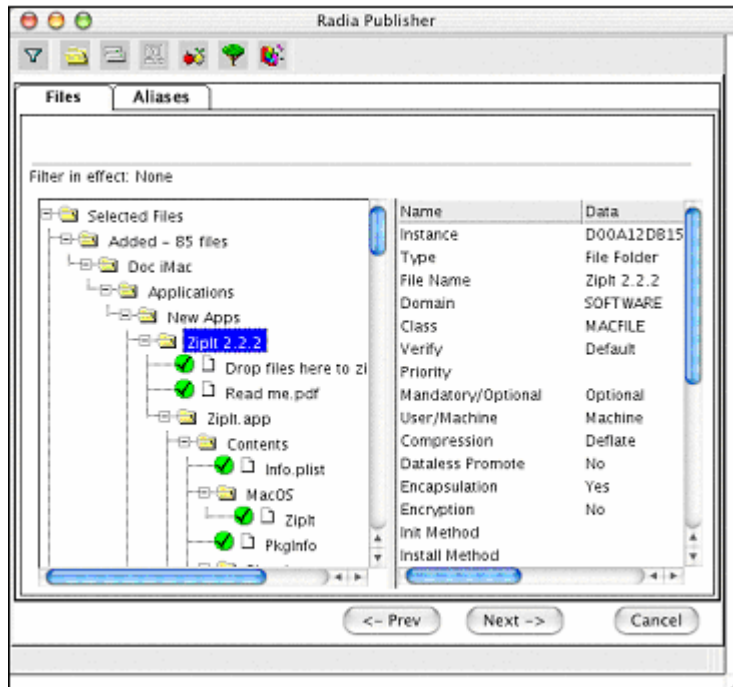


Figure 5.19 ~ View selected files (Installation Monitor Mode).

2. Select a file in the left pane to see its properties in the right pane.

In the example in *Figure 5.19 ~ View selected files* above, the left pane was expanded to see all of the files and folders that are included in this package.

Step 13: Setting File Properties and Locations

You can modify the properties of the files and folders displayed on the **Files** tab, or you can exclude them from the package.

To edit a file's properties

- Hold down the Apple key and click the appropriate directory file or folder. The following shortcut menu opens.

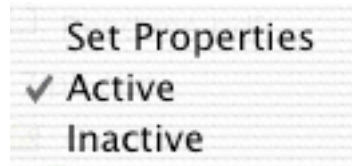


Figure 5.20 ~ Setting file properties (Installation Monitor Mode).

- To exclude the file from the package, click **Inactive**. If you selected a folder, all of the files in that folder will also be inactive.

OR

- To include the file in the package, click **Active**. This is the default setting. If you selected a folder, all of the files in that folder will also be active.

OR

- To modify the file's properties, select **Set Properties**. If you selected a folder, you must also indicate whether you want your changes to affect the **Directory Only** or **Directory and Files**.

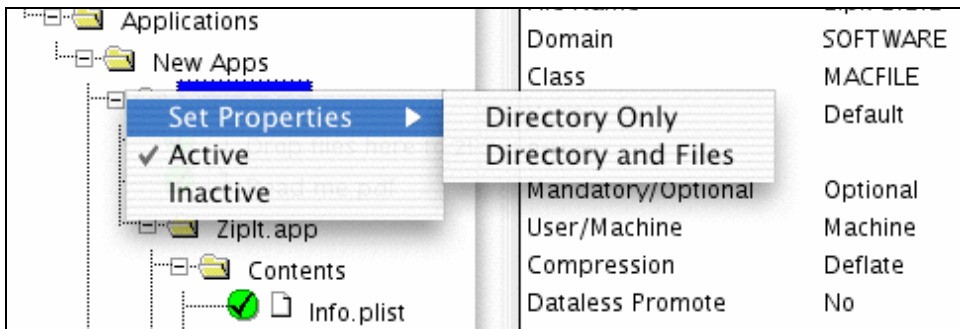


Figure 5.21 ~ Setting folder properties (Installation Monitor Mode).

The **Instance Properties** dialog box opens. Use this dialog box to modify the attributes of the files in the package. A file's properties are stored in its instance in the Radia Database. The default values of these properties are set in the Global Default Properties dialog boxes. For more information see *Setting Default Properties* on page 122.

Client Management Tab

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

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

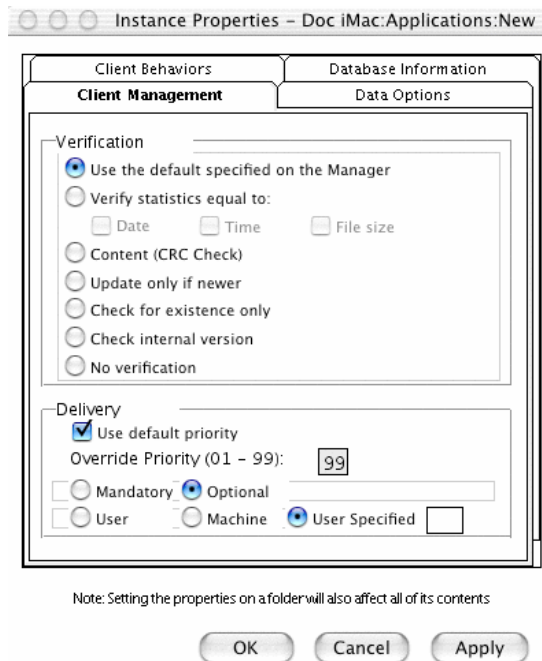


Figure 5.22 ~ Instance Properties dialog box, Client Management tab (Installation Monitor Mode).

Note

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

Verification Options

■ Use the default specified on the Manager (default)

Select this option so that verification options for these files are inherited from the base instance of the MACFILE class in the Radia Database.

Use the Radia System Explorer to look at the ZRSCVRFY attribute of the base instance of the MACFILE class in the Radia Database to determine what verification options apply, by default.

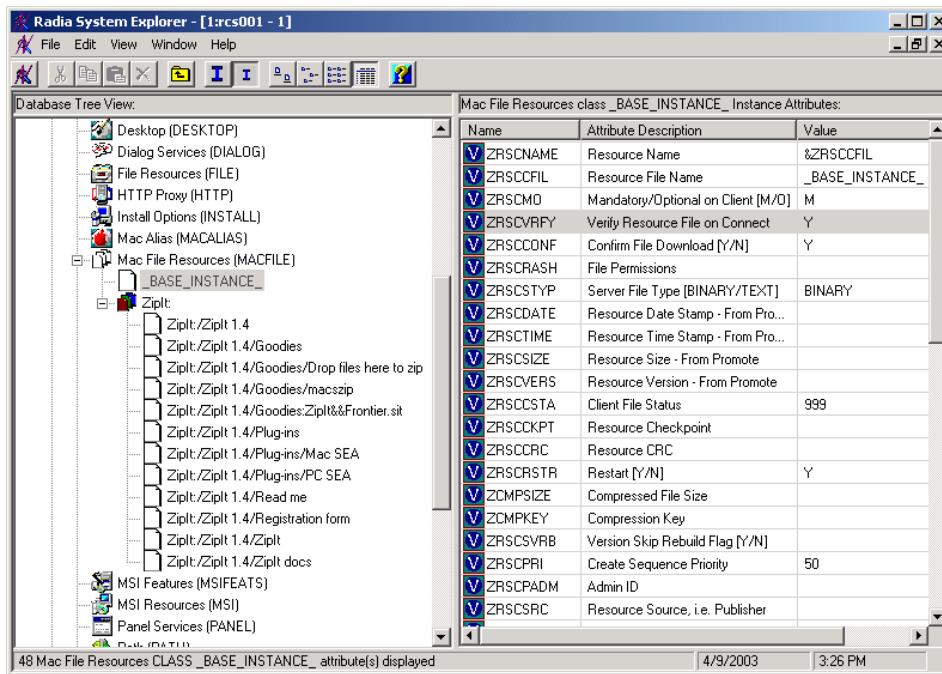


Figure 5.23 ~ ZRSCVRFY attribute (Installation Monitor Mode).

■ Verify statistics equal to

Select this option to cause the Radia Software Manager to check the selected statistics (Date [D], Time [T], or File Size [S]) of the file on the subscriber's computer. If they differ from the file in the Radia Database (or Radia Staging Server) the file is deployed.

You can also use the Radia System Explorer to set this option: ZRSCVRFY=D, ZRSCVRFY=S, ZRSCVRFY=T, or ZRSCVRFY=Y.

■ Content (CRC Check)

Select the CRC option so that the Radia Software 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 Staging 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.

■ **Update only if newer**

Select this option so that this file is deployed if it has a later date/time stamp than the one 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 this file is deployed if it is not on the subscriber's computer.

No action is taken if the file already exists 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.

■ **Check Internal Version**

Select this option to compare the version being deployed with the version that may already exist on the subscribers' computer. This will ensure the correct file is being updated if more than one version exists.

Note

This option is not supported on Macintosh, it is only supported on Windows 32-bit platforms.

You can also use the Radia System Explorer to set this option: ZRSCVRFY=V.

■ **No verification**

Select this option so that the file is 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 (01-99)**

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 this file is critical to the application.

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 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 this file is 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.

- **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 Specified**

This option is for future use.

Data Options Tab

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

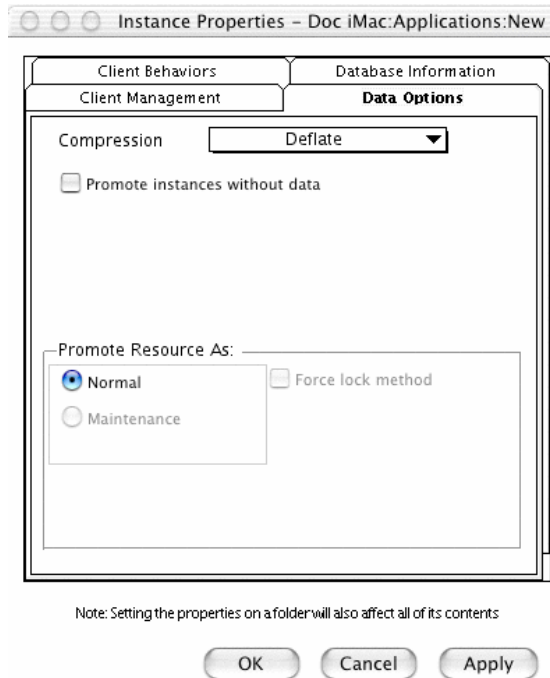


Figure 5.24 ~ Instance Properties dialog box, Data Options tab (Installation Monitor Mode).

■ Compression setting

If necessary, select the compression setting for storing this file 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.
- Select **None** if the file is already compressed. If you are packaging an application that contains one or more compressed files, do *not* have 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 this file 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 remains in compressed format in the IDMDATA location on your computer. IDMDATA is located in the folder where the Radia Client was installed under the Lib folder. See *Chapter 2: Installing the Radia Client* starting on page 33 for more information.

You can manually place files on a staging server if you have connectivity to the staging server and do not want a copy of the file in the Radia Database.

Promote Resource As

- **Normal**

Select this option to indicate that this file is to be deployed as part of an application.

- **Maintenance**

Select this option to indicate that this file is a maintenance component for the Radia Software Manager software.

Caution

If the **Maintenance** option is not available, return to the **Client Management** tab and be sure to select **No Verification** in the **Verification Options** area. For more information, see *Radia Application Manager Self-Maintenance* on page on page 208.

- **Force lock method**

Select this check box to force the use of the *locked file method* for deploying this file.

If the file is in use on the client computer when Radia attempts to deploy new copies of it, the locked file method is normally used to deploy it. If necessary, this file is decompressed and stored locally in a folder. The Client Connect process forces a restart when it ends and the file is deployed to its 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.

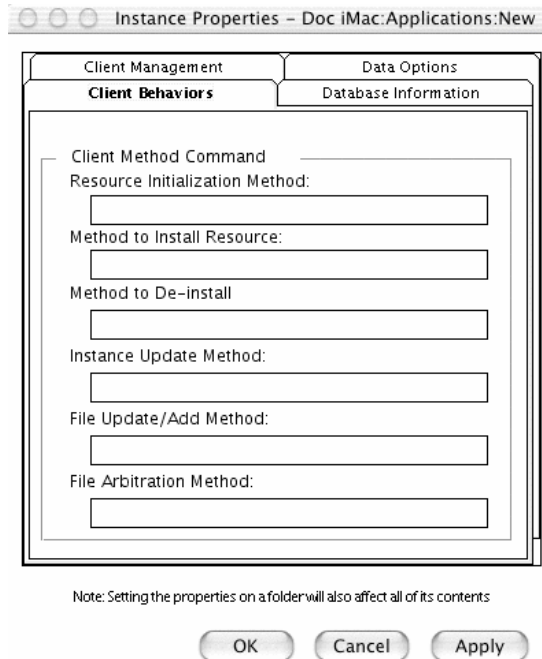


Figure 5.25 ~ Instance Properties dialog box, Client Behaviors tab (Installation Monitor Mode).

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

Client Method Command

- **Resource Initialization Method (Variable in Database: ZINIT)**
Type the method to run when the file is 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 DLL 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 a file is about to be replaced. This method examines the version information of the file that exists and the file that is going to replace it, and then determines which to keep.

Note

You must add the ARBITRAT method to the Radia Database to use this field. See the Technical Note *About the File Arbitration Method* on the HP OpenView web site for more information.

Database Information Tab

Use the Database Information tab to specify where the instance for the selected file or folder will be stored in the Radia Database.

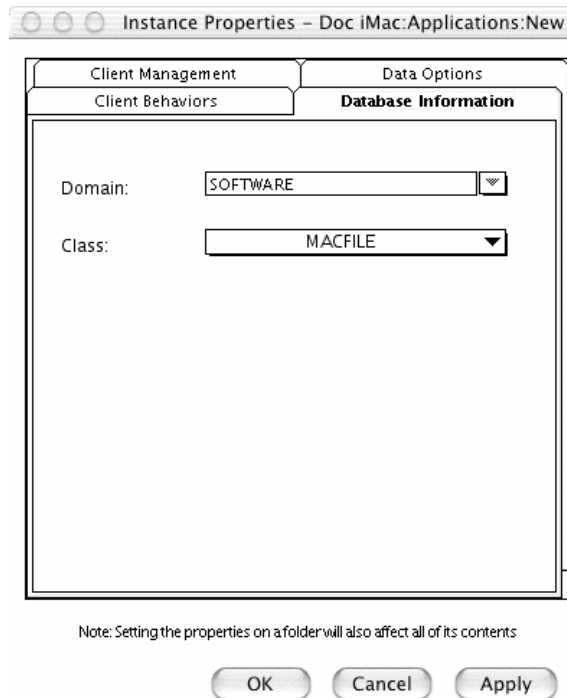


Figure 5.26 ~ Instance Properties dialog box, Database Information tab (Installation Monitor Mode).

- **Domain**

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

See *Chapter 1: Introduction* for more information about the domains.

- **Class**

Select the component class in which to store the instance for this file.

Step 14: Working with Updated Files

In addition to the files that were added, you might notice *Updated files*. Updated files are control files whose ASCII text has been modified. You can set the properties for a standard ASCII text file as described in *Step 13: Setting File Properties and Locations* on page 156.

Step 15: Setting Desktop Properties and Locations

Use the **Aliases** tab in the **Set Properties and Locations** window to see the selected program groups, links, and shortcuts in the package, and to modify their properties.

To view the selected aliases

- Hold down the Apple key, click **Selected Links**, and select **Expand All**.

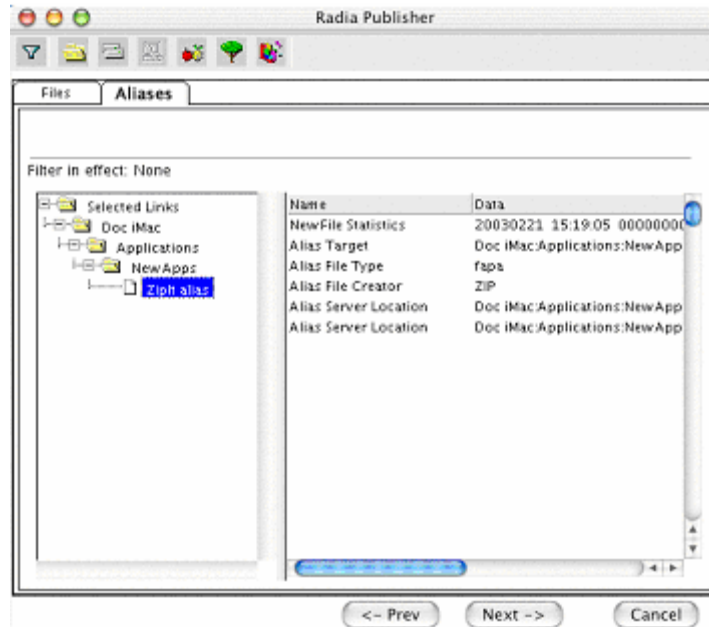


Figure 5.27 ~ View selected aliases (Installation Monitor Mode).

To set properties for aliases

- Hold down the Apple key and click the link in the left pane.

A menu opens.

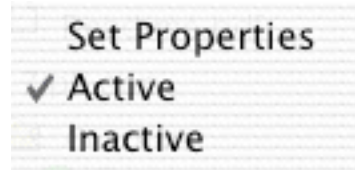


Figure 5.28 ~ Expanded shortcut menu (Installation Monitor Mode).

Note

When you select a folder or link, Radia applies the changes to all links within the folder or within the link's branch in the left pane.

Step 16: Promoting Packages

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

Caution

Once you promote the package, the session's objects are deleted and you *cannot* resume the session. Therefore, you may want to save the session so that you can reopen it later. For example, you might find problems while testing the deployment of the package, and want to make corrections. Here's how to save the session:

Copy the LIB directory (and its subdirectories) from SystemDrive/Applications /Novadigm/Lib to a backup location. The LIB directory contains the objects that were built by the Radia Publisher during your publishing session.

By saving the LIB directory, promoting the package, and then restoring the LIB directory, you can alter the settings in the Radia Publisher's windows, and promote the package again. Use the toolbar buttons to jump directly to the various windows in the Radia Publisher. See the Radia Publisher Quick Reference for information about the toolbar buttons.

If you find a problem while testing the deployment of the promoted package, this allows you to fix it.

To view the files to be promoted

- Hold down the Apple key, click **Files to be Promoted**, and select **Expand All**.

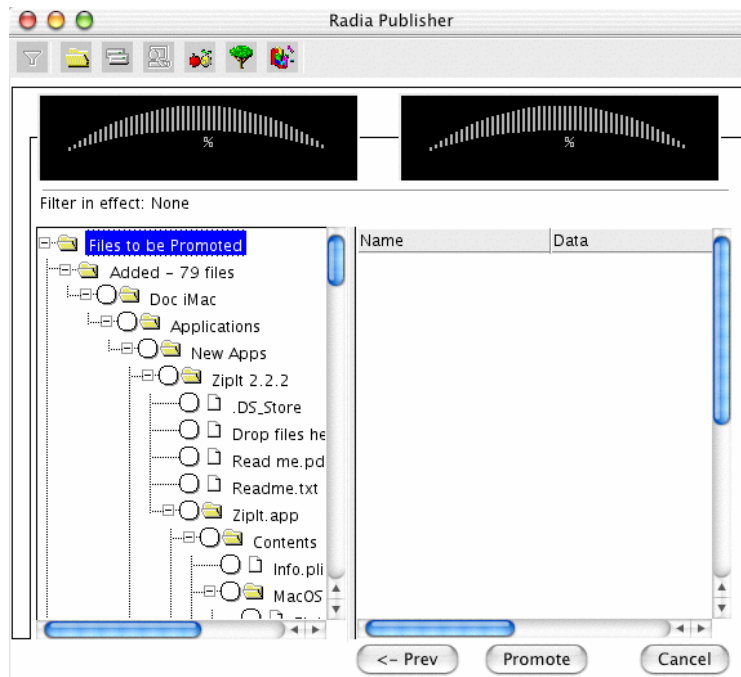


Figure 5.29 ~ Promote Files window (Installation Monitor Mode).

To promote the package

1. Click **Promote**.
2. Click **OK** when you receive the prompt 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.

Next, use the Radia System Explorer to create a service. For more information, see *Creating a Service* on page 198.

Note

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

Using Component Selection Mode

In Component Selection Mode, you select the individual components that make up the application, such as files, directories, and Mac aliases to create a package. We recommend this mode for packaging simple applications.

Note

If the application makes changes to an existing ASCII file, you *must* use Installation Monitor Mode.

Also, use Installation Monitor Mode to package any application with which you are not completely familiar.

Publishing in Component Selection Mode involves three phases:

1. **Defining** the application's hardware, software, and 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 (administrator) computer. This ensures that the files you need to select reside on the computer.

Publishing with Component Selection Mode

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

Use these steps to familiarize yourself with Component Selection Mode. However, please remember that there are many variables when publishing applications.

Step 1: Logging On to Radia Publisher

1. Go to the directory where you installed the Radia Administrator Workstation and double-click the **publishr** executable.
2. The **Radia Publisher Security Information** dialog box opens. In the appropriate text boxes, type your **User ID** and **Password**.

Note

The **User ID**, as shipped from HP, 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** text boxes.

3. 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.

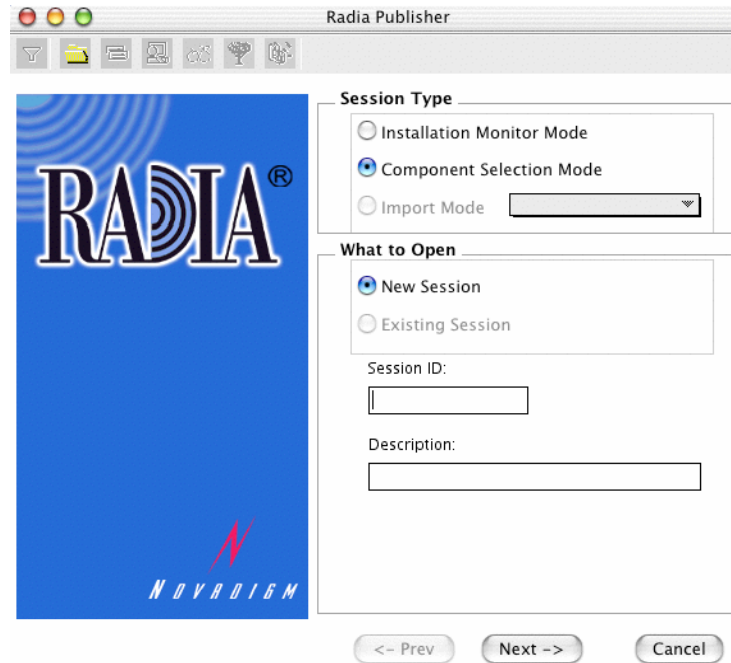


Figure 5.30 ~ Open Publishing Session window (Component Selection Mode).

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 describes the options on the **Open Publishing Session** window, as shown in *Figure 5.30 ~ Open Publishing Session window* above.

Note

We recommend that you review the Global Defaults prior to beginning any Publishing Session. See *Setting Default Properties* beginning on page 122.

Session Type Area

■ Installation Monitor Mode

Use this mode to create Radia packages when you do not know the structure of the software or data. Radia Publisher performs a scan of your computer, and then prompts you to install the software using the native installation program. After the software is installed, Radia Publisher performs another scan and then compares the scans. The differences are packaged and promoted to the Radia Database.

■ 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

Use this mode to import packages from other applications and create Radia packages. Currently, this feature is not supported on the Macintosh platform.

What to Open Area

■ New Session

Select **New Session** to begin a new publishing session. You must complete the **Session ID** and **Description** text boxes.

■ 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.

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.

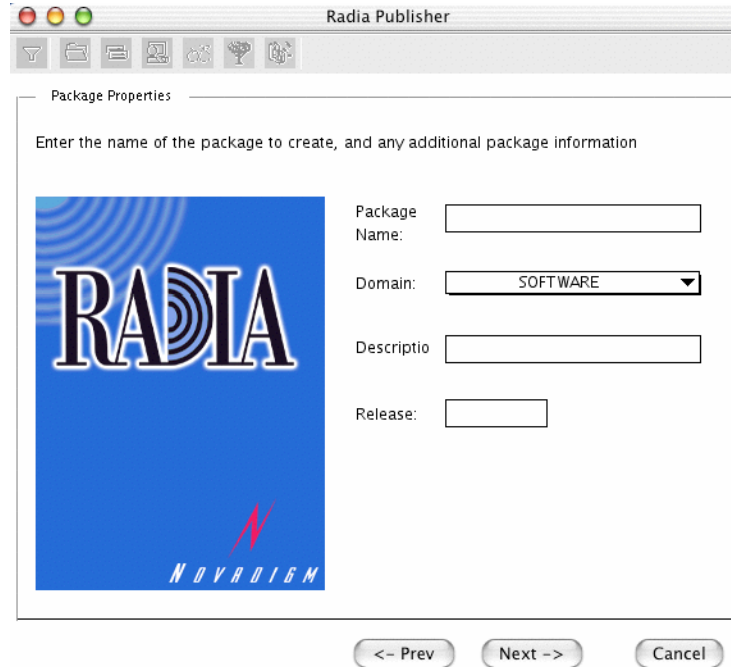


Figure 5.31 ~ Package Properties window (Component Selection Mode).

■ 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 351 for more information.

- **Domain**

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

See *Chapter 1: Introduction* for more information about the domains.

- **Description**

Type a description for the package.

- **Release**

Type the release number of the software.

Note

The current session information is stored under the *SystemDrive* under the POSIX path */Applications/Novadigm/Lib* in an object called ZPAKSESS.EDM on your computer. Use the Radia Client Explorer to view this object. For more information, see the *Radia Client Explorer Quick Reference*.

Below is an example of ZPAKSESS.EDM.

If you decide to close this publishing session and do not intend to complete the session, you can delete this object. You can also use the Radia System Explorer to delete the PACKAGE instance from the Radia Database.

Variable	Length	Value
LASTPANE	002	12
PKGNAME	007	ZipIt_1
PKGID	012	D001440D491C
PUBMODE	001	1
ZAPPDESC	005	ZipIt
ZAPPESS	006	ZI0001
ZDOMAIN	008	SOFTWARE

Heap Information

1 of 1

Figure 5.32 ~ ZPAKSESS.EDM, current session information (Component Selection Mode).

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, installed RAM, and/or processor. If none of the options is selected, the package will be available to all eligible subscribers.

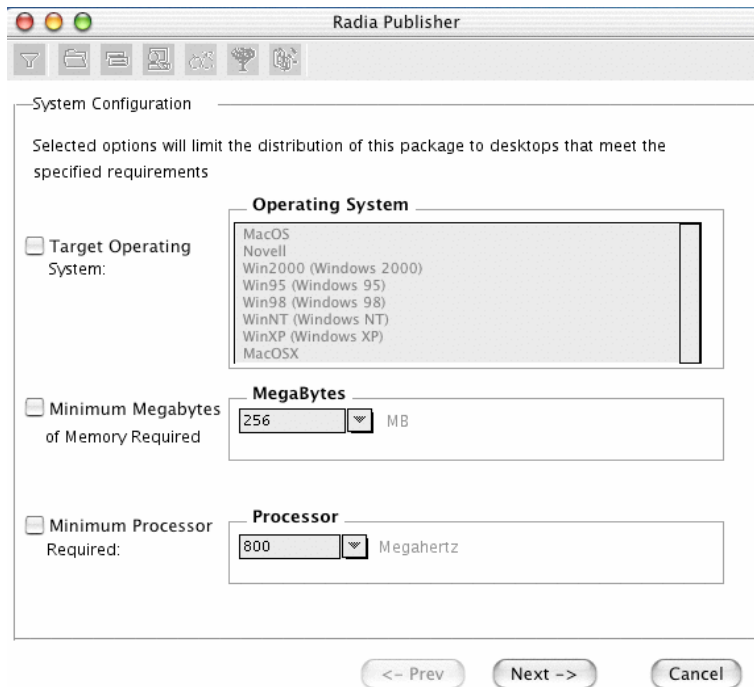


Figure 5.33 ~ System Configuration window (Component Selection Mode).

■ Target Operating System

Select this check box to make the **Operating System** list box available. Then, select one or more operating systems required for this package.

- To select multiple, consecutive operating systems, hold down the SHIFT key and click the appropriate items.
- To select multiple, non-consecutive operating systems, hold the CTRL key and click the appropriate items.

■ Minimum Megabytes of Memory Required

Select this check box to make the **Megabytes** options available. Then, select the

minimum number of megabytes of RAM required for this package. If no option is selected, the package will be available to subscribers with any amount of available memory.

■ **Minimum Processor Required**

Select this check box to make the **Processor** options available. Then, select the minimum processor that is required for this package. If no option is selected, the package will be made available to subscribers with any processor.

If none of the options is selected, the package will be available to all eligible subscribers.

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, on 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.

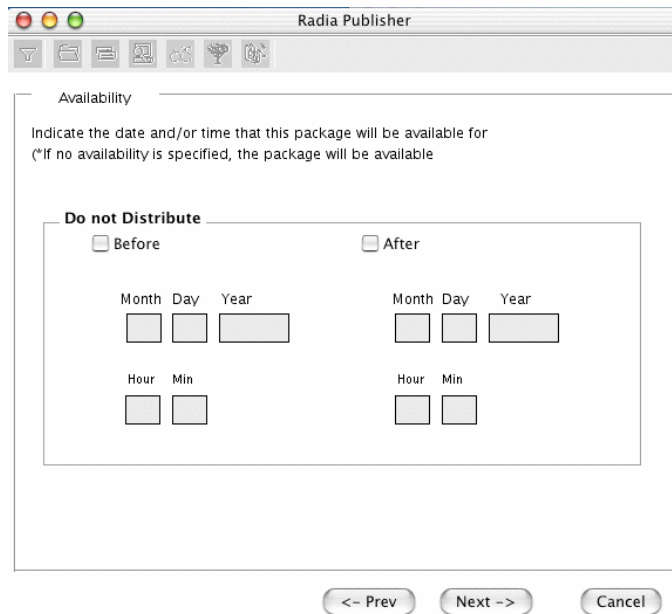


Figure 5.34 ~ Availability window (Component Selection Mode).

- **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** text boxes 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** text boxes to specify the date and time.

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

Step 6: Selecting the Files to Publish

Use the **Select Files to be Published** window to select all files, links, or shortcuts, and registry entries that need to be included in the package. If you are unsure about any of these components, consider using Installation Monitor Mode instead.

To select the files to publish

- Navigate through your file system (shown in the left pane in *Figure 5.35 ~ Select Files to be Published window* below) and select the files or folders to be included in the package.
- Click a check box again to clear a selection.

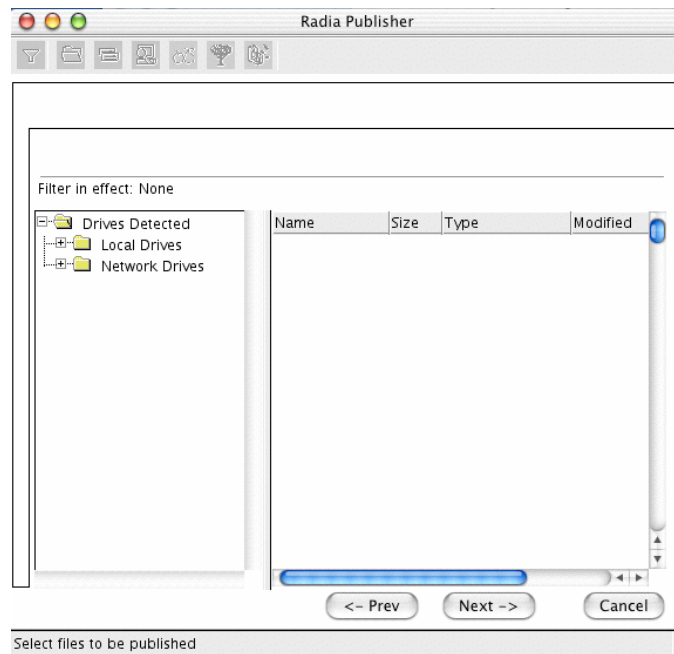


Figure 5.35 ~ Select Files to be Published window (Component Selection Mode).

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 folders in the package.

To view the selected files and folders

1. Hold down the Apple key, 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 left pane to see its properties in the right pane.

Some of the properties in *Figure 5.36 ~ View selected files window* 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 122. In *Step 8: Setting File Properties and Locations* on page 184, you will learn how to modify these settings, if necessary.

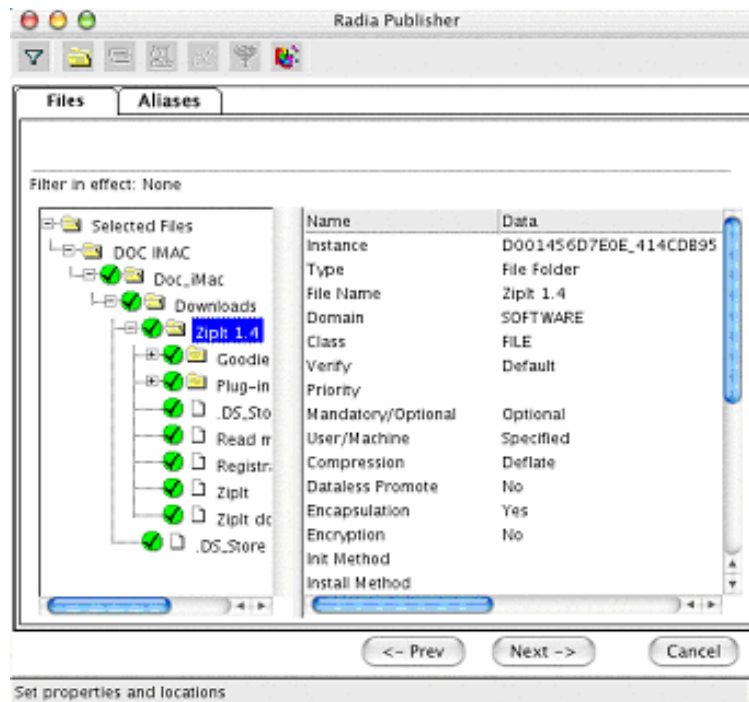




Figure 5.36 ~ View selected files window (Component Selection Mode).

To filter the displayed files and folders

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 left pane. See the *Radia Publisher Quick Reference* for more information about the buttons in the toolbar.
2. The **Set Filter** dialog box opens.
3. In the **Set Filter** dialog box, type the file type as a string. If the filter string is found anywhere in the file or folder name, it is considered a match.
4. Click **OK**.

To remove a filter

1. Click the filter button  to open the **Set Filter** dialog box. See the *Radia Publisher Quick Reference* for more information about the buttons in the toolbar.
2. Click **Clear**.
3. Click **OK**.
4. Click **Next** to continue.

Step 8: Setting File Properties and Locations

Use the **Instance Properties** dialog box to modify the properties of the files and folders 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 122.

To access the Instance Properties dialog box

- 1.** Hold down the Apple key and click the file or folder whose attributes you want to set.
- 2.** Select **Set Properties**. If you selected a folder, 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, Client Behaviors, and Database Information.

Client Management Tab

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

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

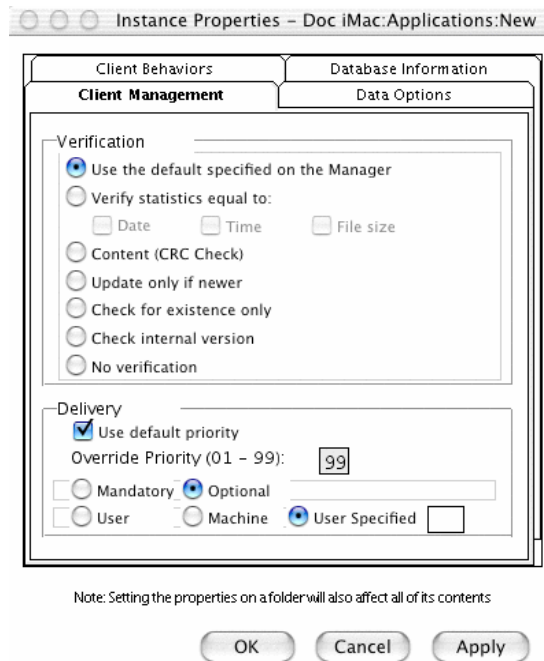


Figure 5.37 ~ Instance Properties dialog box, Client Management tab (Component Selection Mode).

Verification Options

- **Use the default specified on the Manager (default)**

Select this option so that verification options for this file are inherited from the base instance of the MACFILE class.

Use the Radia System Explorer to look at the ZRSCVRFY attribute of the base instance of the MACFILE class to determine what verification options apply, by default. For example, in *Figure 5.38 ~ ZRSCVRFY attribute* below, ZRSCVRFY=<blank space>.

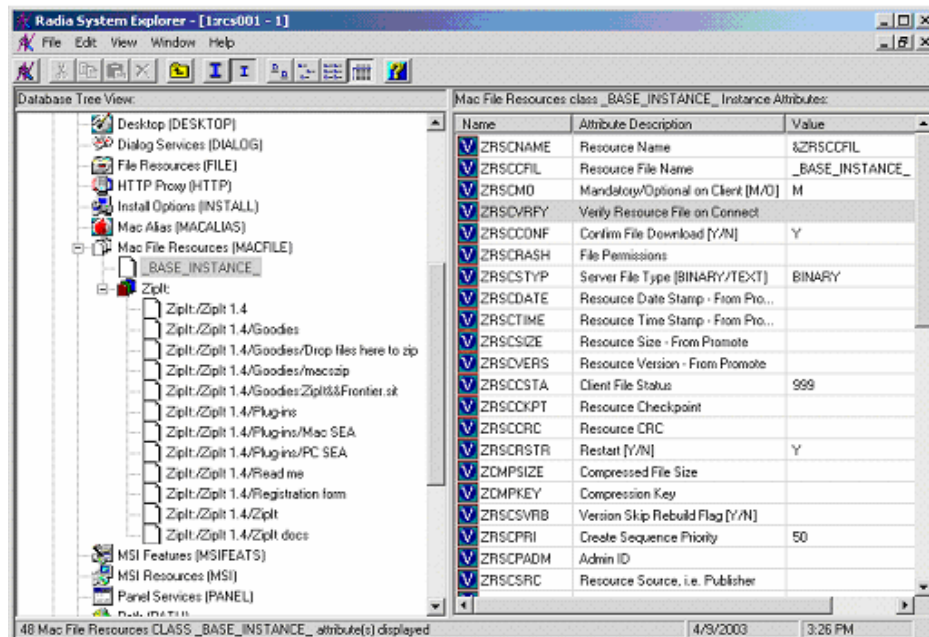


Figure 5.38 ~ ZRSCVRFY attribute (Component Selection Mode).

- **Verify statistics equal to**

Select this option to cause the Radia Application Manager to check the selected statistics (Date [D], Time [T], or File Size [S]) of the file on the subscriber's computer. If they differ from the file in the Radia Database (or Radia Staging Server) the file is deployed.

You can also use the Radia System Explorer to set this option: ZRSCVRFY=D, ZRSCVRFY=S, ZRSCVRFY=T, or ZRSCVRFY=Y.

- **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 Staging 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.

- **Update only if newer**

Select this option so that this file is deployed if it has a later date/time stamp than the one 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 this file is deployed if it is not on the subscriber's computer.

No action is taken if the file already exists 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.

- **Check Internal Version**

Select this option to compare the version being deployed with the version that may already exist on the subscribers' computer. This will ensure the correct file is being updated if more than one version exists.

- **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 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 this file is critical to the application.

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 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 this file is 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.

■ **User**

Select **User** if you want to indicate that this 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 this 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 Specified**

This option is for future use.

Data Options Tab

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

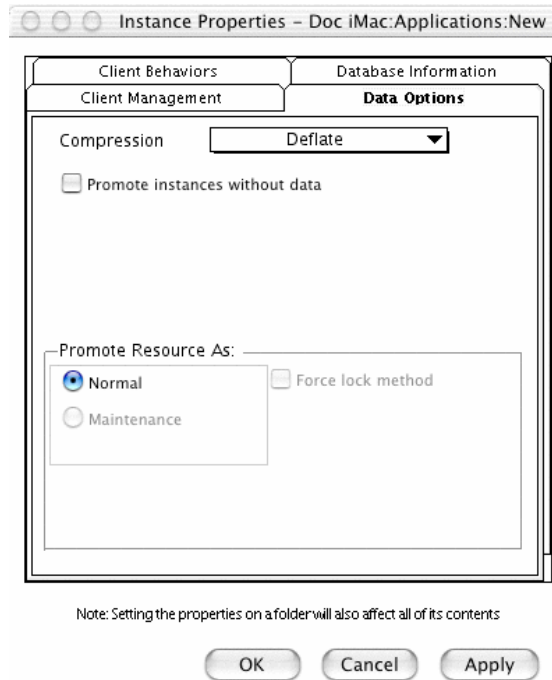


Figure 5.39 ~ Instance Properties dialog box, Data Options tab (Component Selection Mode).

■ Compression setting

If necessary, select the compression setting for storing this file 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.
- Select **None** if the file is already compressed. If you are packaging an application that contains one or more compressed files, do *not* have Radia Publisher compress the files 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 this file 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 format in the IDMDATA location on your computer. IDMDATA is located in the folder where the Radia Client was installed, under the Lib folder. See *Chapter 2: Installing the Radia Client* starting on page 33 for more information.

You can manually place files on a Radia Staging Server if you have connectivity to the staging server and do not want a copy of the file in the Radia Database.

Promote Resources As

- **Normal**

Select this option to indicate that this file is to be deployed as part of an application.

- **Maintenance**

Select this option to indicate that this file is 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 this file

If the file is in use on the client computer when Radia attempts to deploy new copies of it, the locked file method is normally used to deploy it. If necessary, this file is decompressed and stored locally in a folder. The Client Connect process forces a restart when it ends and the file is deployed to its correct location during the startup.

Client Behaviors Tab

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

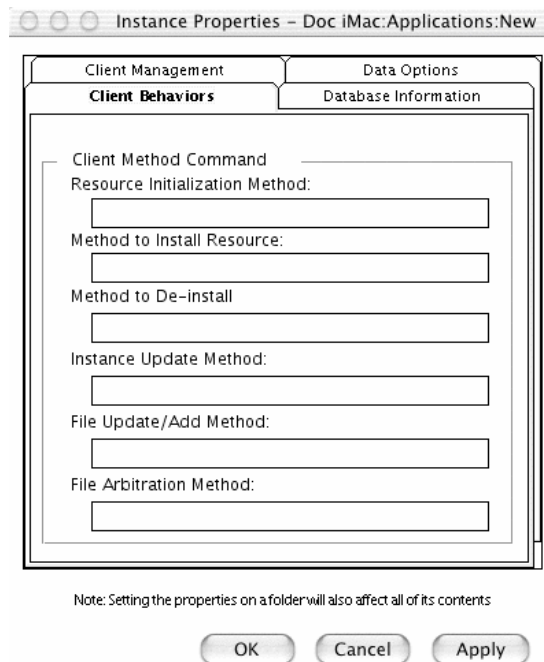


Figure 5.40 ~ Instance Properties dialog box, Client Behaviors tab (Component Selection Mode).

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

Client Method Command Lines

- **Resource Initialization Method** (Variable in database: ZINIT)
Type the method to run when the file is 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 DLL 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.

Type the method to run when the instance is modified on the computer, after the file has been deployed.

- **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 examines the version information of the file that exists and the file that is going to replace it, and then determines which to keep.

Database Information Tab

Use the Database Information tab to specify where the instance for the selected file will be stored in the Radia Database.

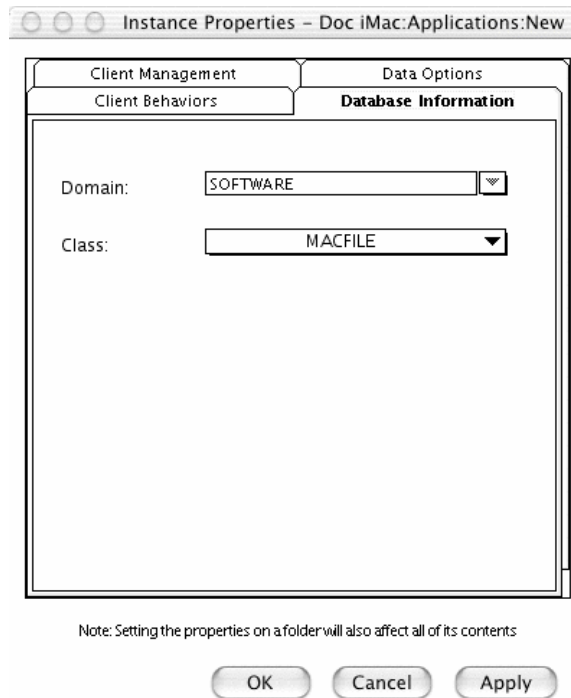


Figure 5.41 ~ Instance Properties dialog box, Database Information tab (Component Selection Mode).

■ Domain

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

See *Chapter 1: Introduction* for more information about the domains.

