HP OpenView Server Management Using Radia

for the Windows and UNIX operating systems

Software Version: 1.0

Application Management Profiles Guide



Manufacturing Part Number: T3424-90082 June 2005

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4

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1 Introduction

Application Management Profiles

The Radia Application Management Profiles includes a set of tools built on top of Application Manager to enable the deployment and management of complex software products that are typically required to be present on servers in a datacenter environment such as Microsoft SQL Server, Oracle, Apache, and Internet Information Server among others. These products often employ their own instrumentation or repositories for deployment and management of their implementation.

Application Management Profiles provides tools to:

- Analyze and parameterize configuration control data for targeted products
- Specify values in the form of a model to be used at deployment time
- Articulate in the model pre-requisites and constraints that qualify the ability to deploy the products
- Publish the control information and required ancillary tools such as utility programs to the HP OpenView Using Radia infrastructure for deployment
- Deploy and configure the software to targeted devices
- Interact with the target environment before and after installation to enhance management of the deployment
- Report on the success of the deployment

The intent of this book is to provide instruction on how to deploy server applications using these tools. The figure below provides a general workflow.



To use the Application Management Profiles Client Agent, you must own a Server LTU for Application Manager using Radia.

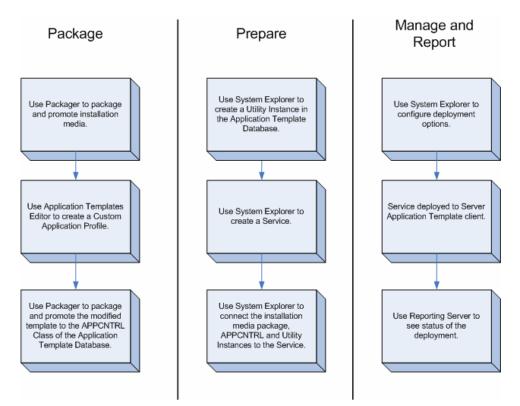


Figure 1: Workflow.

Terminology

The following terms are used in this Guide and are specific to Application Management Profiles:

Master Application Profile (MAP)

An XML-based specification of a Server application's installation parameters. A parameter in the XML might refer to the installation directory of an application.

Custom Application Profile (CAP)

A MAP that has been customized to your environment.

Chapter 1



Utility Class

A class in the Configuration Server Database specifically used for a particular server application. For example, the Utility class used for Microsoft SQL Server 2000 is called MSSQL2K.

Audience

This guide is for administrators of Application Management Profiles. You will learn how to use the tools supplied to deploy server applications.

Prerequisites

The reader should be familiar with the following products:

HP OpenView Configuration Server Using Radia

HP OpenView Administrator Workstation Using Radia

HP OpenView Application Manager Using Radia

HP OpenView Management Portal Using Radia



To use the Application Management Profiles Client Agent, you must own a Server LTU for Application Manager using Radia.

Additional Components

In addition to already established Radia products, Application Management Profiles use:

- New Configuration Server Database Domain and classes
- Master application profiles for supported applications
- A set of client methods specific to deploy Server Applications
- The Application Management Profiles Editor to administer the profiles

Chapters Summary

In addition to this chapter, this book contains the following information

- Installing Application Management Profiles
- Packaging Server Applications
- Preparing Server Applications
- Appendices on the applications supported at the time of publishing

Related Documents

HP OpenView Configuration Server Using Radia Guide HP OpenView Administrator Workstations Using Radia Guide HP OpenView Management Portal Using Radia Guide HP OpenView Application Manager Using Radia Guide

Chapter 1

2 Installing Application Management Profiles

• This chapter includes instructions on how to install the components needed to use Application Management Profiles.

Installation Media

The Application Management Profiles media contains the following directories

- Application Management Profiles Editor contains the installation materials for the Application Management Profiles editor.
- *Management Application Profiles* contains one subdirectory for each provided profile. Each subdirectory includes the profile, a descriptive html document, export decks for the Configuration Server Database, and a command file to import each deck.
- *Radia Configuration Server Database* contains the export deck for the APPMGMT Domain and a command file to import the deck.



To use the Application Management Profiles Client Agent, you must own a Server LTU for Application Manager using Radia.

Prerequisites

Before installing the components on the Application Management Profiles media, you will need to complete the following tasks:

- Designate a Configuration Server to host your profiles and policy information.
- Install System Explorer and Packager on a computer designated for administration.
- Install Application Manager 4.0.1 on your target servers.
- Install Radia Reporting Server Version 4.1.1 or above.



All components of the HP OpenView Using Radia Infrastructure must be at a minimum version 4.1 unless otherwise noted.

Installation Process

After meeting the prerequisites, you will need to do the following:

• Modify the Configuration Server Database

Chapter 2

• Install the Application Management Profiles Editor

To modify the Configuration Server Database

- 1 Copy the files from the Radia Configuration Server Database directory to the Configuration Server's bin directory.
- 2 Use System Explorer to create a new domain called APPMGMT.
- 3 Stop the Configuration Server.
- 4 Import the new classes into the APPMGMT domain by running the following commands from the Radia Configuration Server's bin directory:

import appmgmt.cmd on Windows systems

import appmgmt.sh on UNIX systems

Copy the xpc and cmd or sh files from the appropriate subdirectory of the Management Application Profiles directory. You must import any classes for the applications you will be deploying.

Run the appropriate import.cmd in import.sh file from the Radia Configuration Server's bin directory

Repeat this step for each server application.

- 5 Restart the Configuration Server.
- 6 Use System Explorer to see the new domain's classes.