■ Class

Select the component class in which to store the instance for this file.

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

Step 9: Setting Desktop Properties and Locations

Use the **Aliases** tab in the **Set Properties and Locations** window to see the selected program groups, links, and shortcuts in the package, and to modify their properties. These program groups, links, and shortcuts will appear on the subscriber's computer.

To view the selected program groups (files and directories) and Mac Aliases.

- Hold down the Apple key, click **Selected Aliases**, and select **Expand All**.

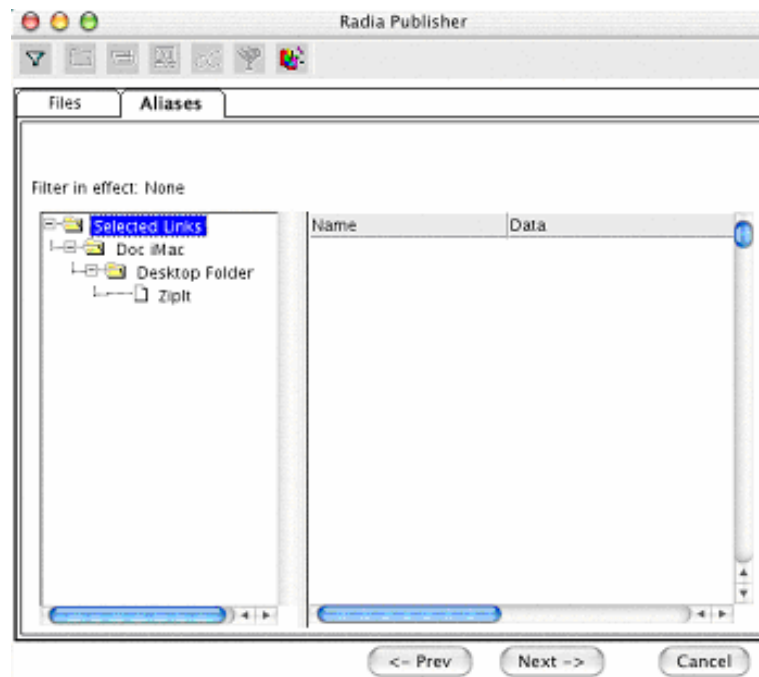


Figure 5.42 ~ View selected program groups and aliases (Component Selection Mode).

To set properties for program groups, links, and shortcuts

- Hold down the Apple key and click the item in the left pane.

A menu opens.

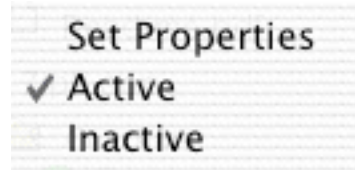


Figure 5.43 ~ Expanded shortcut menu (Component Selection Mode).

Note

When you select a folder or link, Radia applies the changes to all links within the folder or within the link's branch in the left pane.

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

- Hold down the Apple key, click **Files to be Promoted**, and select **Expand All**.

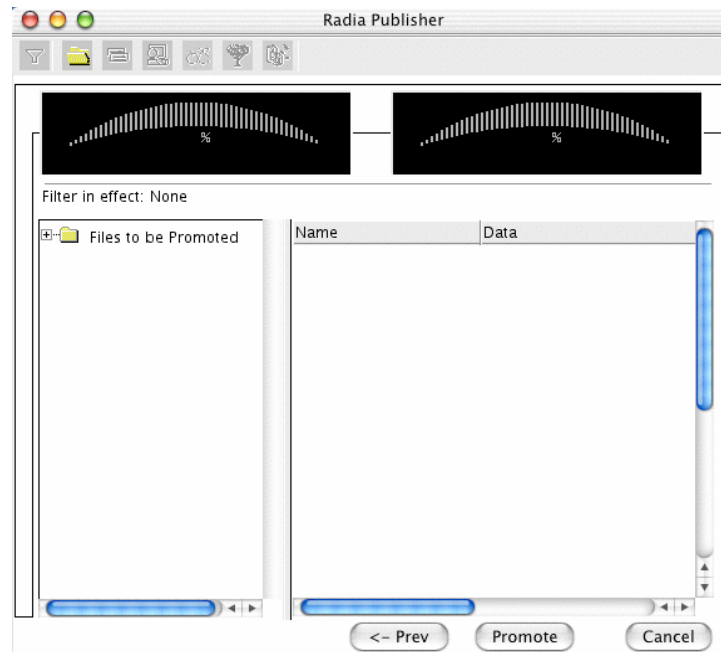


Figure 5.44 ~ Promote Files window (Component Selection Mode).

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. See the *Radia Publisher Quick Reference* for more information.

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.

Creating a Service

Once you've 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.

Note

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

In this example, you will create a service using the ZipIt package that you created and promoted in the previous section.

Using the New Application Wizard to Create a Service

Step 1:

To access 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 text boxes.

Note

The **User ID**, as shipped from HP, 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.

3. Click **OK**.

Step 2:

To navigate 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.

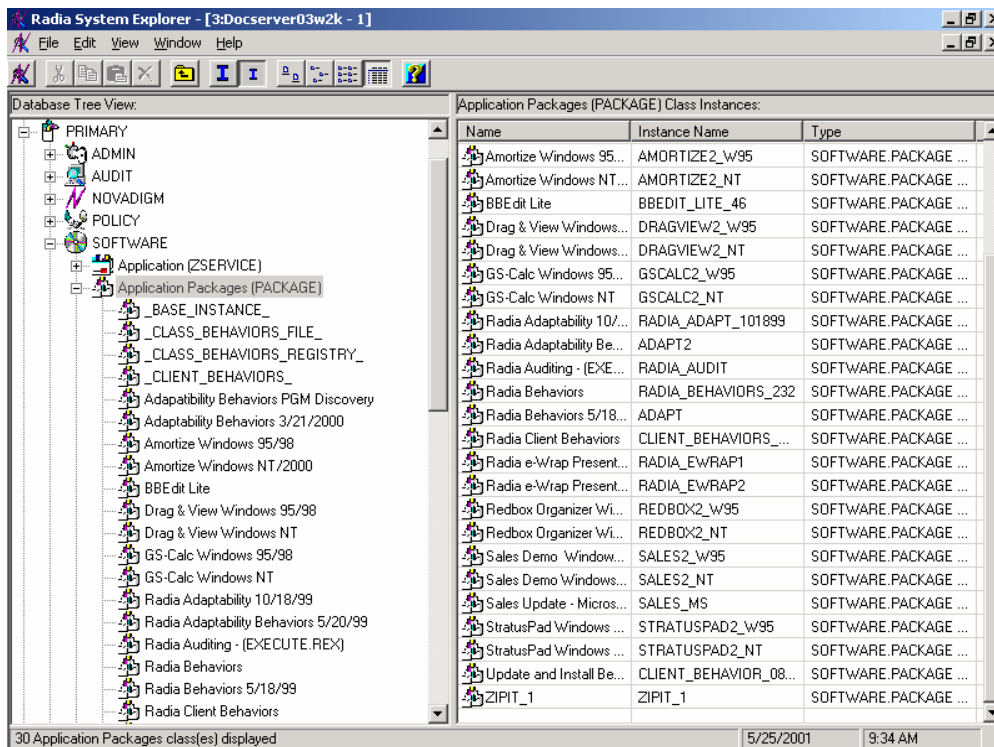


Figure 5.45 ~ Application Packages (PACKAGE) class.

Step 3:

To create a service using the New Application Wizard

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

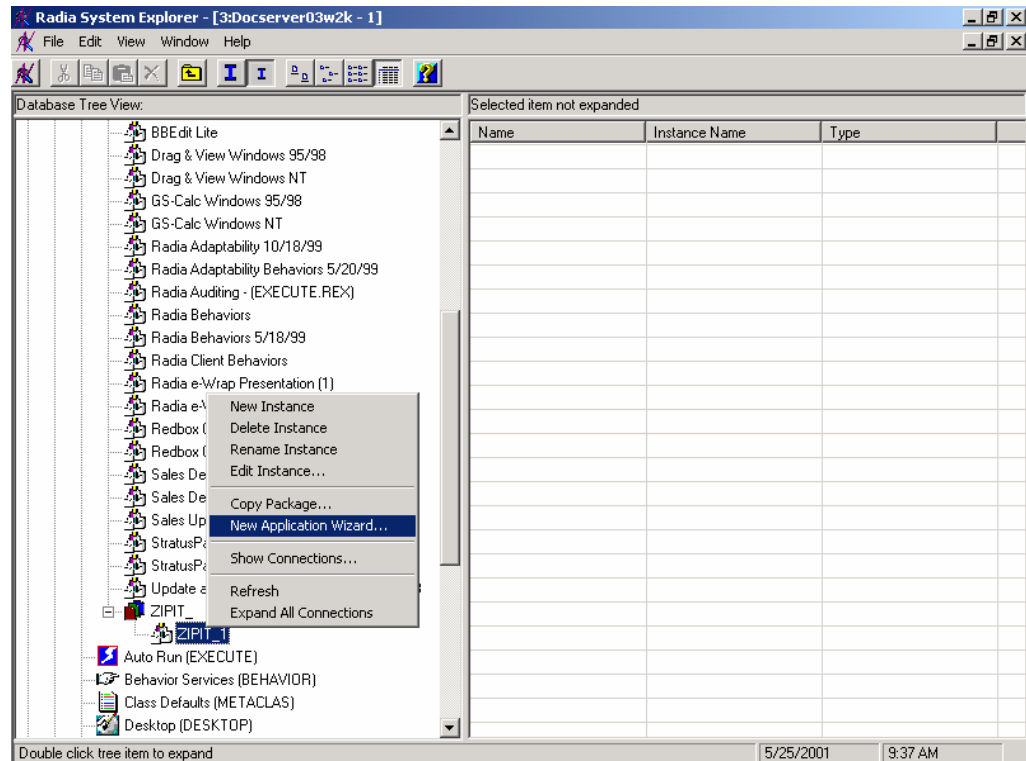


Figure 5.46 ~ Selecting New Application Wizard.

2. Select **New Application Wizard**.

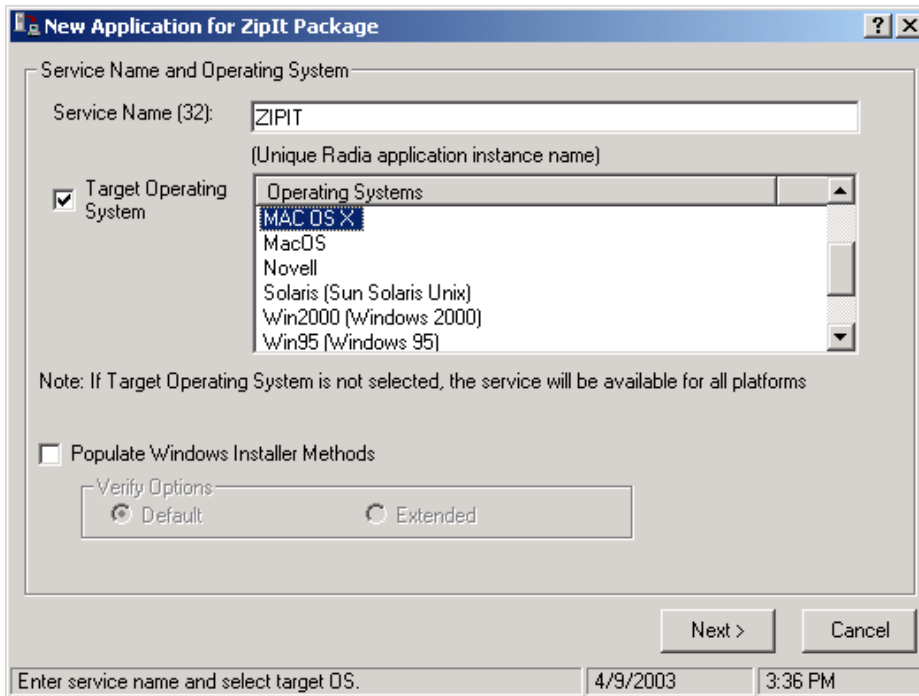


Figure 5.47 ~ Service Name and Operating System dialog box.

3. In the **Service Name (32)** field, type a name, such as **ZipIt**, for the Application (ZSERVICE) instance.
4. Select the **Target Operating System** check box if you want to specify which operating systems are eligible for this service. Then, select one or more operating systems desired for this package.
 - 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 the CTRL key on your keyboard and click the appropriate items.

If no option is selected, the package will be available to subscribers running all operating systems.

If you do not select the **Target Operating System** check box, the service is made available to *all* platforms.

5. Click **Next** to go to the **Application Target Type** dialog box.

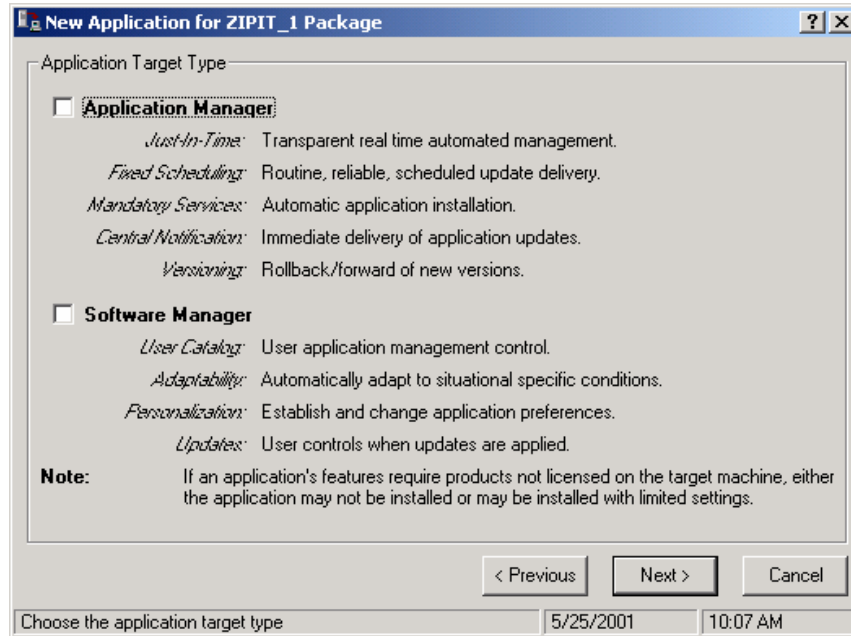


Figure 5.48 ~ Select the application target type dialog box.

6. Select the **Software Manager** check box.

This designates the service as an optional application for your subscribers.

Note

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

When using Radia Software Manager, applications should be made optional for them to be displayed in the Software Manager catalog.

Also, note "Just in Time" is not supported on Macintosh platforms.

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

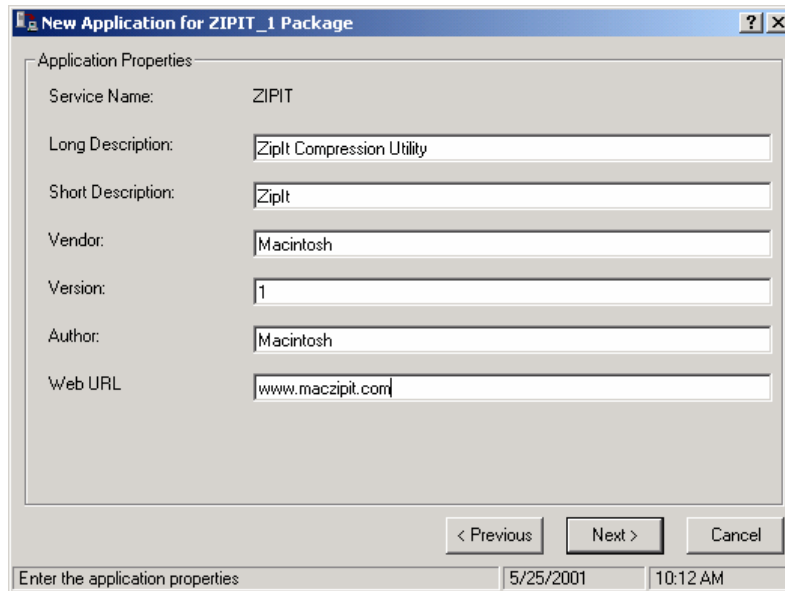


Figure 5.49 ~ Application Properties dialog box.

8. Type the appropriate information in the text boxes as shown in Figure 5.49 ~ Application Properties dialog box.
9. Click **Next** to select the events that the Radia Software Manager will report on.

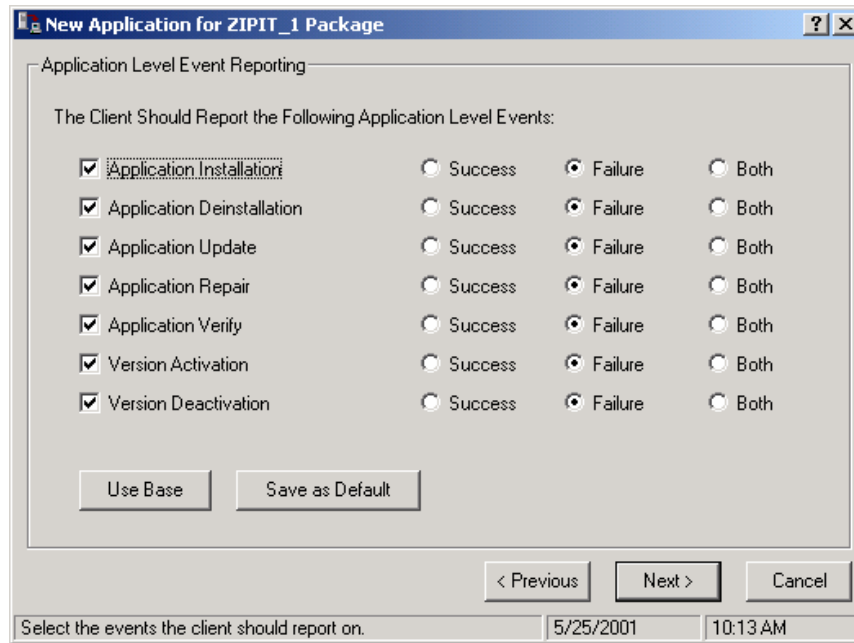


Figure 5.50 ~ Application Event Level Reporting dialog box.

10. Click the check box for each event that you want to report on. Then, select the appropriate radio 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.

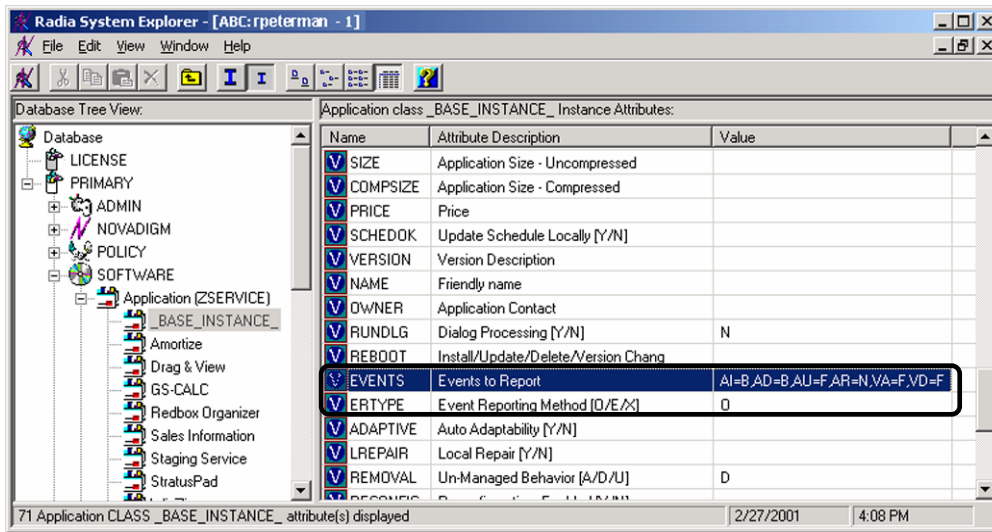


Figure 5.51 ~ Application (ZSERVICE) base instance.

For more information about these variables and the APPEVENT object, see *Chapter 8: Radia Client Objects* starting on page 327.

11. If you want to save the current settings as the default settings for Application Level Event Reporting, click **Save as Default**.
12. Click **Next** to review your selections.

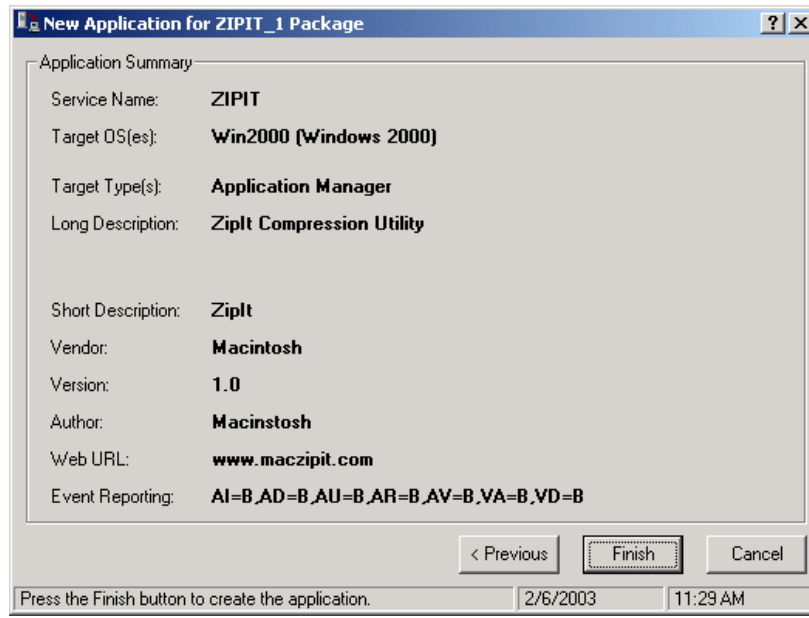


Figure 5.52 ~ Summary of the application settings.

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

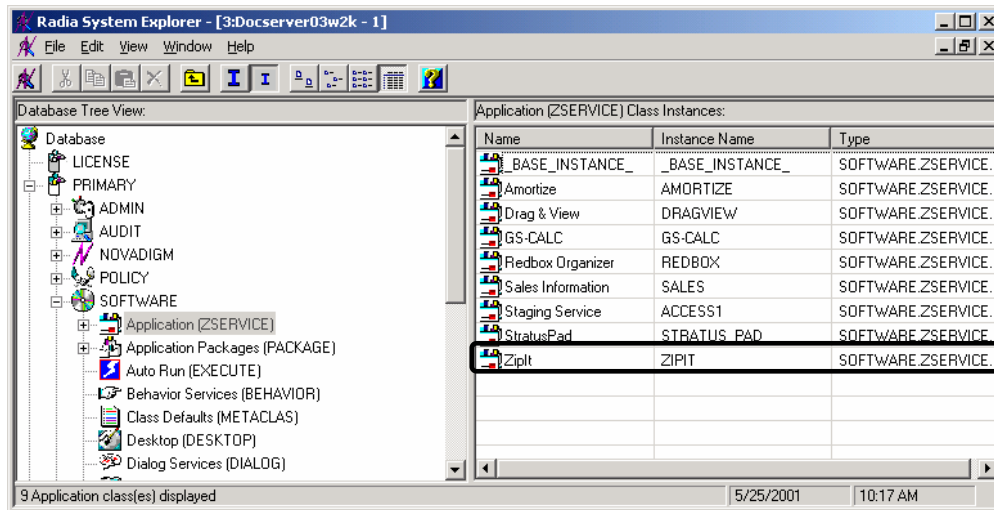


Figure 5.53 ~ New ZSERVICE instance.

Now, you are ready to set up policies identifying *which* subscriber receives *what* software. See *Chapter 6: Implementing Entitlement Policy* starting on page 235 for more information.

Radia Application 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.

Note

HP Service Packs are available from the Technical Support Web site. The service packs are supplied as import decks to the Radia Database. Check the Technical Support Web site periodically for Service Packs and instructions.

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.

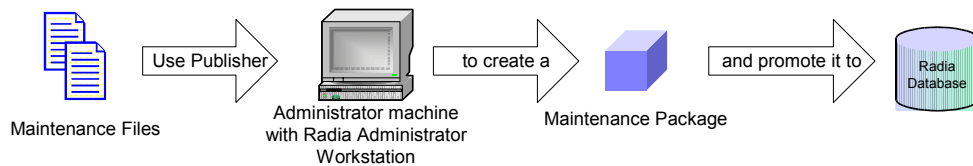


Figure 5.54 ~ Publishing maintenance files (Self-Maintenance).

Note

SoftwareManager.app is a directory and therefore will be deployed as a unit. Since Self-maintenance does not traverse subdirectories, SoftwareManager.app needs to be promoted to the SOFTWARE domain. In addition, ZDELETE must be modified and set to `_NONE_`.

1. Use the Radia Publisher to package the updated files as maintenance files and promote them to the Radia Database.

- Use the Radia System Explorer to connect the maintenance package to the Client Self Maintenance application instance, located in NOVADIGM.ZSERVICE.

See *Chapter 6: Implementing Entitlement Policy* starting on page 235 for more information on making connections.

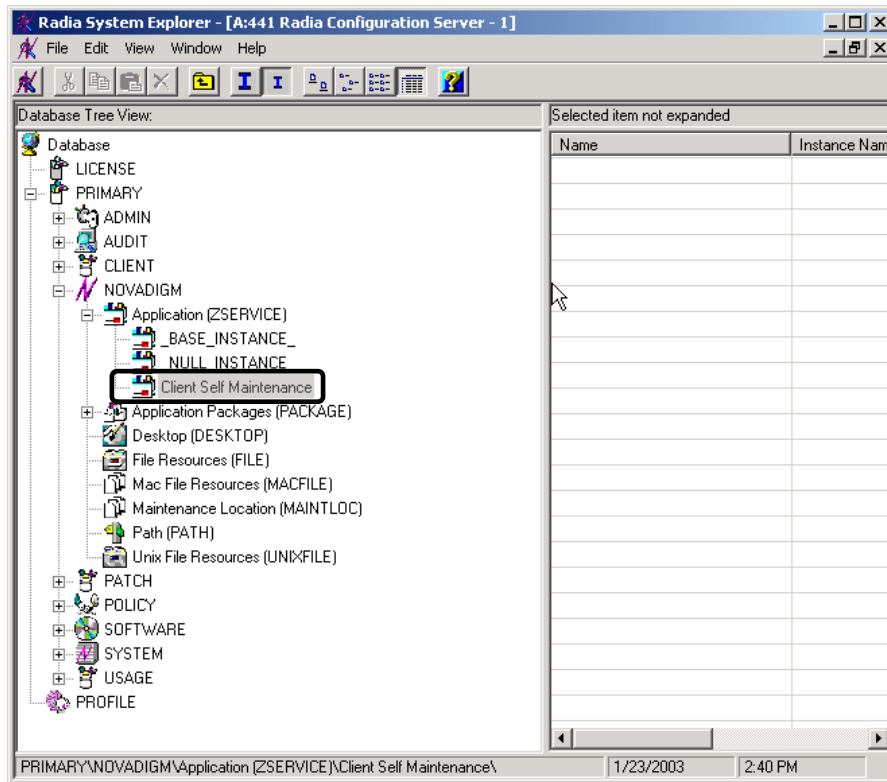


Figure 5.55 ~ Client Self Maintenance application instance (Self-Maintenance).

- 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 will be downloaded from the server into *SystemDrive:Radia Client:New*.

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 **edmxtcp.ppc**. Use Radia Notify to push this update out to all 2500 Radia Software Manager clients immediately. The Radia Administrator Workstation is installed on a Windows machine (the Radia System Explorer will be used), the Radia Publisher is installed on your machine, and you have a TCP/IP connection to the Radia Configuration Server.

Step 1: Publishing Maintenance Files

Use the 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 Library file specified in the scenario above using Component Selection Mode.

For more information about Component Selection Mode, see *Using Component Selection Mode* beginning on page 172.

1. Create a folder at the root of your hard drive called **radmaint**.
2. Place any maintenance files in this folder.
3. Go to the **Apple Menu** and select **Radia Publisher**.
4. In the **Radia Publisher Security Information** dialog box, type your **User ID** and **Password** in the appropriate text boxes.

Note

The **User ID**, as shipped from HP, 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.

5. Click **OK**.

The **Open Publishing Session** window opens.

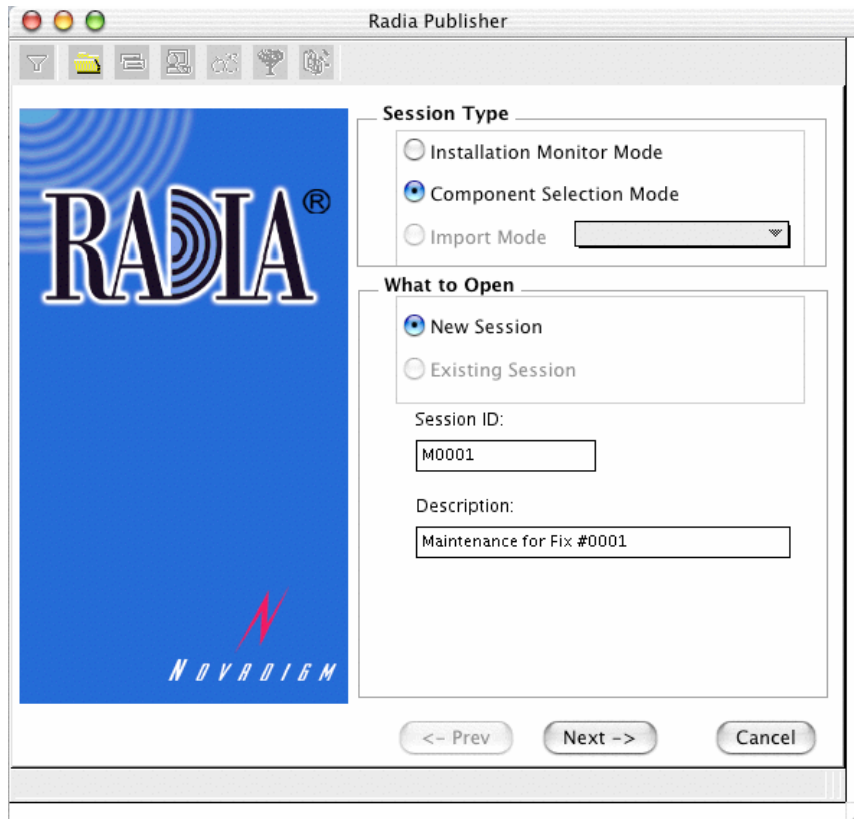


Figure 5.56 ~ Open Publishing Session window (Self-Maintenance).

6. Complete the text boxes as shown in *Figure 5.56 ~ Open Publishing Session window* above.
 - 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 **M0001**.
 - In the **Description** text box, type a description of the session, such as **Maintenance for Fix # 0001**.
7. Click **Next** to continue.

8. Complete the fields as shown in *Figure 5.57 ~ Package Properties window* on page 213.
 - In the **Package Name** text box, type a name for the package, such as **Maint_0001**.
 - In the **Domain** drop-down list, select **NOVADIGM**.

Caution

The domain is normally set to SOFTWARE. However, the NOVADIGM domain stores packages used for self-maintenance of the Radia Software Manager.

Therefore, when creating a package to distribute self-maintenance, be sure to change the domain to NOVADIGM.

- In the **Description** text box, type a description of the session, such as **Maintenance for Fix # 0001**.
- In the **Release** text box, type a release number, such as **1.0**.

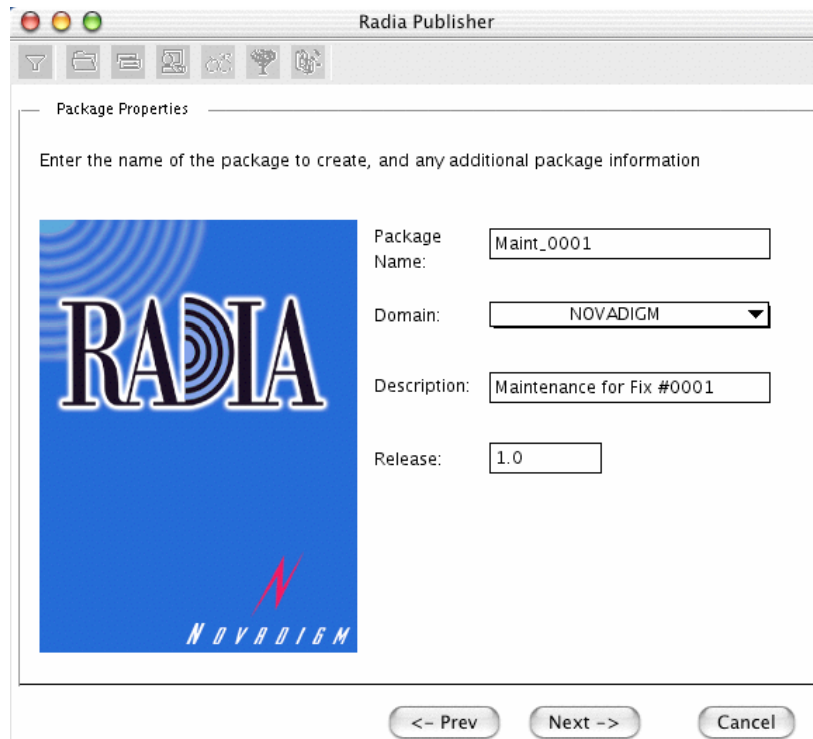


Figure 5.57 ~ Package Properties window (Self-Maintenance). (Self-Maintenance).

9. Click **Next** to continue.

The **System Configuration** window opens.

10. Accept the default settings and click **Next**.

The **Availability** window opens.

11. Accept the default settings and click **Next**.

The **Select Files to be Published** window opens.

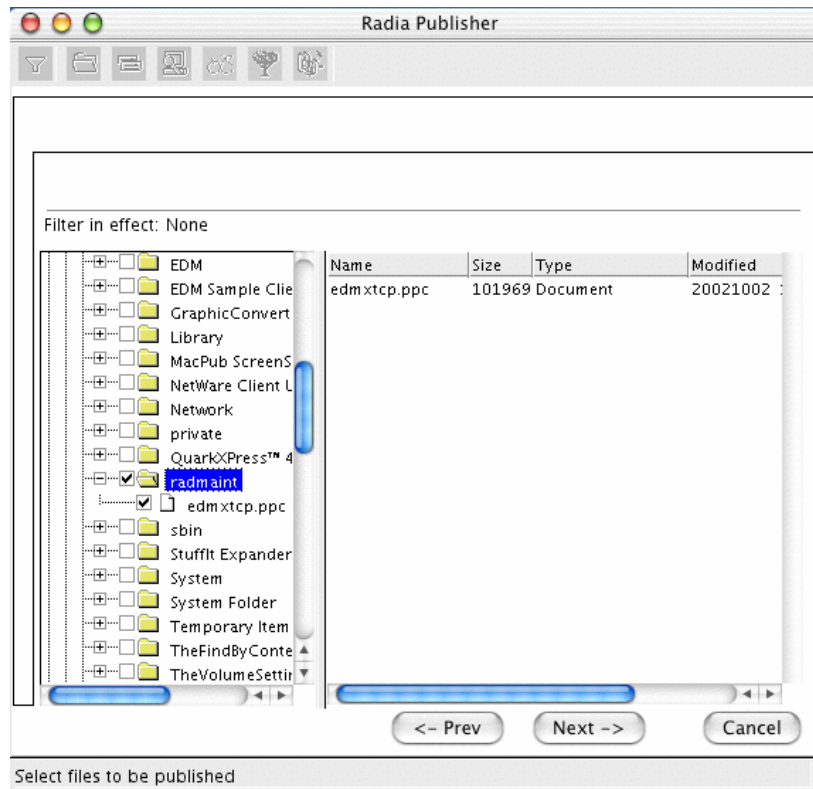


Figure 5.58 ~ Select files to be published window (Self-Maintenance).

12. Navigate to the folder (**SystemDrive:radmaint**) that you created and select its check box.

13. Then, click **Next**.

The **Set Properties and Locations** window opens.

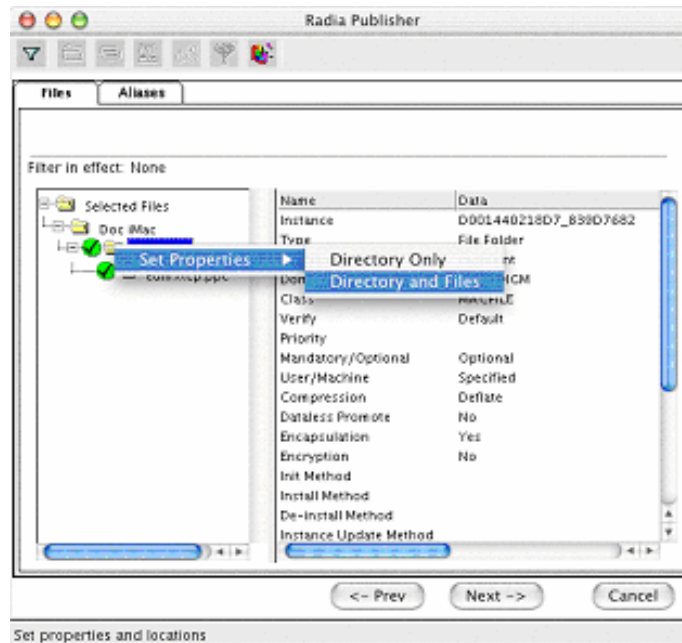


Figure 5.59 ~ Set properties and locations (Self-Maintenance).

14. Hold down the Apple key, click **Selected Files**, and then select **Expand All**.
15. Hold down the Apple key, click the folder **radmaint**, select **Set Properties**, and then select **Directory and Files**.

The **Instance Properties** dialog box opens.

16. On the **Client Management** tab, select **No Verification**. All verification flags are ignored when publishing maintenance files.
17. Click the **Data Options** tab.

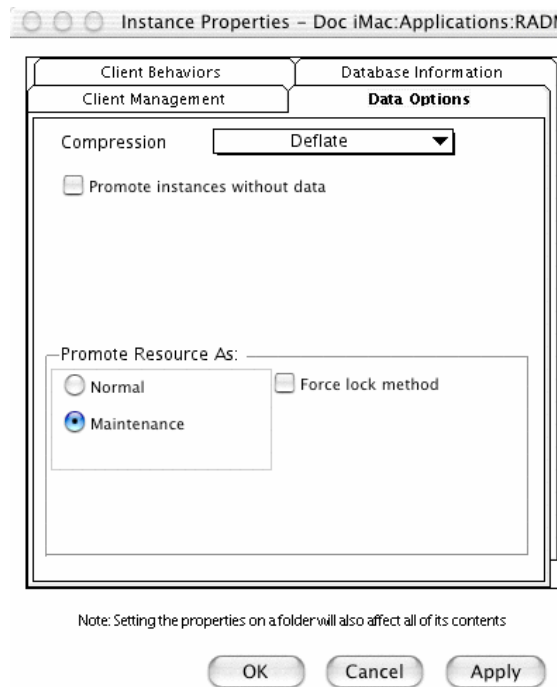


Figure 5.60 ~ Instance Properties dialog box, Data Options tab (Self-Maintenance).

18. In the **Promote Resource As** group box, 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.

19. Click **OK** to close the **Data Options** dialog box, and then click **Next**.

The **Promote Files** window opens.

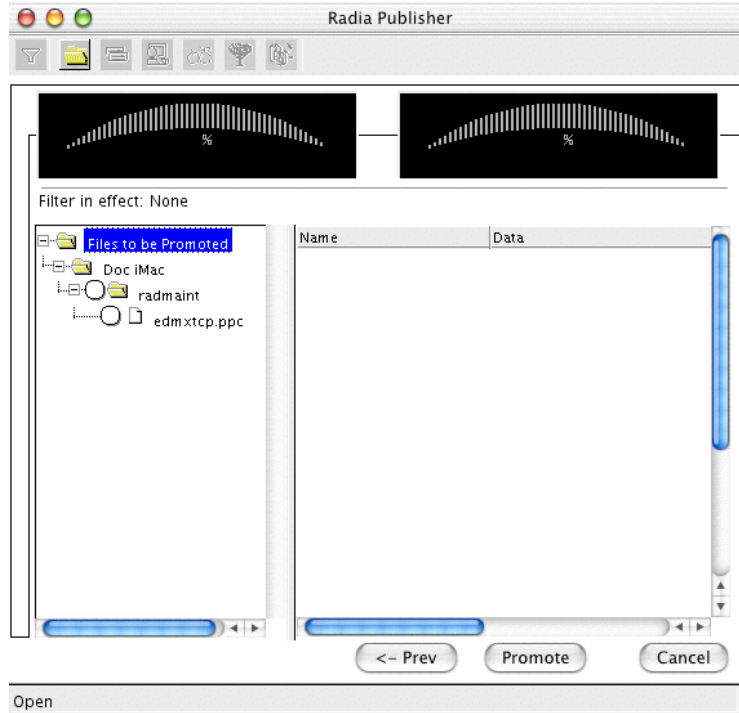


Figure 5.61 ~ Promote files window (Self-Maintenance).

20. Click **Promote** to compress and transfer the files to the Radia Database.
21. When the promote is done, click **OK**.
22. Click **Finish** to close the Radia Publisher.
23. Click **Yes** to confirm that you are ready to close the Radia Publisher. Now, you are 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

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

Note

The **User ID**, as shipped from HP, 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 text boxes.
3. Click **OK**.
4. Navigate to **PRIMARY.NOVADIGM.ZSERVICE** and double-click **Application (ZSERVICE)**.

The **Show Connectable Classes** dialog box opens.

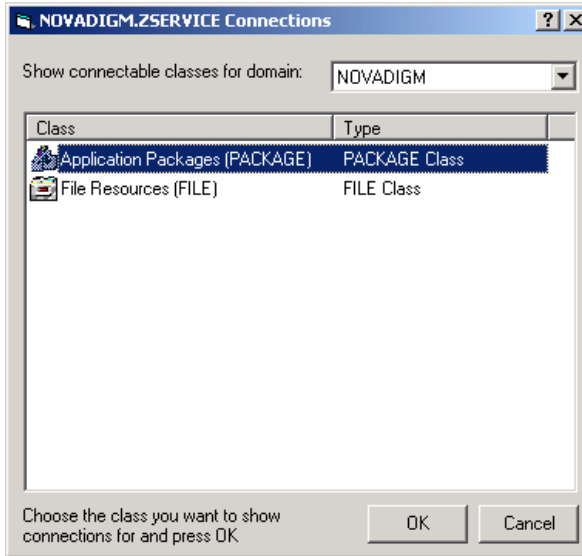


Figure 5.63 ~ NOVADIGM.ZSERVICE connections (Self-Maintenance).

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 #0001**.

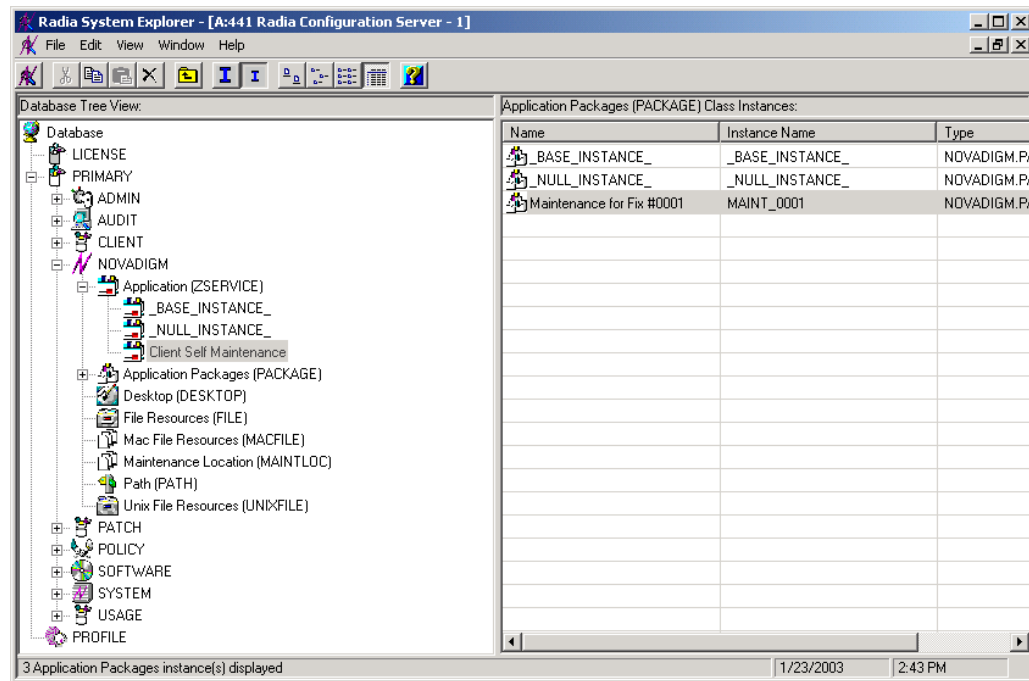


Figure 5.64 ~ Application Packages for Client Self Maintenance (Self-Maintenance).