Installing Application Management Profiles

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9. X B C X E I I P. 1: HE	m 👔	¥		
Database Tree View:		APPMGMT Domain Classes:		
Database	~	Class	Туре	
Elicense 🕈		Alert / Defer (ALERTDEF)	APPMGMT.ALERTDEF Class	
🖻 💾 PRIMARY		Application (ZSERVICE)	APPMGMT.ZSERVICE Class	
🗄 🙄 ADMIN		Application Control (APPCNTRL)	APPMGMT.APPCNTRL Class	
		Application Packages (PACKAGE)	APPMGMT.PACKAGE Class	
Alert / Defer (ALERTDEF)		Auto Run (EXECUTE)	APPMGMT.EXECUTE Class	
- 🚔 Application (ZSERVICE)		Behavior Services (BEHAVIOR)	APPMGMT.BEHAVIOR Class	
Application Control (APPCNTRL)		Class Defaults (METACLAS)	APPMGMT.METACLAS Class	
Application Packages (PACKAGE)		Desktop (DESKTOP)	APPMGMT.DESKTOP Class	
Auto Run (EXECUTE)		Dialog Services (DIALOG)	APPMGMT.DIALOG Class	
Behavior Services (BEHAVIOR)		File Resources (FILE)	APPMGMT.FILE Class	
		HTTP Proxy (HTTP)	APPMGMT.HTTP Class	
Desktop (DESKTUP) Desktop (DESKTUP) Dialog Services (DIALOG)		IN IBM AIX Packages (AIX)	APPMGMT.AIX Class	
File Resources (FILE)		Install Options (INSTALL)	APPMGMT.INSTALL Class	
THE RESOLUCES (THEE)		Linux RPM Packages (RPM)	APPMGMT.RPM Class	
		Mac Alias (MACALIAS)	APPMGMT.MACALIAS Class	
- 🔐 Install Options (INSTALL)		Mac File Resources (MACFILE)	APPMGMT.MACFILE Class	
Linux RPM Packages (RPM)		(AMD Mobile File Resource (RMMFILE)	APPMGMT.RMMFILE Class	
Mac Alias (MACALIAS)		MSI Basic Resources (MSIBASIC)	APPMGMT.MSIBASIC Class	
Mac File Resources (MACFILE)		MSI Features (MSIFEATS)	APPMGMT.MSIFEATS Class	
📵 Mobile File Resource (RMMFILE)		MSI Properties (MSIPROPS)	APPMGMT.MSIPROPS Class	
MSI Basic Resources (MSIBASIC)		MSI Resources (MSI)	APPMGMT.MSI Class	
- 😹 MSI Features (MSIFEATS)		Panel Services (PANEL)	APPMGMT.PANEL Class	
		Path (PATH)	APPMGMT.PATH Class	
🛃 MSI Resources (MSI)		Registry Resources (REGISTRY)	APPMGMT.REGISTRY Class	
- 🥨 Panel Services (PANEL)		Replace Application (REPLACE)	APPMGMT.BEPLACE Class	
Path (PATH)		Scheduling (TIMER)	APPMGMT.TIMER Class	
- 💇 Registry Resources (REGISTRY)		SD Dependencies (SDDEP)	APPMGMT.SDDEP Class	
		HP SD Package (SD)	APPMGMT.SD Class	
Scheduling (TIMER)		Solaris Patches (SOLPATCH)	APPMGMT.SOLPATCH Class	
SD Dependencies (SDDEP)	~		ALL MUMIT. JOEL AT CIT CIdSS	>

Figure 2: View the APPMGMT domain.

Installing the Application Management Profiles Editor

The Application Management Profiles Editor allows you to modify the profiles provided. You will probably want to install the Application Management Profiles Editor on the same computer as the System Explorer and Packager.



At the time of the writing, the Application Management Profiles Editor is only available for Windows operating systems.



To install the Application Management Profiles Editor

1 From the Application Management Profiles Editor subdirectory, on the installation media, double-click **setup.exe**.



2 Click Next.

Installing Application Management Profiles



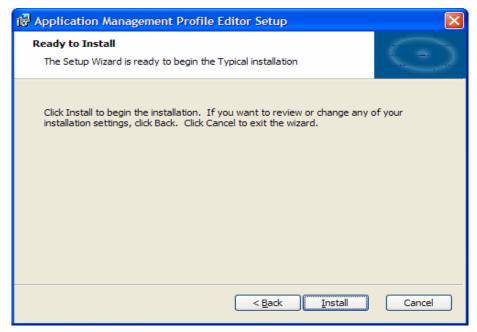
🙀 Application Management Profile Editor License Agreement	
End-User License Agreement Please read the following license agreement carefully	\bigcirc
HP SOFTWARE LICENSE TERMS	
Upon payment of the applicable License Fee as set forth in the applicable HP quotation and/or invoice, your right to store, load execute, or display (collectively, "Use") the enclosed Software governed by the terms and conditions of the Software License that have been previously executed by you and Hewlett-Packar	d, install, will be terms
● I accept the terms in the License Agreement ○ I do not accept the terms in the License Agreement	
< <u>B</u> ack Next >	Cancel

- $7 \quad Click$ I accept the terms of the license agreement.
- 8 Click Next.

侵 Application Management Profile Editor Setup	
Installation Customization Set the following installation variable to the desired value.	
Installation Path	
C:\Program Files\Novadigm\	
	Browse
< <u>B</u> ack <u>N</u> ext >	Cancel

Chapter 2

9 Click **Next** to accept the directory path.



10 Click Install.

11 Click Finish.

The Application Management Profiles Editor is installed.

To start the Application Management Profiles Editor

• From the Start Menu, select the Radia Administrator Workstation group. Click the icon for Application Management Profiles Editor.

Installing Application Management Profiles

3 Packaging Server Applications

This chapter describes how to package the installation media, how to use the Application Management Profile Editor to create your custom application profiles (CAP), and how to publish the CAP to the Configuration Server Database.

Packaging Server Applications

To package the Server application, you must perform the following tasks:

- 1 Package the installation media.
- 2 Modify the profile to create your Custom Application Profile (CAP).
- 3 Package the CAP.

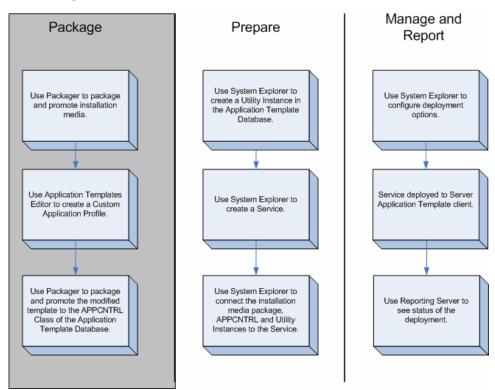


Figure 3: Package the Server Application



Packaging the Installation Media

You can use the Packager to create an installation point or access the media from a network share. Packager's component selection mode may be the simplest approach to use.

To Package the Installation Media using Component Selection Mode

Use Packager's component selection mode to promote the server application's installation media. For complete information on Packager, see the *HP OpenView Application Manager using Radia Guide*.



Be sure that your Configuration Server has adequate space for the installation media.

- Copy the installation media to a directory path where the software will be installed from on the client computer. If you do not package from this directory, you will need to change the Path instance in the Configuration Server Database.
- Give the package a meaningful name.
- Promote the package to the APPMGMT Domain, not the SOFTWARE Domain.

Packaging Server Applications

🔕 Radia Packager			
File <u>E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp			
T 🖻 🖻 🗷 🕂 🌹 🕸			
- Package Properties			
Enter the name of the package to create, and an	y additional packag	ge information	
Radia ®	Package Name:	SQL2K_MEDIA	
Packager	Domain:	APPMGMT	-
	Description:	SQL 2K Media	
	Release:	2К	
	<- Prev	Next ->	Cancel

Figure 4: Promote the installation media to the APPMGMT Domain.

Application Management Profile Editor

This tool allows you to make an Application Management Profile available to the system for deployment. This interface allows you to:

- Construct or modify a profile for use with a specific software package
- Open a profile for customization from local file system
- Create configuration settings
- Add commands to be run before, during, and after an installation

Master Application Profiles (MAP) will be provided for each supported application. These will serve as examples that you can use to create your own company specific deployments called Customer Application Profiles (CAP).



At the time of this writing, the Application Management Profiles Editor is available only on Windows operating systems.

Packaging Server Applications

Creating a Custom Application Profile

Use the Application Profiles Editor to create your own Custom Application Profiles from the examples provided by HP. The Application Profiles Editor should be installed on an administrator computer with access to these files. The Application Profiles Editor is organized into tabs. Tabs may vary from one application to another. All of the files have a Configuration and File Templates tab. Depending on the server application, you may also have an Initialize, Pre-Install, Install, and Post-Install tab.

Phases

Configuration File Templates Initialize Pre-Install Install Post-Install User credentials Begister User CD Key Instance Name Administrator Domain Name SQL Authentication Collation Network Settings License Instance Name Password Instance Name RICKTEST Password Instance Name Instance Name RickTest Password Instance Name Instance Name Instance Name RickTest Password Instance Name Instance Name Instance Name RickTest Password Instance Name Instance Name
Register User User Name CD Key Instance Name Instance Name Administrator Destination Folder Domain Name SQL Services Accounts RICKTEST Collation Password Network Settings Intervent License Intervent
Add parm Prev Next

From the File menu of the Application Profiles Editor, open a profile.

Figure 5: Phases of Microsoft SQL Server Sample file.

Each profile may or may not have the following tabs included.

Configuration

Use the configuration tab to edit installation parameters. These values can be referred to in commands that you create.

• File Templates

Shows the files that the profile will modify on the target computer.

Initialize

During the Intialize phase, the Application Management Profile Client gets information that will be used during the Install Phase.



• Pre-Install

Specify any commands that you want to run before the installation such as turning off anti-virus software or checking for disk space.

Install

Specify the commands to run the installation such as executing the setup file or checking if a computer restart is needed.

Post-Install

Specify any commands that you want to run after the installation such as turning on anti-virus software or restarting a service.

Configuration Settings

Create sections of Configuration Settings to construction your Application Management Profiles. For each section, create instances with the necessary parameters. HP provides a set of sample profiles that you may use to see examples of configuration settings.

To add a section to Configuration Settings

1 From the **Configuration** tab, click **Add** underneath the sections box.

Add a new section or instance		
i)	Do you want a new sectior instance to ar already existir section?	noran n
New section	New instance	Cancel

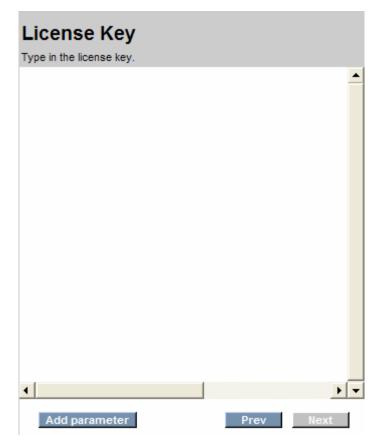
2 Click New section.

Packaging Server Applications



Section name	^	
License key		
Display title		
License Key		
Description (help text)		
Type in the license key.		
Minimum number of occurrences		
1		
Maximum number of occurrences		
1		
	-	
Save	Discard	

- 4 Type a Section name, Display title, Description, and Minimum and Maximum number of occurrences. In this example, we are creating a section for the License Key.
- 5 Click Save.



The new section is created. You will need to add parameters to the section.

To add a parameter to a section

1 From the Section, click **Add parameter**.

Packaging Server Applications



Add	a new parameter	×
	Parameter name	
	LicesnseString	
	Display title	
	License String	
	Description (help text)	
	Type in the exactl license string.	
	Default value	
	11111-11111-11111-11111	
	Length	
	32	
		-
	Save	iscard

- 3 Click Save.

License Key Type in the license key.	
License String	•
<u>∢</u> ►	•
Add parameter Prev Next	

The parameter is created. Repeat this procedure for each parameter you need to create in this section. When you have finished, you can add instances of the section.