7. In the list view, drag the **Maintenance for Fix #0001** 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.

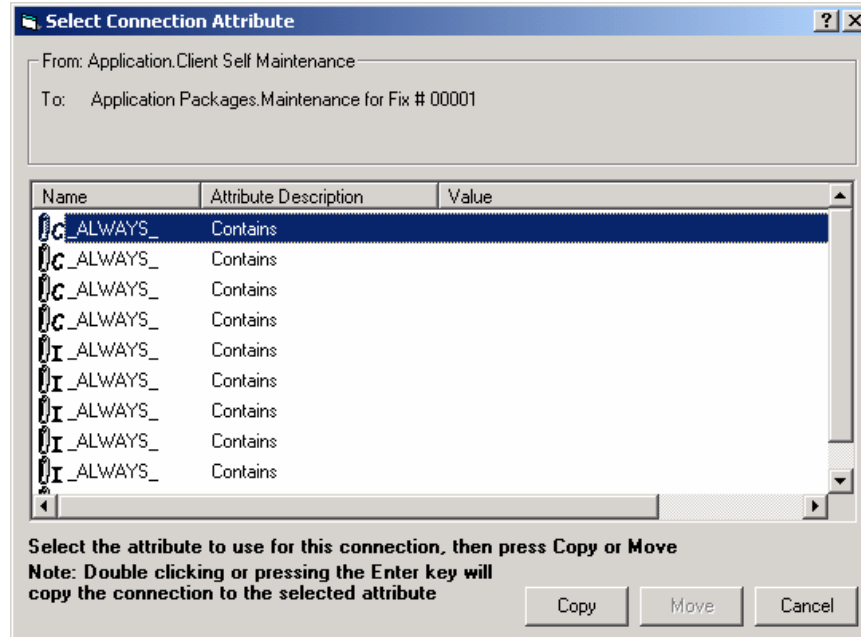


Figure 5.65 ~ Select Connection Attribute dialog box (Self-Maintenance).

9. Click **Copy**.
10. Click **Yes** to confirm that you want to connect **Client Self Maintenance** to **Maintenance Fix # 0001**.
11. Click **OK** to close the confirmation message.

3. Double-click the Maintenance path instance to display the instance's variables, as shown in *Figure 5.67 ~ Client Self Maintenance path instance variables* below.

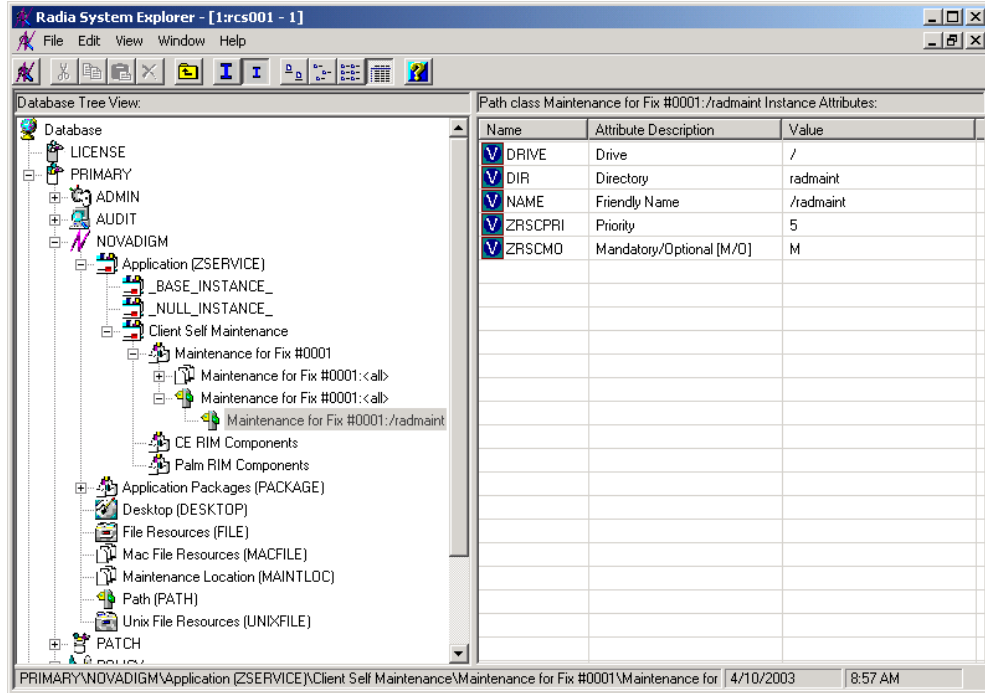


Figure 5.67 ~ Client Self Maintenance path instance variables (Self-Maintenance).

4. In the list view, double-click the **DIR** attribute.

The **Editing Instance** dialog box opens.

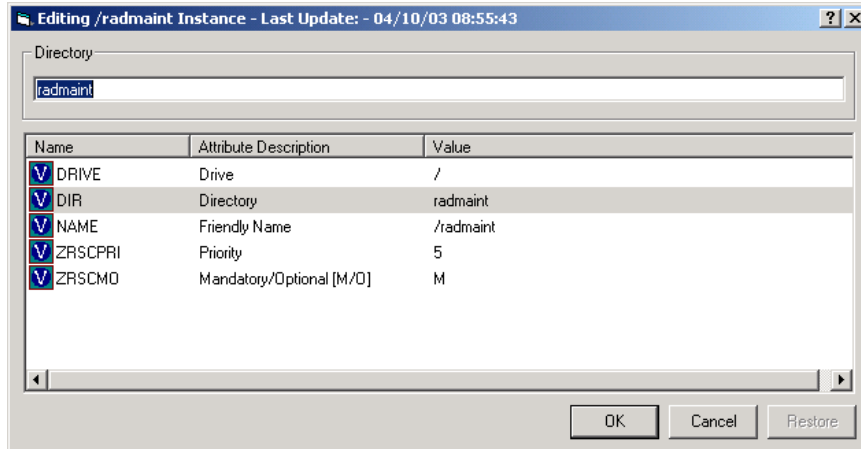


Figure 5.68 ~ Editing Instance dialog box (Self-Maintenance).

- Select the **DIR** variable. In the **Directory** text box, change the value to **&(ZMASTER.ZSYSDIR)** to ensure that the maintenance files are delivered to the appropriate directory.

Note

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

- Select the **NAME** variable. In the **Friendly Name** text box, change the value to **&(ZMASTER.ZSYSDIR)**.

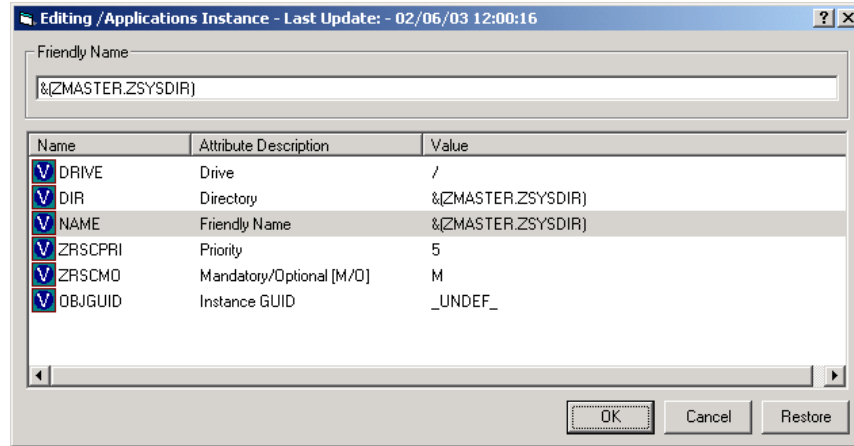


Figure 5.69 ~ Editing Instance dialog box with new values (Self-Maintenance).

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 *Chapter 6: Implementing Entitlement Policy* starting on page 235.

To connect the Client Self Maintenance application to the `_BASE_INSTANCE_`

1. Navigate to PRIMARY.POLICY.USER.

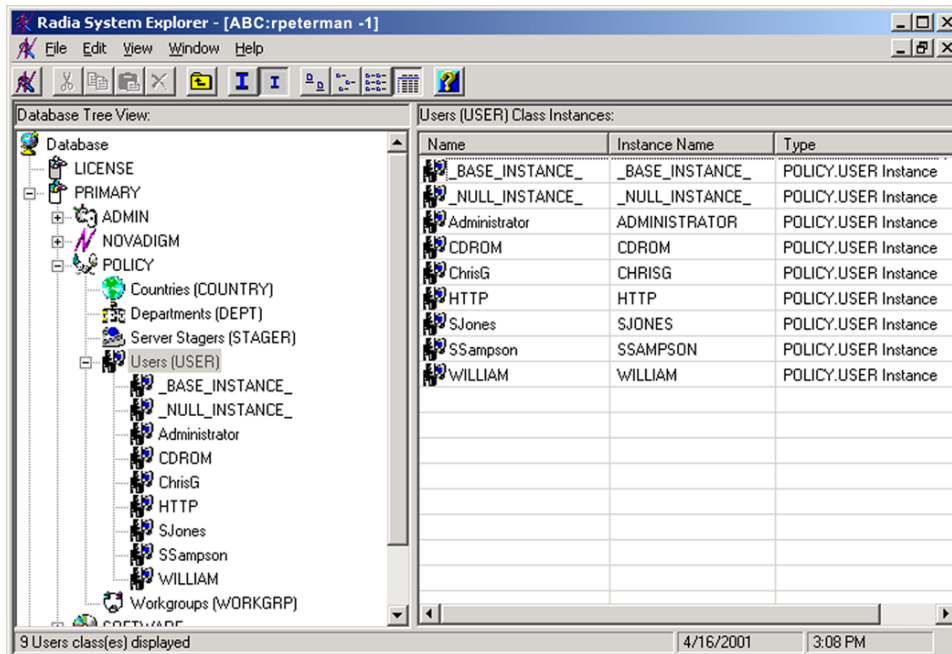


Figure 5.70 ~ Base instance of the USER class (Self-Maintenance).

2. Right-click `_BASE_INSTANCE_` and 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.

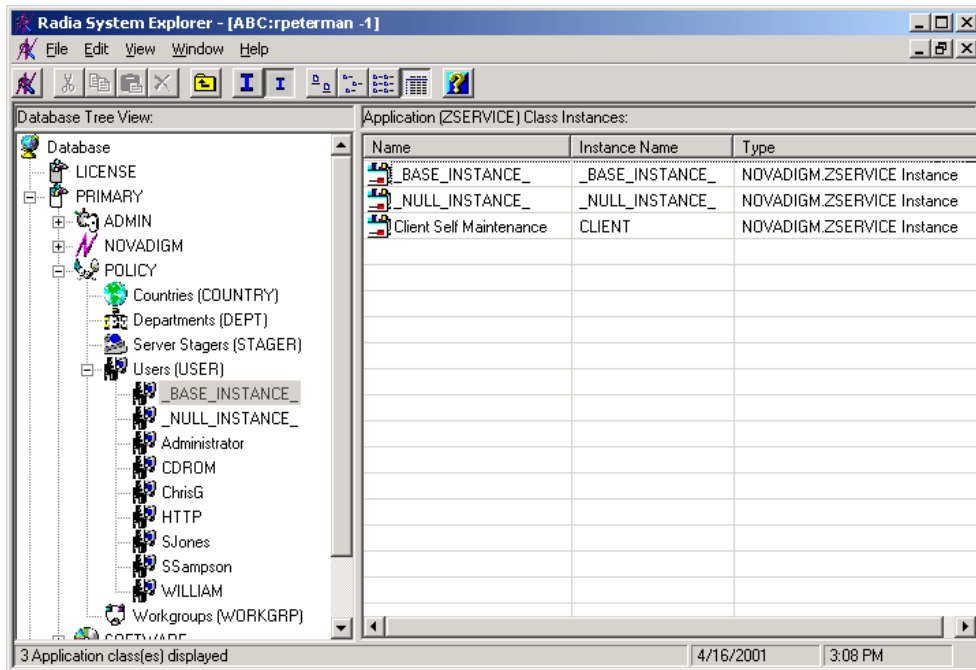


Figure 5.71 ~ ZSERVICE applications displayed (Self-Maintenance).

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. In this example, we will use Radia Notify to initiate a Client Connect and update the target computers.

For more information about Radia Notify, see *Chapter 7: Deploying Applications* starting on page 259.

To initiate a Client Connect using Radia Notify

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

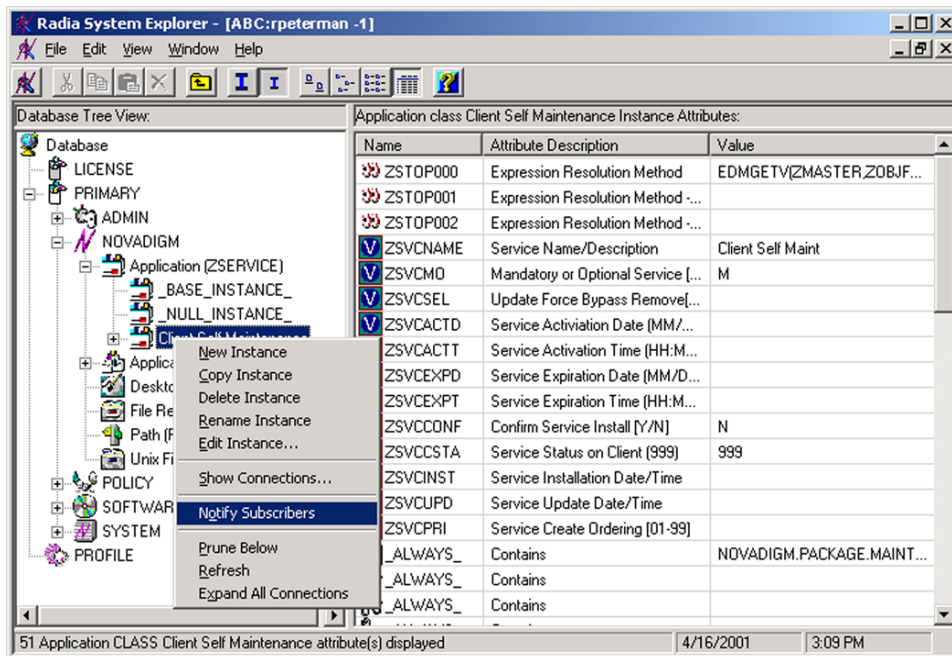


Figure 5.72 ~ Notify Subscribers of Client Self Maintenance (Self-Maintenance).

3. Select **Notify Subscribers**.
4. 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.

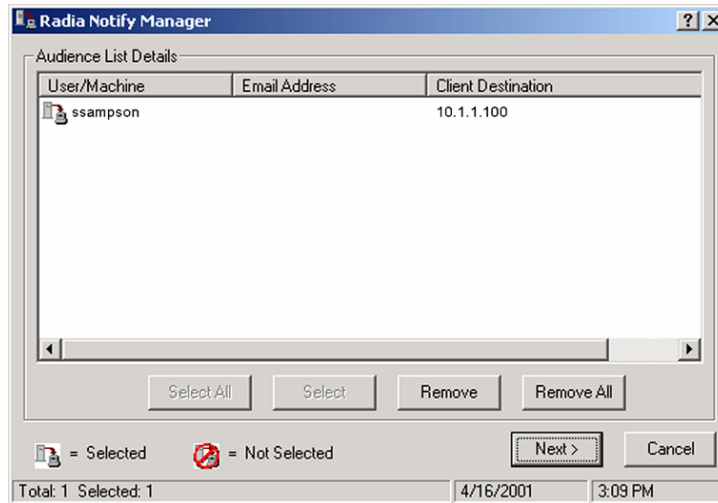


Figure 5.73 ~ Radia Notify Manager (Self-Maintenance).

5. 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.OR
 - Select individual subscribers that you want to remove, and then click **Remove**.Then, click **Next** to select the notification type.

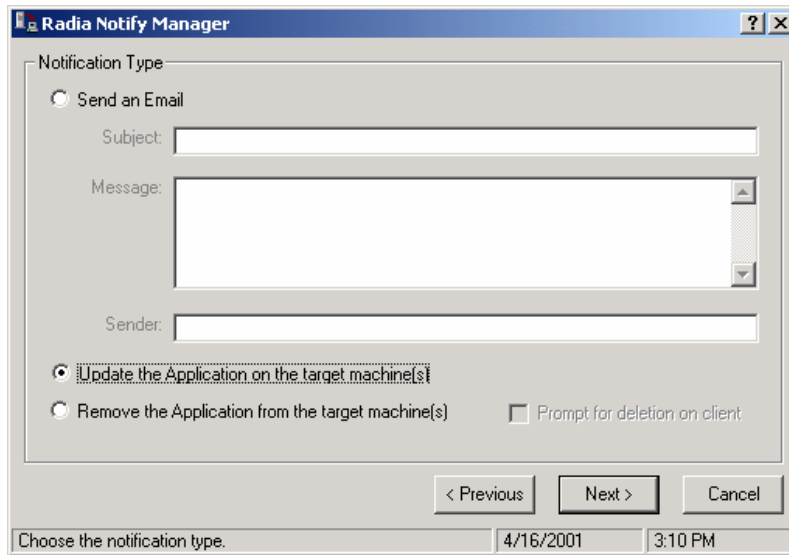


Figure 5.74 ~ Select notification type (Self-Maintenance).

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

The **Notification Summary** window opens.

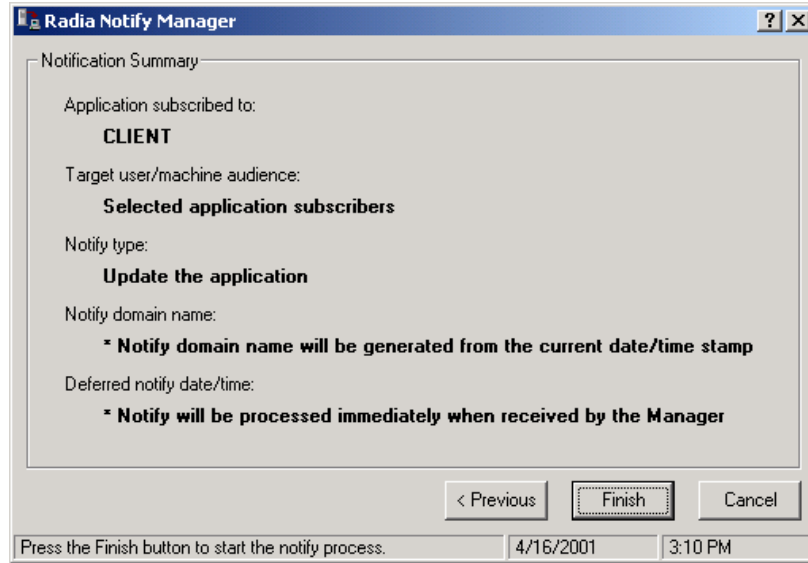


Figure 5.75 ~ Notification Summary (Self-Maintenance).

8. Review the **Notification Summary**, and then click **Finish**.

A notification initialization message opens.

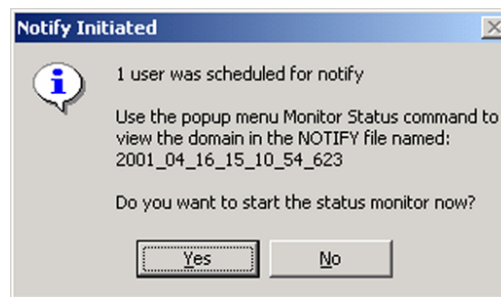


Figure 5.76 ~ Notification initialization message (Self-Maintenance).

9. Click **Yes**.

The **Status Monitor** opens.

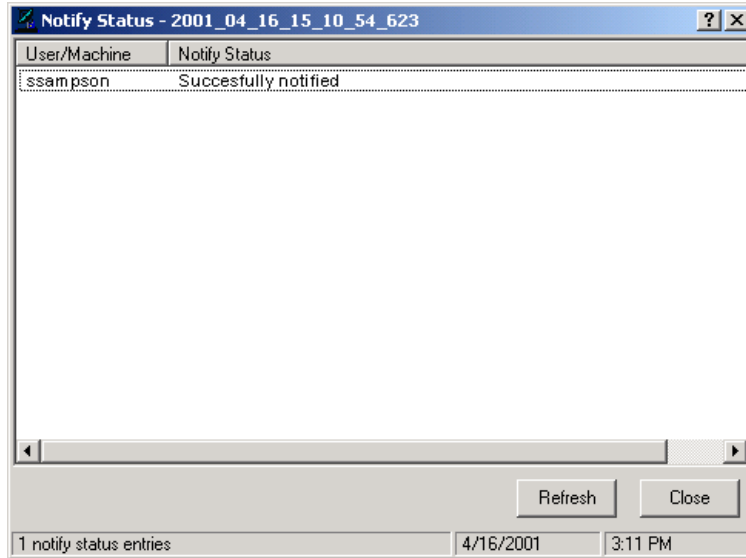


Figure 5.77 ~ Status Monitor (Self-Maintenance).

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

Summary

- Publishing is the process of identifying the components of the software or content and organizing them into packages.
- For the Macintosh client, Radia has two publishing modes: Component Selection Mode and Installation Monitor Mode.
- To publish packages, install the Radia Publisher on a clean computer.
- To configure applications, install the Radia Administrator Workstation on a clean computer (The Radia Administrator Workstation is available for 32-bit Windows platforms). You can install the tools on the same computer as the Radia Configuration Server if you are running Windows NT 4.0 (or greater) or Windows 2000.
- You can use Installation Monitor Mode to package applications when you do not know all of the components that make up the application. Radia scans the computer before and after you install the application and differences these scans to make up the package.
- You can use Component Selection Mode for packaging simple applications by selecting the individual components that make up the software.
- 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.

Implementing Entitlement Policy

At the end of this chapter, you will:

- Understand the Radia POLICY domain.
- Be able to create new users and assign them to groups.
- Be able to connect users or groups to services, thereby implementing policies.
- Know what the Radia Policy Manager and Radia Policy Adapter are.

This guide covers the *suggested* 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 creating users and groups, assigning users to groups, and connecting applications to users.

Important Note

The information in this chapter is used to demonstrate some of Radia's features. However, you do not have to create an instance in Radia for each of your subscribers. We recommend that you use your current policy information and use Radia to manage the services. For more information, see the section *Radia Policy Manager* on page 257.

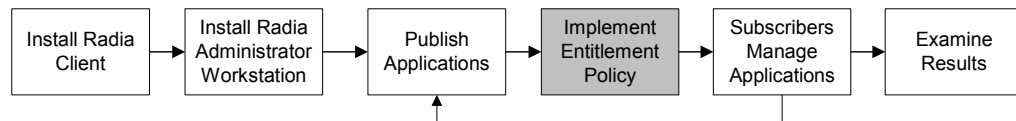


Figure 6.1 ~ Overview of the Radia Software Manager Guide.

After using the Radia Publisher and Radia System Explorer to create services, you must determine *who gets what*. In other words, you must set up policies that identify *which* subscriber receives *what* software.

Before you set up policies in Radia, you will want to have a carefully constructed plan in place. Consider the following:

- Who are your Radia subscribers?
- What group policies do you need to create?
- What groups should your subscribers be assigned to?
- What software will Radia manage for the subscribers?

Assumptions

This document assumes that you are logged onto the administrator computer as the master administrator (by default, the user ID is RAD_MAST). Your organization can limit administrator access to specified areas of the Radia Database. Some examples of the types of administrators are listed in the table below.

Table 6.1 ~ Sample Administrator Types

Administrator Type	Responsible for
DEPT Department administrators	Managing services for one or more departments or workgroups.
LAN Local Area Network administrators	One or more departments, and has the authority to create workgroups and/or services within their assigned departments.
MASTER Master administrators	Full update authority of all class templates and instances in the Radia Database.
NTFY Notify administrators	Notifying clients to connect to the Radia Configuration Server. They can see USERS, DEPT, WORKGRP, ZSERVICE, as well as the information in the NOTIFY file of the Radia Database.
PKGR Packager administrators	Development or development interface administrators that can create services within their application area and deploy them to their assigned departments.
SEC Security administrators	Controlling both client and administrator access to Radia. They can add, update, and delete USER, DEPT, WORKGRP, COUNTRY, and ADMINID class instances.
SYS System administrators	Full authority to modify instances of any class. They cannot add, update, or delete class templates.

About the POLICY Domain

The Radia Database is divided into several different domains. This section introduces you to the POLICY domain, which is used to organize your subscribers into logical groups in preparation for distributing software. See *Chapter 1: Introduction* for more information about the Radia Database.

Use the Radia System Explorer to access the POLICY domain located in the PRIMARY file, as shown below.

Note

The Radia System Explorer is available for 32-bit Windows platforms. See the *Installing the Administrator Workstation* chapter for information about installing the Radia Administrator Workstation (including the Radia System Explorer).

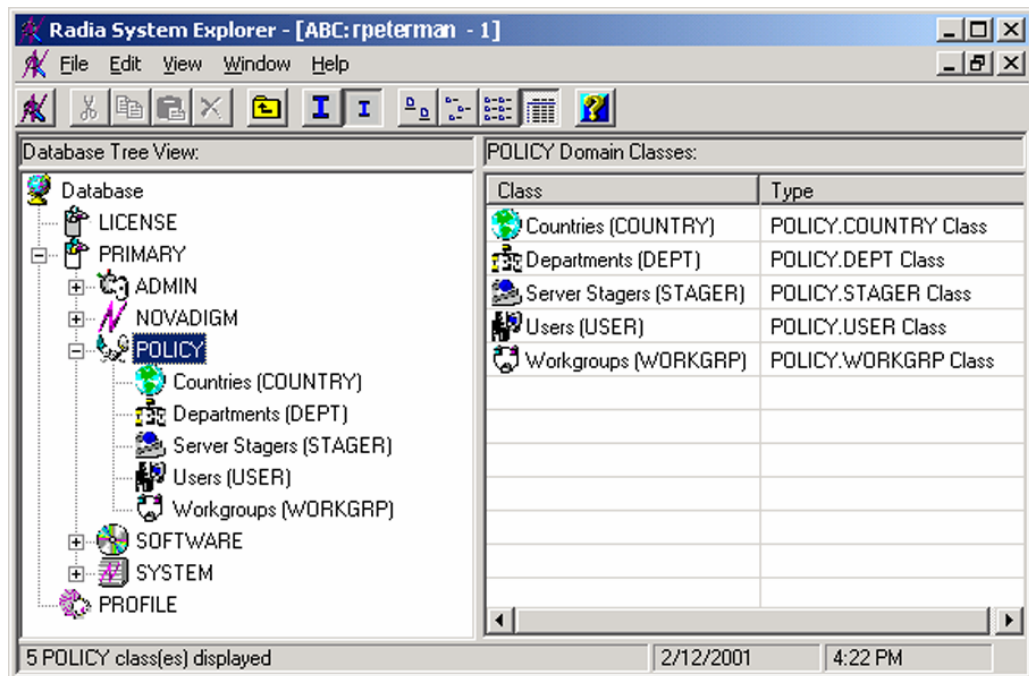


Figure 6.2 ~ The POLICY domain.

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 6.2 ~ Classes in the POLICY Domain

Class	Description	Instance Examples
Countries (COUNTRY)	Use for clock synchronizations with the Rada 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 Staging Servers within your distribution network. Also, use to define storage locations on a Staging Server computer.	CDROM, Stager, Server001
Users (USER)	Use to define individual subscribers. If you would like to create policies at the user level, then you must have an instance in the USER class for each subscriber.	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

Specifying Policies

Creating Users

Once you have determined how you want to set up policies, create the individual subscribers. Later, you will assign each USER instance to one or more groups, as necessary. Policies are easier to administer when subscribers are grouped according to the content that Radia will manage for them. See *Assigning Users to Groups* on page 243 for more information.

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

Note

The following instructions use the Radia System Explorer. The Radia System Explorer is 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 from HP, 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. 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)**.

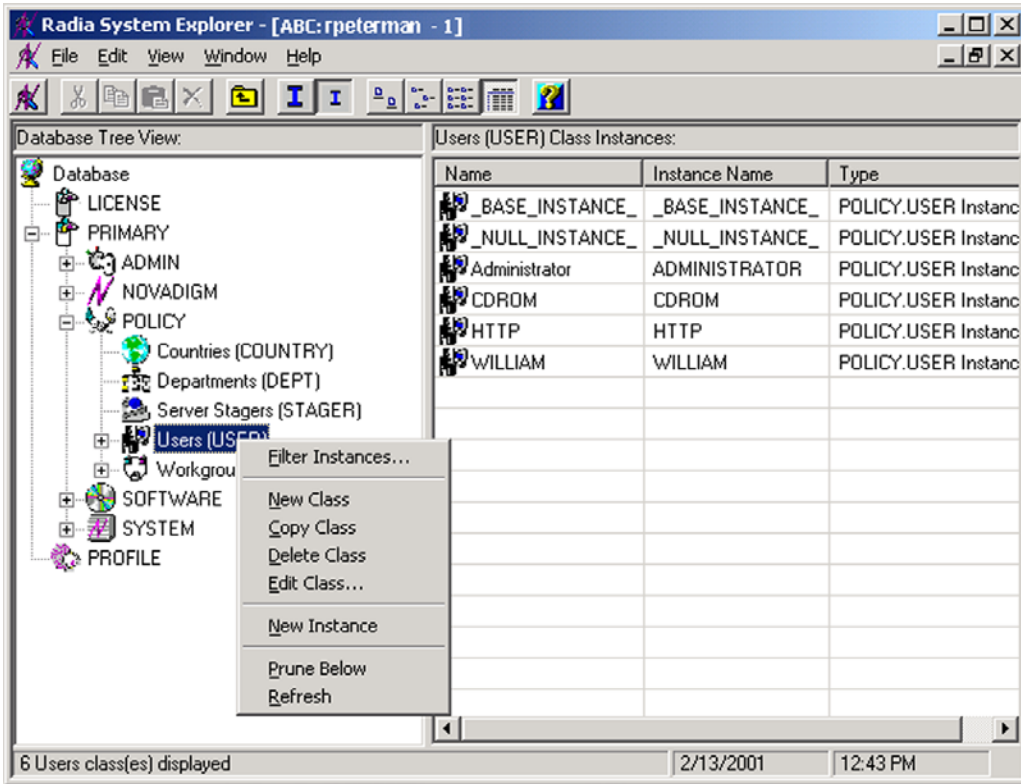


Figure 6.3 ~ Shortcut menu for the USER class.

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

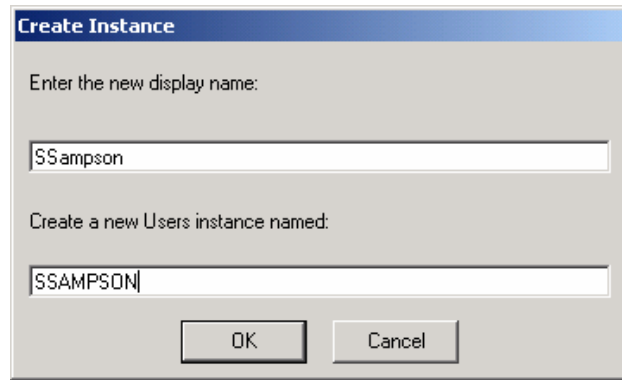


Figure 6.4 ~ Create Instance dialog box.

8. Click **OK**.

The user instance, SSampson, is created.

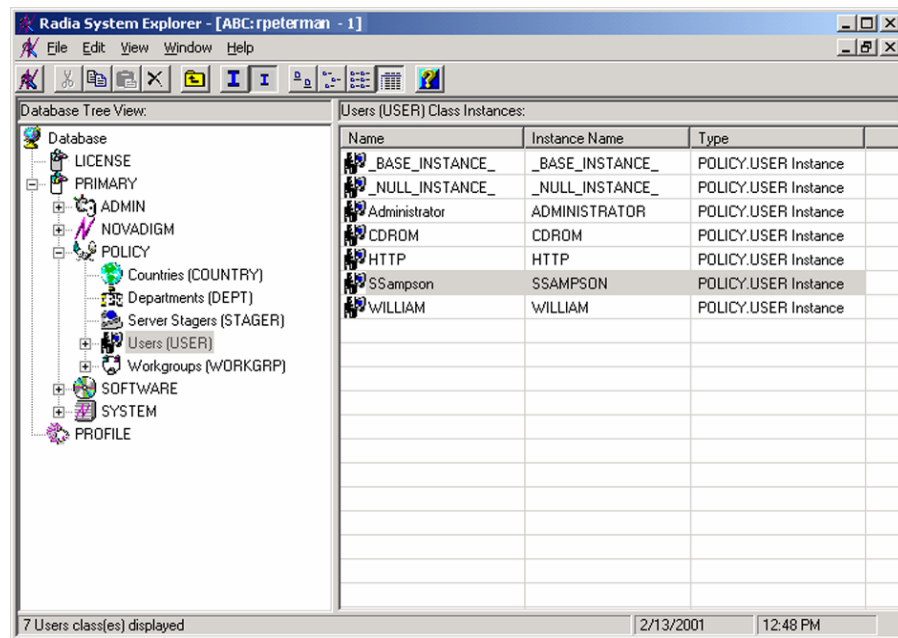


Figure 6.5 ~ The SSampson USER instance.

Assigning Users to Groups

After creating your users, you are ready to assign them to one or more groups, as necessary. Policies are easier to administer when subscribers are grouped according to the content that Radia will manage for them.

For example, your finance department may have 50 employees. Rather than authorizing each user for a spreadsheet application, you might want to create an instance in the Departments class called Finance. Then, you can group the 50 employees into the Finance department instance, allowing you to authorize applications, or even remove authorization to applications, for all 50 employees at one time.

In the following example, we will use the Radia System Explorer to assign SSampson to the Sales department.

Note

The Sales instance, shown in the Departments (DEPT) class in the example below, 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 240. 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 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 from HP, 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.

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

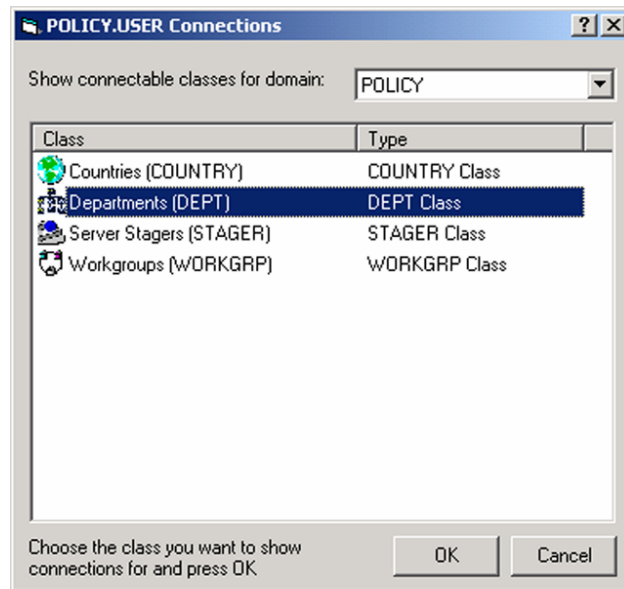


Figure 6.7 ~ The POLICY.USER Connections dialog box.

8. Select **Departments (DEPT)**, and then click **OK**.

The DEPT class instances appear in the list view. This allows you to easily make a connection between an instance in the DEPT class and an instance in the USER class.

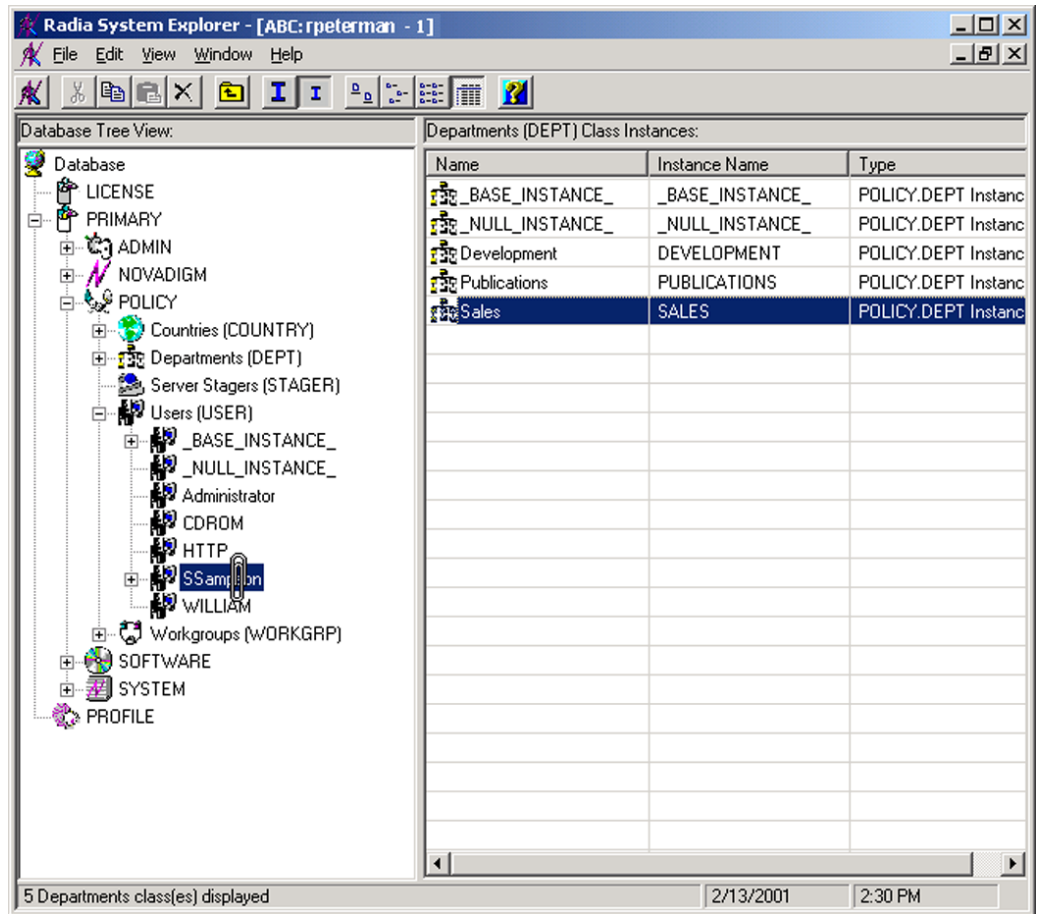


Figure 6.8 ~ Connect USERS.SSampson to DEPT.Sales.

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

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

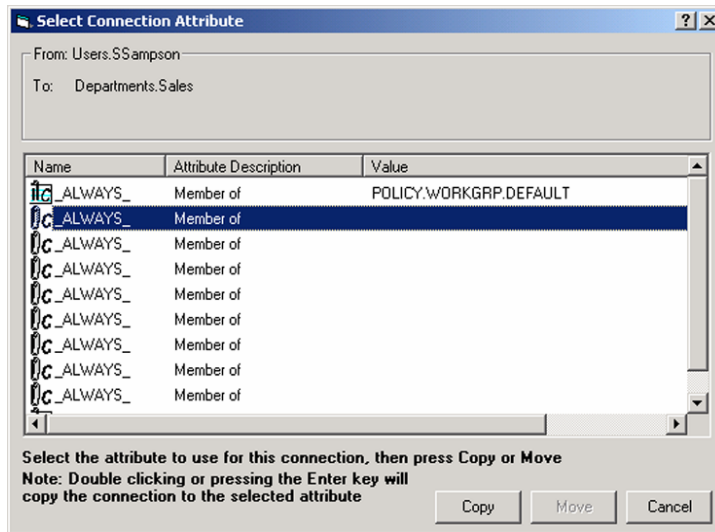


Figure 6.9 ~ Select the attribute for the connection.

10. Click **Copy** to create the connection from Users.SSampson to Department.Sales.
11. Click **Yes** to confirm the connection.
12. Click **OK** when you receive the confirmation that "SSampson has been connected to the Sales."

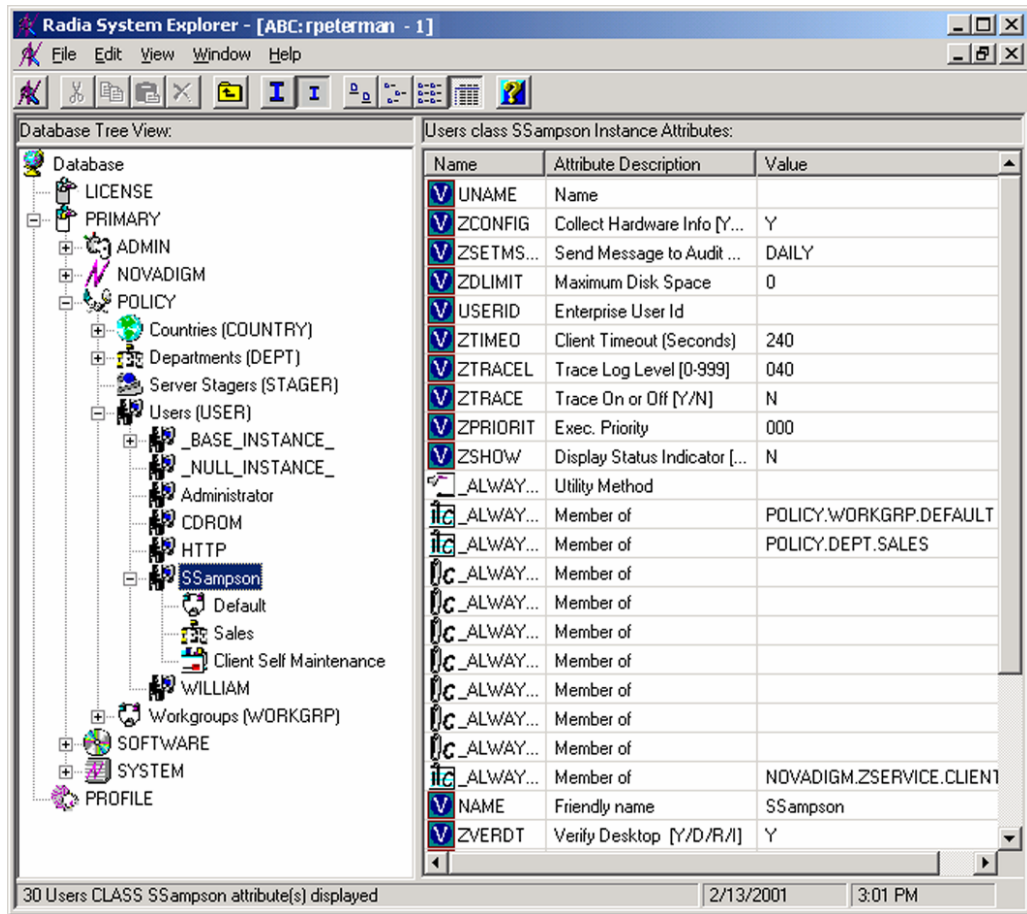


Figure 6.10 ~ SSampson is connected to the Sales department instance.

Notice that **Sales** is now listed under the **SSampson** user instance, which indicates that SSampson is part of the Sales department.

Connecting Applications to Users

When you are done defining users and groups, you can begin to connect each user or group with the applications to be deployed to them. To do so, you will connect POLICY class instances to instances in the Application (ZSERVICE) class.

In the following example, we will use the Radia System Explorer to authorize all users in the Sales department for the ZipIt application.

Note

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

To connect the ZipIt 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 from HP, 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. If necessary, type a **User ID** and **Password**, and then click **OK**.

The **Radia System Explorer** window opens.

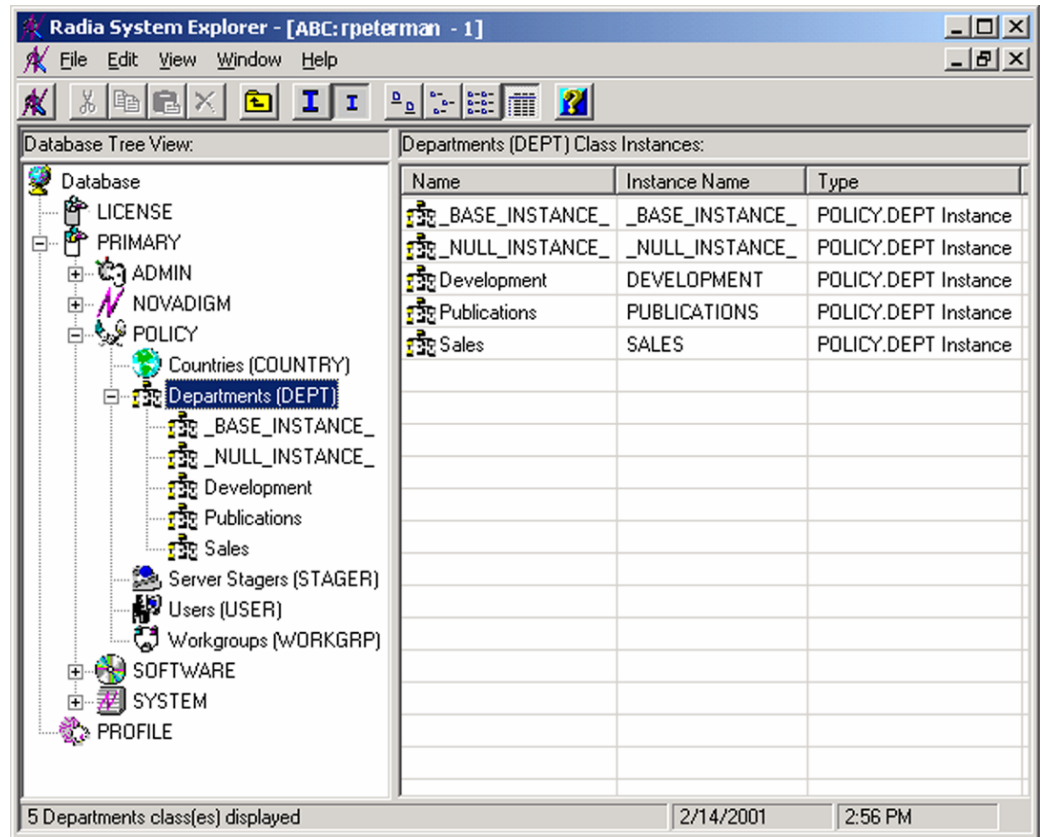


Figure 6.11 ~ The Departments (DEPT) class.