To add an instance of a section

- 1 From the **Configuration** tab, click **Add** underneath the sections box.
- 2 Click New Instance.

Packaging Server Applications

Section name		·
License key		
Display title		
License Key		
Description (help text)		
Type in the license key.		
Minimum number of occurrences		
1		
Maximum number of occurrences		
1		
	•	'
Save	Discard	

- 3 Select a section to add an instance, and type an Instance name. In this example, we are adding a User credentials instance.
- 4 Click Done.
- 5 Click the new instance name under its Section in the **Section** list box.
- 6 Type in the required parameters.
- 7 Click **Next** to complete the creation of the new instance.

The new instance is created. You are now able to refer to this instance in your Commands.



If there is only one instance of a section, that instance will automatically display when you click on the section name. If there are multiple instances, the instance names will be nested under the Section name.



File Templates

The Application Management Profiles Editor allows you to add and delete lines in File Templates, as well as add If statements.

Configuration File Templates	Initialize Pre-Install Install and Verify Verify Only Uninstall Post-Install
iisE inf remove_iis.inf	Iis6.inf Components] complexentwork=ParmRef(section=complusnetwork, instance=1, parameter=aspnet) complusnetwork=ParmRef(section=complusnetwork, instance=1, parameter=dicnetwork) dtcnetwork=ParmRef(section=intercetereventsions, instance=1, parameter=bitsserverextensions; issap) bitsserverextensions:aspit=ParmRef(section=litsserverextensions, instance=1, parameter=bitsserverextensions; components, instance=1, parameter=is_common) iis_common=ParmRef(section=is_components, instance=1, parameter=is_common) iis_ormber=ParmRef(section=is_components, instance=1, parameter=is_common) iis_smbp=ParmRef(section=is_components, instance=1, parameter=is_common) iis_smbp=ParmRef(section=is_components, instance=1, parameter=is_common) iis_smbp=ParmRef(section=is_components, instance=1, parameter=is_common) iis_smbp=ParmRef(section=is_components, instance=1, parameter=is_smbp) iis_smbp=ParmRef(section=is_components, instance=1, parameter=is_smbp) iis_serversiderincludes=ParmRef(section=is_components, instance=1, parameter=is_serversiderincludes) iis_serversiderincludes=ParmRef(section=is_components, instance=1, parameter=is_serversiderincludes) iis_serversiderincludes=ParmRef(section=is_components, instance=1, parameter=is_serversiderincludes) iis_serversiderincludes=ParmRef(section=is_components, instance=1, parameter=is_serversiderincludes) iis_serversiderincludes=VarmRef(section=intermets=is_reserversideris_serversiderincludes

Figure 6: View the File Templates tab

- Click Add line to add a line to the file template.
- Click **Remove line** to remove a line from the file template.
- Click Move Up to move a line up in the file template.
- Click Move Down to move a line down in the file template.
- Click **Add If block** to add an If statement. You will need to include a condition, a value if the condition is true, and a value if the condition is false. If the false value is not needed, simply highlight the line with the <ELSE> and click **Remove line**. The whole else clause will be removed.

Packaging Server Applications

Adding Commands

Create commands to further control your installation. Add a command by clicking on Add in the Initialize, Pre-Install, Install or Post-Install phase.

Add New Command		×
Diama di sua		
Please choose a command type: Check Registry		
Get Registry Value Get Disk Space		
Windows Service Query External		
Change State of Windows Service Network Share		
Reboot device File Operations		
Create File		•
Command title		
Command description		
,		
	Done	Cancel

Figure 7: Select a command.

For each command, specify a Command title and a Command description. Each command has its own set of parameters that you will need to specify.

You can choose from the following commands,



Command Type	Description
Check Registry	Use this to check for the existence of a given registry entry. Returns a value >0 if found. Returns 0 if no entry is found.
Get Registry Value	Use this to get the registry value for a specify key if there is a value. If not, returns an empty string. To check for the existence of a registry key, leave the value blank.
Get Disk Space	Get the amount of disk space on the target computer. You have the option of finding either total capacity or free disk space.
Windows Service Query	Use this to find if a Windows Service exists or to find if the Service is stopped, started, or disabled.
External	Select this to run an external command. You will be required to include all necessary information to run the external command.
Change State of Windows Service	Use this to change the state of a Windows Service. For example, you may need to stop a Windows Server to install the application, or need to restart a service after installation.
Network Share	Use this to connect or disconnect from a network share. If the installation media is located on your network, you will need to specify a network location and credentials before starting the installation.
Reboot device	Use this to Restart, Power Off, Logoff or Shutdown the target computer.
File Operations	Use this to normalize file names, use the appropriate characters for your operating system (native), or to delete a file.
Create File	Select a file to create during the phase.
Set Parameter	Use this to set a parameter's value for an instance from the Configuration tab.
Set Registry Value	Set a value in the Registry using this

Table 1:	Commands	and D	escriptions
----------	----------	-------	-------------

Packaging Server Applications

Command Type	Description
	command.
Get an attribute value from a client object	Use this to get the value of an attribute from a Radia Object. You will need to specify the directory location of the object.
Set an attribute in a client object	Use this to set the value of an attribute of a Radia Object. You will need to specify the directory location of the object.
Sleep for seconds and milliseconds specified	Specify a period of time for the process to sleep. Use this to create a pause between command processing to allow for command clean up.
Read File Data	Use this command to read data from a file on the target device and assign the data to the command output. The output can then be used by other commands.

Pre-Conditions and Post-Conditions

For each command, you can specify a pre-condition and a post-condition. If the pre-condition fails, the command will not run; the command will be skipped, and we will go to the next command in the chain. If the postcondition fails, the installation will stop. Be sure to specify what type of message you want returned or displayed.

Building a String

Some of the parameters for a command may require building an argument string. To do this, use the String Builder. To start using the string builder, click on the ellipsis at the end of a parameter. Depending on the parameter, the following operands may be available in the String builder.

Operand	Description
Space	Use to add a space to the string.

Table 2: Available Operands in the String Builder

Chapter 3

Operand	Description
Environment Reference	Use to create an Environment Reference.
Command Output Reference	Use to refer to the output of another command from any phase of the application profile.
Command Return Reference	Use to refer to the return code of another command from any phase of the application profile.
File Content Reference	Use to refer to an entry in the File templates section.
Credential Reference	Use this when you need a set of credentials, such as connecting to a network share.
Number	Use this to type in a numeric value.
Parameter Reference	Use to reference a parameter from the Configuration tab.
Client Object Reference	Use to reference a Client Object.
String	Use this to type in a string of text.
If block	Use this when you will need to branch the expression. You will need to provide a condition, a value if the condition is true, and a value if the condition is false. Note that you can create nested If statements.

Command Modes

Some commands only need to be executed when the Client is running in a specific mode. The possible modes are create, delete, verify, update, and repair. These modes together form life cycle management of an application

This mode is available for the Application Management Profiles client agent to use. The mode can be used to control when commands and phases are performed. By default, the mode is blank; this means that the command or phase would be executed in all the life cycle management modes of the Client. If a phase or command has a specific mode defined, the mode would be compared with the current life cycle management mode. If the life cycle

Packaging Server Applications

management mode matches the command or phase mode, then the command or phase would be executed. Otherwise, the command or phase would be skipped. For example, if the command or phase should be executed only when the Client is doing a create or a verify, then you would select the create and verify modes in the **Modes for this command** section. If the life cycle management mode does not match the phase or command mode, then the phase or command would be skipped.

Command Examples

The sections below detail some of the commands and how to use the String Builder by example.

Get Registry Value

In the procedure below, you will check a fetch a registry value to get the installation path for Microsoft Windows.

To get a registry value

- 1 In the Add Command dialog box, click Get Registry Value.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click **OK**.



Get Source Path from Registry
Get Registry Value
This command is used to fetch a registry value.
Title
Get Source Path from Registry
Description
Get Source path from registry
Кеу
<space></space>
Value
<space></space>
Pre-condition expression
Check pre-condition
Post-condition expression
✓ Check post-condition
Error message
Modes for this command
create delete verify repair update

- 4 Click on the ellipsis at the end of the **Key** field to start the String Builder. This is the key you will be getting the information from.
- 5 Click **Edit**.
- 6 From the Operands, click String.
- 7 Type the full path to the registry key you are fetching the value from.
- 8 Click **Update**, and then **Save**.
- 9 Click on the ellipsis at the end of the Value field to start the String Builder. This is the registry value you will be getting.

Build an argument string				X
SourcePath				_
•				• •
		Add	Edit	Delete
Space Parameter Reference Environment Reference Client Object Reference Command Return Referenc Command Output Referenc String Number If Block	String SourcePath		Update	Cancel
			Save	Discard

- 10 Click Update, and then Save.
- 11 The results of your new command will be displayed.

Get Source Path from registry Get Registry Value
his command is used to fetch a registry value.
Title
Get Source Path from registry
Description
Кеу
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Setup
Value
SourcePath
Pre-condition expression
☐ Check pre-condition
Post-condition expression
✓ Check post-condition
CmdRef(phaseID=1,actionID=210,use=ReturnCode) EQ 0
Error message
Could not fetch Source Path from regsitry
Modes for this command
create delete verify
repair update

Get Disk Space

In the procedure below, you will check a drive to see if it has adequate space for installation. The drive will be specified by creating a parameter reference to a directory path. The drive where the directory resides will be checked.

To get disk space information

- 1 In the Add Command dialog box, click Get Disk Space.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click OK.

Packaging Server Applications

Check if MediaDir drive has over 300 MB in free space

Get Disk Space

Get the amount of disk space on the target computer. You have the option of finding either total capacity or free disk space. The amount of free space or disk capacity is in megabytes (MB)

Title	
Check if MediaDir drive has over 300 MB in free space	
Description	
Check free space on MediaDir drive	
Drive Letter	
<space></space>	
Туре	
Free	•
Pre-condition expression	
Check pre-condition	
Post-condition expression	
Check post-condition	
Error message	_
Modes for this command	
create	
delete verify	
repair update	-1
lebrase	

- 4 Click on the ellipsis at the end of the **Drive Letter** field to start the String Builder. This is the drive or path on the drive you will be checking.
- 5 Click Edit.
- 6 Click Parameter Reference.

Chapter 3

Build an argument string			×
ParmRef(section=Radia,instance	e=1,parameter=MEDIADIR)		▲
4			▶ ▼
	Add	Edit	Delete
Space Parameter Reference Environment Reference Client Object Reference Command Return Reference Command Output Reference String Number If Block	Section Radia Settings Instance default Parameter Media Directory		•
		Update	Cancel
		Save	Discard

- 7 Click **Update**, then click **Save**.
- $8 \quad \mbox{From the Type drop-down, click $Free$}.$
- 9 The results of your new command will be displayed.



Check if MediaDir drive has over 300 MB in free space

Get Disk Space

Get the amount of disk space on the target computer. You have the option of finding either total capacity or free disk space. The amount of free space or disk capacity is in megabytes (MB)

Title	
Check if MediaDir drive has over 300 MB in free space	
Description	
Check free space on MediaDir drive	
Drive Letter	
ParmRef(section=Radia,instance=1,parameter=MEDIADIR)	
Туре	_
Free	•
Pre-condition expression	
☐ Check pre-condition	
Post-condition expression	
✓ Check post-condition	
CmdRef(phaseID=2,actionID=250,use=Output) GT 10	
Error message	_
We need atleast 300 MB of free space on the MediaDir drive to install	
Modes for this command	
create	- -
delete	
verify repair	
update	-

External

To use an external command

- 1 In the Add Command dialog box, click External.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click OK.