3. Double-click **PRIMARY**.
4. Double-click **POLICY**.
5. Double-click **Departments (DEPT)** to open the Departments class.
6. Right-click the **Sales** instance (in the tree view) and select **Show Connections**.
The **POLICY.DEPT Connections** dialog box opens. This dialog box displays a list of classes to which you can connect the selected instance.

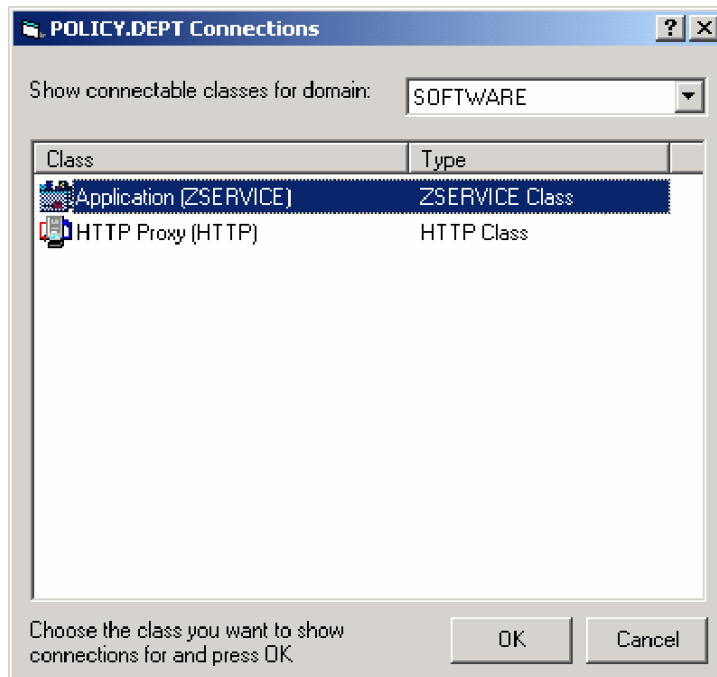


Figure 6.12 ~ The POLICY.DEPT Connections dialog box.

7. From the **Show connectable classes for domain** drop-down list, select **SOFTWARE**.
8. Click **Application (ZSERVICE)**, and then click **OK**.

The **Radia System Explorer** window opens. The instances in the ZSERVICE class appear in the list view.

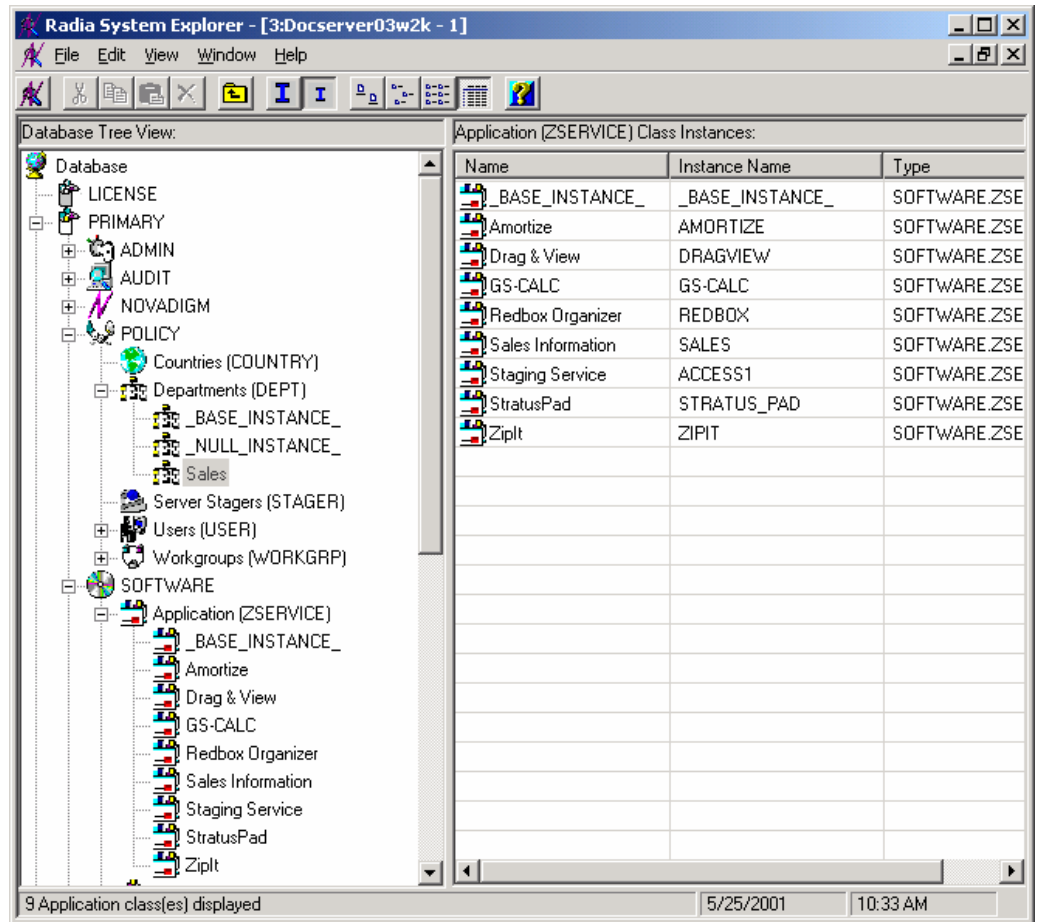


Figure 6.13 ~ ZSERVICE class instances in the list view.

9. Select the **ZipIt** 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, release the mouse button.

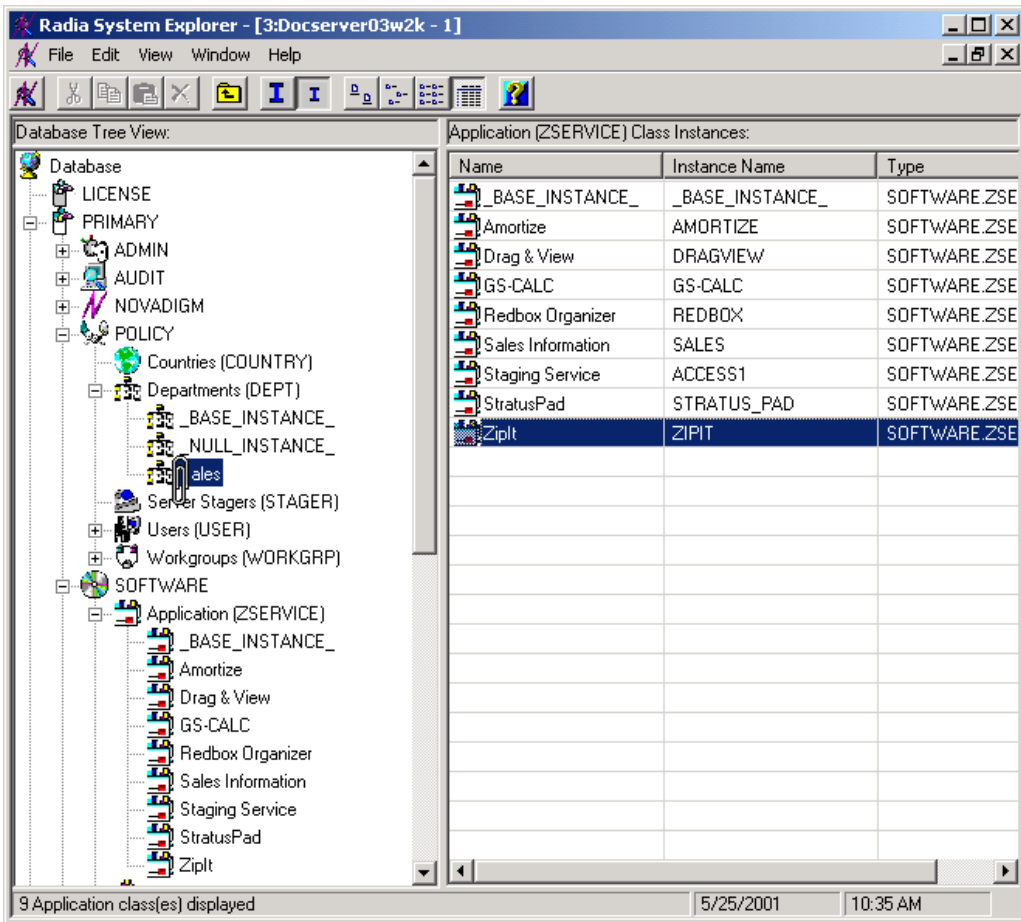


Figure 6.14 ~ Connect Ziplt to Sales.

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

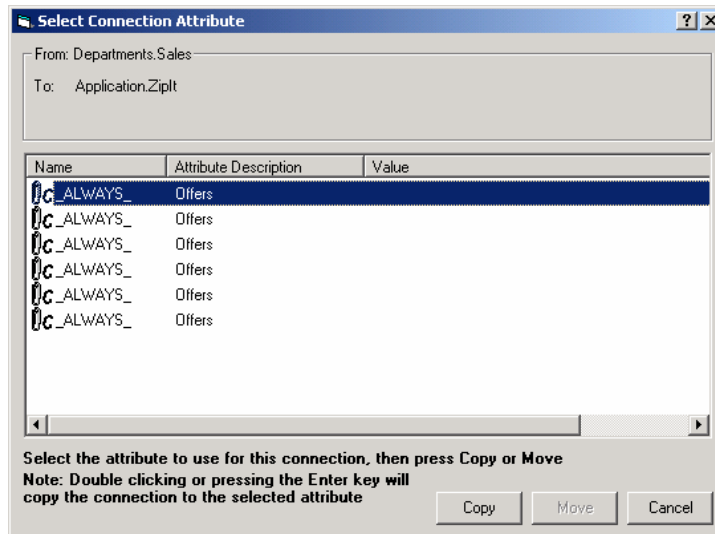


Figure 6.15 ~ Select the attribute for the connection.

- 11.** Click **Copy** to create the connection from **Departments.Sales** to **Application.ZipIt**.
- 12.** Click **Yes** to confirm the connection.
- 13.** Click **OK** when you receive the confirmation that "Sales has been connected to the ZipIt."

Notice that ZipIt is listed under the **Sales** department instance, which indicates that the entire Sales department is now authorized to receive the ZipIt application.

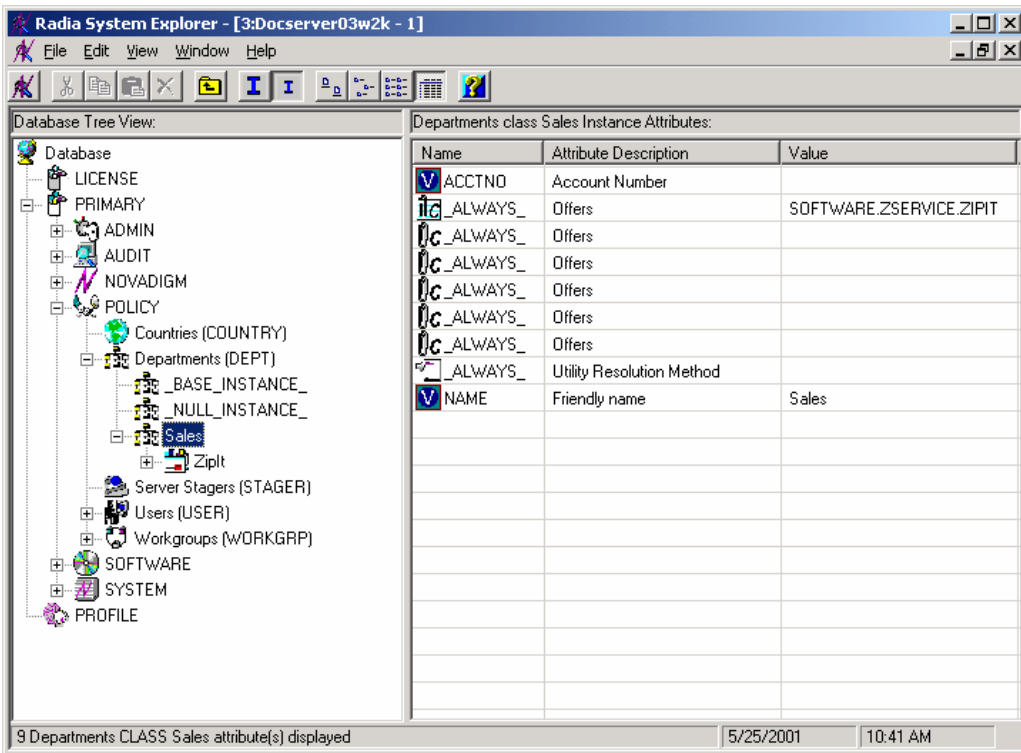


Figure 6.16 ~ The ZipIt application is authorized for the Sales department.

In Figure 6.17 ~ Radia manages ZipIt for the Sales department on page 256, notice that SSampson, listed in the Users (USER) class, is part of the Sales department. You can also see that the ZipIt application has been authorized for the entire Sales department. Therefore, as long as SSampson is part of the Sales department, Radia will manage the ZipIt application on his computer.

Radia Policy Manager

The *Radia Policy Manager* is a Web server used for administrative purposes, such as mapping services to users in the directory tree. The *Radia Policy Adapter*, an add-on to the Radia Configuration Server, determines what services should be distributed and managed for the client that is currently logged on by querying the Radia Policy Manager.

The Radia Policy Manager plug-in for the Radia Integration Server leverages your investment in directory services while using Radia for software management. This greatly reduces the total cost of ownership of your environment. In other words, directory services handle policy management and Radia manages services. This saves you time because you do not have to define or maintain lists of users in the Radia Configuration Server.

Important Note

The Radia Policy Manager and Radia Policy Adapter are optional features available from HP. Contact your HP sales representative for details.

Summary

- Carefully plan your policies for efficient policy management and software distribution.
- You can create new users and assign them to groups.
- Once you have specified your users and groups, you can assign them to services.
- To leverage your investment in directory services, consider using the Radia Policy Manager and Radia Policy Adapter.



Deploying Applications

At the end of this chapter, you will:

- Understand the different deployment methods available in Radia and when to use each one.
- Be able to deploy a service at a pre-determined time using the Radia Scheduler.
- Know how to use the Notify function to update an application, remove an application, or send an e-mail message to a subscriber.
- Be familiar with key special case deployments.
- Be able to create and implement a Version Group.

This guide covers the *suggested* implementation for the Radia Application 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 Application Manager. This chapter covers deploying applications.

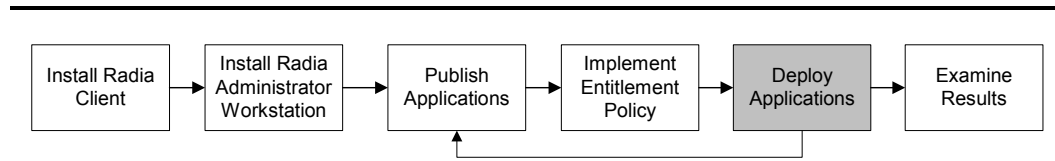


Figure 7.1 ~ Tasks completed in this guide.

Deploying Applications

After creating a service using the Radia System Explorer, and deciding which users or groups will receive the application, you are now ready to deploy the package to subscriber's computers. Refer to *Chapter 5: Publishing Applications and Content* starting on page 115 for information on creating a service, and refer to *Chapter 6: Implementing Entitlement Policy* starting on page 235 for information on assigning subscribers to applications. Before deploying the service, choose a deployment method.

- **Scheduler**
Installs the service at a specific time or sets any command line to run at an interval.
- **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.
- **Version Groups**
Roll out a new version of an application to the subscribers who need it, and activate it upon delivery or at a pre-determined time.
- **Just-In-Time**
This option is not currently supported under the Radia Application Manager for Macintosh.

Note

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

In other systems management software, the definition of a *job* includes a set of instructions to be performed, a package consisting of the files or software, a target (or targets) for the job, and a schedule for carrying out the job. In Radia, you publish a package of files or software, create a service from the package, assign the users to the service, and then choose your deployment method. This allows flexibility in creating your deployment schema for various needs in your enterprise.

Methods of Deployment

With the service created and the policies assigned, you are now ready to send the application to your subscribers. Decide which method to use by asking the following questions:

- Does the application need to be deployed at a certain time? If so, use the Scheduler.
- Do you want to notify the users via e-mail when you are deploying the application? If so, use Notify.
- Do the users need to be notified of an application installation, update, or removal? If so, use Notify.
- Are there multiple versions of the application? If so, use Version Groups.

Normally, you deploy and activate an application at the same time. When you use the Radia Scheduler or Radia Notify, both deployment and activation occur together. When you use version groups, you deploy the application and can set the activation for the next version for another time.

Scheduling (TIMER)

The Radia Scheduler service, **radsched**, is installed with the Radia Application Manager. The Radia Scheduler allows you to deploy a service at a specific time. It wakes up once a minute to see if there are any scheduled items to execute. On Macintosh systems, the Radia Scheduler is a background application with an alias in the startup folder.

The information about when to deploy the service is stored in two places. First, the time and date is configured in the Scheduler (TIMER) instance in the SOFTWARE domain in the Radia Database on the Radia Configuration Server. The next time the client computer connects to the Radia Configuration Server, the ZTIMEQ object is created on the client computer, and the timer variables are transferred to the ZTIMEQ object. ZTIMEQ is discussed in *Troubleshooting Timers* on page 282.

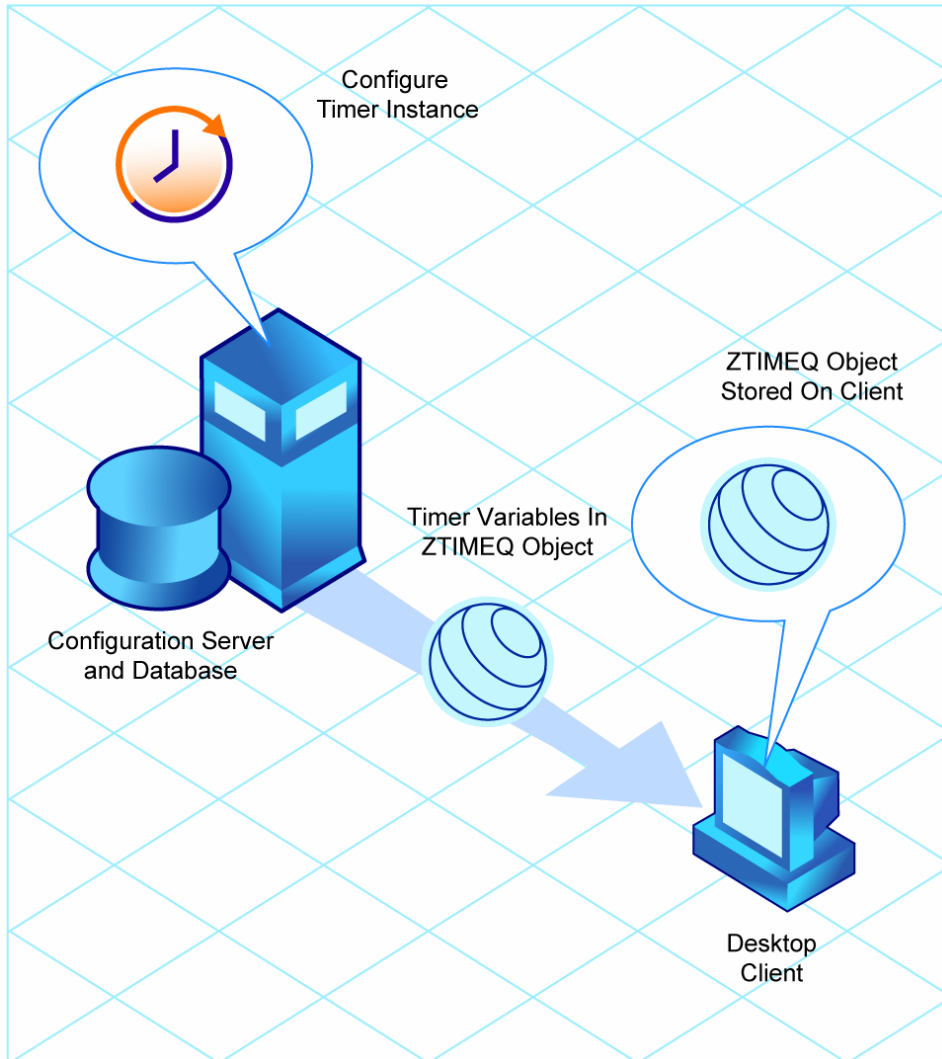


Figure 7.2 ~ Transferring the Timer Instance.

Configuring Timers in the Radia Database

Below is a summary of the steps needed to create a timer. Detailed procedures for creating a timer follow.

1. Create a Scheduling (TIMER) instance in the SOFTWARE domain.
2. Modify the Scheduling (TIMER) instance.
3. Connect the Scheduling (TIMER) instance to the appropriate Application (ZSERVICE) instance or Application Package (PACKAGE) instance.

Note

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

To create a new timer in the SOFTWARE 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 from HP, 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**.
3. The **Radia System Explorer** window opens.
4. Double-click **PRIMARY**.
5. Double-click **SOFTWARE**.
6. Right-click the **Scheduling (TIMER)** class and select **New Instance**.

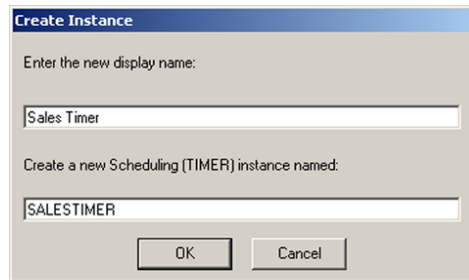


Figure 7.3 ~ Create Instance dialog box.

7. Type the name of the new timer instance. In this example, we created a timer instance for the Sales application called **Sales Timer**.
8. Click **OK**.

The timer instance is created.

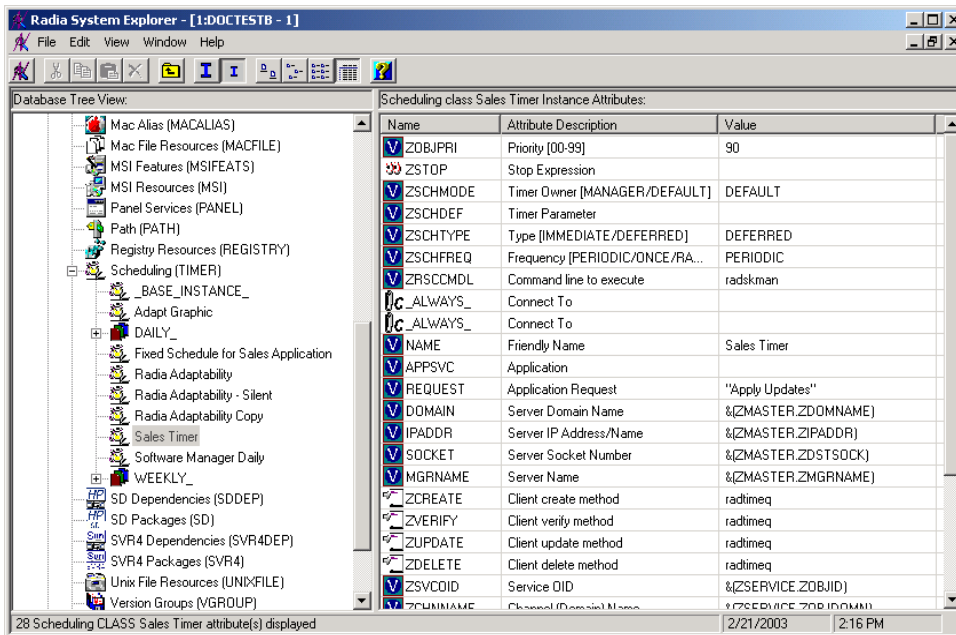


Figure 7.4 ~ Sales Timer created.

Modify the Timer

The Scheduling (TIMER) instance contains the information needed to execute the timer on the client computer. This information includes the date, time, frequency of expiration (ZSCHFREQ), as well as the command line to execute on the client computer when the timer expires (ZRSCCMDL). Modify the timer based on your enterprise's needs.

Note

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

To view the timer instance

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 from HP, 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 Scheduling (TIMER).
6. Click the appropriate timer instance. In this example, we are viewing the Sales Timer instance.
7. Double-click the variable you want to edit and modify as described in the following sections. See the procedure *To edit a variable* on page 274 for information about how to modify the variables.

The following table describes the variables of the Scheduling (TIMER) class. At a minimum, review or change the ZSCHDEF, ZSCHTYPE, ZSCHFREQ, and ZRSCCMDL variables.

Table 7.1 ~ Scheduling (TIMER) Variables to Modify

Variable	Usage
ALWAYS	Variable used to store connections to other instances.
NAME	The friendly name for this instance. The friendly name, typed into the Create Instance dialog box, appears in the tree view of Radia System Explorer.
ZNOPING	<p>Use this attribute to control automatic sensing of a network connection between the client computer and the Radia Configuration Server. The default is Y.</p> <p>An expired timer continually evaluates whether communications with the Radia Configuration Server can be established. When communications are established, the command line associated with the timer is executed. After executing the command line, the Scheduler service resumes normal evaluation of whether the timer has expired again.</p> <ul style="list-style-type: none"> • If the ZNOPING attribute <i>does not exist</i> in the ZTIMEQ object, the Scheduler service does <i>not</i> ping the Radia Configuration Server. • Set ZNOPING to Y if you want to prevent the Scheduler service from pinging the Radia Configuration Server. This is especially useful for mobile users. • Set ZNOPING to N if you want the Scheduler service to ping the Radia Configuration Server. • If the Radia Configuration Server is pinged successfully, the command in ZRSCCMDL executes and the ZPENDING attribute, in the client's ZTIMEQ object, is set to N, to indicate that the Scheduler service does not need to ping the Radia Configuration Server again. • If the Radia Configuration Server is <i>not</i> pinged successfully, the timer is not processed any further, and the ZPENDING attribute value remains Y, to indicate that the next time the Scheduler service "pops", it should ping the Radia Configuration Server again. <p>Set ZNOPING to W if you are specifying an end limit in the ZCHDEF attribute. The Scheduler will ping the Radia Configuration Server before executing the command. If the Radia Configuration Server is unavailable, then the ZPENDING flag will be set to "W". If the ZSCHEDEF has a limit time, then when that time passes, the ZPENDING flag will be set to N, and the Scheduler will not attempt to execute the command until its next scheduled time.</p>
ZRSCCMDL	<p>Use this attribute to specify the command line that is executed on the client computer when the timer expires.</p> <p>To verify and update Radia-managed mandatory applications, use radskman. See the section <i>Specifying the Command Line</i> on page 271 for more information.</p>
ZSCHDEF	<p>Use this attribute to specify when the timer expires. The syntax for this attribute varies depending on the frequency, which can be DAILY, HOURLY, INTERVAL, NUMDAY, WEEKDAY, WEEKLY.</p> <p><i>See Specifying When the Timer Expires (ZSCHDEF)</i> on page 269 for instructions on how to set ZSCHDEF.</p>
ZSCHFREQ	<p>I Use this attribute to specify how often the timer should expire.</p> <ul style="list-style-type: none"> • Set ZSCHFREQ to ONCE if you want the timer to expire one time. • Set ZSCHFREQ to PERIODIC if you want the timer to expire repeatedly. <p>Set ZSCHFREQ to RANDOM if you want the timer to expire in random intervals.</p> <p><i>See Randomizing Timer Deployments (ZSCHFREQ)</i> on page 270 for more information.</p>

Table 7.1 ~ Scheduling (TIMER) Variables to Modify

Variable	Usage
ZSCHTYPE	<p><i>Used only when ZSCHFREQ = PERIODIC.</i></p> <p>Set ZSCHTYPE to DEFERRED to indicate that the first time an event is attempted to be launched, it will be deferred until the <i>next</i> scheduled time, no matter when the timer instance is evaluated. This was designed to handle the case of a daily 4am (non-peak) scheduled event that is sent to the client computer during the day. If it was not deferred, it would launch during the day instead of "waiting" until the next morning.</p> <p>Example 1: Suppose you create and deploy a timer with the ZSCHDEF = DAILY(&ZSYSDATE,4:00:00) If ZSCHTYPE = IMMEDIATE and it is:</p> <ul style="list-style-type: none"> • Before 4:00:00, the command in the instance will be executed the same day at 4:00:00 • After 4:00:00, the command in the instance will be executed immediately <p>If ZSCHTYPE = DEFERRED and it is:</p> <ul style="list-style-type: none"> • Before 4:00:00, the command in the instance will be executed the <i>next</i> day at 4:00:00 • After 4:00:00, the command in the instance will be executed the <i>next</i> day at 4:00:00 <p>Example 2: Suppose you create and deploy a timer with the ZSCHDEF = WEEKDAY(FRIDAY,4:00:00) If ZSCHTYPE = IMMEDIATE and it is:</p> <ul style="list-style-type: none"> • Not Friday or Friday and before 4:00:00, the command in the instance will be executed on Friday at 4:00:00 • Friday and after 4:00:00, the command in the instance will be executed immediately <p>If ZSCHTYPE = DEFERRED and it is:</p> <ul style="list-style-type: none"> • Not Friday or Friday and before 4:00:00, the command in the instance will be executed a week later on Friday at 4:00:00 <p>Friday and after 4:00:00, the command in the instance will be executed a week later on Friday at 4:00:00</p>
ZSTOP	<p>Expressions evaluating to "true" in ZSTOP attributes cause resolution of the instance to be skipped. If left blank, the instance is accepted, and resolution continues. This is useful if you want to set conditions on which of your subscribers receive the timer.</p>

The following table describes variables whose values are determined in the base instance of TIMER and *should not be edited*.

Table 7.2 ~ Other Scheduling (TIMER) Variables

Variable	Usage
ZOBJPRI	<p>Indicates the priority for deployment of the ZTIMEQ object, relative to the other elements deployed during the Client Connect. Elements with priority numbers lower than the value of ZOBJPRI are deployed before this ZTIMEQ object. A value of 90 is inherited from the base instance.</p>
ZSCHMODE	<p>Specifies the timer owner. Leave as Default.</p>

Table 7.2 ~ Other Scheduling (TIMER) Variables

Variable	Usage
ZSVCOID	Specifies the object ID of the Application instance to which this Scheduling instance is connected. The value is inherited from the base instance.
ZCHNNAME	Specifies the name of the domain in the Radia Database where the Application instance to which this Scheduling instance is connected. The value is inherited from the base instance.
ZPRVNAME	The name of the Radia Configuration Server to which the subscriber receiving this timer instance is connected. The value is inherited from the base instance.
ZCREATE	The Scheduler Create method that runs on the client computer. The value is inherited from the base instance.
ZVERIFY	The Scheduler Verify method that runs on the client computer. The value is inherited from the base instance.
ZUPDATE	The Scheduler Update method that runs on the client computer. The value is inherited from the base instance.
ZDELETE	The Scheduler Delete method that runs on the client computer. The value is inherited from the base instance.

Configuring the Timer

Now that you are familiar with the attributes in the timer instance, we will review the syntax used to configure these attributes. Then, we will configure the sample timer using the appropriate values to deploy mandatory applications every week at random intervals 5:00 PM and 7:00 PM.

Specifying When the Timer Expires (ZSCHDEF)

Use the ZSCHDEF and ZSCHFREQ attributes respectively to specify when the timer should expire, and how often. ZSCHDEF indicates when the timer should expire and ZSCHFREQ indicates how often the timer should expire.

If you want your timer to expire only one time (ZSCHFREQ = ONCE), or repeatedly (ZSCHFREQ = PERIODIC) at a certain time, use the following table to determine the appropriate syntax for the value of ZSCHDEF.

Table 7.3 ~ Syntax of ZSCHDEF Variable

Type	Syntax	Timer Expires
DAILY	DAILY(&ZSYSDATE,24:00:00)	Daily at midnight on system's date.
WEEKLY	WEEKLY(&ZSYSDATE, 01:00:00)	Every seven days at 1:00 AM.
WEEKDAY	WEEKDAY(MONDAY,01:00:00)	Every <i>Name of Weekday</i> starting on Monday at 1:00 AM.
HOURLY	HOURLY(&ZSYSDATE,08:41:00)	Hourly starting at 8:41 AM on system's date.
INTERVAL	INTERVAL(&ZSYSDATE,08:41:00,,30)	Every 30 minutes starting at 8:41 AM based on system's date.
NUMDAYS	NUMDAYS(20000803,08:00:00,,14)	Every 14 days starting on August 3, 2000 at 8:00 AM.

Randomizing Timer Deployments (ZSCHFREQ)

Use the RANDOM value of ZSCHFREQ to vary the load on the Radia Configuration Server, and alleviate network congestion by spreading out the deployment of an application. RANDOM spreads out the deployment over time. To indicate that a random time should be generated, set ZSCHFREQ to "RANDOM". For instructions, see the procedure *To edit a variable* on page 274 at the end of this section. Randomization is based on a range of time set in ZSCHDEF. The time for expiration is generated based on this information and sent to the ZTIMEQ object on the client computer.

If you set ZSCHFREQ to "RANDOM", then ZSCHDEF should take the following format:

```
ZSCHDEF =<frequency>(<date>, <from_time>, <to_time>, <limit>)
```

The syntax and parameters are described in *Table 7.4 ~ Syntax of ZSCHDEF when Using RANDOM* and *Table 7.5 ~ ZSCHDEF Parameters when ZSCHFREQ is Set to RANDOM* below.

Table 7.4 ~ Syntax of ZSCHDEF when Using RANDOM

Example	Explanation
DAILY(20000229,00:00:00,05:00:00)	Runs daily any time between 12:00 AM and 5:00 AM
DAILY(20000228,00:00:00,05:00:00,09:00:00)	Runs daily any time between 12:00 AM and 5:00 AM, and prevents this initiation after 9:00 AM.

Table 7.5 ~ ZSCHDEF Parameters when ZSCHFREQ is Set to RANDOM

Parameter	Description
<frequency>	Any of the supported frequency values, including DAILY, HOURLY, INTERVAL, NUMDAY, WEEKLY, and WEEKDAY.
<date>	Date when the event should be initiated.
<from_time>	Beginning time for randomization.
<to_time>	Ending time for randomization.
<limit>	The optional parameter that prevents initiation after this time (HH:MM:SS).

Specifying the Command Line (ZRSCCMDL)

The Radia Desktop Manager, **radskman**, is designed to process mandatory applications. **radskman** checks the status of all services to see what actions need to take place. Applications may need to be updated, installed, or deleted. Use the **radskman** command line to:

- Check the status of all existing mandatory applications.
- Add new mandatory applications.
- Remove any mandatory applications that are no longer assigned to the subscriber.

Note

You may want to set up a timer associated with a "dummy" service that expires weekly to check for new mandatory applications and deletes any applications to which the subscriber is no longer assigned.

Figure 7.5 ~ *radskman* parameters in a text file below is an example of a text file that, when executed, updates mandatory services and performs client self-maintenance.

```
radskman cat=prompt,ulogon=n,mname=RADIA,dname=SOFTWARE,ip=manager ip,port=manager-
port,uid=$MACHINE,ind=n
```

Figure 7.5 ~ *radskman* parameters in a text file.

The following table describes the **radskman** parameters, some of which are used in the example above.

Table 7.6 ~ radskman Parameters

Parameter	Required?	Default	Explanation
ask	No	N	Set ask = y to prompt the subscriber before restarting the computer. This allows subscribers to save their work and close applications before the computer restarts. Set ask = n to restart the computer without prompting the subscriber. This is useful for unattended computers.
autofix	No	Y	Set autofix = y to automatically repair any broken applications. Set autofix = n to prevent broken applications from being fixed.
cat	No	Y	Set cat = prompt to run self-maintenance, display the logon panel, and check the status of other services. Set cat = Y to simply check the status of services. Set cat = m to use the local machine catalog for resolving the user's service list.
context	No	N/A	Set context = m when installing an application in the machine context. If context = m then the following defaults are assumed: uid=\$machine startdir=system cat=prompt ulogon=n Set context = u when installing an application in the user context. If context = u then the following defaults are assumed: startdir=\$user uid=\$user cat=prompt ulogon=y
dname	Yes	N/A	The Radia Database domain name for the services. For example, dname=SOFTWARE.
hreboot	No	Y	Set hreboot = y to allow radskman to handle a computer restart, if it is required by the service. Note: This parameter replaces handle_reboot.
ind	No	N	Set ind=n to hide the status indicator for each service. Set ind=y to show the status indicator for each service.
IP	Yes	N/A	IP address of the Radia Configuration Server. For example, IP = 10.10.10.1 Note: If you do not specify the IP address, Radia uses the IP address specified in the ZMASTER object stored in IDMLIB.

Table 7.6 ~ radskman Parameters

Parameter	Required?	Default	Explanation
local	No		Set this to Y to install resources for the user's services from the local client computer. Use this only with context = u. Usually, this is used with cat = m.
merge	No	N/A	Set the merge parameter equal to an object name to have all variables in that object included in the ZMASTER object. This will, in turn, send the variables to the Radia Database.
mname	Yes	N/A	Name of the Radia Configuration Server. For example, mname=RADSVR01.
port	No	N/A	Radia Configuration Server port. The default for this is 3464. Note: If you do not specify the port, Radia uses the port specified in the ZMASTER object stored in IDMLIB.
preload	No	N/A	Use this for staging server preload. See the <i>Radia Staging Server Guide</i> for more information. Specify the location of directory to copy the files to. If you do not need or want to specify a different data directory, setting preload= Y uses the IDMDATA directory specified in NVD.INI.
rtimeout	No	N/A	Specify number of seconds to wait if a reboot panel is requested for a service before rebooting the client computer. This will allow a subscriber time to save and close applications before a reboot.
sname	No	N/A	Specifies the service that you want to process. If you do not specify a service, then <i>all</i> mandatory services are processed.
sslmgr	No	N/A	Specifies the host name or IP address of the Radia Configuration Server for secure socket layer. Note: To perform client self-maintenance over a secure channel (SSL), add the flag, ::sm , to the end of the SSL Manager IP address.
sslport	No	N/A	Specifies the port for SSL communications (normally, 443).
startdir	No	N/A	Specifies the IDMLIB starting directory. <ul style="list-style-type: none"> • Set startdir = \$MACHINE to use the computer name. • Set startdir = \$USER to use the currently logged on subscriber. • Set startdir = <i>xxx</i> to specify a custom starting directory. If <i>xxx</i> contains embedded spaces, enclose the entire name in double quotes. Note: When installing an application in the machine context (context=m), the default value for startdir=SYSTEM.

Table 7.6 ~ radskman Parameters

Parameter	Required?	Default	Explanation
uid	No	N/A	<p>Identification used to identify the current session.</p> <ul style="list-style-type: none"> uid = \$MACHINE identifies the current session by the name of the computer. uid = \$USER identifies the current session by the name of the user currently logged on. uid = custom is used to identify the current session by a custom value that you specify. <p>Note: If you do not specify the user ID, Radia uses the LOCALUID specified in the ZMASTER object stored in IDMLIB.</p>
ulogon	No	Y	<p><i>Only used if cat = prompt.</i></p> <p>Set ulogon = n to hide the logon panel.</p>

Editing Timer Variables

Once you've decided on your schedule, and determined the appropriate syntax, use the following procedure to edit the variables.

To edit a variable

1. Double-click the appropriate instance in the tree view; in this case, the Timer instance that you want to modify.
2. Double-click the variable in the list view. In this example, we are modifying ZSCHDEF.
3. Modify the variable that you want to change. In this example, we edited the ZSCHDEF variable for the Sales Timer instance to expire once a week at 11:00 PM.
4. Select the next variable to modify, and type or select the new value.

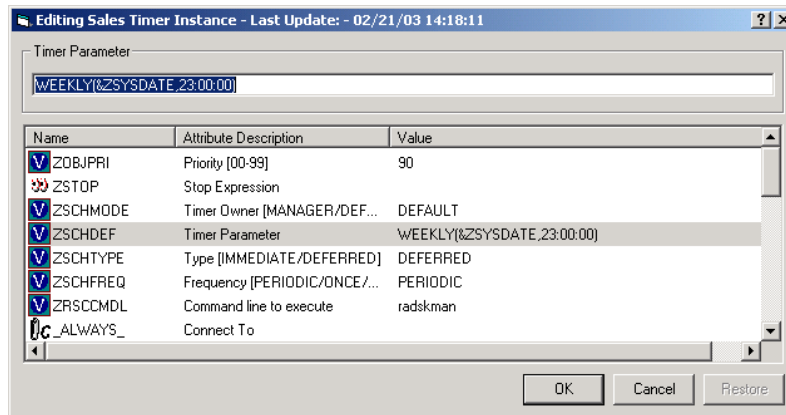


Figure 7.6 ~ Edit instance.

5. Click **OK** when you are finished editing all variables.
6. Click **Yes** to confirm the changes.

Once you have completed editing the timer instance, the next step is to connect the timer to an appropriate service.

Connecting the Timer to a Service

To deploy a timer to a subscriber, the Scheduling (TIMER) instance must be connected to an instance of the Application (ZSERVICE) class. To do this, you can use the Radia System Explorer to drag the Scheduling instance to the Application instance, use the **Connections** dialog box, or type the connection information manually. To avoid error, we recommend that you either drag the instance or use the **Show Connections** dialog box. Each subscriber that receives the service, to which the timer is connected, will receive the Scheduling (TIMER) instance the next time his Radia Client connects to the Radia Configuration Server.

To drag a connection

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 from HP, 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 **Scheduler (TIMER)**.
7. Click on the appropriate Scheduling (TIMER) instance in the tree view, such as Sales Timer, to select it.
8. Drag the **Sales Timer Scheduling (TIMER)** instance to the **Sales Information Application (ZSERVICE)** instance in the tree view.

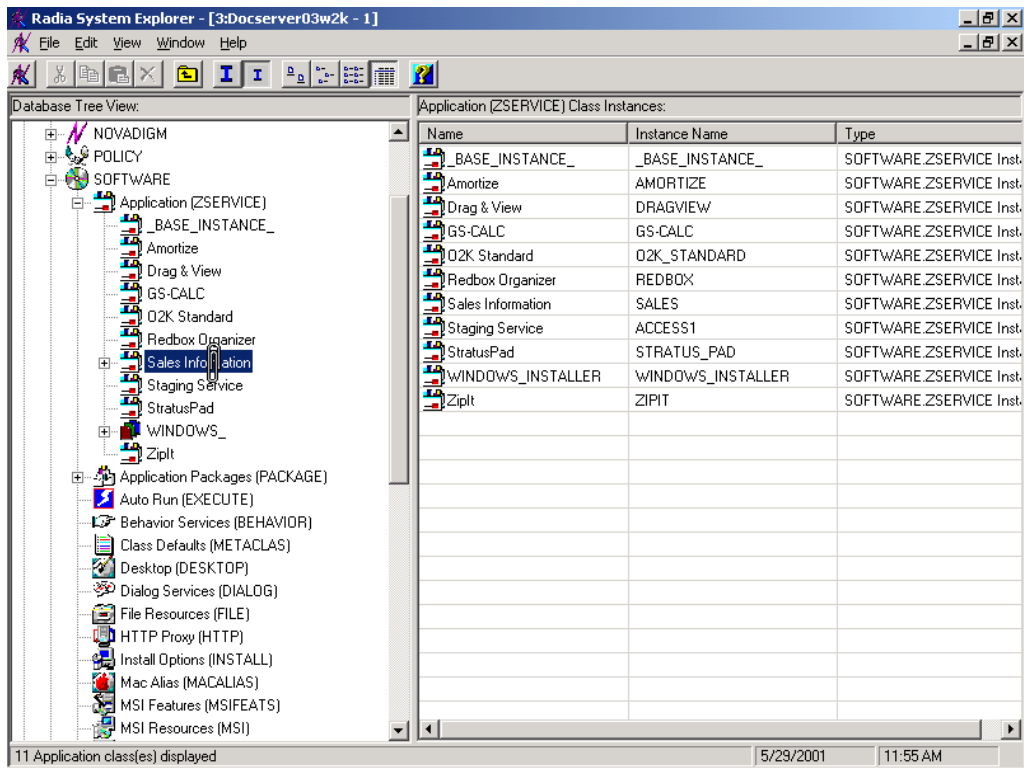


Figure 7.7 ~ Connecting a timer to an application instance.