Install IIS on Windows 2003	
External	
executes an external program or script and hands back the program's or script's return code.	
Title	
Install IIS on Windows 2003	
Description	
This command will install IIS on Windows 2003	
Command	
<space></space>	
Arguments (optional)	
<space></space>	
☐ Wait for command to end	
Working Directory (optional)	
<space></space>	
Output File (optional)	
<space></space>	
Run As (optional)	
<space></space>	
Pre-condition expression	
Post-condition expression	
Check nost-condition	

- 4 Click on the ellipsis at the end of the **Command** field to start the String Builder. This is the external command you want to run.
- 5 Click Edit.
- 6 From the Operands, click **Parameter Reference**.

Build an argument string			×
ParmRef(section=Radia,instance	=1,parameter=setupexefile) Add Section Fadia Settings Instance default Parameter Setup EXE name	Edit	↓ Delete
_		Update	Cancel
		Save	Discard

- 7 Click Update, and then Save.
- 8 Click on the ellipsis at the end of the Arguments field to start the String Builder. Set all arguments for the external command here.
- 9 Click Update, and then Save.
- 10 Check if you want to wait for the command to end.
- 11 If needed, select a Working Directory, Output File, and user credentials.
- 12 Click **Update**, and then **Save** in the String Builder after you have edited all needed fields.
- 13 The results of your new command will be displayed.

Install IIS on Windows 2003
External
Executes an external program or script and hands back the program's or script's return code.
Title
Install IIS on Windows 2003
Description
This command will install IIS on Windows 2003
Command
ParmRef(section=Radia,instance=1,parameter=setupexefile)
Arguments (optional)
/i:ParmRef(section=Global,instance=1,parameter=windir)\inf\sysoc.inf /q /l /u:ContentRef(name=iis6.inf,c 🛄
✓ Wait for command to end
Working Directory (optional)
Output File (optional)
· · · · · · · · · · · · · · · · · · ·
Run As (optional)
· · · · · · · · · · · · · · · · · · ·
Pre-condition expression
Check pre-condition
ParmRef(section=Radia,instance=1,parameter=ZOS) EQUALS WIN2K3
Error message

Change State of Windows Service

In the procedure below, you will check a drive to start the Apache Service after installation. The Service to start will be specified by creating a parameter reference.

To change the state of a Windows Service

- 1 In the Add Command dialog box, click Change State of Windows Service.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click OK.

Packaging Server Applications

Start Apache

Change State of Windows Service

Use this to change the state of a Windows Service. For example, you may need to stop a Windows Server to install the application, or need to restart a service after installation. Returns 0 if the action was successful, if not returns a non zero value.

Title		
Start Apache		
Description		
Start Apache		
Service Name		
<space></space>		
Action		
Stop		•
Pre-condition expression		
- Post-condition expression		
✓ Check post-condition		
Error message		
- Modes for this command		
create		
1		

- 4 Click on the ellipsis at the end of the Service name field to start the String Builder. This is the service you will be changing the state of.
- 5 Click Edit.
- 6 From the Operands, click Parameter Reference.
- 7 From the drop-down, click the section you want to get the parameter from. In this case, we select the Service Name from Product Configuration Options.



Build an argument string		×
ParmRef(section=Apache,insta	nce=1,parameter=ServiceName)	
•		• • •
	Add Edit	Delete
Space Arameter Reference Environment Reference	Section	
Client Object Reference Command Return Referenc	Product Configuration Options	_
Command Output Referenc String Number	Instance default	
If Block	, Parameter	_
	Service Name	_
	Update	Cancel
	Save	Discard

- 8 Click **Update**, and then click **Save**.
- 9 From the Action drop-down, click Start.



Start Apache

Change State of Windows Service

Use this to change the state of a Windows Service. For example, you may need to stop a Windows Server to install the application, or need to restart a service after installation. Returns 0 if the action was successful, if not returns a non zero value.

Title	
Start Apache	
Description	
Start Apache	
Service Name	
ParmRef(section=Apache,instance=1,parameter=ServiceName)	
Action	
Start	_
Pre-condition expression	
☐ Check pre-condition	
Post-condition expression	
☐ Check post-condition	
Modes for this command	
create	▲
delete verify	
repair	_
update	•

Network Share

In the procedure below, we need to connect to a network share. Credentials must be supplied.

To specify information for a network share

- 1 In the Add Command dialog box, click Network Share.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click OK.



Connect to AIP
letwork Share
Ise this to connect or disconnect from a network share. If the installation media is located on your network, you vill need to specify a network location and credentials before starting the installation.
Title
Connect to AIP
Description
User defined command
Share Name
<space></space>
Action
Connect 📃
Credentials (optional)
<space></space>
Pre-condition expression
Check pre-condition
Post-condition expression
✓ Check post-condition
Error message

- 4 Click on the ellipsis at the end of the **Share Name** field to start the String Builder. This is the parameter you will be setting the value for.
- 5 Click Edit.
- 6 From the Operands, click **Parameter Reference**.
- 7 From the drop-down, click the section you want to get the share name from.
- 8 Click Update, and then Save.
- 9 From the Action drop-down, click **Connect** or **Disconnect**. In this case, we want to connect.
- 10 Click on the ellipsis at the end of the **Credentials** field to start the String Builder. These are the set of credentials you will use to connect to the network share.

11 Click Edit.

Build an argument string				X
	0			
CredRef(section=Credentials,instance=1	IJ			<u> </u>
•				► ▼
		Add	Edit	Delete
	stance ministrator			<u>_</u>
			Update	Cancel
			Save	Discard

- 12 Click Update, and then Save.
- 13 The results of your new command will be displayed.