9. Release the mouse button.
10. The **Select Connection Attribute** dialog box opens.

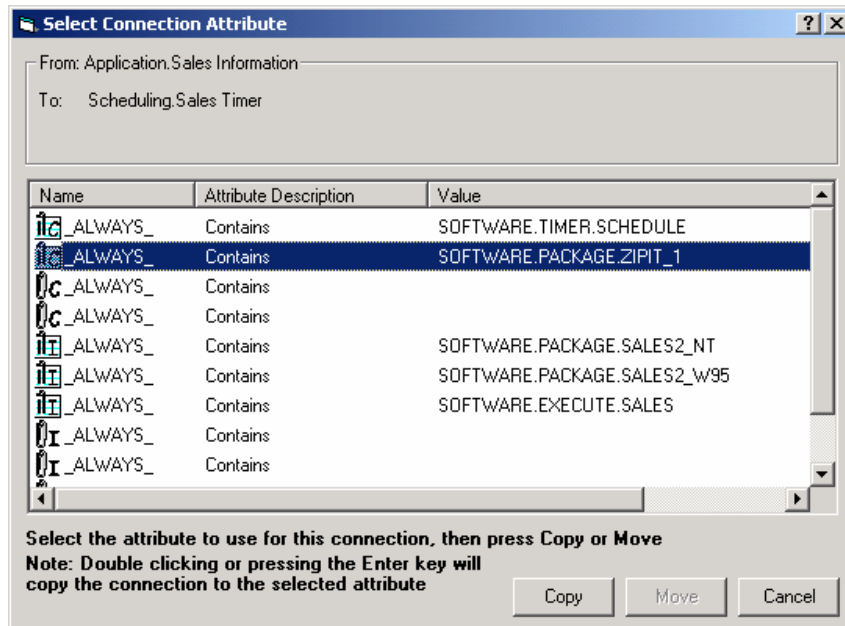


Figure 7.8 ~ Select Connection Attribute for Sales Information.

The first available connection attribute in the selected instance is highlighted.

11. Click **Copy** to accept this connection attribute.
12. Click **Yes** if you are asked to confirm the connection.
13. Click **OK** when the **Instance Connection** message box appears telling you that Radia has created the connection. Connected instances are listed below the instance containing the connections.

To make a connection using Show Connections

1. Right-click the Application instance to which you want to connect a timer.
A shortcut menu opens.

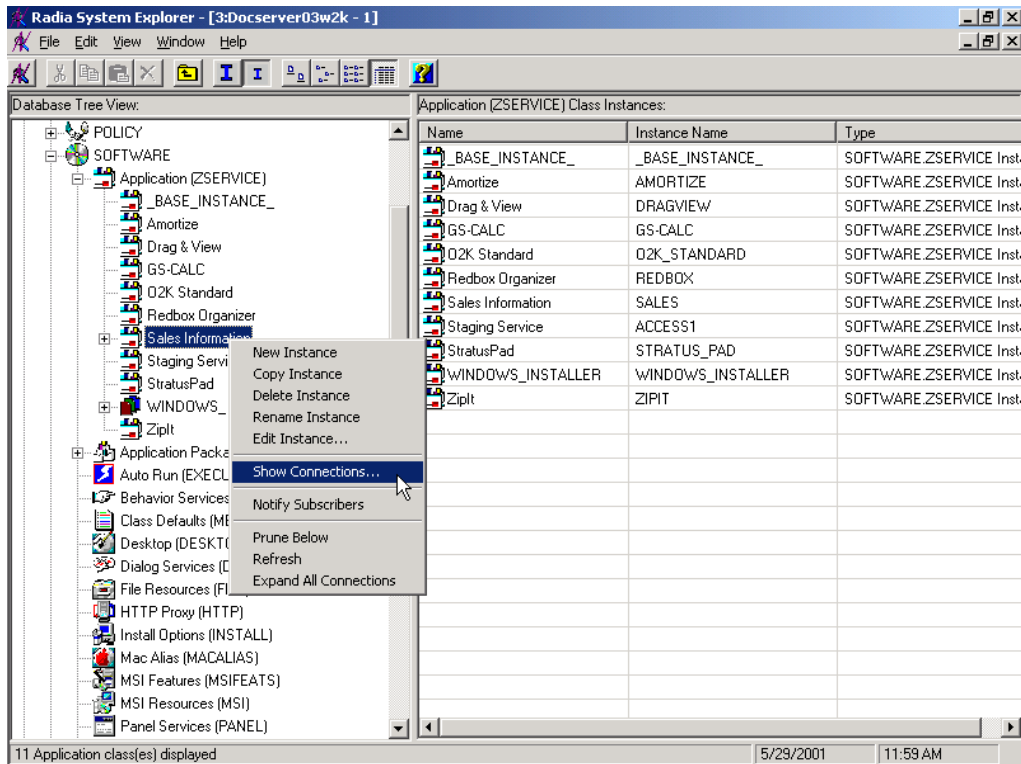


Figure 7.9 ~ Application (ZSERVICE) shortcut menu.

2. Select **Show Connections**.

The **Connections** dialog box opens, listing the classes to which the instance can connect.

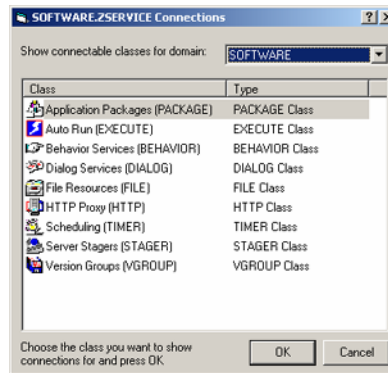


Figure 7.10 ~ Show Connections dialog box.

The dialog box defaults to listing classes in the same domain as the selected instance. To connect to a class in a different domain, use the **Show connectable classes for domain** drop-down list to select from the available domains. The list of classes that you are allowed to connect to from that domain appears. If there are no connectable classes in the selected domain, a message appears. Click **OK** to close the message.

The Radia Database contains rules for which classes can be connected. See *Maintaining Connection Rules* in the *Radia System Explorer Guide* for more information.

3. Double-click the **Scheduling (TIMER)** class.

The instances of the selected class appear in the list view.

4. Click on the appropriate Scheduling (TIMER) instance in the list view, such as Sales Timer, to select it.
5. Drag the **Sales Timer Scheduling (TIMER)** instance to the **Sales Information Application (ZSERVICE)** instance in the tree view.

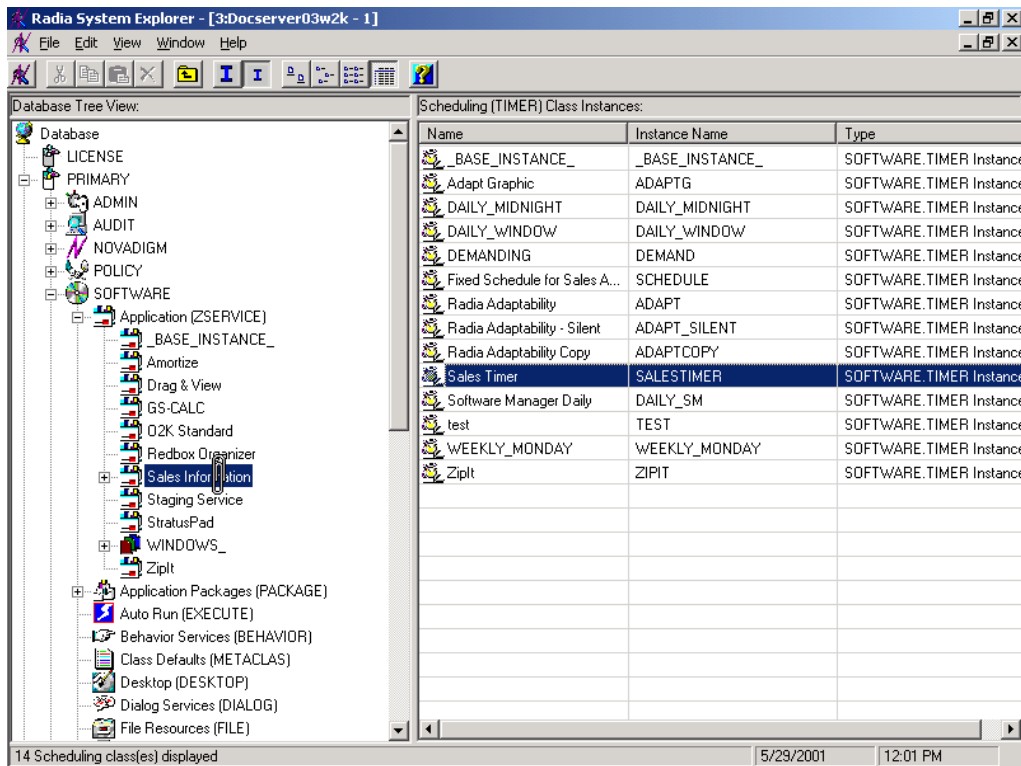


Figure 7.11 ~ Connect the timer to the Application instance using the Connection dialog box.

6. Release the mouse button.

The **Select Connection Attribute** dialog box opens. The first available connection attribute is selected.

7. Click **Copy** to accept this connection attribute.

8. Click **Yes** to confirm that you want to create this connection.

9. Click **OK** when the **Instance Connection** message box appears telling you that Radia has created the connection. Connected instances are listed below the instance containing the connections.

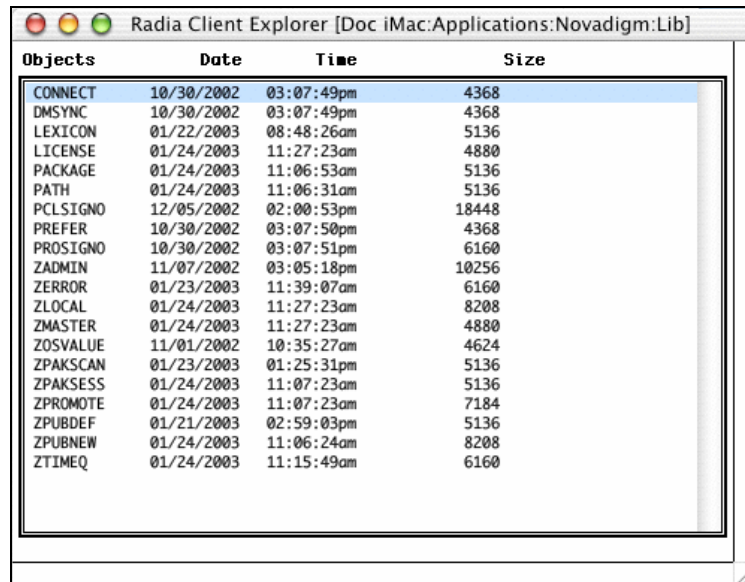
Troubleshooting Timers

The first time a client computer connects to the Radia Configuration Server after the timer is created, the timer is transferred to the client computer in the ZTIMEQ object. Each Scheduling (TIMER) instance is represented by one *instance* in the ZTIMEQ object located in the IDMR00T directory on the client computer. If two services have timer instances associated with them, then there will be two instances in the ZTIMEQ object. The IDMR00T directory is the directory identified by the IDMR00T=*path* statement in the nvdprof file contained in the User's home directory.

Examine the ZTIMEQ object on the client computer to see how changing different variables affects the timer. Use the Radia Client Explorer, installed as part of the Radia Administrator Workstation, to view or modify the ZTIMEQ object.

To view the ZTIMEQ object on the client computer

1. In the folder where you installed the Radia client, double-click the **radobjed** executable.
2. Double-click the **ZTIMEQ** object from the list in the list view.



Objects	Date	Time	Size
CONNECT	10/30/2002	03:07:49pm	4368
DMSYNC	10/30/2002	03:07:49pm	4368
LEXICON	01/22/2003	08:48:26am	5136
LICENSE	01/24/2003	11:27:23am	4880
PACKAGE	01/24/2003	11:06:53am	5136
PATH	01/24/2003	11:06:31am	5136
PCLSIGNO	12/05/2002	02:00:53pm	18448
PREFER	10/30/2002	03:07:50pm	4368
PROSIGNO	10/30/2002	03:07:51pm	6160
ZADMIN	11/07/2002	03:05:18pm	10256
ZERROR	01/23/2003	11:39:07am	6160
ZLOCAL	01/24/2003	11:27:23am	8208
ZMASTER	01/24/2003	11:27:23am	4880
ZOSVALUE	11/01/2002	10:35:27am	4624
ZPAKSCAN	01/23/2003	01:25:31pm	5136
ZPAKSESS	01/24/2003	11:07:23am	5136
ZPROMOTE	01/24/2003	11:07:23am	7184
ZPUBDEF	01/21/2003	02:59:03pm	5136
ZPUBNEW	01/24/2003	11:06:24am	8208
ZTIMEQ	01/24/2003	11:15:49am	6160

Figure 7.12 ~ Radia Client Explorer objects.

The following is an example of an instance of the ZTIMEQ object.

Variable	Length	Value
APPSVC	000	
DOMAIN	008	SOFTWARE
IPADDR	015	192.168.105.100
MGRNAME	005	radia
NAME	009	MAC Timer
PINGCNT	001	3
PINGDLAY	004	2000
REQUEST	015	"Apply Updates"
RUNSYNC	001	Y
SOCKET	004	3464
ZCHNNAME	008	SOFTWARE
ZCREATE	008	radtimeq
ZDELETE	008	radtimeq
ZMODE	006	UPDATE
ZNOPING	001	Y
ZOBJCID	012	D0017C0C9251
ZOBJCLAS	005	TIMER
ZOBJCNUM	008	00000000
ZOBJCRC	008	00000000
ZOBJDATE	008	20030120
ZOBJDOMN	008	SOFTWARE

Heap Information
 of 1

Figure 7.13 ~ An instance of the ZTIMEQ object.

Testing Timers

Modify the ZRSCCMDL, ZSCHDEF, ZSCHFREQ, and ZSCHTYPE fields, and see what happens to test different timers. To edit a field, double-click it, and then change the field's value.

In a testing situation aimed at determining whether the timer expires, you can change ZRSCCMDL to run any executable, such as Notepad. When the timer expires, Notepad opens, confirming that the Scheduler did expire.

Timer Logs

Timer events can be tracked in three logs that are stored in the IDMLOG directory. The IDMLOG directory is identified by the `IDMLOG=path` line in the `nvdprof` file on your system drive. The following identifies and describes these logs.

Table 7.7 ~ Logs Used to Troubleshoot Scheduled Applications

Log File	Usage
connect.log	Lists the results of recent client activities. This log would show the results of recent client activities.
radsched.log	Lists the results of the most recent Scheduler expiration. radsched runs in the background. Once a minute it wakes up and examines the ZTIMEQ client object to see if a timer has expired. This log only retains information from the most recent expiration.
radshist.log	Lists all of the programs dispatched as a result of a timer instance expiring. It reflects all activity since radsched was started last.

Notify

Use Radia Notify to force one or more client computers to connect to the Radia Configuration Server, and 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 notification is received, Radia Notify causes the client computer to connect to the Radia Configuration Server and perform the action initiated by the Notify operation. Radia Notify can also send e-mail notification to client computers, based upon the applications Radia manages for them.

Notify communicates with client computers that are members of an *audience list*. A client computer is added to the audience list when Radia installs an application to that computer.

Requirements to Use Notify

There are four prerequisites for using Notify:

- The subscriber must have connected to the Radia Configuration Server prior to the notification. In order for Notify to work, all the necessary information must have been written to the PROFILE file during the last connection to the Radia Configuration Server, because the network address is searched for in the PROFILE file.

Caution

Notify is designed to notify only subscribers whose information is in the PROFILE file in the Radia Database.

- The subscriber must already have installed the application using Radia in order to appear in the audience list *for the specified application*.
- If you choose to use e-mail to notify subscribers, then be sure that the e-mail address for the subscriber is in the EMAIL variable of the USER instance in the POLICY domain, USER class.
- The Radia Configuration Server must be properly configured for Notify. The relevant lines are written to the Radia Configuration Server Settings file during the Radia Configuration Server installation. *Figure 7.14 ~ Radia Configuration Server Settings file for Notify* on page 286 shows the appropriate values for the settings in the Radia Configuration Server Settings file, EDMPROF.DAT.

```
[MGR_ATTACH_LIST]
ATTACH_LIST_SLOTS = 15
RESTART_LIMIT = 7
VERIFY_INTERVAL = 5
CMD_LINE=(zutilmgr) RESTART=YES
CMD_LINE=(zrexmgr) RESTART=YES
CMD_LINE=(ztcpmgr PORT=3464,NAME=tcpmgr_3464) RESTART=YES ←Line needed for Notify Manager
CMD_LINE=(znfytmgr NAME=NotifyManager) RESTART=YES
CMD_LINE=(zrtrymgr) RESTART=YES
```

Figure 7.14 ~ Radia Configuration Server Settings file for Notify.

Using Notify

The Radia System Explorer offers two ways to initiate a Notify action:

- Drag a POLICY (USER, DEPT, WORKGRP) class instance to Application (ZSERVICE) instance.
- Select Notify Subscribers from the shortcut menu.

Once the Notify is initiated, the Radia System Explorer follows the same notification process, regardless of which method you choose.

Note

The Radia System Explorer is available for 32-bit Windows applications. For more information, see the *Radia System Explorer Guide*.

To initiate a Notify by dragging the policy instance

1. Select a Policy instance (Workgroup, Department, or User).
2. Drag it to an Application (ZSERVICE) instance.

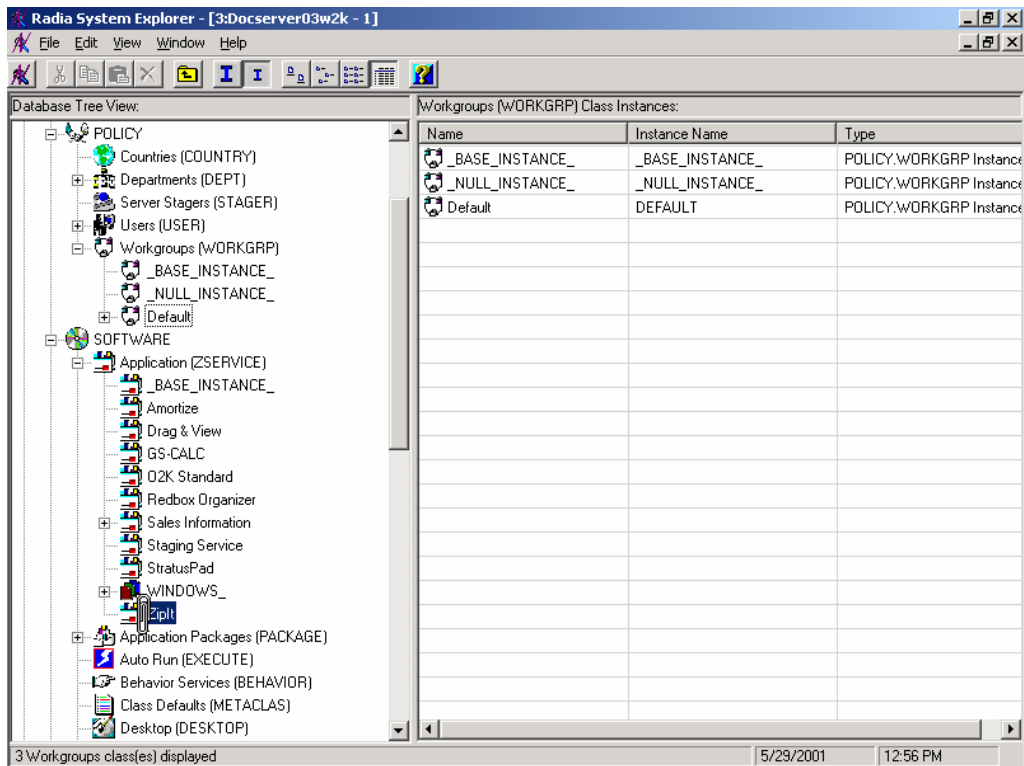


Figure 7.15 ~ Connecting a Policy to a ZSERVICE for Notify.

3. Release the mouse button.

The Radia Notify Manager opens with an audience list.

To initiate a menu-based Notify

1. Right-click the Application (ZSERVICE) instance.

A shortcut menu opens.

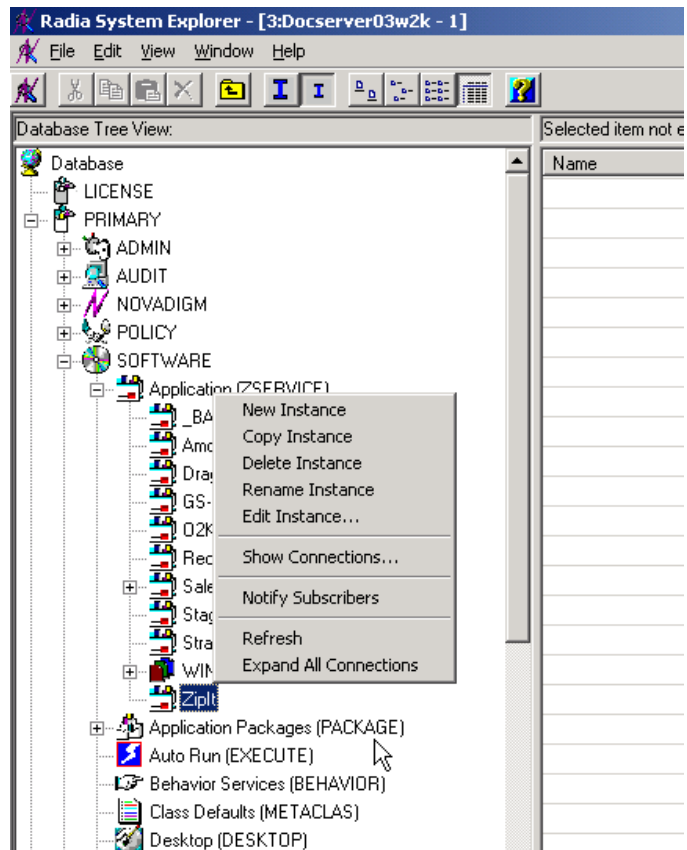


Figure 7.16 ~ Application (ZSERVICE) instance shortcut menu.

2. Select Notify Subscribers.

The **Notify Start** message box opens.

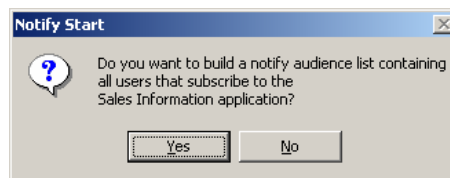


Figure 7.17 ~ Notify Start message box.

3. Click **Yes** to create an audience list.
The **Radia Notify Manager** opens.

Notifying Subscribers

Whichever method you used to access the Radia Notify Manager, the remainder of the steps are the same. When using a menu-based Notify, you will be prompted to confirm that you want to create an audience list.

To notify subscribers

1. Click **Yes** to continue.

OR

Click **No** to cancel the Notify.

The Notify action retrieves the set of the subscribers from the POLICY domain. If the selected application does not have any subscribers, the following message opens.



Figure 7.18 ~ Alert message when no users are in the audience list.

2. When the **Radia Notify Manager** opens, it contains an audience list with the subscribers currently subscribed to the application. A dialog box similar to the following opens.

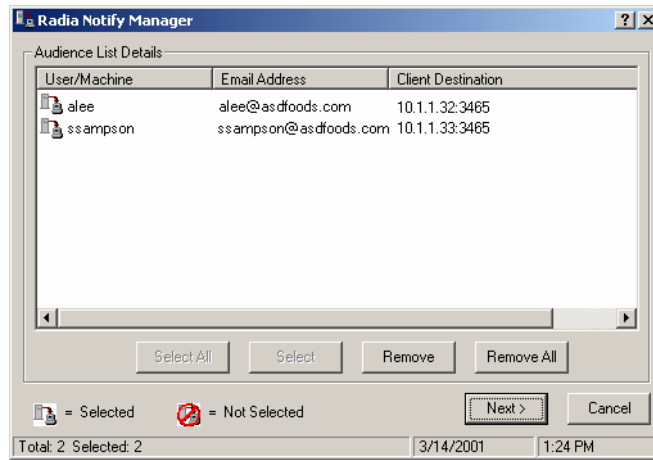


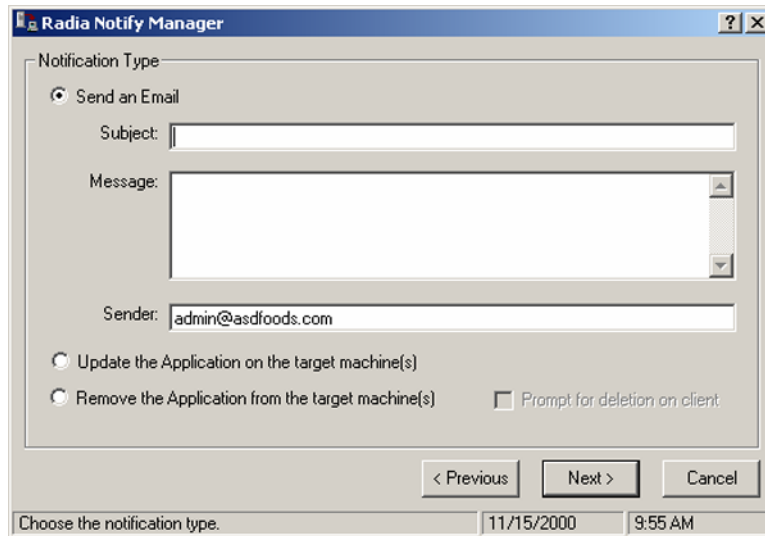
Figure 7.19 ~ Notify audience list.

To notify the *entire* audience, click **Select All**. This is the default when the audience list first opens.

To *modify* the Notify audience, select the rows associated with the clients and click **Select** or **Remove**. You may want to click the **Remove All** button to clear all client computers in the audience list before using the **Select** button.

The symbols to the left of the subscriber indicate who has been selected or not. The total number of client computers in the audience list and the number of client computers selected are displayed at the bottom left of the dialog box.

3. Click **Next** when you have finished selecting client computers in the Notify audience list.
4. Select the type of Notify action you want. The selected action will be taken for all of the selected members of the audience list.



The screenshot shows a dialog box titled "Radia Notify Manager". It has a "Notification Type" section with three radio buttons: "Send an Email" (selected), "Update the Application on the target machine(s)", and "Remove the Application from the target machine(s)". Below the "Send an Email" option are three text input fields: "Subject:" (empty), "Message:" (empty), and "Sender:" (containing "admin@asdfoods.com"). There is also a checkbox labeled "Prompt for deletion on client" which is unchecked. At the bottom of the dialog are three buttons: "< Previous", "Next >", and "Cancel". The status bar at the bottom of the dialog shows "Choose the notification type.", "11/15/2000", and "9:55 AM".

Figure 7.20 ~ Radia Notify Manager Notification Types.

- **Send an Email**

Select this option to inform subscribers of an application's status or optional availability. The subscriber's e-mail attribute in the user instance *must* contain a valid entry. If you select **Send an Email**, fill in the fields, as shown below.

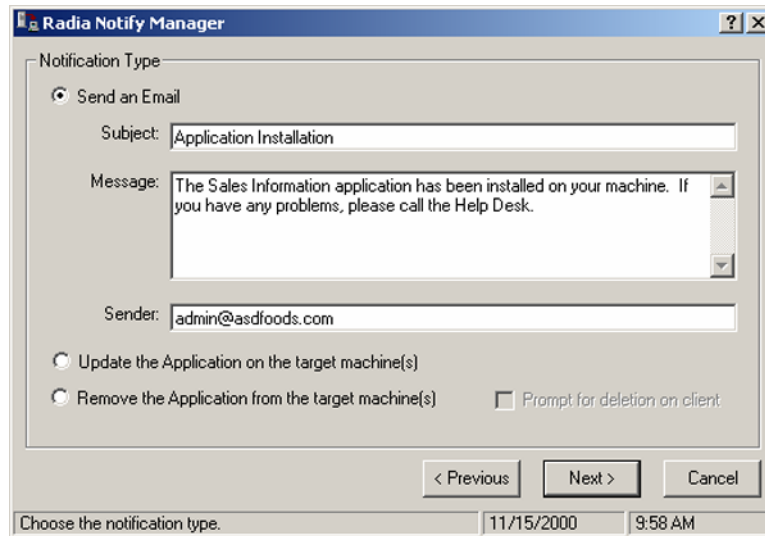


Figure 7.21 ~ Notification e-mail.

- **Update the Application on the target machine(s)**
Select this option to install updates or new versions of an application, and update the application on selected client computers in the audience list.
 - **Remove the Application on the target machine(s)**
Select this option to remove an application from the specified subscribers.
5. To remove the application from the selected client computers in the audience list, click **Remove the Application from the target machine(s)**. When you select this option, the **Prompt for deletion on client** check box becomes active. Normally, Notify will remove the application from the selected client computers in the audience list without requesting permission from the client. This allows unattended application removal from client computers.
 - To require the subscriber to give permission to remove an application, click the **Prompt for deletion on client** check box.
 - When the notification is received on the client computer, a dialog box will open on the client computer requesting permission to remove the application. If the subscriber agrees, Radia removes the application. If the subscriber denies permission, the application is left intact on the subscriber's computer.
 6. When you have finished selecting the notification type, click **Next** to continue. The **Notification Details** dialog box opens.

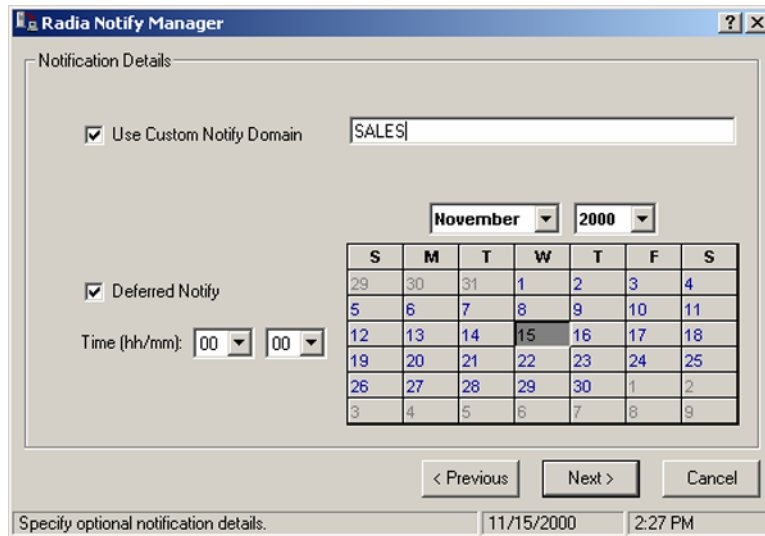


Figure 7.22 ~ Notification Details dialog box.

The **Notification Details** dialog box allows you to create a name for your NOTIFY domain, and schedule the Notify function. By default, the Radia Configuration Server schedules the Notify to occur immediately, and generates an object in the NOTIFY file using the date and time of the Notify action. The format of the object name is YYYY_MM_DD_HH_MM_SS.

7. Click **Next**.

The **Notification Summary** dialog box opens.

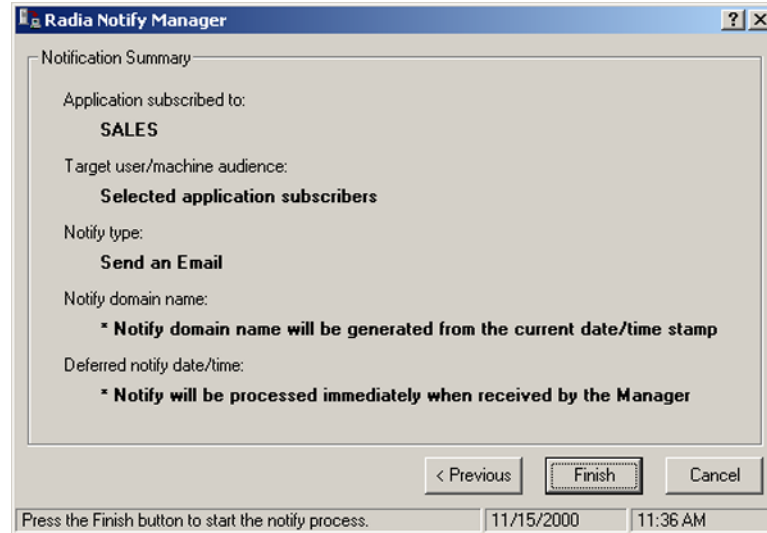


Figure 7.23 ~ Notification Summary dialog box.

-
8. Click **Finish** to begin the Notify.

A message indicates that Notify has been initiated.

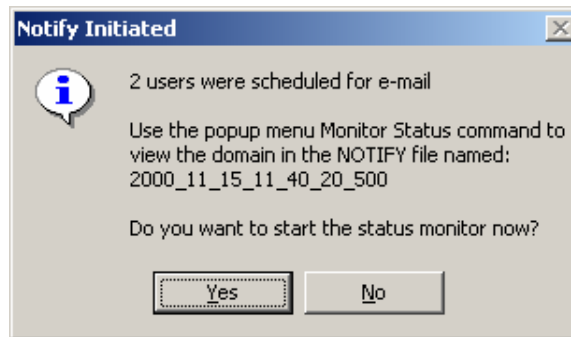


Figure 7.24 ~ E-mail Notify initiated.

- To view the status of the Notify, click **Yes**.
A dialog box similar to the following opens.

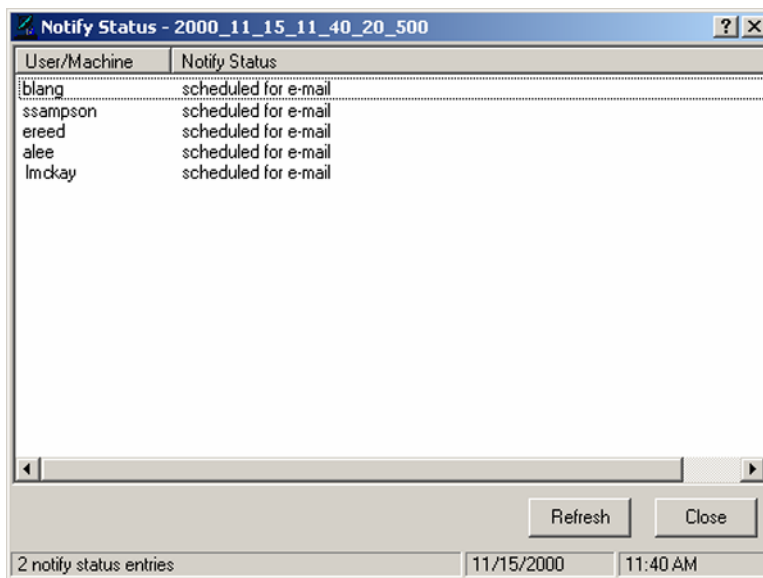


Figure 7.25 ~ Notify Status Monitor dialog box.

- Click **Refresh** to update the Status Monitor.

To view the status of a Notify

- Right-click a domain in the NOTIFY file.
A shortcut menu opens.

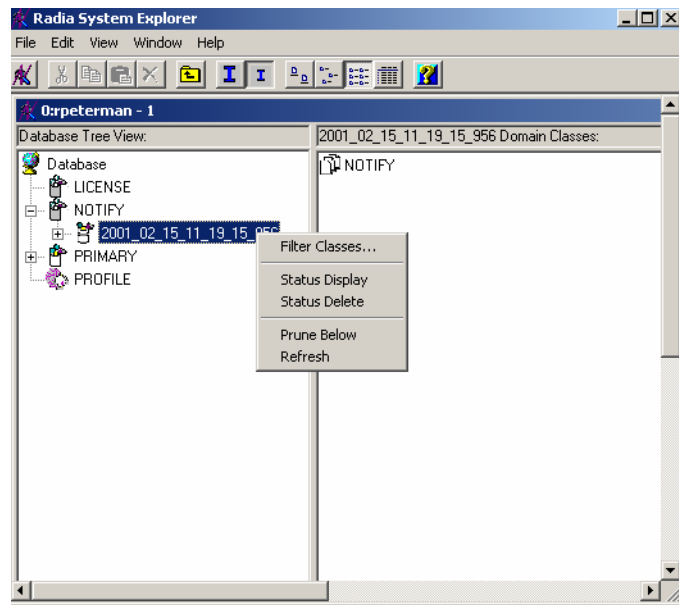


Figure 7.26 ~ NOTIFY domain shortcut menu.

2. Select **Status Display** to view the status of the Notify operation.
3. Select **Status Delete** to remove the status from the Radia Database.

NOTIFY File Structure

The NOTIFY file is divided into domains, where each domain represents one Notify operation. The name of the domain is in the form YYYY_MM_DD_HH_MM_SS, representing the date and time when the Notify operation was initiated. Each NOTIFY file domain has one NOTIFY class. Each NOTIFY class contains an instance for each subscriber that was notified. The instances are named with eight-digit numbers starting with 00000001 and running sequentially up to the total number of notified subscribers.

Each instance contains attributes that identify the subscriber, the kind of Notify operation (see the req= parameter of the command line in the NTFYCMDL attribute), and the results of the Notify operation for that subscriber (see the NTFYMSG and NTFYRC attributes).

Use the Radia System Explorer to examine the domains, classes, and instances of the NOTIFY file.

The screenshot shows the Radia System Explorer application. The Database Tree View on the left shows a hierarchy: LICENSE, NOTIFY, and PROFILE. Under NOTIFY, there are several sub-entries with dates, and a specific instance '00000001' is selected. The main pane displays the 'NOTIFY.00000001 Instance Attributes' table.

Name	Attribute Description	Value
ZUSERID	<ZUSERID>	alee
ZCIPADDR	<ZCIPADDR>	10.1.1.32
EMAIL	<EMAIL>	
NTFYTYPE	<NTFYTYPE>	T
NTFYDATE	<NTFYDATE>	20010314
NTFYTIME	<NTFYTIME>	11:05:16
NTFYMSG	<NTFYMSG>	Successfully notified
NTFYRC	<NTFYRC>	000
NTFYCMDL	<NTFYCMDL>	radpint req="Notify Update",mname=NO...
NTFYSUBJ	<NTFYSUBJ>	
LOCALUID	<LOCALUID>	alee
NTFYRTIM	<NTFYRTIM>	200103314111016953+300
NTFYRNUM	<NTFYRNUM>	001
NTFYDOMN	<NTFYDOMN>	2001_03_14_11_05_15_281
NTFYINS	<NTFYINS>	00000001
NTFYPORT	<NTFYPORT>	3465
NTFYPWD	<NTFYPWD>	EDMPASS
NTFYUINF	<NTFYUINF>	2001_03_14_11_05_15_281_00000001
NTFYRMAX	<NTFYRMAX>	007
NTFYDLAY	<NTFYDLAY>	0300
NTFYCOMN	<NTFYCOMN>	
NTFYMAC	<NTFYMAC>	
NTFYMASK	<NTFYMASK>	

Figure 7.27 ~ Notify instance example.

Retrying a Notify Operation

Occasionally, some subscribers cannot be notified successfully. This may occur for one of the following reasons:

- The client computers may be turned off.
- The subscriber does not have a valid e-mail address listed in the Radia Database.
- The client computers may not be running the Radia Notify module.
- The client computers may not be accessible via the normal communication channel.

An unsuccessful Notify attempt creates an instance in the RETRY domain of the NOTIFY file. The RETRY domain is created the first time a Notify fails.

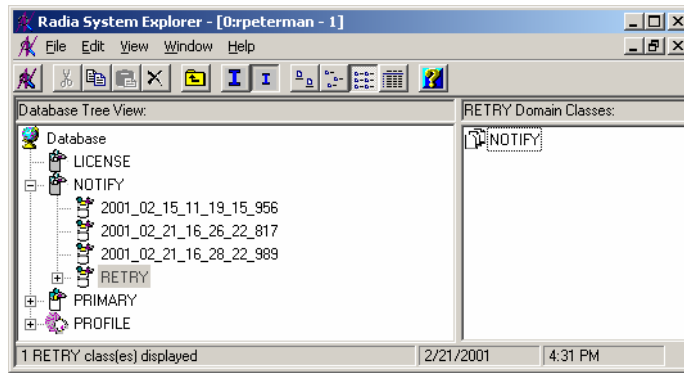


Figure 7.28 ~ RETRY domain.

Radia can automatically retry the Notify operation for failed attempts. To do so, the Radia Configuration Server must be started with the Notify Retry Manager (ZRTRYMGR module), as indicated in the following excerpt from the Radia Configuration Server Settings file, EDMPROF.DAT, located in the bin directory of your Radia Configuration Server's installation directory.

```
[MGR_ATTACH_LIST]
ATTACH_LIST_SLOTS = 15
RESTART_LIMIT = 7
VERIFY_INTERVAL = 5
CMD_LINE=(zutilmgr) RESTART=YES
CMD_LINE=(zrexmgr) RESTART=YES
CMD_LINE=(ztcpmgr PORT=3464,NAME=tcpmgr_3464) RESTART=YES
CMD_LINE=(znfytmgr NAME=NotifyManager) RESTART=YES
CMD_LINE=(zrtrymgr) RESTART=YES ← Line needed for Retry Manager
```

Figure 7.29 ~ Line to include in the Radia Configuration Server Settings file to enable Notify Retry.

The Notify Retry Manager periodically examines the NOTIFY file's RETRY domain based on the VERIFY_INTERVAL in EDMPROF.DAT, and re-attempts the Notify operation for each instance it finds there. The default is every five minutes.

Status Monitor information can be used to correct, reconfigure, or regenerate the Notify request so that all recipients receive the notification. Notify information is also written to the Radia Configuration Server log and can be viewed there. The log file is stored on the Radia Configuration Server in the LOG directory.

Note

When the Radia Configuration Server is first installed, the NOTIFY file is absent. It is created only after the first Notify action is initiated.

Caution

In order for any changes to the Radia Configuration Server Settings file, EDMPROF.DAT, to take effect, you must restart the Radia Configuration Server service.

For more information on editing the Radia Configuration Server Settings file, see the *Radia Configuration Server Guide*.

Note

The Radia System Explorer is available for 32-bit Windows applications. For more information, see the *Radia System Explorer Guide*.

To see the status of retry attempts

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 from HP, 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 **NOTIFY** to see the **RETRY** domain.
4. Right-click the **RETRY** domain, and select **Status Display** from the shortcut menu.

Special Case Deployments

If you need to restart the client computer or change service permissions for a particular service, you need to make changes to the Application (ZSERVICE) instance. These special circumstances apply whichever deployment method you use. In addition, you may want to create a mandatory timer instance or be able to notify users by dragging a user or group of users to a Notify command.

Restarting the Client Computer

Some applications require that the client computer be restarted after installation. If that is the case, you need to use the Radia System Explorer to configure the REBOOT variable in the Application (ZSERVICE) instance.

Note

The Radia System Explorer is available for 32-bit Windows applications. For more information, see the *Radia System Explorer Guide*.

To edit the REBOOT variable in the Application instance

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 from HP, 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. The variables for the instance show in the list view.
7. Double-click the **REBOOT** variable.

The **Editing Instance** dialog box opens.

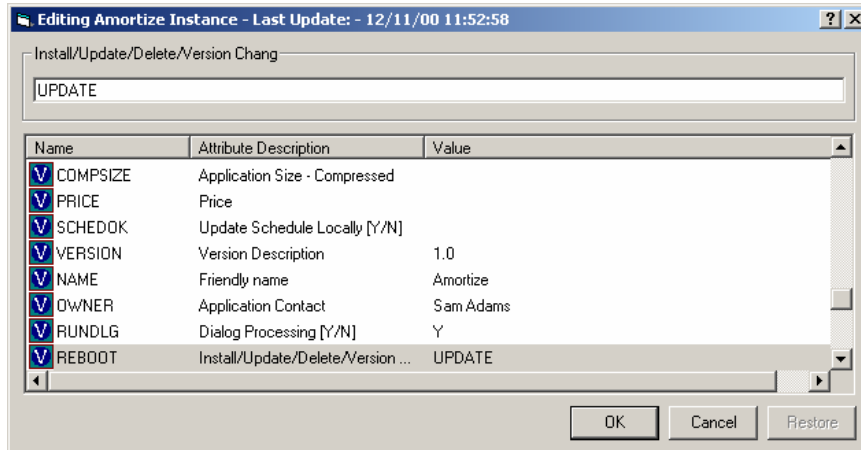


Figure 7.30 ~ Editing Instance dialog box with REBOOT variable selected.