Connect to AIP
Network Share
Use this to connect or disconnect from a network share. If the installation media is located on your network, you will need to specify a network location and credentials before starting the installation.
Title
Connect to AIP
Description
User defined command
Share Name
ParmRef(section=Global,instance=1,parameter=InstallShare)
Action
Connect
Credentials (optional)
CredRef(section=Credentials,instance=1)
Pre-condition expression
☐ Check pre-condition
Post-condition expression
Check post-condition
CmdRef(phaseID=2,actionID=250,use=ReturnCode) EQ 0
Error message
Could not connect to AIP

Reboot device

In this example, we will restart the target computer. Note that this contains a pre-condition to see if a reboot is needed.

To reboot a device

- 1 In the Add Command dialog box, click **Reboot device**.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click OK.

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Check if a reboot is needed Reboot device Use this to Restart, Power Off, Logoff or Shutdown the target computer. Title Check if a reboot is needed Description Check if a reboot is needed Туре Restart • Pre-condition expression ☐ Check pre-condition Post-condition expression ✓ Check post-condition Error message Modes for this command create delete verify repair update •

- 4 From the Type drop-down, click the type of reboot you want. Your options are **Restart**, **Power Off**, **Logoff**, and **Shutdown**.
- 5 The results of your new command are displayed.

Check if a reboot is needed
Reboot device
se this to Restart, Power Off, Logoff or Shutdown the target computer.
Title
Check if a reboot is needed
Description
Check if a reboot is needed
Туре
Restart
Pre-condition expression
Check pre-condition
CmdRef(phaseID=3,actionID=330,use=ReturnCode) EQ 3010
Error message
Reboot required
7
Post-condition expression
Check post-condition
) Check post-condition
Modes for this command
create
delete
verify
repair update
labore T

File Operations

In this example, we want the file name to be put into a native format.

To perform a file operation

- 1 In the Add Command dialog box, click File Operations.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click OK.

Packaging Server Applications

Translate HTTPRoot

File Operations

Use this to normalize file names, use the appropriate characters for your operating system (native), to delete a file, to get the version of the file in Windows

itle	
Translate HTTPRoot	
Description	
Operation	
Normalize	•
ïle name	
<space></space>	
Pre-condition expression	
Check pre-condition	
Post-condition expression	
✓ Check post-condition	
Error message	
1	
Modes for this command	
create delete	

- 4 From the **Operation** drop-down, select the operation you wish to perform.
- 5 Click on the ellipsis at the end of the File name field to start the String Builder. This is the file name you will be performing the operation on.
- 6 Click Edit.
- 7 From the Operands, click **Parameter Reference**.
- 8 From the drop-down, click the section you want to get the parameter from.



Build an argument string			×
ParmRef(section=Apache,instar	ce=1,parameter=HttpRoot)		-
•			<u> </u>
	Add	Edit	Delete
Space Parameter Reference Environment Reference Client Object Reference Command Return Referenc Command Output Referenc String Number If Block	Section Product Configuration Options Instance default Parameter Server Root Directory		• •
		Update	Cancel
		Save	Discard

- 9 Click **Update**, and then click **Save**.
- 10 The results of your new command will be displayed.



Translate HTTPRoot

File Operations

Use this to normalize file names, use the appropriate characters for your operating system (native), to delete a file, to get the version of the file in Windows

Title	
Translate HTTPRoot	
Description	
Operation	
Native	<u> </u>
File name	
ParmRef(section=Apache,instance=1,parameter=HttpRoo	t) .
Pre-condition expression	-
Check pre-condition	
Post-condition expression	
Check post-condition	
Modes for this command	
create	
delete	_
verify	
repair update	•
1-1	

Create File

In the procedure below, you will create a configuration file. The file information will be retrieved from the File Template.

To create a file

- 1 In the Add Command dialog box, click **Create File**.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click OK.



Create CONFIG File
Create File
Create a file on the target device using the contents from the file template.
Title
Create CONFIG File
Description
File name
<space></space>
Pre-condition expression
Post-condition expression
Check post-condition
Error message
Modes for this command
create
delete verify
repair
update 🔽

- 4 Click on the ellipsis at the end of the File name field to start the String Builder. This is the file you will be creating.
- 5 Click Edit.
- 6 From the Operands, click **File Content Reference**. Select the file to create. Type a directory and a File name. Check if you want to delete the file after use.

Build an argument string	×
ContentRef(name=virtweb.txt,del	eteAfterUse=false,Directory=CmdOutRef(actionID=280,phaseID=3,us 🔺
 	
	Add Edit Delete
Space	
File Content Reference	File Template Name
	virtweb.txt
	Directory Name
	CmdOutRef(actionID=280,phaseID=3,use=Output,creator=C
	File Name
	ParmRef(section=Apache,instance=1,parameter=LogPrefix).
	☐ Delete after use?
	Update Cancel
	Save Discard

- 7 Click **Update**, and then **Save**.
- $8 \quad \mbox{The results of your new command will be displayed.}$

Create CONFIG File
Create File
Create a file on the target device using the contents from the file template.
Title
Create CONFIG File
Description
File name
ContentRef(name=virtweb.txt,deleteAfterUse=false,Directory=CmdRef(phaseID=3,actionID=280,use=C
Pre-condition expression
Check pre-condition
Post-condition expression
☐ Check post-condition
Modes for this command
create
delete verify
repair
update

Set Parameter

In the procedure below, you will set the Media Directory for installation using the Set Parameter Command. The parameter will be retrieved from a Client Object.

To set a parameter from a Client Object

- 1 In the Add Command dialog box, click Set Parameter.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click **OK**.