8. Edit REBOOT as needed.

Note

As of the Version 3.1 client, the client workstation will automatically attempt a reboot, when the client receives the reboot instruction unless the command line contains the command line parameter: `hreboot=n`

The REBOOT variable in the ZSERVICE instance for an application is coded to contain a text string, which indicates which events should trigger a restart of the Radia Client computer. The text string consists of the event name or names, separated by commas, as in the following examples:

Table 7.8 ~ REBOOT Variable Values and Uses

Variable Value	Use
Blank	Restart only if a file being deployed 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 deployed is already in use.
VERSION CHANGE	Restart if an application is changing versions, or if a file being deployed is already in use.
UPDATE	Restart if an application is updated or repaired during the Client Connect process, or if a file being deployed is already in use.

- Click **OK** to close the **Editing Instance** dialog box and return to the Radia System Explorer.

Radia can also display an alert message to allow the subscriber to restart the client computer immediately, or to postpone until later.

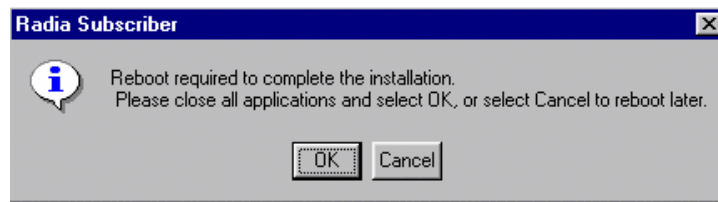


Figure 7.31 ~ Request to reboot the client computer.

When an application is deployed using Notify or Scheduler, the client computer may or may not be attended.

- Client computers that are *always unattended* should be configured *not* to solicit user permission to restart.
- For client computers that *may or may not be attended*, soliciting user permission to restart offers a safety checkpoint that allows subscribers to close any open applications, and to save their current work. Configure the client machine to request subscriber permission before restarting. When the subscriber returns, the Reboot alert will be waiting for the subscriber's response.

To require subscriber permission before restarting the client machine, add `ask=Y` to the end of the command line attribute (ZRSCCMDL). See *Specifying the Command Line* on page 271 to learn how to modify ZRSCCMDL. The subscriber's choice to restart immediately or to

defer the restart is reported back to the Radia Configuration Server in the APPEVENT object. For more information on the APPEVENT object, see *Chapter 8: Radia Client Objects* starting on page 327.

Creating a Mandatory Timer Update

If you want to create a timer that will update all mandatory services on a regular interval follow the steps below. You will need to refer to different sections in the *Radia Application Manager Guide* to complete the process.

1. Use the Radia System Explorer to create a timer instance using the command line shown in *Specifying the Command Line* on page 271. Modify the other timer variables to accommodate whatever update interval you need.
2. Connect the timer instance to the Client Self Maintenance Service in the NOVADIGM domain, Application (ZSERVICE) class. For more information, see *Connecting the Timer to a Service* on page 276.

All users receive the Client Self Maintenance service by default. If you create a timer and connect it to the Client Self Maintenance Service before installing the Radia Application Manager client, all mandatory applications, new and old, will be updated whenever the timer expires.

Creating a Drag-and-Drop Notify Command

You may want to install a service immediately to any group of users. The following procedure describes how to create a command to which you drag a subscriber or group of subscribers.

Note

The Radia System Explorer is available for 32-bit Windows applications. For more information, see the *Radia System Explorer Guide*.

To create a drag-and-drop Notify command

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 from HP, 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 **SYSTEM**.
5. Double-click **Application Manager (ZCOMMAND)**.
6. Right-click the **Clock** instance, and select **Copy Instance**.

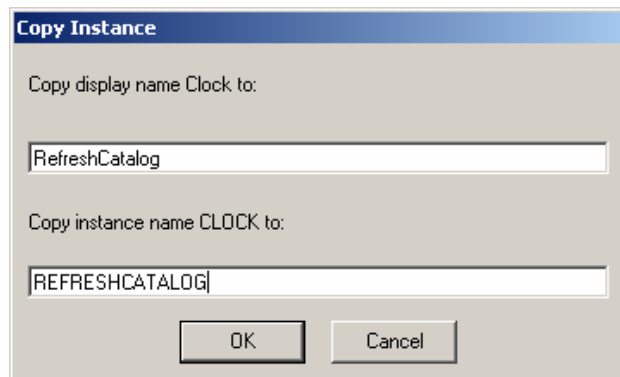


Figure 7.32 ~ Copy Clock instance to RefreshCatalog instance.

7. Type **RefreshCatalog** in the display name and instance name boxes.
8. Click **OK**.
9. Double-click **RefreshCatalog** in the tree view to see the instance variables in the list view.
10. Double-click the **ZCMDPRMS** variable.

The **Edit Instance** dialog box opens with **ZCMDPRMS** selected.

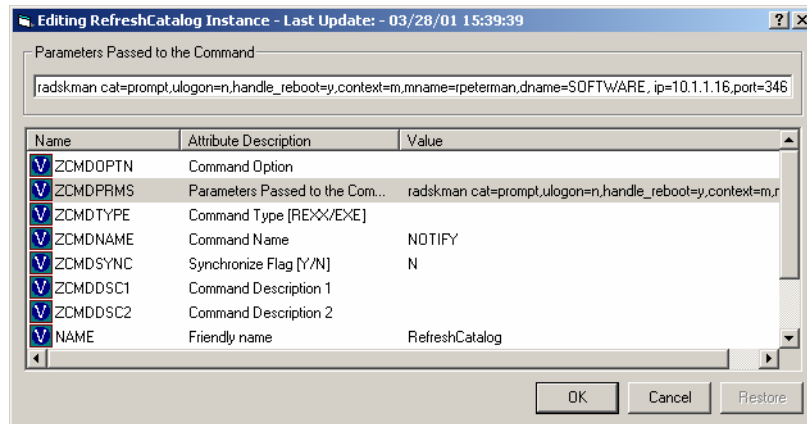


Figure 7.33 ~ Editing the ZCMDPRMS variable in the RefreshCatalog instance.

11. Type the command line shown in *Specifying the Command Line* on page 271. This command line updates or installs *all* new and old mandatory applications.
12. Click **OK**.
13. Click **Yes** to confirm that you want to save the new instance attributes.
14. Drag a User, Workgroup, or Department instance to the RefreshCatalog command. A notify is sent immediately to the specified subscribers and the command line in ZCMDPRMS is executed.

Use the Radia System Explorer to see the results of the Notify in the NOTIFY file.

Versioned Deployments

Radia Application Manager can deploy *versioned* applications. You can roll out a new version of an application to subscribers, and activate it upon delivery or at a pre-determined time. If the installation of the new version fails, Radia will automatically roll back to the previous version. If problems appear in the new version after installation, you can deactivate the new version and roll back to the previous version for some, or all, users.

After versioning is configured, the compressed files are stored on the client machine, 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. It can also be configured to be partially local, with a minimum of data transmitted.

The Version Groups (VGROUP) Class

Each instance of the VGROUP class defines a set of versions of a software application. It contains connections to instances of the VERSION class.

The screenshot shows the Radia System Explorer interface. On the left, the 'Database Tree View' is expanded to 'Version Groups (VGROUP) > _BASE_INSTANCE_ > Amortize'. The main pane displays the 'Version Groups class Amortize Instance Attributes' table.

Name	Attribute Description	Value
ZSTOP001	Stop Resolution Expression	
ZSTOP002	Stop Resolution Expression	
ZSTOP003	Stop Resolution Expression	
CONTROL	Vgroup control [CLIENT/MANAGER]	MANAGER
INITIAL	Initial version to activate	5B97FDD0_F87FC3B
ROLLBACK	Rollback if install fails [Y/N]	Y
REQACTDT	Requested activation date YYYYMMDD	
REQACTTM	Requested activation time HH:MM:SS	
NAME	Friendly Name	Amortize
ACTDATE	Activated date/time	
STATUS	Status of current version - 000	
CURVERS	Currently active version	
NEXTVERS	Next version to activate	
SOURCE	Source for currently active version	
TIMERCON	Timer for next Version Activation	
VERCDN01	Version Connection	SOFTWARE.VERSION.5B97FDD0_F87FC3B
VERCDN02	Version Connection	SOFTWARE.VERSION.5B97FDD0_61765D81
VERCDN03	Version Connection	SOFTWARE.VERSION.5B97FDD0_16716D17
VERCDN04	Version Connection	
VERCDN05	Version Connection	

The status bar at the bottom indicates: 20 Version Groups CLASS Amortize attribute(s) displayed | 3/29/2001 | 12:37 PM

Figure 7.34 ~ Version Group example.

The Version (VERSION) Class

Each instance of the VERSION class defines one *version* of a software application that Radia deploys and manages.

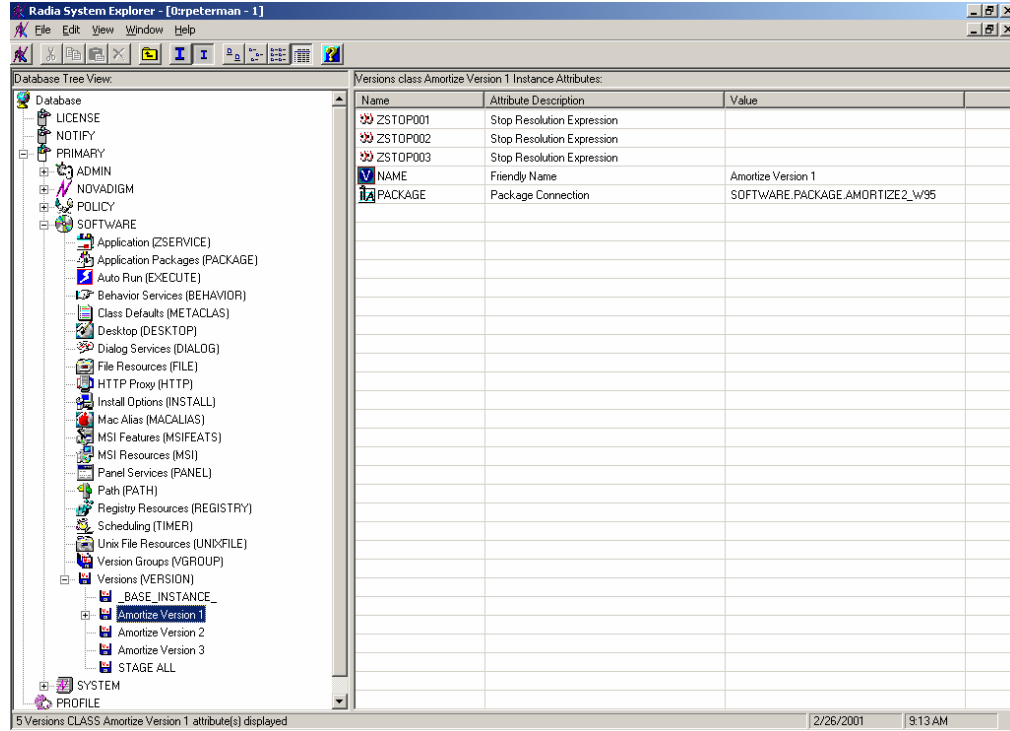


Figure 7.35 ~ Version (VERSION) class instance example.

Table 7.9 ~ VERSION Class Variables below summarizes the variables that make up an instance of the VERSION class.

Table 7.9 ~ VERSION Class Variables

Variable	Value	Use
----------	-------	-----

ZSTOP00 <i>n</i>		Expressions evaluating to true in ZSTOP variables cause resolution of the instance to be skipped. If left blank, the instance is not skipped, and resolution continues. This is useful for assigning a version to a particular set of users.
------------------	--	---

Table 7.9 ~ VERSION Class Variables

Variable	Value	Use
NAME		The friendly name for this instance entered when you create the VERSION instance.
PACKAGE		A connection to an instance of the PACKAGE class, which represents the packaged software application for this version.

Modeling Versioned Applications

Versioned and non-versioned applications adhere to different connection models within the Radia Database. For non-versioned applications, one application instance connects to one or more package instances.

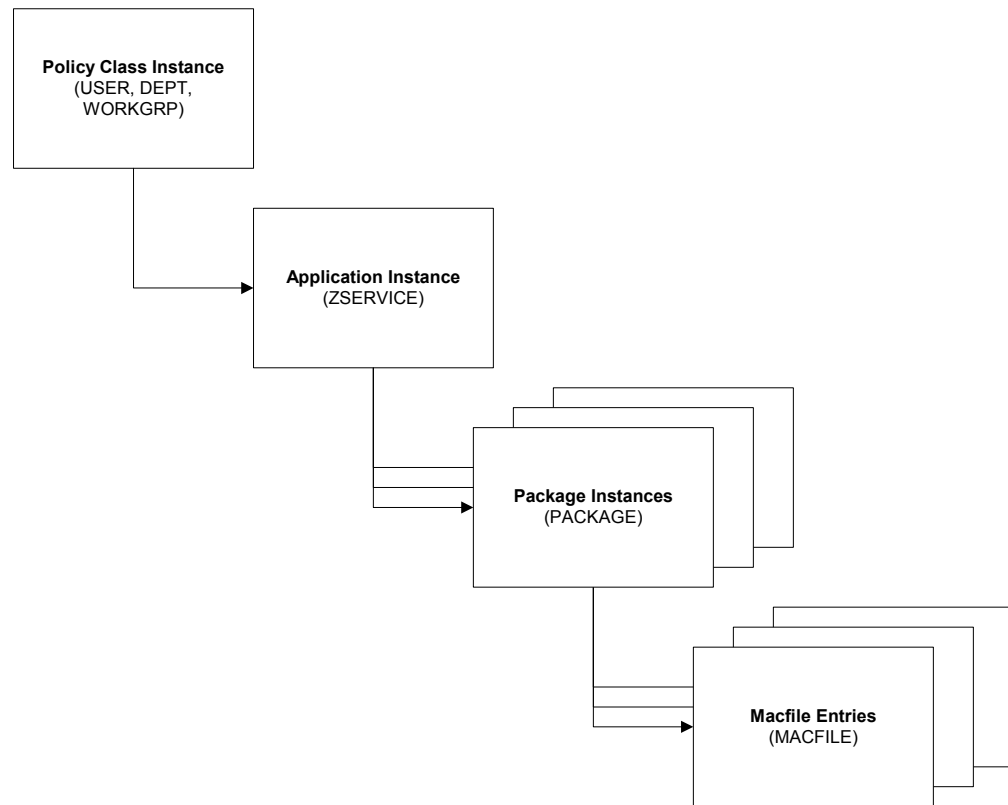


Figure 7.36 ~ Model for non-versioned deployments.

Versioned applications adhere to a different connection model than non-versioned applications. For versioned applications, an Application instance (ZSERVICE) connects to a single Version Group (VGROUP) instance.

Note

If you want to use multiple Version Groups, you must create one Service for each Version Group.

The Version Group instance connects to one or more Version instances that connect to one or more Package instances. A Version instance (which represents one version of a software application) contains one Radia package. Each Radia package is represented in the Radia Database by an instance of the PACKAGE class.

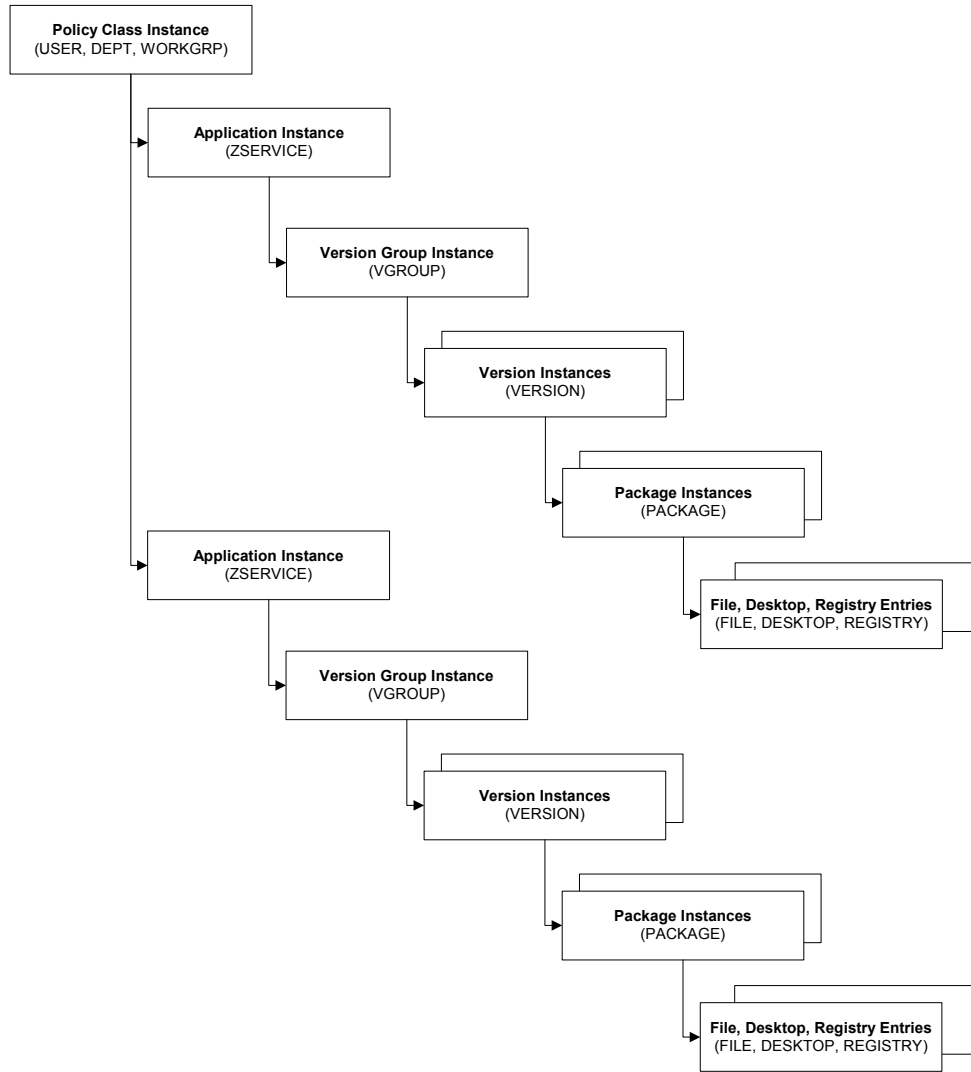


Figure 7.37 ~ Model for versioned deployment.

Initially, prepare versioned applications the same way that you prepare non-versioned applications. Use the Radia Publisher to package the application, and use the New Application Wizard in the Radia System Explorer to create an Application (ZSERVICE) class instance to represent the software application. In the Radia Database, a newly published and

promoted application is represented by its Application (ZSERVICE) instance, which contains a connection to the Application Packages (PACKAGE) instances created by Radia Publisher.

Caution

When packaging subsequent versions of an application, do not run the New Application Wizard. All versions of an application connect to the *same* Application (ZSERVICE) instance in the Radia Database.

Version Group Editor

The Version Group Editor in the Radia System Explorer contains all of the controls you need to manage the content and the deployment of a *version group*. A version group connects to all of the versions of an application. Use the Version Group Editor to create, edit, or delete version instances associated with the version group, as well as control the version group's deployment.

Create an instance of the Version Group class to represent a set of versions for the application. One Version Group instance connects to each of the Version instances for a particular application.

Creating a Version Group Instance

Use the Version Group Editor to create and to maintain instances in the VGROUP class. Use the Radia System Explorer to create a new instance in the VGROUP class for the package you will be versioning.

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 Version Group instance

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 from HP, 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. Right-click **Version Group (VGROUP)**.
6. Select **New Instance** from the shortcut menu.

The **Create Instance** dialog box opens.

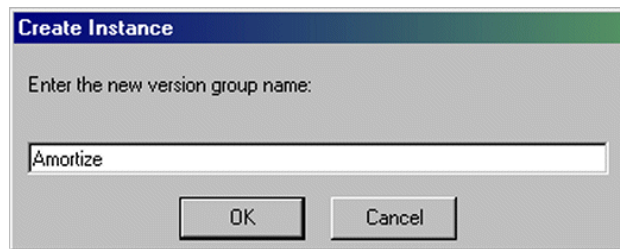


Figure 7.38 ~ Creating the Amortize instance in the Create Instance dialog box.

7. In the **Create Instance** dialog box type a name for the Version Group.
8. Click **OK**.

The **Editing Version Group** dialog box opens.

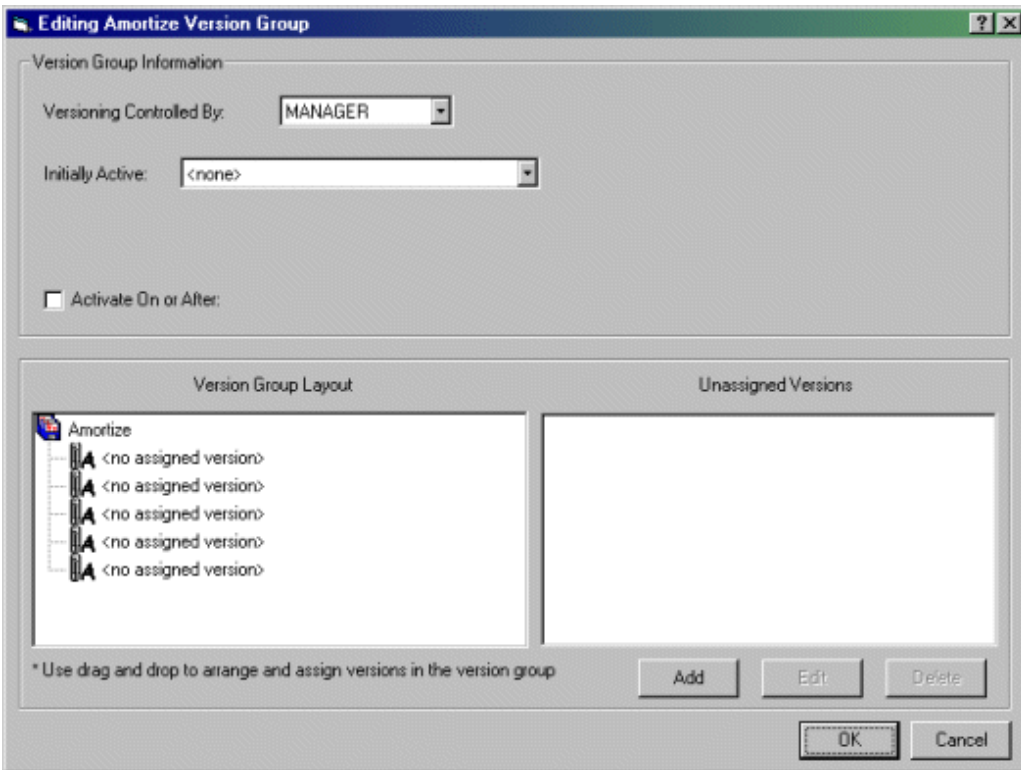


Figure 7.39 ~ The Editing Version Group dialog box before making selections.

9. Complete the selections in this dialog box, based upon the following.
 - **Versioning Controlled By**
determines whether the Radia administrator or the subscriber chooses the version to deploy.
 - **Initially Active**
selects which version to activate on the client computer the next time the subscriber's Radia Client connects to the Radia Configuration Server. The available versions are those that appear in the **Version Group Layout** section of the **Editing Version Group** dialog box.
 - **Activate On or After**
provides access to additional controls to prevent version activation prior to a specific date and time. When this is enabled, the controls appear as follows.

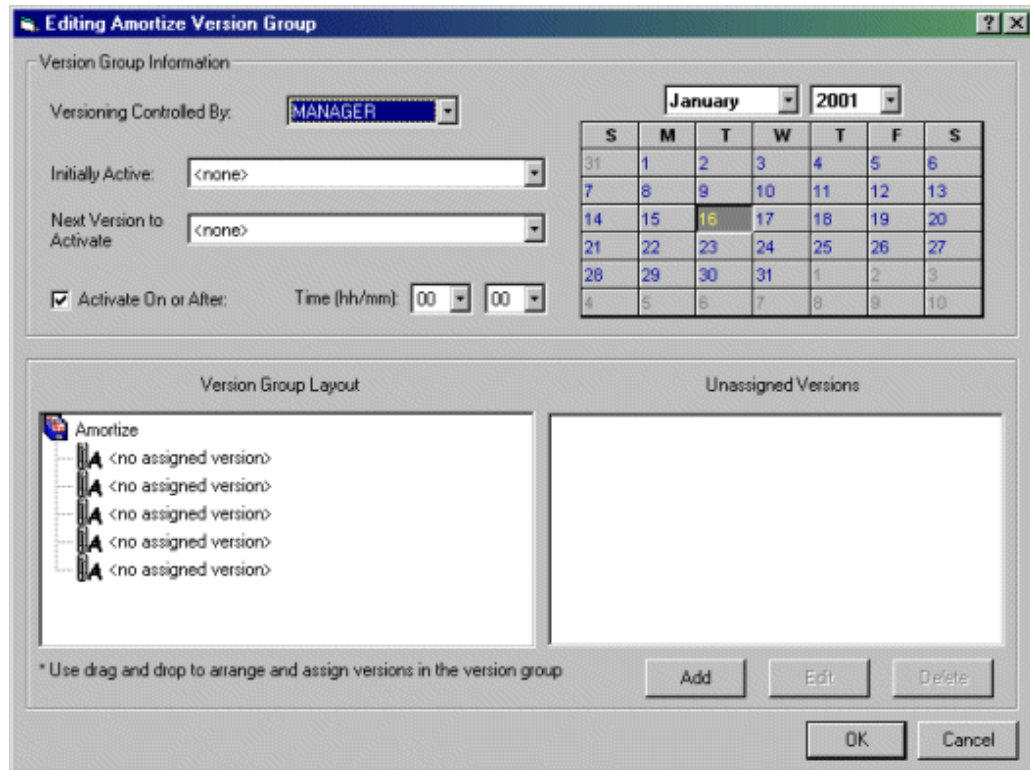


Figure 7.40 ~ The Editing Version Group dialog box with calendar displayed.

When the **Activate On or After** check box is selected, additional features are available.

- **Next Version to Activate**
allows you to select from a drop-down list to select which version of the application to activate at the date and time set using the calendar controls.
- **Time (hh/mm)**
sets the time of deployment.
- **Calendar**
sets the date of deployment.

If you will be scheduling the deployment of a version, there are a few things to consider:

- Timers are only created and connected to a VGROUPE if the Radia Configuration Server controls the versions. Do this by selecting **MANAGER** on the **Versioning Controlled By** drop-down list in the Version Group Editor.

- With **MANAGER** selected, the **Activate On or After** check box must be selected. Select this check box to activate the Calendar, Hour, and Minute controls to deploy the next version.
- When the VGROUP instance is deleted, the associated timer instance is deleted as well.
- A timer instance will be automatically disconnected, but not deleted, if the **Versioning Controlled By** drop-down list is set to **CLIENT** in the Version Group Editor. By selecting **MANAGER** again after having **CLIENT** selected, the **TIMER** will be reconnected and will update the package accordingly.
- At startup, the Version Group Editor will check to see if the activation date has passed and recommend removing the **TIMER** instance connection and replacing **INITIAL** with **NEXTVERS**.

Note

The Calendar will not allow the administrator to select a date earlier than the current day.

10. To add a version, click **Add** in the **Editing Version Group** dialog box.

The **Create Version** dialog box opens.

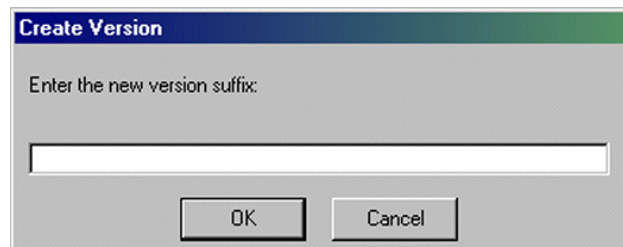


Figure 7.41 ~ The Create Version dialog box.

11. Type the appropriate version number to identify the revision of the application.

12. Click **OK**.

The **Version Editor** dialog box opens.

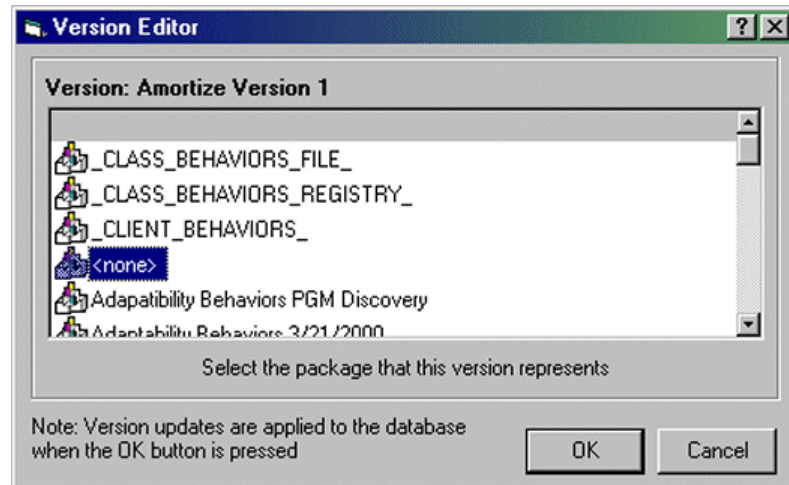


Figure 7.42 ~ The Version Editor dialog box.

The **Version Editor** dialog box contains a list of Application Packages (PACKAGE) instances currently stored in the Radia Database. Use this dialog box to connect the new Version (VERSION) instance to an Application Packages (PACKAGE) instance. There is a one-to-one correspondence between these two instances.

13. Select the appropriate Application Packages (PACKAGE) instance.
14. Click **OK**. The Version instance of the package appears in the **Unassigned Version** list.

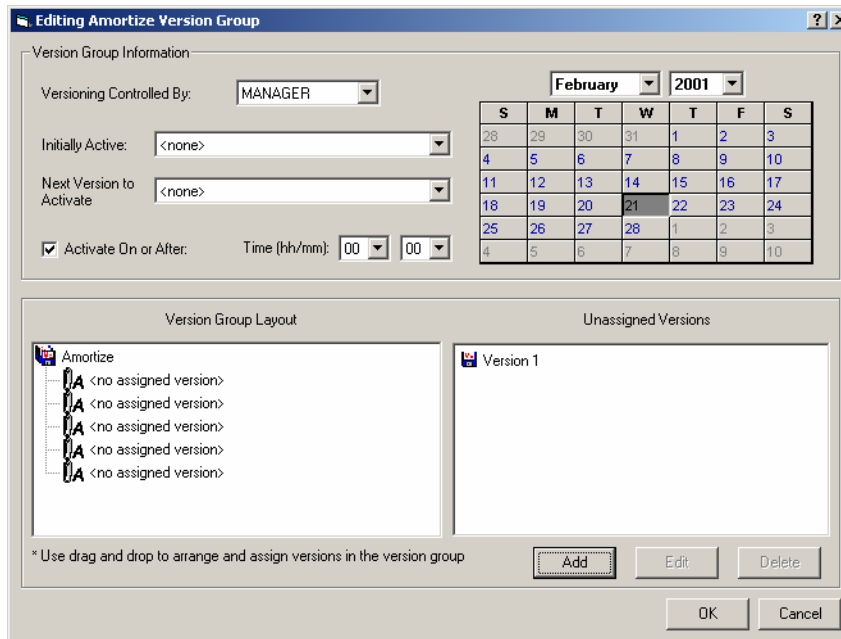


Figure 7.43 ~ The Editing Version Group dialog box with a Version Group instance.

Add Version instances for each version of the application software that will be available to subscribers through this Version Group.

To assign a Version instance to a Version Group, drag a Version instance from the **Unassigned Versions** list to one of the connections labeled **<no assigned version>** in the **Version Group Layout** list.

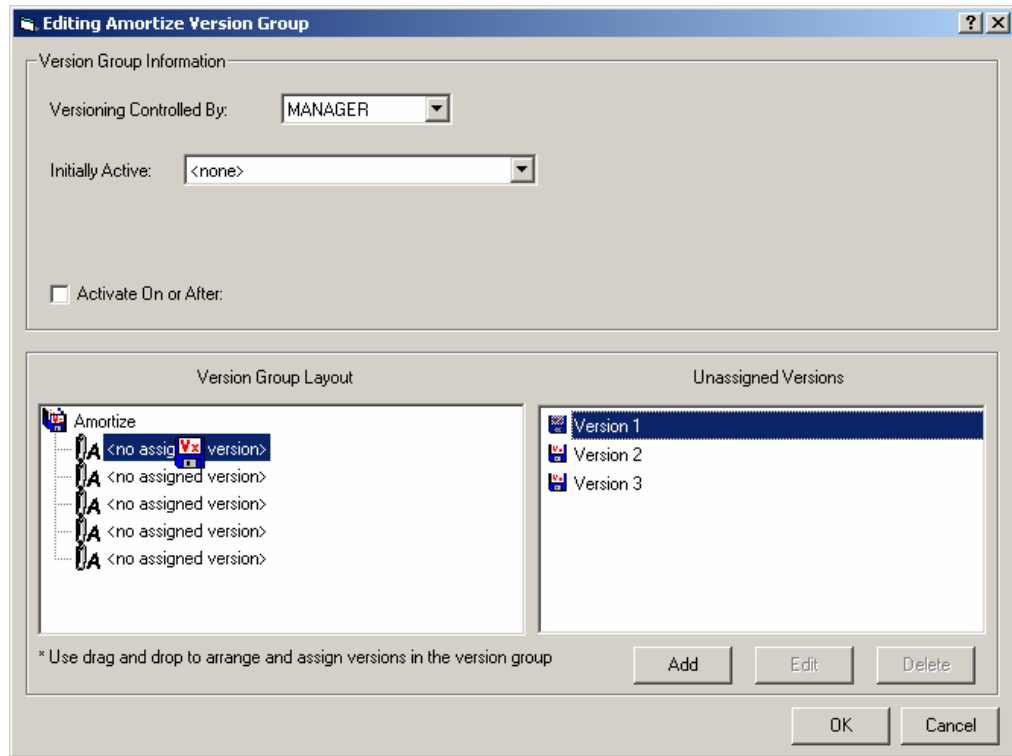


Figure 7.44 ~ Assigning a version.

Now, you can deploy any of the assigned versions by using the **Initially Active** and **Next Version to Activate** lists.

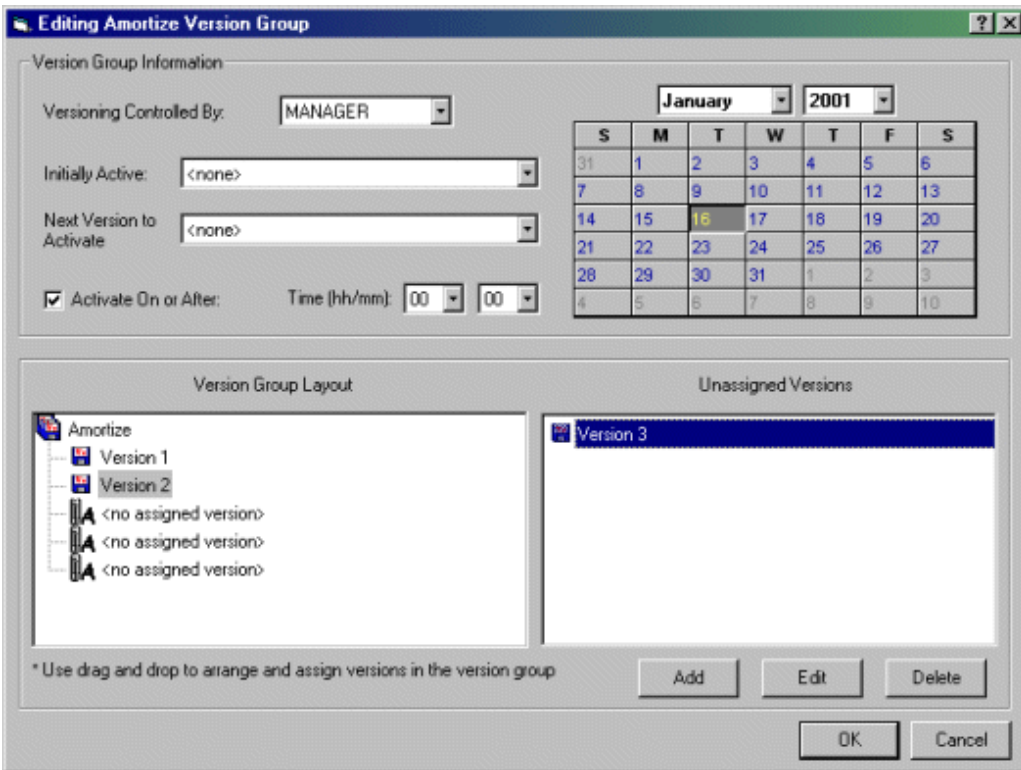


Figure 7.45 ~ Deploying assigned versions.

- Use the **Initially Active** drop-down menu to select which version to activate when the application is first deployed. Use the **Next Version to Activate** to select the version that will be deployed at the date and time after the initial deployment. Recall that if the new version fails to deploy properly, the client will automatically revert to the previous version.

The **Initially Active** version appears in bold text, and the **Next Version to Activate** appears in red text.

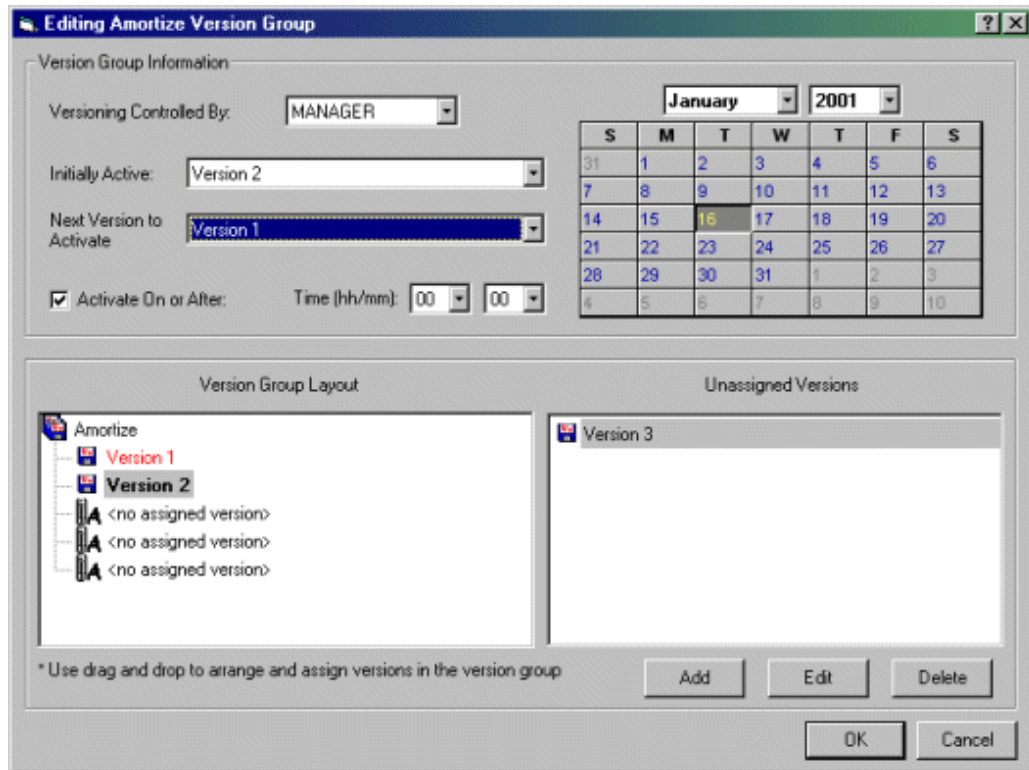


Figure 7.46 ~ Activating versions in the Version Group dialog box.

16. Click **OK** to save the information added to the Version Group Editor.

Note

For additional information concerning editing and deleting versions using the Version Group Editor, see the *Radia System Explorer Guide*.

17. In the Radia System Explorer, drag the Version Groups (VGROUP) instance to the Application (ZSERVICE) instance to connect the Version Group to the Application.

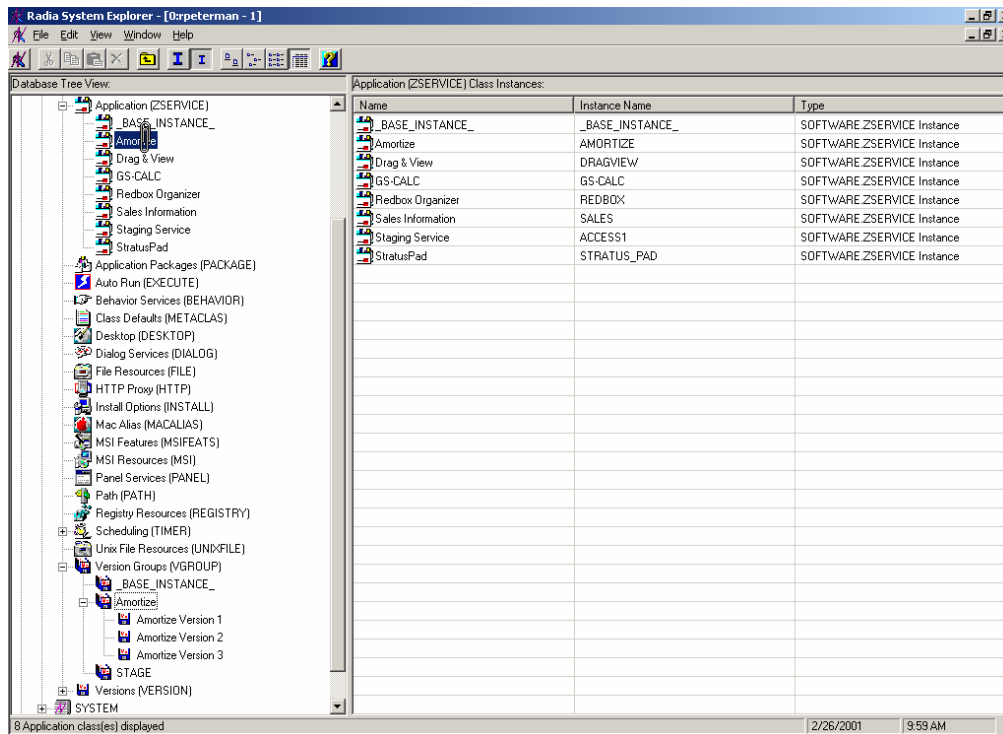


Figure 7.47 ~ Connect version to application.

18. Release the mouse button.

19. Click **OK**.

Caching and Local Repair

Radia caches files delivered to the client computer during an installation. Caching provides the following advantages:

- Prevents redundant file activity. If the installation fails, the files that have already been transferred remain on the computer.
- 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 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 directories are cached in IDMDATA. The default location for IDMDATA is **/Applications/Novadigm/Lib/Data**. See *Chapter 2: Installing the Radia Client* starting on page 33 for more information.

Use the variables in Table 7.10 below for caching and local repair.

Table 7.10 ~ Caching Variables			
Variable	Class	Description	Default or Syntax
LREPAIR	ZSERVICE	Enables local repair.	Default is N. Type Y or N.
PRODGUID	MSI	<i>For Windows Installer applications only.</i> Unique product identifier, created by the manufacturer or vendor. Radia Publisher records this identifier in the PRODGUID field in the MSI instance.	Default is _UNDEF_.

We recommend setting ZDISCONN to Y in the ZSERVICE instance when it is known you will be running lengthy client methods for an extended period of time. This allows the client to disconnect from the Radia Configuration Server if there is an open session with the Radia Configuration Server (ZCREATE or ZDELETE methods). After the method has terminated, the client restores the connection to the Radia Configuration Server.

Recommendations for Trouble-Free Deployments

To assure trouble-free deployments, rigorously test your implementation.

- Publish and deploy application software in a test environment before making the software available for live deployment.
- Include deployments to all of the target operating systems for which the published application software is intended.
- Test all major capabilities of the deployment. Include updates, removal of the application software from the subscriber's desktop, customized installation options, and variations in hardware configurations that might affect deployment, such as shortage of disk space, physical memory, and similar constraints.

Radia Staging Servers and Deployment

Server staging allows you to load a portion of the work required to deploy applications from the Radia Configuration Server computer to another server computer. This computer is called a *staging server*. You may want to do this for the following reasons:

- The Radia Staging Server may be closer to the clients on the network.
- You may want to reduce the load on the Radia Configuration Server computer.

When server staging is employed, the application software to be distributed is copied to the Radia Staging Server. The Radia Staging Server then provides the software to those Radia Clients that are not required to obtain their application software from the Radia Configuration Server. The potential benefit of server staging must be evaluated individually for each server and its attached Radia subscriber computers.

For more information, refer to the *Radia Server Stager Guide*.

Summary

- Carefully plan and test your application deployment strategy to determine the best distribution method for your subscribers.
- Use the Radia Scheduler service to deploy an application at a specific time or interval.
- Use the Radia Notify function to update or remove an application that has already been deployed, or to notify users via e-mail of an update.
- Consider if you have any special cases for deployment that may need further configuration.
- Use the Version Group Editor when you have multiple versions of the same application. You can use the Version Group Editor to schedule deployments, and set versions to activate.
- Consider using Radia Staging Servers to minimize network traffic or to minimize work on the Radia Configuration Server.

Radia Client Objects

At the end of this chapter, you will:

- Be familiar with key Radia Client objects.
- Know the hardware attributes that Radia 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, we recommend that you review this guide for a comprehensive understanding of the Radia Software Manager. This chapter covers Radia Client objects.

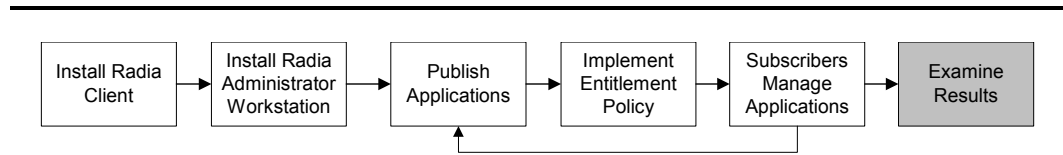


Figure 8.1 ~ Tasks completed in this guide.

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?
- What is the client computer's name, and who was the last user logged on?

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.

The PROFILE File

The objects that are received during a Client Connect are stored in the PROFILE file. This information is for viewing or reporting only. Each client computer is stored as a domain within the file, and each object is stored as a class within that domain. The computer is identified by the computer name, the user ID, or by a customized variable. By default, each client computer is identified by the subscriber who is currently logged on.

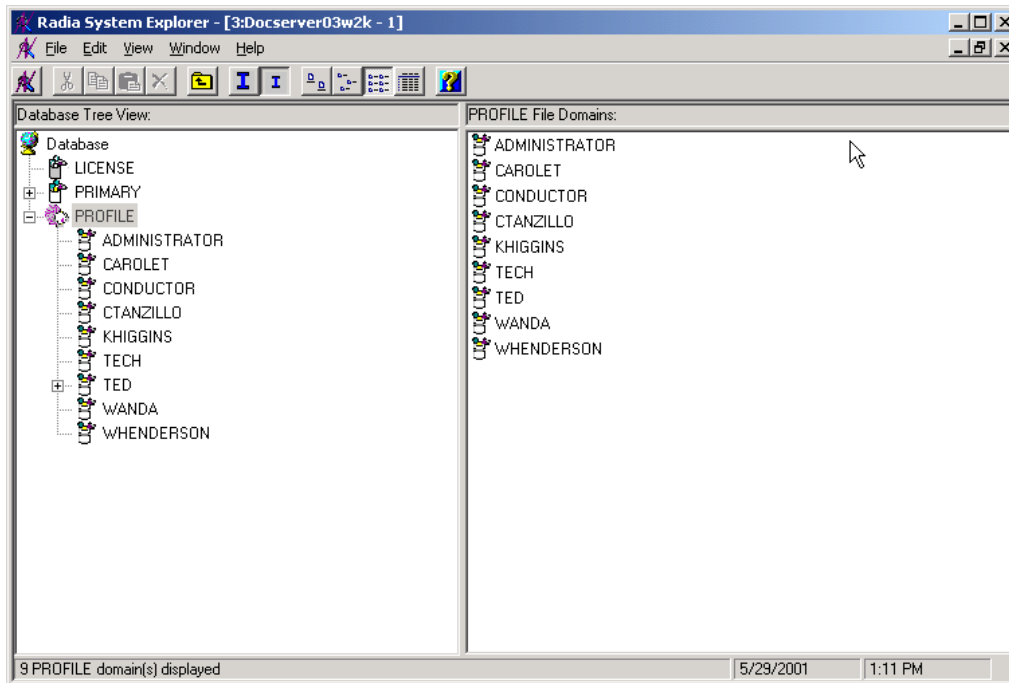


Figure 8.2 ~ PROFILE file.

Under each domain or client computer, there are at least two instances created, ZCONFIG and ZMASTER.

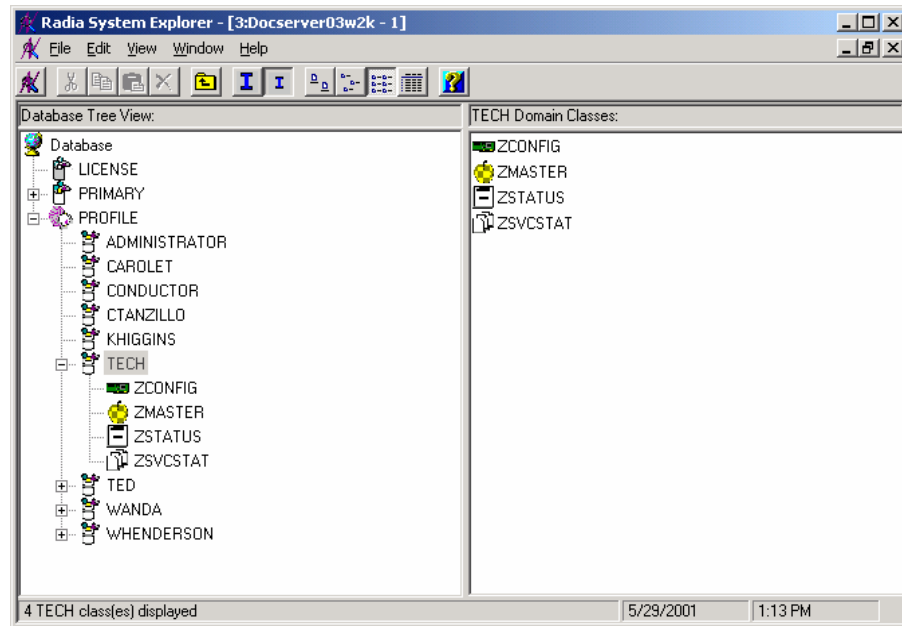


Figure 8.3 ~ Client computer in the PROFILE file.

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 of 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 used primarily to describe the current configuration on the client computer, and are covered in depth in this chapter. For additional information on ZMASTER and ZSVCSTAT, see the HP OpenView support 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.

Note

The Radia System Explorer is available for 32-bit Windows applications. 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 from HP, 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. If necessary, type a **User ID** and **Password**, and then click **OK**.

The **Radia System Explorer** window opens. Double-click **PROFILE**.

3. Double-click the user ID or client computer name.
4. Double-click **ZCONFIG**.

5. Double-click **HARDWARE_**.
6. Double-click **HARDWARE_SCAN**.

The ZCONFIG object is displayed in the list view.

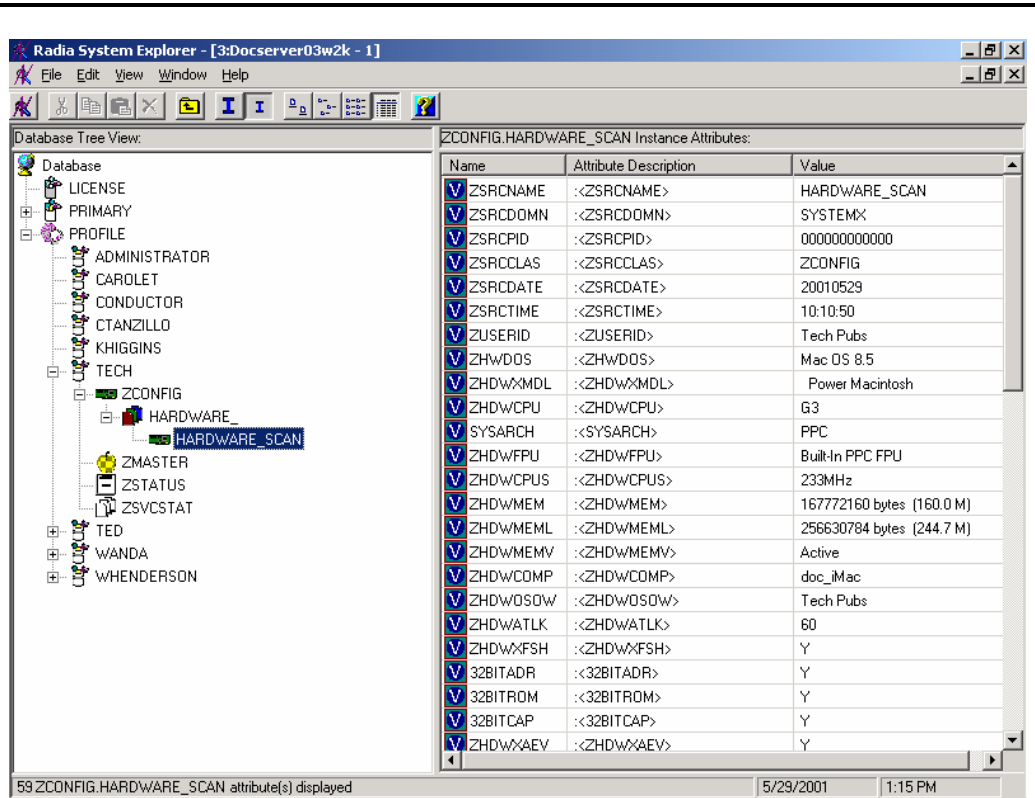


Figure 8.4 ~ Viewing the ZCONFIG object in Radia System Explorer.

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 the Radia Client Explorer

1. Retrieve the **ZCONFIG.EDM** file from the client computer's IDMLIB directory. IDMLIB is located in the folder where the Radia Client was installed. For more information, see *Chapter 2: Installing the Radia Client* starting on page 33.
2. From the **Apple** menu, select **Radia Client Explorer**.
3. In the **Paths** drop-down menu, select **Change EDM Object Path**.

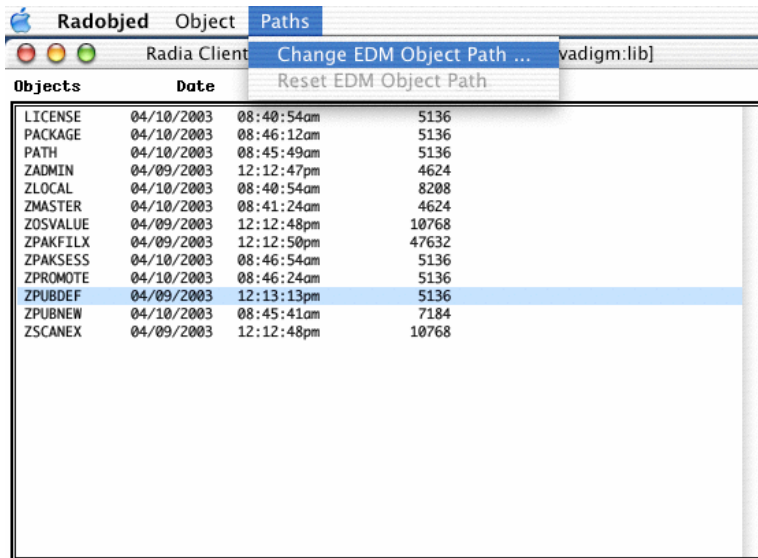


Figure 8.5 ~ Paths Menu, Change EDM Object Path.

4. Enter the path of the client computer you would like to view in the dialog box that appears. The ZCONFIG object is located by default in the *SystemDrive*:

```
/Applications/Novadigm/Lib/ClientFolder/ConfigurationServerFolder\
/SOFTWARE folder
```

Note

When displaying lines of code that extend beyond the defined margins of the manuscript, this symbol ↵ indicates that the code continues uninterrupted and indented on the next line. For example:

```
HTTP_HOST=↵
    localhost
```

is equivalent to:

```
HTTP_HOST=localhost
```

5. Double click the **ZCONFIG** object.

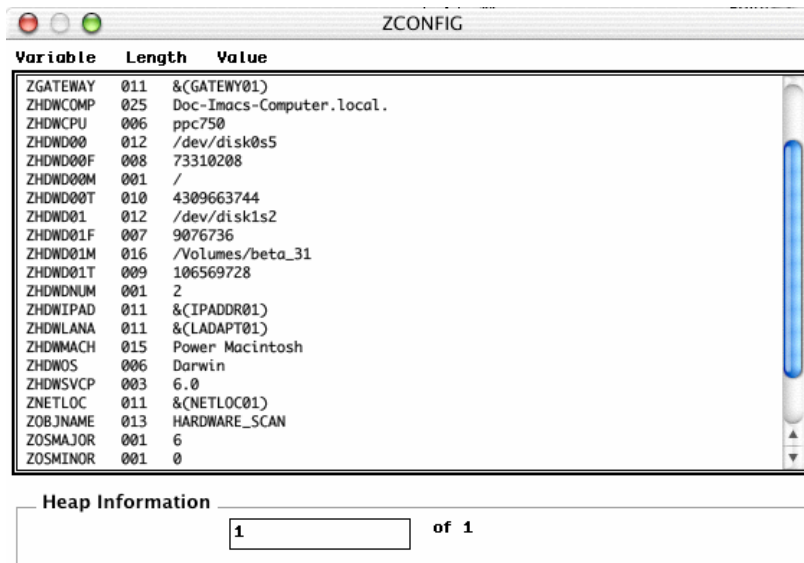


Figure 8.6 ~ ZCONFIG object.

6. Click **Object/Quit** in the **Services** menu when you are finished viewing **ZCONFIG**.

Table 8.2 ~ Variables 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 ~ Variables in ZCONFIG

Variable	Description	Example
GATEWY01	Gateway address of first Ethernet adapter	xxx.xxx.xxx.xxx
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
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
ZHDWCOMP	Computer node name	Doc_iMac
ZHDWCPU	CPU type	G3
ZHDWCPUS	CPU speed	400 MHz
ZHDWD00	First hard disk device	/dev/diskOs2
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	Power Macintosh
ZHDWMEM	Total physical memory	201326592
ZHDWSVCP	OS version	6.0
ZNETLOC	Network (subnet) location of primary Ethernet adapter	xxx_xxx_xxx_x
ZOBJNAME	Object instance name	HARDWARE_SCAN
ZOSMAJOR	Operating System major version	6
ZOSMINOR	Operating System minor version	0
ZOSREV	Operating System revision	Darwin Kernel Version 6.0: Sat Jul 27...
ZOSVER	Operating System version	6.0

Table 8.2 ~ Variables in ZCONFIG

Variable	Description	Example
ZSUBNET	Subnet mask of primary Ethernet adapter	255.255.255.0
ZUSERID	User ID	doc_imac

Setting Collection of the ZCONFIG Object

By default, the ZCONFIG object is collected for all client computers. Use the ZCONFIG variable located in the POLICY domain USER class to specify whether you want to copy the ZCONFIG object from the client computer to the Radia Configuration Server.

Note

The Radia System Explorer is available for 32-bit Windows applications. For more information, see the *Radia System Explorer Guide*.

To collect the ZCONFIG object

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 from HP, 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. 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**.

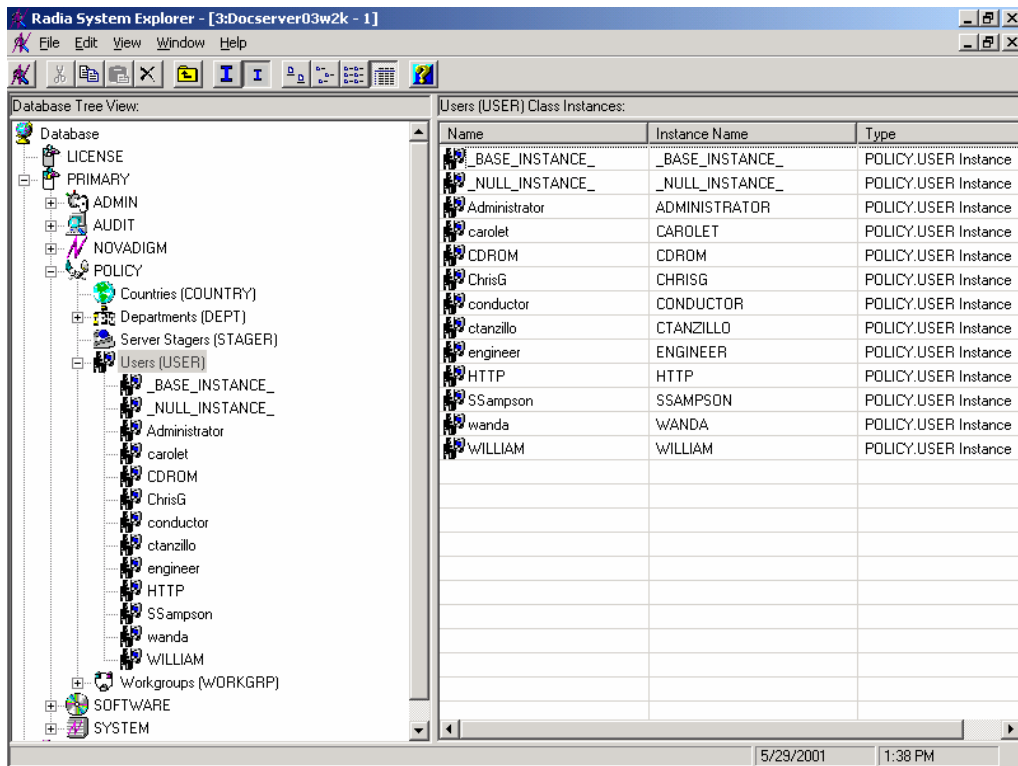


Figure 8.7 ~ USER class in the POLICY domain.

6. Double-click **_BASE_INSTANCE_**.

The attributes of the base instance appear in the list view.

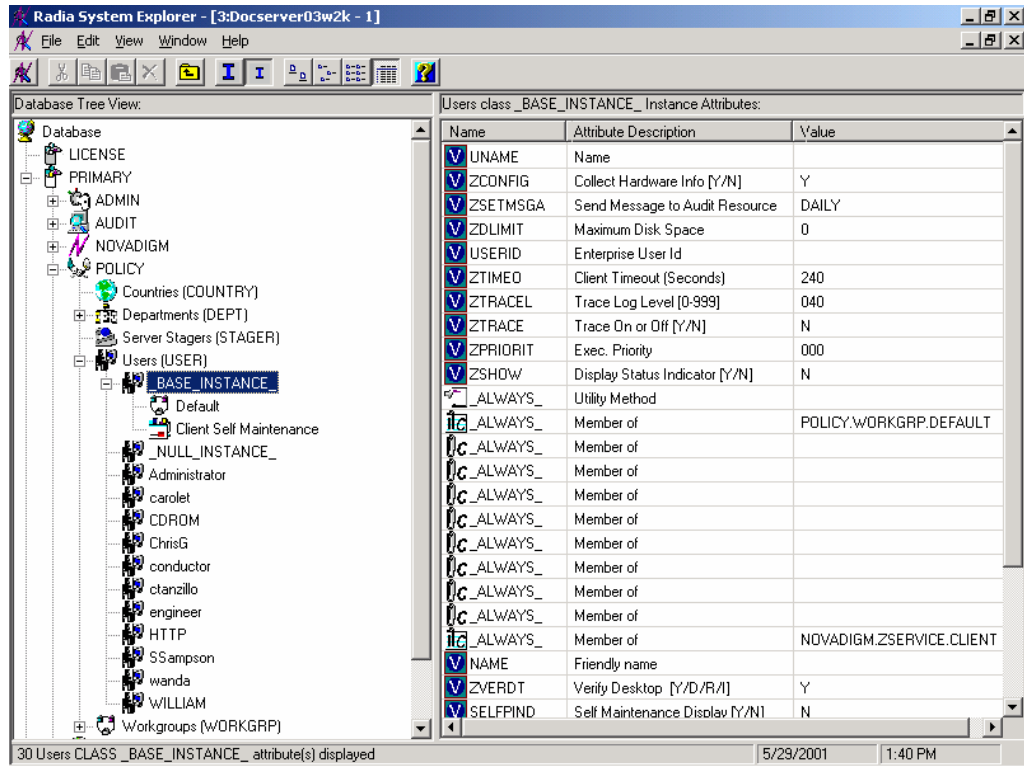


Figure 8.8 ~ Base instance of the USER class.

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.

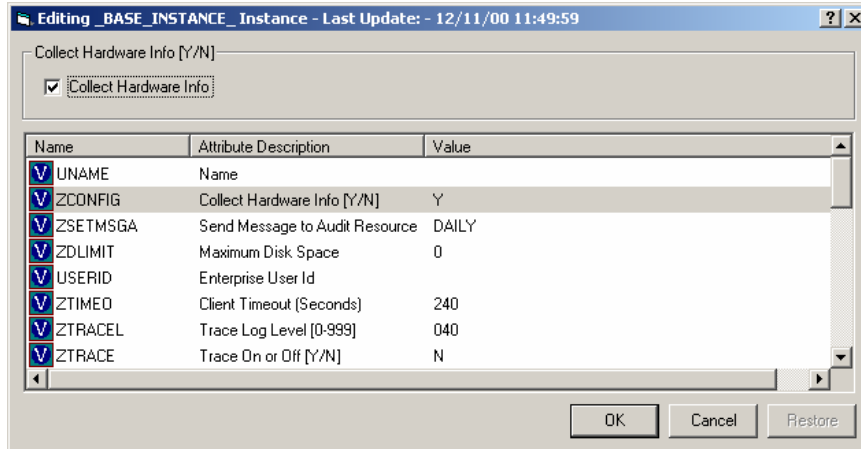


Figure 8.9 ~ Editing Instance dialog box.

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 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 will want to troubleshoot the issue. By default, all services are configured to send some application event information to the Radia Configuration Server. You can control what information is captured for the application by changing the EVENTS variable 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. The following table 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 *Chapter 5: Publishing Applications and Content* 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	Report on success or failure of Application Install.
	AD=B	Report on success or failure of Application Deinstall.
	AU=F	Report on failure of Application Update.
	AR=N	Do not report on Application Repair.
	VA=F	Report only on failure for Version Activation.
	VD=F	Report only on failure for Version Deactivation.

Note

The Radia System Explorer is available for 32-bit Windows applications. For more information, see the *Radia System Explorer Guide*.

To edit the events reported to APPEVENT 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 from HP, 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. 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)**.

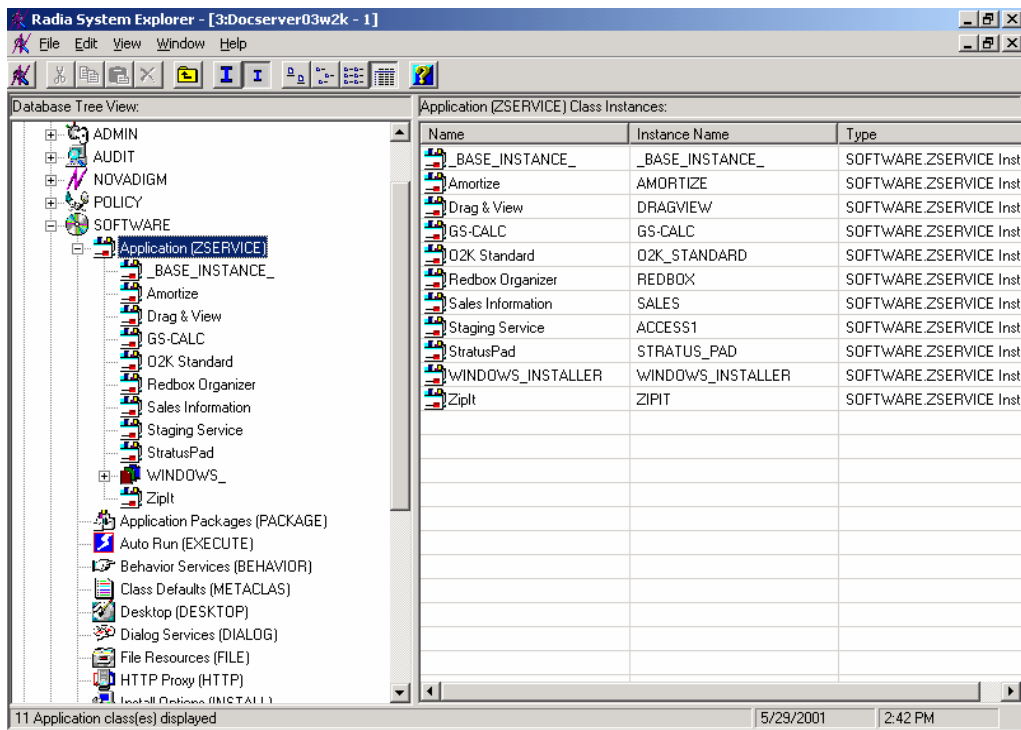


Figure 8.10 ~ Application (ZSERVICE) class.

- 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.

- Double-click the **EVENTS** variable for the application instance.
The **Editing Instance** dialog box opens.

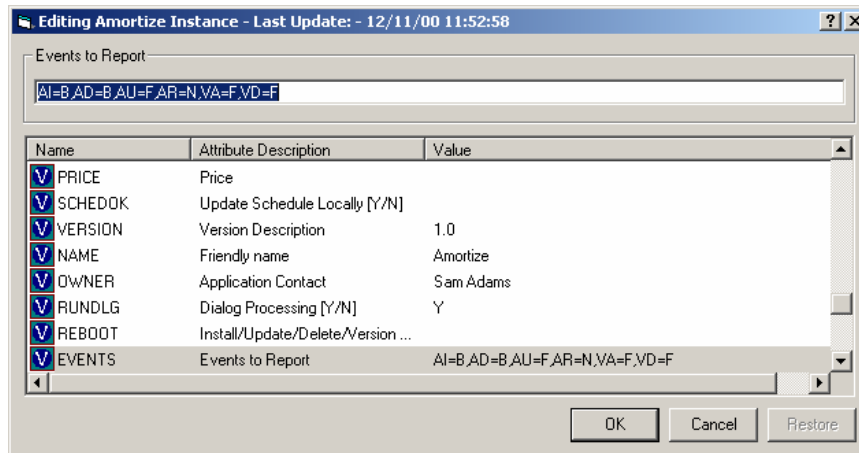


Figure 8.11 ~ Editing EVENTS attribute for the application instance.

- Edit the **EVENTS** attribute using values from the following tables.

Create your events to report by equating a keyword from *Table 8.4 ~ Events and Keywords* on page 343 with a value from *Table 8.5 ~ Event Status to Report* on page 343. 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 or the Radia Client 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. In the Radia Client Explorer, each APPEVENT is stored as an instance in the APPEVENT object.

Note

The Radia System Explorer is available for 32-bit Windows applications. 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 from HP, 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. 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 *Table 8.6 ~ Attributes in APPEVENT* on page 345 for information on the attributes.

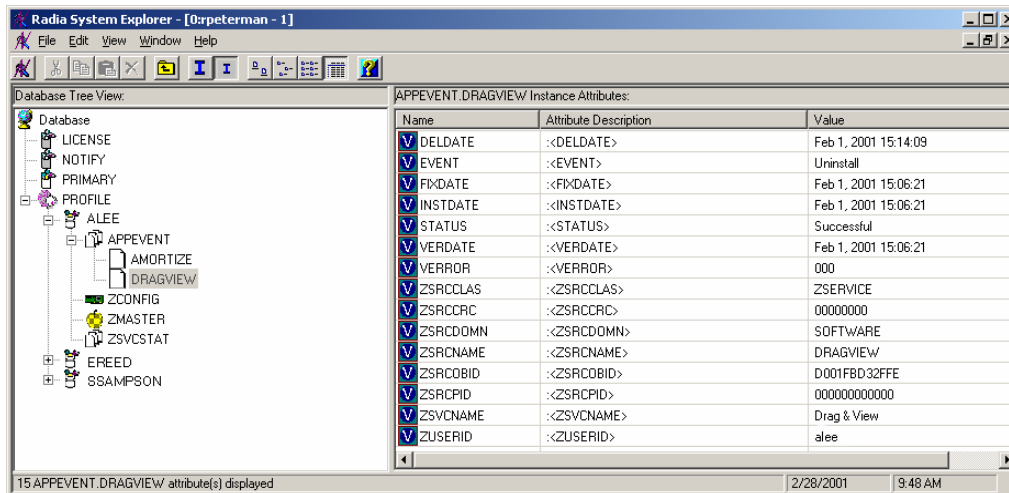


Figure 8.12 ~ Example of the APPEVENT object.

The following table 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

Table 8.6 ~ Attributes in APPEVENT

Attribute	Description	Example
VEERROR	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, he 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 a dynamic variable. After the merge, the dynamic variables are deleted from the object.

Below is an example of a REXX script for APPMERGE. For information on creating REXX scripts, see the *REXX Programming Guide* and the HP OpenView web site.

```
/* ***** */
/*
/* COPYRIGHT HP
/* LICENSED MATERIAL PROPERTY OF HP. 2001 */
/* NOVADIGM Enterprise Desktop Manager™ */
/*
/* ***** */
/* ***** */
/* properly set APPMERGE object for specified 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_VOO1 = 'KEEPER'
APPMERGE.OBJDATE = DATE('S')
APPMERGE OBJTIME = TIME()

RC = EDMSET('APPMERGE')

return;
```

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 *Radia REXX Programming Guide*.

ODBC

The Radia System Explorer and the Radia Client Explorer allow you to view only one object at a time. Therefore, you may wish to store your Radia objects in an ODBC (Open Database Connectivity) 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 to which the Radia Configuration Server connects.

Summary

- Use the Radia System Explorer or the 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.
- Radia objects or generate reports.



Naming Conventions

The following appendix discusses the use of naming conventions to help you organize the software stored in the Radia Database.

Naming Conventions

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 Macintosh 9 version and a Macintosh OS X version of a sample application, you might name the packages **SAMPLE_MAC9** and **SAMPLE_MACOSX** as shown in *Figure A.1 ~ Instances grouped by identifier* on page 353.

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_ZIPIT_80_WNT
• DIV	Identifies the division.	CTS (Corporate Technology Services)
• LOC	Identifies the location.	CLE (Cleveland)
• APPNAME	Identifies the application.	ZIPIT
• VER	Identifies the version of the application.	80
• OS	Identifies the operating system that the application runs on.	WNT

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_ZIPIT
• 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.	ZIPIT

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.



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 B.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 <i>must</i> be marked as mandatory. When using the Radia Software Manager, services <i>must</i> 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	<i>Reserved for future use.</i>	N/A	N/A
ZSVCACTD	<i>Reserved for future use.</i>	N/A	N/A
ZSVCACTT	<i>Reserved for future use.</i>	N/A	N/A
ZSVCEXPD	<i>Reserved for future use.</i>	N/A	N/A
ZSVCEXPT	<i>Reserved for future use.</i>	N/A	N/A
ZSVCCONF	<i>Reserved for future use.</i>	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 B.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: <ul style="list-style-type: none"> • 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	<i>Reserved for future use.</i>	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	<i>Reserved for future use.</i>	N/A	N/A

Table B.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 B.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 whether 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 Service List. 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	<i>Reserved for future use.</i>
RUNDLG	Specifies whether to enable processing of dialog boxes during the installation of the service. For more information on using dialog boxes, see <i>Radia Installation Tailoring</i> on the Technical Support Web site.	Y = Yes N = No	N

Table B.1 ~ SOFTWARE.ZSERVICE Attributes

Attribute	Description	Parameters	Default or Base Instance Value
REBOOT	<p>Used to restart the client computer based on application event.</p> <p>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.</p>	<p>Event to report on: AI = Install AD = Deinstall AU = Update AR = Repair AV = Verify</p> <p>Type of reboot: S = Soft Boot (Default of type Y panel.) H = Hard Boot (Default of type A panel.) N = None</p> <p>Type of panel: Q = No panel. A = OK button only. Y = OK and Cancel button.</p> <p>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.</p> <p>Example: AI=S performs a soft boot on application installation.</p>	

Table B.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 <i>Currently supports object format only.</i>	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
REMOVAL	Controls removal of the service.	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

Table B.1 ~ SOFTWARE.ZSERVICE Attributes

Attribute	Description	Parameters	Default or Base Instance Value
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 <i>Set to N for mandatory applications.</i>	<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
CACHELOC	<i>For Windows Installer applications only.</i> 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_

Table B.1 ~ SOFTWARE.ZSERVICE Attributes

Attribute	Description	Parameters	Default or Base Instance Value
CACHELIM	<p>Cache limit, which is defined as the percentage of used drive space.</p> <p>Note: Used for Windows Installer applications only.</p> <p>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.</p> <p>This is checked after every file is cached on the disk.</p>	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.	<p>Y = Disconnects the client from the Radia Configuration Server.</p> <p>N = Does not disconnect from the client from the Radia Configuration Server.</p>	N
ZSYSACCT	Specifies whether to install the service under the system account or the user's account. <i>Windows and Macintosh OS X Radia Clients only.</i>	<p>Y = The application is installed using the system rights.</p> <p>N = The application is installed using the rights of the user who is logged on.</p>	N
MCELIBL	Indicates if the application is eligible for multi-casting.	<p>Y = Yes</p> <p>N = No</p>	Y

Active Component Server

See *Radia Configuration Server*.

APPEVENT object

The **APPEVENT** object 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 properties

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.

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 Configuration 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.

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.

Integration Server

See *Radia Integration Server*.

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 subfolder for .exe methods or in the Manager REXX subfolder for REXX methods.

For 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 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.

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 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.

Radia Application Manager

The **Radia Application Manager** is the Radia Client that manages mandatory services. The Radia administrator uses the Radia System Explorer to specify the services that the Application Manager manages on the subscriber's computer. No user interface is available.

Radia Client

The **Radia Client** (Radia Application Manager 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 current state of the subscriber's computer. Then, the Radia Client makes any adjustments necessary to make the current state match the desired state.

Radia Client Explorer

The **Radia Client Explorer**, installed with the Radia Administrator Workstation, 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 Integration Server

The **Radia Integration Server** is the foundation for a number of Radia infrastructure components, including: the Radia Management Portal, the Radia Policy Server, the Radia Inventory Manager, and the Radia Proxy Server. The Radia Integration Server integrates these component modules; they use the same core Radia Integration Server files, run under the same process, and share a single entry point for all HTTP (Web based) requests.

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, installed with the Radia Application Manager, allows you to deploy a service at a specific time.

Radia Screen Painter

The **Radia Screen Painter**, installed with the Radia Administrator Workstation, is used to develop custom dialog boxes.

Radia Software Manager

The **Radia Software Manager** 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.

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**, installed with the Radia Administrator Workstation, 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*.

Screen Painter

See *Radia Screen Painter*.

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 Radia 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 sign-on 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.

Figures

Figure 1.1 ~ Elements in a distribution model.	21
Figure 1.2 ~ Client options.	27
Figure 1.3 ~ Scheduled Deployment Strategy.....	28
Figure 1.4 ~ Immediate notification deployment strategy.....	29
Figure 1.5 ~ Tasks completed in this guide.....	31
Figure 2.1 ~ Overview of the Radia Application Manager Guide.....	34
Figure 2.2 ~ Welcome window of the Radia Products Setup program for a local installation.	40
Figure 2.3 ~ Select Components to Install window.	41
Figure 2.4 ~ Select Installation Type window.....	42
Figure 2.5 ~ Radia Client Location window.	43
Figure 2.6 ~ Lib Directory window.	44
Figure 2.7 ~ Log Directory window.....	45
Figure 2.8 ~ Radia Configuration Server IP Address window.....	46
Figure 2.9 ~ Radia Configuration Server Port Number window.	47
Figure 2.10 ~ Package Settings window.....	48
Figure 2.11 ~ Installation Progress window.	49
Figure 2.12 ~ Successful Installation window.....	50
Figure 2.13 ~ Select Installation Type window.....	51
Figure 2.14 ~ Package Location window.	53
Figure 2.15 ~ Package Configuration Name window.	54
Figure 2.16 ~ Package Settings window.....	55
Figure 2.17 ~ Successful Installation window.....	56
Figure 2.18 ~ Sample shell script that runs a Client Connect.....	59

Figure 2.19 ~ Radia Client non-graphical installation.....62

Figure 2.20 ~ Select Components to install: Radia Application Manager.62

Figure 2.21 ~ Select Components to install: Radia Software Manager.....62

Figure 2.22 ~ Select the installation type.63

Figure 2.23 ~ Specify the location for the Radia Client.63

Figure 2.24 ~ Specify the location of the lib directory.63

Figure 2.25 ~ Specify the location for the log directory.....63

Figure 2.26 ~ Specify the Radia Configuration Server's IP address.64

Figure 2.27 ~ Specify the Radia Configuration Server's port number.64

Figure 2.28 ~ Installation Settings.....64

Figure 2.29 ~ Complete the Radia Client installation.....65

Figure 3.1 ~ Overview of the Radia Software Manager Guide.68

Figure 3.2 ~ Radia Administrator Workstation Welcome window.....72

Figure 3.3 ~ Radia Administrator Location window.73

Figure 3.4 ~ Lib Directory window.74

Figure 3.5 ~ Log Directory window.....75

Figure 3.6 ~ Radia Configuration Server IP Address window.....76

Figure 3.7 ~ Radia Configuration Server Port Number window.77

Figure 3.8 ~ Package Settings window.....78

Figure 3.9 ~ Radia Administrator Workstation non-graphical installation.80

Figure 3.10 ~ Specify the Radia Administrator Workstation installation location.....80

Figure 3.11 ~ Specify the location for the lib directory.80

Figure 3.12 ~ Specify the location for the log directory.....81

Figure 3.13 ~ Specify the Radia Configuration Server's IP address.81

Figure 3.14 ~ Specify the Radia Configuration Server's port number.81

Figure 3.15 ~ Installation Settings.....82

Figure 3.16 ~ Complete the Radia Administrator Workstation installation.82

Figure 4.1 ~ Overview of the Radia Software Manager Guide.86

Figure 4.2 ~ Welcome window for the Installation Wizard.....89

Figure 4.3 ~ Destination Folder window.90

Figure 4.4 ~ Radia Configuration Server window.91

Figure 4.5 ~ Select Features window.....92

Figure 4.6 ~ Feature set installation options.....93

Figure 4.7 ~ Ready to Install the Application window.....	94
Figure 4.8 ~ Successful Installation window.....	95
Figure 4.9 ~ Application Maintenance window for removing the Radia Administrator Workstation.....	99
Figure 4.10 ~ Radia Administrator Uninstall window.....	100
Figure 4.11 ~ Successful uninstallation window.....	101
Figure 4.12 ~ Application Maintenance window for repairing the Radia Administrator Workstation.....	104
Figure 4.13 ~ Ready to Repair the Application window.....	105
Figure 4.14 ~ Successful Installation window.....	106
Figure 4.15 ~ Application Maintenance window for modifying the Radia Administrator Workstation installation.....	109
Figure 4.16 ~ Select Features window.....	110
Figure 4.17 ~ Ready to Modify the Application window.....	111
Figure 4.18 ~ Successful Installation window.....	112
Figure 5.1 ~ Overview of Radia Software Manager Guide.....	116
Figure 5.2 ~ Global Default Properties dialog box, Client Management tab.....	123
Figure 5.3 ~ Global Default Properties dialog box, Data Options tab.....	126
Figure 5.4 ~ Global Default Properties dialog box, Client Behaviors tab.....	128
Figure 5.5 ~ Command lines stored in the MACFILE class instance.....	129
Figure 5.6 ~ Example of a MACFILE class instance.....	132
Figure 5.7 ~ Open Publishing Session window (Installation Monitor Mode).....	138
Figure 5.8 ~ Package Properties window (Installation Monitor Mode).....	140
Figure 5.9 ~ ZPAKSESS.EDM, current session information (Installation Monitor Mode).....	142
Figure 5.10 ~ System Configuration window (Installation Monitor Mode).....	143
Figure 5.11 ~ Availability window (Installation Monitor Mode).....	145
Figure 5.12 ~ What to Scan window (Installation Monitor Mode).....	148
Figure 5.13 ~ What to Scan window (Installation Monitor Mode).....	149
Figure 5.14 ~ Pre-Installation scan window (Installation Monitor Mode).....	151
Figure 5.15 ~ Message to install the software (Installation Monitor Mode).....	152
Figure 5.16 ~ Radia Publisher icon in the Apple dock (Installation Monitor Mode).....	152
Figure 5.17 ~ Post-Installation scan window (Installation Monitor Mode).....	153
Figure 5.18 ~ Summary window (Installation Monitor Mode).....	154
Figure 5.19 ~ View selected files (Installation Monitor Mode).....	155

Figure 5.20 ~ Setting file properties (Installation Monitor Mode).156

Figure 5.21 ~ Setting folder properties (Installation Monitor Mode).157

Figure 5.22 ~ Instance Properties dialog box, Client Management tab (Installation Monitor Mode).....158

Figure 5.23 ~ ZRSCVRFY attribute (Installation Monitor Mode).159

Figure 5.24 ~ Instance Properties dialog box, Data Options tab (Installation Monitor Mode)162

Figure 5.25 ~ Instance Properties dialog box, Client Behaviors tab (Installation Monitor Mode).....164

Figure 5.26 ~ Instance Properties dialog box, Database Information tab (Installation Monitor Mode).....166

Figure 5.27 ~ View selected aliases (Installation Monitor Mode).....168

Figure 5.28 ~ Expanded shortcut menu (Installation Monitor Mode).....169

Figure 5.29 ~ Promote Files window (Installation Monitor Mode).....171

Figure 5.30 ~ Open Publishing Session window (Component Selection Mode).....174

Figure 5.31 ~ Package Properties window (Component Selection Mode).176

Figure 5.32 ~ ZPAKSESS.EDM, current session information (Component Selection Mode).177

Figure 5.33 ~ System Configuration window (Component Selection Mode).178

Figure 5.34 ~ Availability window (Component Selection Mode).180

Figure 5.35 ~ Select Files to be Published window (Component Selection Mode).....181

Figure 5.36 ~ View selected files window (Component Selection Mode).182

Figure 5.37 ~ Instance Properties dialog box, Client Management tab (Component Selection Mode).....185

Figure 5.38 ~ ZRSCVRFY attribute (Component Selection Mode).186

Figure 5.39 ~ Instance Properties dialog box, Data Options tab (Component Selection Mode)189

Figure 5.40 ~ Instance Properties dialog box, Client Behaviors tab (Component Selection Mode).....191

Figure 5.41 ~ Instance Properties dialog box, Database Information tab (Component Selection Mode).193

Figure 5.42 ~ View selected program groups and aliases (Component Selection Mode).194

Figure 5.43 ~ Expanded shortcut menu (Component Selection Mode).195

Figure 5.44 ~ Promote Files window (Component Selection Mode).196

Figure 5.45 ~ Application Packages (PACKAGE) class.199

Figure 5.46 ~ Selecting New Application Wizard.200

Figure 5.47 ~ Service Name and Operating System dialog box.....	201
Figure 5.48 ~ Select the application target type dialog box.	202
Figure 5.49 ~ Application Properties dialog box.	203
Figure 5.50 ~ Application Event Level Reporting dialog box.....	204
Figure 5.51 ~ Application (ZSERVICE) base instance.	205
Figure 5.52 ~ Summary of the application settings.....	206
Figure 5.53 ~ New ZSERVICE instance.....	207
Figure 5.54 ~ Publishing maintenance files (Self-Maintenance).....	208
Figure 5.55 ~ Client Self Maintenance application instance (Self-Maintenance).	209
Figure 5.56 ~ Open Publishing Session window (Self-Maintenance).	211
Figure 5.57 ~ Package Properties window (Self-Maintenance). (Self-Maintenance).	213
Figure 5.58 ~ Select files to be published window (Self-Maintenance).	214
Figure 5.59 ~ Set properties and locations (Self-Maintenance).....	215
Figure 5.60 ~ Instance Properties dialog box, Data Options tab (Self-Maintenance).	216
Figure 5.61 ~ Promote files window (Self-Maintenance).....	217
Figure 5.62 ~ PRIMARY.NOVADIGM.ZSERVICE (Self-Maintenance).	219
Figure 5.63 ~ NOVADIGM.ZSERVICE connections (Self-Maintenance).	220
Figure 5.64 ~ Application Packages for Client Self Maintenance (Self-Maintenance).	221
Figure 5.65 ~ Select Connection Attribute dialog box (Self-Maintenance).	222
Figure 5.66 ~ Package connected to the Client Self Maintenance application (Self-Maintenance).....	223
Figure 5.67 ~ Client Self Maintenance path instance variables (Self-Maintenance).....	224
Figure 5.68 ~ Editing Instance dialog box (Self-Maintenance).....	225
Figure 5.69 ~ Editing Instance dialog box with new values (Self-Maintenance).	226
Figure 5.70 ~ Base instance of the USER class (Self-Maintenance).	227
Figure 5.71 ~ ZSERVICE applications displayed (Self-Maintenance).	228
Figure 5.72 ~ Notify Subscribers of Client Self Maintenance (Self-Maintenance).....	229
Figure 5.73 ~ Radia Notify Manager (Self-Maintenance).	230
Figure 5.74 ~ Select notification type (Self-Maintenance).	231
Figure 5.75 ~ Notification Summary (Self-Maintenance).	232
Figure 5.76 ~ Notification initialization message (Self-Maintenance).....	232
Figure 5.77 ~ Status Monitor (Self-Maintenance).	233
Figure 6.1 ~ Overview of the Radia Software Manager Guide.	236

Figure 6.2 ~ The POLICY domain.238

Figure 6.3 ~ Shortcut menu for the USER class.....241

Figure 6.4 ~ Create Instance dialog box.....242

Figure 6.5 ~ The SSampson USER instance.....242

Figure 6.6 ~ Select Show Connections from the shortcut menu.....244

Figure 6.7 ~ The POLICY.USER Connections dialog box.....245

Figure 6.8 ~ Connect USERS.SSampson to DEPT.Sales.....246

Figure 6.9 ~ Select the attribute for the connection.....247

Figure 6.10 ~ SSampson is connected to the Sales department instance.....248

Figure 6.11 ~ The Departments (DEPT) class.....250

Figure 6.12 ~ The POLICY.DEPT Connections dialog box.....251

Figure 6.13 ~ ZSERVICE class instances in the list view.....252

Figure 6.14 ~ Connect ZipIt to Sales.....253

Figure 6.15 ~ Select the attribute for the connection.....254

Figure 6.16 ~ The ZipIt application is authorized for the Sales department.....255

Figure 6.17 ~ Radia manages ZipIt for the Sales department.....256

Figure 7.1 ~ Tasks completed in this guide.....260

Figure 7.2 ~ Transferring the Timer Instance.....263

Figure 7.3 ~ Create Instance dialog box.....265

Figure 7.4 ~ Sales Timer created.....265

Figure 7.5 ~ radskman parameters in a text file.....271

Figure 7.6 ~ Edit instance.....275

Figure 7.7 ~ Connecting a timer to an application instance.....277

Figure 7.8 ~ Select Connection Attribute for Sales Information.....278

Figure 7.9 ~ Application (ZSERVICE) shortcut menu.....279

Figure 7.10 ~ Show Connections dialog box.....280

Figure 7.11 ~ Connect the timer to the Application instance using the Connection dialog box
.....281

Figure 7.12 ~ Radia Client Explorer objects.....282

Figure 7.13 ~ An instance of the ZTIMEQ object.....283

Figure 7.14 ~ Radia Configuration Server Settings file for Notify.....286

Figure 7.15 ~ Connecting a Policy to a ZSERVICE for Notify.....287

Figure 7.16 ~ Application (ZSERVICE) instance shortcut menu.....288

Figure 7.17 ~ Notify Start message box.	288
Figure 7.18 ~ Alert message when no users are in the audience list.	289
Figure 7.19 ~ Notify audience list.	290
Figure 7.20 ~ Radia Notify Manager Notification Types.	291
Figure 7.21 ~ Notification e-mail.	292
Figure 7.22 ~ Notification Details dialog box.	293
Figure 7.23 ~ Notification Summary dialog box.	294
Figure 7.24 ~ E-mail Notify initiated.	294
Figure 7.25 ~ Notify Status Monitor dialog box.	295
Figure 7.26 ~ NOTIFY domain shortcut menu.	296
Figure 7.27 ~ Notify instance example.	297
Figure 7.28 ~ RETRY domain.	298
Figure 7.29 ~ Line to include in the Radia Configuration Server Settings file to enable Notify Retry.	298
Figure 7.30 ~ Editing Instance dialog box with REBOOT variable selected.	301
Figure 7.31 ~ Request to reboot the client computer.	302
Figure 7.32 ~ Copy Clock instance to RefreshCatalog instance.	304
Figure 7.33 ~ Editing the ZCMDPRMS variable in the RefreshCatalog instance.	305
Figure 7.34 ~ Version Group example.	307
Figure 7.35 ~ Version (VERSION) class instance example.	308
Figure 7.36 ~ Model for non-versioned deployments.	310
Figure 7.37 ~ Model for versioned deployment.	312
Figure 7.38 ~ Creating the Amortize instance in the Create Instance dialog box.	314
Figure 7.39 ~ The Editing Version Group dialog box before making selections.	315
Figure 7.40 ~ The Editing Version Group dialog box with calendar displayed.	316
Figure 7.41 ~ The Create Version dialog box.	317
Figure 7.42 ~ The Version Editor dialog box.	318
Figure 7.43 ~ The Editing Version Group dialog box with a Version Group instance.	319
Figure 7.44 ~ Assigning a version.	320
Figure 7.45 ~ Deploying assigned versions.	321
Figure 7.46 ~ Activating versions in the Version Group dialog box.	322
Figure 7.47 ~ Connect version to application.	323
Figure 8.1 ~ Tasks completed in this guide.	328

Lists

Figure 8.2 ~ PROFILE file.	329
Figure 8.3 ~ Client computer in the PROFILE file.	330
Figure 8.4 ~ Viewing the ZCONFIG object in Radia System Explorer.	332
Figure 8.5 ~ Paths Menu, Change EDM Object Path.....	333
Figure 8.6 ~ ZCONFIG object.	334
Figure 8.7 ~ USER class in the POLICY domain.	337
Figure 8.8 ~ Base instance of the USER class.	338
Figure 8.9 ~ Editing Instance dialog box.....	339
Figure 8.10 ~ Application (ZSERVICE) class.....	341
Figure 8.11 ~ Editing EVENTS attribute for the application instance.....	342
Figure 8.12 ~ Example of the APPEVENT object.....	345
Figure 8.13 ~ Sample REXX script setting APPMERGE object.	348
Figure A.1 ~ Instances grouped by identifier.....	353

Tables

Table P.1 ~ Styles.....	6
Table P.2 ~ Usage.....	6
Table P.3 ~ Terminology*	7
Table 1.1 ~ Radia Database Structure	22
Table 2.1 ~ Command Line Parameters.....	38
Table 2.2 ~ Configuration File Variables	57
Table 2.3 ~ Silent Installation Command Line Parameters	61
Table 3.1 ~ Command Line Parameters.....	69
Table 4.1 ~ Feature Settings for the Radia Administrator Workstation	93
Table 4.2 ~ Radia Administrator Workstation Feature State Arguments.....	96
Table 4.3 ~ Command Line Arguments.....	97
Table 5.1 ~ Verification Options	124
Table 5.2 ~ Delivery Options.....	125
Table 5.3 ~ Data Options.....	127
Table 5.4 ~ Client Method Commands	130
Table 5.5 ~ Attributes Exclusive to the MACFILE Class	133
Table 6.1 ~ Sample Administrator Types.....	237
Table 6.2 ~ Classes in the POLICY Domain	239
Table 7.1 ~ Scheduling (TIMER) Variables to Modify.....	267
Table 7.2 ~ Other Scheduling (TIMER) Variables.....	268
Table 7.3 ~ Syntax of ZSCHDEF Variable	270
Table 7.4 ~ Syntax of ZSCHDEF when Using RANDOM	270
Table 7.5 ~ ZSCHDEF Parameters when ZSCHFREQ is Set to RANDOM	271
Table 7.6 ~ radskman Parameters.....	272
Table 7.7 ~ Logs Used to Troubleshoot Scheduled Applications.....	284
Table 7.8 ~ REBOOT Variable Values and Uses	302
Table 7.9 ~ VERSION Class Variables.....	308
Table 7.10 ~ Caching Variables	324
Table 8.1 ~ Objects in the PROFILE File.....	330
Table 8.2 ~ Variables in ZCONFIG.....	335
Table 8.3 ~ Base Instance Values for ZSERVICE that Apply to the APPEVENT Object.....	340

Lists

Table 8.4 ~ Events and Keywords.....	343
Table 8.5 ~ Event Status to Report.....	343
Table 8.6 ~ Attributes in APPEVENT.....	345
Table A.1 ~ Naming Conventions for the USER Class.....	354
Table A.2 ~ Naming Conventions for the WORKGRP Class	354
Table A.3 ~ Naming Conventions for the PACKAGE Class.....	355
Table A.4 ~ Naming Conventions for Delivery and Auditing Classes*	355
Table B.1 ~ SOFTWARE.ZSERVICE Attributes	358

Procedures

To install the Radia Client to a local computer using a GUI	39
To install the Radia Client to a remote computer using a GUI	50
To install the Radia Client for Mac OS X using a command line	61
To install the Radia Administrator Workstation for Mac OS X using a GUI	71
To install the Radia Administrator Workstation for Mac OS X using a command line	79
To install the Radia Administrator Workstation for Windows using the Installation Wizard	88
.....	98
To remove the Radia Administrator Workstation for Windows using a command line	102
To repair the Radia Administrator Workstation for Windows using the Installation Wizard	
.....	103
To repair the Radia Administrator Workstation for Windows using a command line	107
To modify the Radia Administrator Workstation installation for Windows using the	
Installation Wizard	108
To modify the Radia Administrator Workstation installation for Windows using a command	
line	113
To log on to Radia Publisher	122
To access the Global Default Properties dialog box	122
To view the MACFILE class instances using the Radia System Explorer	131
To set the drives to scan	149
To begin the Pre-Installation Scan	151
To install the software	152
To begin the Post-Installation Scan	153
To view the selected files and folders	155
To edit a file's properties	156
To view the selected aliases	168
To set properties for aliases	168
To view the files to be promoted	170
To promote the package	171
To select the files to publish	181
To view the selected files and folders	182
To filter the displayed files and folders	183

Lists

To remove a filter	183
To access the Instance Properties dialog box	184
To view the selected program groups (files and directories) and Mac Aliases.....	194
To set properties for program groups, links, and shortcuts	194
To view the files to be promoted.....	196
To promote the package.....	197
To access the Radia System Explorer	198
To navigate to the PACKAGE class of the SOFTWARE domain.....	199
To create a service using the New Application Wizard	200
To connect the maintenance package to the application	218
To modify the location of the maintenance files.....	223
To connect the Client Self Maintenance application to the _BASE_INSTANCE_.....	227
To initiate a Client Connect using Radia Notify.....	229
To create a new user	240
To assign a user to a department.....	243
To connect the ZipIt application to the Sales Department.....	249
To create a new timer in the SOFTWARE domain.....	264
To view the timer instance	266
To edit a variable	274
To drag a connection	276
To make a connection using Show Connections.....	279
To view the ZTIMEQ object on the client computer	282
To initiate a Notify by dragging the policy instance.....	286
To initiate a menu-based Notify.....	287
To notify subscribers	289
To view the status of a Notify.....	295
To see the status of retry attempts	299
To edit the REBOOT variable in the Application instance	300
To create a drag-and-drop Notify command.....	303
To create a Version Group instance.....	313
To view the ZCONFIG object using the Radia System Explorer	331
To view the ZCONFIG object using the Radia Client Explorer	333
To collect the ZCONFIG object.....	336

To edit the events reported to APPEVENT using the Radia System Explorer340
To view the APPEVENT instance using the Radia System Explorer344

Index

\$

\$MACHINE, 274

\$USER, 274

.

.nvdprof, 35

—

ALWAYS attribute, 267, 359, 376

A

access rules, in the Radia Database, 373

Active Component Server. *See* Radia Configuration Server

Active option, 156

ADAPTIVE attribute, 363

ADDLOCAL argument, 96

ADDSOURCE argument, 96

ADMIN domain, 23

Administrative Installation Point, 87

 creating, 87

administrator types, 237

 DEPT, 237

 LAN, 237

 MASTER, 237

 NTFY, 237

 PKGR, 237

 SEC, 237

 SYS, 237

ADVERTISE argument, 96

After check box, 180

ALIASCOPTS attribute, 58

ALIASCREATE attribute, 57

Aliases tab

 Component Selection Mode, 194

 Installation Monitor Mode, 168

ALIASFOLDER attribute, 58

ALIASLOCAT attribute, 57

APPEVENT class, 344

APPEVENT object, 205, 330, 340

 definition, 367

Application Maintenance window, 99, 104, 109

Application Manager. *See* Radia Application Manager

Application Packages instance, description, 117

Application Properties dialog box, 203

Application Target Type dialog box, 202

applications

 connecting to users, 249

 definition, 367

 deploying, 260

ARBITRAT attribute, 130, 165, 192

ask argument, 272

attribute properties, definition, 367

attribute, definition, 23, 367

audience list, 229

 creating, 287, 289

 definition, 368

AUDIT domain, 23

AUTHOR attribute, 360

autofix argument, 272

Availability window

Index

- Component Selection Mode, 180
 - After check box, 180
 - Before check box, 180
- Installation Monitor Mode, 145
 - After check box, 146
 - Before check box, 145

B

- base instance, 337
- Before check box, 180
- byte level differencing, definition, 368

C

- CACHE attribute, 364
- CACHELIM attribute, 365
- CACHELOC attribute, 364
- caching
 - advantages, 323
 - variables, 324
- cat argument, 272
- CATALOG attribute, 360
- cfg, 61
- Check for existence only
 - Component Selection Mode, 187
 - global defaults, 124
 - Installation Monitor Mode, 160
- Check internal version
 - Component Selection Mode, 187
 - global defaults, 124
 - Installation Monitor Mode, 160
- class
 - definition, 368
 - description, 22
- class connection variable, definition, 368
- class instance, definition, 368
- clean computer, definition, 86, 368
- clean machine, definition, 368
- Client. *See* Radia Client
- client behaviors
 - File Arbitration Method, 165
 - File Update/Add Method, 165
 - Instance Update Method, 165

- Method to De-install Resource, 165
- Method to Install Resource, 164
- Resource Initialization Method, 164, 191
- Client Behaviors tab
 - Component Selection Mode, 191
 - Global Default Properties, 128
 - Installation Monitor Mode, 164
 - table of fields, 130
 - where command lines are stored, 128
- client computer, definition, 369
- Client Connect, 329
- Client Explorer. *See* Radia Client Explorer
- Client Management tab
 - Component Selection Mode, 185
 - delivery options, 187
 - verification options, 186
 - Global Default Properties, 123
 - delivery options, 125
 - verification options, 123
 - Installation Monitor Mode, 158
 - delivery options, 160
 - verification options, 159
- client method command lines, 164, 191
- client object, definition, 369
- client self-maintenance. *See also* self-maintenance
 - application packages, 221
 - files, changing location, 223
 - path instance attributes, 224
- Clients. *See* Radia Management Applications
- command line
 - Radia Administrator Workstation
 - Mac OS X
 - installing, 69, 79
 - Windows
 - installing, 96, 97
 - modifying, 113
 - removing, 102
 - repairing, 107
 - Radia Client
 - installing, 38, 61
- component class, definition, 369
- Component Selection Mode

- Availability window, 180
 - Client Behaviors tab
 - File Arbitration Method, 192
 - File Update/Add Method, 192
 - Instance Update Method, 192
 - Method to De-install Resource, 192
 - Method to Install Resource, 191
 - Client Management tab
 - delivery settings, 187
 - verification options, 186
 - delivery options
 - Override Priority, 187
 - Use default priority, 187
 - description, 116
 - Instance Properties dialog box, 184
 - Client Behaviors tab, 191
 - Client Management tab, 185
 - Data Options tab, 189
 - Database Information tab, 193
 - Open Publishing Session window, 174
 - overview, 172
 - Package Properties window, 176
 - prerequisites, 172
 - Promote Files window, 196
 - publishing steps, 173
 - Select Files to be Published window, 181
 - Set Properties and Locations window, 184
 - Aliases tab, 194
 - Files tab, 182, 184
 - System Configuration Mode, 178
 - verification options
 - Check for existence only, 187
 - Check Internal Version, 187
 - Content (CRC Check), 186
 - No verification, 187
 - Update only if newer, 187
 - Verify statistics equal to, 186
 - compression settings, 127
 - Component Selection Mode, 189
 - Deflate, 127, 162, 189
 - Installation Monitor Mode, 162
 - Lempel-Ziv, 127
 - None, 127, 162, 189
 - COMPSize attribute, 361
 - configuration class, definition, 369
 - configuration file variables, 57
 - Configuration Server. *See* Radia Configuration Server
 - CONNECT configuration file attribute, 57
 - Connections dialog box, 245, 276
 - connecting a timer, 279
 - Content (CRC Check)
 - Component Selection Mode, 186
 - global defaults, 124
 - Installation Monitor Mode, 159
 - context argument, 272
 - COUNTRY class, 239
 - Create Instance dialog box, 241
 - Create Version dialog box, 317
 - creating a service, 198
- ## D
- daemons, 36
 - Darwin Subsystem, 34
 - data options
 - Compression settings, 162, 189
 - global defaults, 126, 127
 - Compression settings, 127
 - Promote instances without data, 127
 - Promote Resource As, 127
 - Force lock method, 127
 - Maintenance, 127
 - Normal, 127
 - Promote instances without data, 162, 189
 - Promote Resource As, 163, 190
 - Force lock method, 163, 190
 - Maintenance, 163, 190
 - Normal, 163, 190
 - Data Options tab
 - Component Selection Mode, 189
 - Global Default Properties, 126
 - Installation Monitor Mode, 162
 - Self-Maintenance, 216
 - Database. *See* Radia Database

Index

Database Information tab, 166, 193
date and time constraints, 145
DDN. *See* drag-and-drop Notify
default properties, setting, 122
DEFERRED, 268
Deflate compression setting, 127, 162, 189
DELDATE attribute, 360
delivery options, 125, 187
 Global Default Properties
 Machine, 125
 Mandatory, 125
 Optional, 125
 Override Priority, 125
 Use default priority, 125
 User, 125
Machine, 161, 188
Mandatory, 161, 187
Optional, 161, 188
Override Priority, 161, 187
Use default priority, 160, 187
User, 161, 188
User Specified, 125, 161, 188
deployment
 recommendations, 325
 staging servers, 325
deployment destinations, definition, 20
deployment methods, 260
 Just-in-Time, 260
 Notify, 260, 285
 Scheduler, 260, 262
 special case, 300
 Version Groups, 260
 versioning, 306
 model, 312
deployment source, definition, 20
deployment strategies, 28
 notified, 29
 scheduled, 28
DEPT administrator type, 237
DEPT class, 239
DESCRIPT attribute, 360
desired state, definition, 369

Desktop instance, description, 117
Destination Folder window, 90
Directories to be Scanned list, 150
DISPLAY attribute, 38
distribution model
 components, 21
 definition, 20
dname argument, 272
domain, definition, 22, 370
drag-and-drop Notify, 303
 creating, 303
DRIVE attribute, 224
DUAL attribute, 57
dynamic variables, 347

E

Editing Instance dialog box, 339
 EVENTS attribute, 342
 REBOOT attribute, 301
 Self-Maintenance, 225
 ZCONFIG object, 339
Editing Version Group dialog box, 314
Electronic Software Distribution, 18
EMAIL attribute, 285
Enter service name and select target OS dialog box, 201
ERTYPE attribute, 204, 340, 363
EVENTS attribute, 204, 340, 342, 363
expression variable, definition, 370

F

feature settings, 93
feature state arguments, 96
file
 definition, 22, 370
 editing properties, 156
 setting default properties, 122
File Arbitration Method, 130, 192
 Component Selection Mode, 192
 Global Default Properties, 130
 Installation Monitor Mode, 165
file caching, advantages, 323

FILE instance, description, 117
 File Resources instance, description, 117
 File Update/Add Method, 192

- Component Selection Mode, 192
- Global Default Properties, 130
- Installation Monitor Mode, 165

 Files tab

- Component Selection Mode, 182, 184
- Installation Monitor Mode, 155, 156

 Files to be Promoted, 196
 filter, removing, 183
 filtering files, 183
 folders, setting default properties, 122
 Force lock method, 127

- Component Selection Mode, 190
- Installation Monitor Mode, 163

G

Global Default Properties

- Client Behaviors tab, 128
- Client Management tab, 123
 - delivery options, 125
 - verification options, 123
- Data Options tab, 126
- delivery options, settings, 125
- dialog box, 122
- verifiacion options, settings, 124

 global defaults

- changing, 122
- client behaviors
 - File Arbitration Method, 130
 - File Update/Add Method, 130
 - Instance Update Method, 130
 - Method to De-install Resource, 130
 - Method to Install Resource, 130
 - Resource Initialization Method, 130
- data options
 - Compression settings, 127
 - Promote instances without data, 127
 - Promote Resource As
 - Force lock method, 127
 - Maintencance, 127

Normal, 127
 delivery options

- Machine, 125
- Mandatory, 125
- Optional, 125
- Override Priority, 125
- Use default property, 125
- User, 125

 verification options

- Check for existence only, 124
- No verification, 124
- Update only if newer, 124
- Use default specified on the Manager, 124
- Verify statistics equal to, 124

 graphical user interface

- Radia Administrator Workstation
 - Mac OS X, 71
 - Windows, 88
- Radia Client
 - local computer, 39
 - remote computer, 50

 GUI. *See* graphical user interface

H

handle_reboot parameter, 272
 HOME directory, 35
 hreboot parameter, 272

I

IDMDATA directory, 127

- location, 190

 IDMLIB configuration file attribute, 57
 IDMLIB directory, 63, 80

- location, 333

 IDMLOG, 81
 IDMLOG configuration file attribute, 57
 IDMROOT directory, 282
 IMMEDIATE, 268
 Inactive option, 156
 ind argument, 272
 infrastructure, self-managing, 19
 installation methods

Index

- Radia Administrator Workstation, 69
- Radia Client, 38
- Installation Monitor Mode
 - Availability window, 145
 - Client Management tab, 158
 - delivery options, 160
 - verification options, 159
 - delivery options
 - Machine, 161
 - Mandatory, 161
 - Optional, 161
 - Override Priority, 161
 - Use default priority, 160
 - User, 161
 - User Specified, 161
 - description, 116
 - installing software, 152
- Instance Properties dialog box
 - Client Behaviors tab, 164
 - Client Management tab, 158
 - Data Options tab, 162
 - Database Information tab, 166
- Open Publishing Session window, 138
- overview, 135
- Package Properties window, 140
- Post-Installation Scan window, 153
- Pre-Installation Scan, 151
- Promote Files window, 170
- Set Drives to Scan window, 149
- Set Properties and Locations window, 156
 - Desktop tab, 168
 - Files tab, 155, 156
- Summary window, 154
- System Configuration window, 143
- updated files, 167
- verification options
 - Check for existence only, 160
 - Check internal version, 160
 - Content (CRC Check), 159
 - No verification, 160
 - Update only if newer, 160
 - Verify statistics equal to, 159
- installation program
 - Radia Administrator Workstation, 87
 - Radia Client, 36
- Installation Progress window for the Radia Client, 49
- Installation Wizard, 88, 89
- installing
 - Radia Administrator Workstation
 - Mac OS X
 - command line, 79
 - GUI, 71
 - system requirements, 68
 - Windows
 - command line, 96
 - system requirements, 86
 - Wizard, 88
 - Radia Client
 - command line, 61
 - GUI
 - local computer, 39, 63
 - remote computer, 50, 63
- installing software, 152
- instance
 - definition, 370
 - description, 22
- Instance Connection message box, timer connection, 278
- instance properties
 - client behaviors
 - File Arbitration Method, 165
 - File Update/Add Method, 165
 - Instance Update Method, 165
 - Method to De-install Resource, 165
 - Method to Install Resource, 164
 - Resource Initialization Method, 164, 191
- data options
 - Compression setting, 162, 189
 - Deflate, 162, 189
 - None, 162, 189
 - Promote instances without data, 162, 189
 - Promote Resource As, 163, 190
 - Force lock method, 163, 190
 - Maintenance, 163, 190

- Normal, 163, 190
- delivery options
 - Machine, 161, 188
 - Mandatory, 161, 187
 - Optional, 161, 188
 - Override Priority, 161, 187
 - Use default priority, 160, 187
 - User, 161, 188
 - User Specified, 125, 161, 188
- verification options
 - Check for existence only, 160, 187
 - Check internal version, 124, 160, 187
 - Content (CRC Check), 124, 159, 186
 - No verification, 160, 187
 - Update only if newer, 160, 187
 - Use the default specified on the Manager, 159, 186
 - Verify statistics equal to, 159, 186
- Instance Properties dialog box, 157
 - Component Selection Mode, 184
 - Client Behaviors tab, 191
 - Client Management tab, 185
 - Data Options tab, 189
 - Database Information tab, 166, 193
 - Installation Monitor Mode
 - Client Behaviors tab, 164
 - Client Management tab, 158
 - Data Options tab, 162
 - Database Information tab, 166
 - opening, 184
 - Self-Maintenance, Data Options tab, 216
- Instance Update Method, 192
 - Component Selection Mode, 192
 - Global Default Properties, 130
 - Installation Monitor Mode, 165
- INSDATE attribute, 345, 360
- INSDIR configuration file attribute, 57
- Integration Server. See Radia Integration Server
- IP argument, 272
- IPADDR01 attribute, 335

J

- Just-in-Time, 260

L

- LADAPT01 attribute, 335
- LAN administrator type, 237
- Lib directory location
 - Radia Administrator Workstation
 - Mac OS X
 - command line, 80
 - GUI, 74
 - Radia Client
 - command line, 63
 - GUI
 - local, 44
 - remote, 52
- LICENSE file, 23
- LOCALUID attribute, 274
- locked file method, 190
- LOG directory, 298
- Log directory location
 - Radia Administrator Workstation
 - Mac OS X
 - command line, 81
 - GUI, 75
 - Radia Client
 - command line, 63
 - GUI
 - local, 45
 - remote, 52
- loglevel 9, 35, 69
- logs
 - timer, 283
 - troubleshooting, 284
- LREPAIR attribute, 324, 363

M

- Mac File Resources, 131
 - description, 131
- MACALIAS, 124
- MACFILE attributes, 131

Index

- MACFILE class, 133
 - attributes, 133
 - MACFILE instance, 131
 - MACFILE.ZRSCRASH attribute, 133
 - Machine
 - Component Selection Mode, 188
 - global defaults, 125
 - Installation Monitor Mode, 161
 - maintenance
 - client, 208
 - packages, 221
 - path instance attributes, 224
 - Maintenance data option, 127
 - Component Selection Mode, 190
 - Installation Monitor Mode, 163
 - maintenance files
 - changing location, 223
 - delivery of, 209
 - promoting, 163, 190
 - publishing, 208, 210
 - maintenance instance, 209
 - maintenance package, 209, 218
 - management applications, 26
 - Manager. *See* Radia Configuration Server
 - Mandatory
 - Component Selection Mode, 187
 - global defaults, 125
 - Installation Monitor Mode, 161
 - mandatory service, definition, 371
 - MASTER administrator type, 237
 - MCELIBL attribute, 365
 - Method to De-install Resource, 192
 - Component Selection Mode, 192
 - Global Default Properties, 130
 - Installation Monitor Mode, 165
 - Method to Install Resource, 191
 - Component Selection Mode, 191
 - Global Default Properties, 130
 - Installation Monitor Mode, 164
 - method variable, definition, 371
 - method, definition, 371
 - MGRIP configuration file attribute, 57
 - MGRPORT configuration file attribute, 57
 - Minimum Megabytes of Memory Required
 - Component Selection Mode, 178
 - Installation Monitor Mode, 144
 - Minimum Processor Required
 - Component Selection Mode, 179
 - Installation Monitor Mode, 144
 - mname argument, 273
 - mode plain, 38, 69
 - mode silent, 61
 - mode text
 - Radia Administrator Workstation installation, 69
 - Radia Client installation, 38
 - modifying Radia Administrator Workstation
 - command line, 113
 - GUI, 108
 - MS Windows Installer, 87
- ## N
- NAME attribute, 225, 267, 361
 - naming conventions, 351
 - POLICY domain, 354
 - USER class, 354
 - WORKGRP class, 354
 - SOFTWARE domain, 355
 - Auditing class, 355
 - Delivery class, 355
 - PACKAGE class, 355
 - New Application Wizard
 - creating a service, 198, 200
 - dialog box, 201
 - No verification
 - Component Selection Mode, 187
 - global defaults, 124
 - Installation Monitor Mode, 160
 - None compression setting, 127, 162, 189
 - non-graphical installation
 - Radia Administrator Workstation
 - Mac OS X, 79
 - Windows, 96
 - Radia Client, 61
 - Normal data option, 127

- Component Selection Mode, 190
- Installation Monitor Mode, 163
- Notification Details dialog box, 293
- Notification e-mail, 292
- Notification Summary dialog box, 232, 294
- Notification Type dialog box, 231
- notified deployment, 29
 - steps, 29
- Notify, 260, 285
 - audience list, creating, 287, 289
 - definition, 371
 - description, 285
 - drag-and-drop, 303
 - initiating, 286
 - methods, 286
 - using a menu, 287
 - requirements, 285
 - retry command line, 298
 - viewing status, 295
- NOTIFY class, 296
- NOTIFY domain, 293
- NOTIFY file, 295
 - description, 24
 - file structure, 296
 - RETRY domain, 297
- Notify instance, example, 297
- Notify Manager, 230
- Notify Retry Manager, 298
- notifying subscribers, 289
- NOVADIGM domain, 23
- NTFY administrator type, 237
- NTFYCMDL attribute, 296
- NTFYMSG attribute, 296
- NTFYPORT configuration file attribute, 57
- NTFYRC attribute, 296
- NVDINSTALLCLIENTEXPLORER, 96
- NVDINSTALLPUBLISHER, 96
- NVDINSTALLSCREENPAINTER, 96
- NVDINSTALLSYSTEMEXPLORER, 96

O

- object, definition, 371

- object-oriented technology, 18
- OBJECTS configuration file attribute, 57
- Open Publishing Session window
 - Component Selection Mode, 174
 - Installation Monitor Mode, 138
 - Self-Maintenance, 211
- Optional
 - Component Selection Mode, 188
 - global defaults, 125
 - Installation Monitor Mode, 161
- optional service, definition, 372
- Override Priority
 - Component Selection Mode, 187
 - global defaults, 125
 - Installation Monitor Mode, 161
- OWNER attribute, 361

P

- PACKAGE class instance, 140
- Package Configuration Name window, 54
- PACKAGE instance, description, 117
- Package Location window, 53
- Package Properties window
 - Component Selection Mode, 176
 - Description of package
 - Component Selection Mode, 177
 - Installation Monitor Mode, 141
 - Domain
 - Component Selection Mode, 177
 - Installation Monitor Mode, 141
 - Installation Monitor Mode, 140
 - Package Name
 - Component Selection Mode, 176
 - Installation Monitor Mode, 140
 - Release number
 - Component Selection Mode, 177
 - Installation Monitor Mode, 141
 - Self-Maintenance, 213
- Package Settings window
 - Radia Administrator Workstation, 78
 - Radia Client
 - local installation, 48

Index

- remote installation, 55
 - package, definition, 116, 372
 - package, promoting, 171, 197
 - PATCH class, 23
 - PATCH domain, 23
 - Path instance, description, 117
 - PERIODIC, 268
 - PKGR administrator type, 237
 - plain mode
 - installing Radia Administrator Workstation, 69
 - installing the Radia Client, 38
 - POLICY domain, 23, 238
 - default classes, 239
 - DEPT, 239
 - POLICY, 239
 - STAGER, 239
 - USER, 239
 - WORKGRP, 239
 - policy, definition, 372
 - port argument, 273
 - Post-Installation Scan window, 153
 - POSTPARAM configuration file attribute, 57
 - POSTPROC configuration file attribute, 57
 - Pre-Installation Scan window, 151
 - PREPARAM configuration file attribute, 57
 - PREPROC configuration file attribute, 57
 - PRICE attribute, 361
 - PRIMARY file, 238
 - ADMIN domain, 23
 - AUDIT domain, 23
 - description, 23
 - NOVADIGM domain, 23
 - PATCH domain, 23
 - POLICY domain, 23
 - SOFTWARE domain, 23
 - SYSTEM domain, 23
 - PRODGUID attribute, 324
 - PROFILE file, 37, 329
 - description, 23
 - promote
 - definition, 117, 372
 - instances created, 117
 - Promote Files window
 - Component Selection Mode, 196
 - Installation Monitor Mode, 170
 - Self-Maintenance, 217
 - Promote instances without data
 - Component Selection Mode, 189
 - Global Default Properties, 127
 - Installation Monitor Mode, 162
 - Promote Resource As, 127
 - Component Selection Mode, 190
 - Force lock method, 127, 163, 190
 - Installation Monitor Mode, 163
 - Maintenance, 127, 163, 190
 - Normal, 127, 163, 190
 - promoting a package, 171
 - PUBDATE attribute, 359
 - publish, definition, 372
 - publishing
 - checklist, 118
 - Component Selection Mode, 116, 172
 - definition, 116
 - Installation Monitor Mode
 - description, 116
 - overview, 135
 - push products, 18
- ## R
- RADADMIN30.MSI, 87
 - radexecd, 36
 - Radia Administrator Location window, 73
 - Radia Administrator Tools. *See* Radia Administrator Workstation
 - Radia Administrator Workstation
 - Mac OS X
 - installing
 - command line, 79
 - GUI, 71
 - system requirements, 68
 - Windows
 - installation program, 87
 - Installation Wizard, 89
 - installing

- command line, 96
 - Wizard, 88
- modifying
 - command line, 113
 - GUI, 108
- removing
 - command line, 102
 - GUI, 98
- repairing
 - command line, 107
 - GUI, 103
- system requirements, 86
- Radia Application Manager, 27
 - definition, 372
- Radia Client
 - description, 372
 - installing
 - local computer, 39
 - remoter computer, 50
 - system requirements, 34
- Radia Client Explorer
 - definition, 373
- Radia Client Explorer, description, 26
- Radia Client Location window, 43
- Radia Configuration Server IP address
 - Radia Administrator Workstation
 - Mac OS X
 - command line, 81
 - GUI, 76
 - Windows, 91
 - Radia Client
 - command line, 64
 - GUI
 - local, 46
 - remote, 52
- Radia Configuration Server port number
 - Radia Administrator Workstation
 - Mac OS X
 - command line, 81
 - GUI, 77
 - Windows, 91
 - Radia Client
 - command line, 64
 - GUI
 - local, 47
 - remote, 52
- Radia Configuration Server, description, 25, 373
- Radia Database
 - attribute, 23
 - class, 22
 - contents, 22
 - description, 373
 - file, 22
 - instance, 22
- Radia Desktop Manager, 271
- Radia Infrastructure, components, 25
- Radia Integration Server, 257
 - definition, 373
- Radia Inventory Manager, 27
 - definition, 373
- Radia Management Applications, 26
- Radia Management Portal, description, 25
- Radia Notify, 36
- Radia Notify Manager, 230
- Radia Policy Adapter, 257
- Radia Policy Manager, 257
- Radia Proxy Server, description, 25
- Radia Publisher
 - defintion, 374
 - description, 26
 - logging on, 122
- Radia Scheduler, 36, 260
 - definition, 374
 - description, 262
- Radia Screen Painter, description, 26, 374
- Radia Software Manager, 27
 - definition, 374
- Radia Staging Server, description, 374
- Radia System Explorer, description, 26, 374
- Radia technology, 18
- radsched, 36, 284
- RADSCHEX.EXE, 262
- RADSCHEX.LOG, 284
- radskman, 271

Index

- parameters, 272
- Ready to Install the Application window, 94
- Ready to Modify the Application window, 111
- Ready to Repair the Application window, 105
- REBOOT, 300
 - asking permission, 302
 - values, 302
- REBOOT attribute, 362
- RECONFIG attribute, 364
- REMOTE configuration file attribute, 57
- Remote Installation Setup, description, 37
- REMOVAL attribute, 363
- REMOVE, 96, 100
- removing Radia Administrator Workstation
 - command line, 102
 - GUI, 98
- repairing Radia Administrator Workstation
 - command line, 107
 - GUI, 103
- resolution, definition, 328, 374
- Resource Initialization Method
 - Component Selection Mode, 191
 - Global Default Properties, 130
 - Installation Monitor Mode, 164
- resource, definition, 375
- RETRY domain, 297
- retry status, 299
- RUNDLG attribute, 361

S

- scanning
 - file system, 149
 - identifying what to scan, 147
- SCHEDOK attribute, 361
- scheduled deployment, 28
 - steps, 28
- Scheduler. *See* Radia Scheduler
- Scheduling instance, 266
- Scheduling variables, 267
- Screen Painter. *See* Radia Screen Painter
- SEC administrator type, 237
- Select Components to Install

- local, 41
- remote, 51
- Select Connection Attribute dialog box, 222, 246, 247, 253, 277, 281
- Select Features window, 92, 110
- Select Files to be Published window, 181
 - Self-Maintenance, 214
- Select Installation Type
 - local installation of Radia Client, 42
 - remote installation of Radia Client, 51
- Selected Aliases, viewing, 194
- Selected Files, viewing, 182
- Selected Links, 168
- Self-Maintenance
 - application packages, 221
 - Instance Properties dialog box, 216
 - Open Publishing Session window, 211
 - Package Properties window, 213
 - path instance attributes, 224
 - Promote Files window, 217
 - Radia Client, 208
 - Select Files to be Published, 214
 - Set Properties and Locations window, 215
- self-maintenance files
 - changing location, 223
 - publishing, 210
- Self-Maintenance instance, 209
- self-maintenance package, 218
- self-managing infrastructure, 19
- server staging, 325
- service, definition, 198, 375
- Session Type
 - Component Selection Mode, 175
 - Installation Monitor Mode, 139
- session, definition, 375
- Set Drives to Scan window, 149
- Set Filter dialog box, 183
- Set Packaging Options window, 148
- Set Properties and Locations window
 - Component Selection Mode, 184
 - Aliases tab, 194
 - Files tab, 182, 184

- Installation Monitor Mode, 156
 - Desktop tab, 168
 - Files tab, 155, 156
 - Self-Maintenance, 215
- Set Properties menu selection
 - Component Selection Mode, 184
 - Installation Monitor Mode, 156
- SETUP.EXE for the Radia Administrator
 - Workstation installation, 87
- show connections, 244
- silent installation, 52, 59, 60, 97
 - command line parameters, 61
- SIZE attribute, 360
- sname argument, 273
- SOFTWARE domain, 23
- Software Manager. *See* Radia Software Manager
- SOFTWARE.ZSERVICE attributes, 358
- sslmgr argument, 273
- sslport parameter, 273
- STAGER class, 239
- staging server. *See* Radia Staging Server
- STARTDAEMONS attribute, 58
- startdir argument, 273
- static variables, 347
- STATUS attribute, 345
- subscriber, definition, 375
- Successful Installation window
 - Radia Administrator Workstation for Windows, 106, 112
 - Radia Client
 - local installation, 50
 - remote installation, 56
- Summary window
 - Installation Monitor Mode, 154
 - Notification, 232
- symbol, definition, 375
- symbolic substitution, definition, 375
- SYS administrator type, 237
- System Configuration window
 - Component Selection Mode, 178
 - Minimum Memory Required, 178
 - Minimum Processor Required, 179
 - Target Operating System., 178

- Installation Monitor Mode, 143
- Minimum Memory Required, 144
- Minimum Processor Required, 144
- Target Operating System, 143
- SYSTEM domain, 23
- System Explorer. *See* Radia System Explorer
- system requirements
 - Radia Administrator Workstation
 - Mac OS X, 68
 - Windows, 86
 - Radia Client, 34

T

- Target Operating System, 178
 - Installation Monitor Mode, 143
 - New Application Wizard, 201
- test environment, setting up, 30
- text mode
 - installing Radia Administrator Workstation, 69
 - installing the Radia Client, 38
- timer
 - configuring, 264
 - connecting to a service, 276
 - drag-and-drop, 276
 - Show Connections, 279
 - editing variables, 274
 - location of logs, 283
 - logs, 283, 284
 - mandatory services, 303
 - modifying, 266
 - testing, 283
 - troubleshooting, 282
- Timer. *See* Radia Scheduler
- TIMER instance, 266
- TIMER variables, 262, 267
- timer-based deployments, 36

U

- uid argument, 274
- UIOPTION attribute, 364
- ulogon argument, 274
- Unassigned Version list, 318

Index

- Update only if newer
 - Component Selection Mode, 187
 - global defaults, 124
 - Installation Monitor Mode, 160
- Updated files, Installation Monitor Mode, 167
- UPDDATE attribute, 359
- UPGDATE attribute, 359
- URL attribute, 360
- Use default priority
 - Component Selection Mode, 187
 - global defaults, 125
 - Installation Monitor Mode, 160
- Use the default specified on the Manager
 - Component Selection Mode, 186
 - global defaults, 124
 - Installation Monitor Mode, 159
- User
 - Component Selection Mode, 188
 - global defaults, 125
 - Installation Monitor Mode, 161
- USER class, 239, 240
- USER instance, 240
- User Specified
 - Component Selection Mode, 188
 - global defaults, 125
 - Installation Monitor Mode, 161
- users
 - assigning to groups, 243
 - connecting to applications, 249
 - creating, 240
- V**
 - variable, definition, 376
 - VCOMMENT attribute, 345
 - VENDOR attribute, 360
 - VERDATE attribute, 345, 359
 - verification options, 123, 159, 186
 - Check for existence only, 160, 187
 - Check internal version, 124, 160, 187
 - Content (CRC Check), 124, 159, 186
 - No verification, 160, 187
 - table, 124
 - Update only if newer, 160, 187
 - Use the default specified on the Manager, 159, 186
 - Verify statistics equal to, 159, 186
 - Verify statistics equal to
 - Component Selection Mode, 186
 - global defaults, 124
 - Installation Monitor Mode, 159
 - VERIFY_INTERVAL, 298
 - VEERROR attribute, 346
 - VERSION attribute, 346, 361
 - VERSION class, 306
 - variables, 308
 - Version Group Editor, 313
 - version group, definition, 376
 - Version Groups, 260
 - connecting to an application, 322
 - creating an instance, 313
 - description, 313
 - example, 307
 - Version instance, 318
 - VGROUP class, 306
 - VGROUP instance, 317
 - connecting to ZSERVICE, 322
- W**
 - Web-based Enterprise Management (WBEM), definition, 377
 - Welcome window
 - Radia Administrator Workstation
 - Mac OS X, 72
 - Windows, 89
 - Radia Client
 - local, 40
 - remote, 51
 - What to Open
 - Component Selection Mode, 175
 - Description, 139, 175
 - Existing Session, 139, 175
 - Installation Monitor Mode, 139
 - New Session, 139, 175
 - Session ID, 139, 175
 - What to Scan window, 148, 149

Windows Installer AIP, 97
 Windows Installer log, 97
 Windows Management Instrumentation (WMI),
 definition, 377
 WORKGRP class, 239

Z

ZAVIS attribute, 359
 ZCHNNAME attribute, 269
 ZCMDPRMS attribute, 304
 ZCONFIG attribute, 336
 ZCONFIG object, 329, 330, 331
 collection, 336
 definition, 377
 table of variables, 335
 ZCONFIG.EDM file, 333
 ZCONTEXT, 125
 ZCREATE attribute, 130, 164, 191, 269, 359
 ZDELETE attribute, 130, 165, 191, 269, 359
 ZDELSVC object, 330
 ZDISCONN, 324
 ZDISCONN attribute, 365
 ZFILEUPD attribute, 130, 165, 192
 ZHDWCOMP attribute, 335
 ZHDWCPU attribute, 335
 ZHDWD00 attribute, 335
 ZHDWD00F attribute, 335
 ZHDWD00T attribute, 335
 ZHDWDNUM attribute, 335
 ZHDWIPAD attribute, 335
 ZINIT attribute, 130, 164, 191, 359
 ZMASTER object, 329, 330
 definition, 377
 ZNOPING attribute, 267
 ZOBJPRI attribute, 268
 ZPAKSESS.EDM, 177
 sample, 142
 ZPENDING attribute, 267
 ZPERGID, 133
 ZPERUID, 133
 ZPRVNAME attribute, 269
 ZREPAIR attribute, 359
 ZRSCCMDL attribute, 266, 267
 ZRSCMO, 125
 ZRSCMO attribute, 161, 188
 ZRSCPRI, 125
 ZRSCRASH, 133
 ZRSCVRFY attribute, 159, 186
 ZRSCVRFY variable, settings, 124
 ZRSCCMDL attribute, 267
 ZSCHDEF attribute, 267, 269, 270
 ZSCHDEF variable
 modifying, 274
 parameters, 271
 syntax, 270
 ZSCHFREQ attribute, 266, 267, 269
 ZSCHFREQ variable
 RANDOM attribute, 270
 ZSCHMODE attribute, 268
 ZSCHTYPE attribute, 267, 268
 ZSERVICE attribute, 357
 ZSERVICE class, 249
 base instance, 340
 ZSERVICE instance, 324
 REBOOT attribute, 300
 ZSRCCLAS attribute, 346
 ZSRCCRC attribute, 346
 ZSRCDOMN attribute, 346
 ZSRCNAME attribute, 346
 ZSRCOBID attribute, 346
 ZSTOP attribute, 268
 ZSTOP, versioning, 308
 ZSTOPnnn attribute, 358
 ZSVCACTD attribute, 358
 ZSVCACTT attribute, 358
 ZSVCCAT attribute, 364
 ZSVCCONF attribute, 358
 ZSVCCSTA attribute, 358
 ZSVCEXPD attribute, 358
 ZSVCEXPT attribute, 358
 ZSVCINST attribute, 358
 ZSVCMO attribute, 358
 ZSVCNAME attribute, 346, 358
 ZSVCOID attribute, 269

Index

ZSVCPRI attribute, 358
ZSVCSEL attribute, 358
ZSVCSTAT object, 330
ZSVCTTYP attribute, 358
ZSVCUPD attribute, 358
ZSYSACCT attribute, 365
ZTIMEQ object, 262, 267, 282
 definition, 377

 example, 282
 location of, 282
 viewing, 282
ZUPDATE attribute, 130, 165, 192, 269, 359
ZUSERID attribute, 336
ZUSRID attribute, 346
ZVERIFY attribute, 269, 359