Packaging Server Applications

Get MediaDir from Radia

Set Parameter

Set a parameter value in the ConfigProfile. This lets you override values at runtime from different sources, such as Client Objects, Registry values, and Command Results.

fitle	
Get MediaDir from Radia	
Description	
Get MediaDir from Radia object	
Parameter name	
<space></space>	
/alue	_
<space></space>	
Pre-condition expression	
Check pre-condition	
Post-condition expression	
✓ Check post-condition	
Error message	
Modes for this command	
create	

- 4 Click on the ellipsis at the end of the **Parameter name** field to start the String Builder. This is the parameter you will be setting the value for.
- 5 Click Edit.
- 6 From the Operands, click Parameter Reference.
- 7 From the drop-down, click the section you want to get the parameter from. In this case we select **Radia Settings**, the default instance, and Media Directory.
- 8 Click Update, and then Save.
- 9 Click on the ellipsis at the end of the Value field to start the String Builder. This is the value you will be setting the parameter to.
- 10 Click Edit.

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11 Enter the required information.

Build an argument string			×
	ce=,attribute=MEDIADIR,directory=	(DMLIB)	
4		,	
	Add	Edit	Delete
Space Parameter Reference Environment Reference Client Object Reference Command Return Referenc Command Output Referenc String Number If Block	Class ZDSPM000 Instance Attribute MEDIADIR IDMLIB		
_		Update	Cancel
		Save	Discard

- 12 Click Update, and then Save.
- 13 The results of your new command will be displayed.

Packaging Server Applications

Get MediaDir from Radia

Set Parameter

Set a parameter value in the ConfigProfile. This lets you override values at runtime from different sources, such as Client Objects, Registry values, and Command Results.

Get MediaDir fror	Radia				
Description					
Get MediaDir fror	Radia object				
Parameter name					
ParmRef(section	Apache,instance="	,parameter=Me	ediaDir)		
Value					
ObiBef(class=70	6PM000,instance=	attribute=MEDI	ADIB director	u=IDMLIB)	
	on mood, natarice=	attribute=mebi	Abiri,alicetoi	y=10101210)	
- Pre-condition e	pression				
 Pre-condition ex 	pression				
− Pre-condition e:					
☐ Check pre-	ondition				
Check pre-	ondition pression				
☐ Check pre-	ondition pression				
Check pre-	ondition pression				
Check pre-	ondition pression condition				
Check pre- Post-condition e Check pos Check pos Modes for this c	ondition pression condition				
Check pre- Post-condition e Check pos Check pos Modes for this c create	ondition pression condition				
Check pre- Post-condition e Check pos Check pos Modes for this c create delete	ondition pression condition				
Check pre- Post-condition e Check pos Check pos Modes for this c create	ondition pression condition				

Set Registry Value

To set a registry value

- 1 In the Add Command dialog box, click Set Registry Value.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click OK.



Set Source Path in registry Set Registry Value Returns 0 if the data was set in the registry, else returns the error code
Title Set Source Path in registry
Description Set Source Path in registry
Key <space></space>
Value Space>
Data
<space></space>
Check pre-condition
Post-condition expression

- 4 Click on the ellipsis at the end of the **Key** field to start the String Builder. This is the key you will be getting the information from.
- 5 Click Edit.
- 6 From the Operands, click **String**.
- 7 Type the full path to the registry key you are going to set.
- 8 Click **Update**, and then **Save**.
- 9 Click on the ellipsis at the end of the Value field to start the String Builder. This is the registry value you will be setting.
- 10 Click Edit.
- 11 From the Operands, click String.
- 12 Type the value you are going to set.

- 13 Click Update, and then Save.
- 14 Click on the ellipsis at the end of the Data field to start the String Builder. This is the data you will set the value to.
- 15 Click Edit.
- 16 From the Operands, click **Parameter Reference**. In this case, we are setting the Source Directory to the Media Directory.

Build an argument string			×
ObjRef(class=ZDSPM000,instar	ce=,attribute=MEDIADIR,directory	/=IDMLIB)	▲
•			
	Add	l Edit	Delete
Space Parameter Reference Environment Reference Client Object Reference Command Return Referenc Command Output Referenc String Number If Block	Class ZDSPM000 Instance Attribute MEDIADIR IDMLIB		
		Update	Cancel
		Save	Discard

- 17 Click Update, and then Save.
- 18 From the Type drop-down, select the data type.
- 19 The results of your new command will be displayed.



Oct Octave Deth in registry
Set Source Path in registry
Set Registry Value
Returns 0 if the data was set in the registry, else returns the error code
Title
Set Source Path in registry
Description
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Setup
Value
SourcePath
_
Data
ParmRef(section=Radia,instance=1,parameter=MEDIADIR)
Туре
String 🗾
Pre-condition expression
Check pre-condition
Post-condition expression
Check post-condition
CmdRef(phaseID=1,actionID=230,use=ReturnCode) EQ 0

Header Information

You may want to create header information to track versions, authors, and features of application management profiles.

To created header information

- 1 From the Edit menu, click Edit Header Information.
- 2 In the dialog box, type in the values you want.

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dit header information	×
DocumentVersion	
1.0	
Product	
SQL Server 2000 Application Profile	
ProductVersion	
8.0	
Author	
HP Mahwah CCSO	
Email	
TargetOS	
Title	
Custom Application Profile for MS SQL Server 2000	
Description	
Custom Application Profile for MS SQL Server 2000	-
Save	Discard

3 Click Save.

The header information has been added to the application profile's xml file.



Publishing a Profile

After you have created your CAP, you are now ready to promote it to the Radia Database.



Name the file control.xml, to save space on the command line when calling ZCREATE. By default the method looks at control.xml in the APPMGMT folder under the current IDMLIB.

To promote an Application Management Profile

Use the Packager's Component Selection Mode to package the CAP file to the Configuration Server.

During your packaging session, be sure to make the following changes from the default behaviors:

• Change the domain to APPMGMT

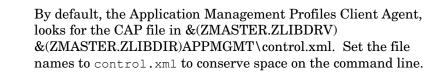
Packaging Server Applications



🕼 Radia Packager		
File <u>E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp		
T 🔁 🖻 🖳 🛷 🌹 🕸		
- Package Properties		
Enter the name of the package to create, and an	any additional package information	
Radia ®	Package SQL2K_CAP_CTRL Name:	
Packager	Domain: APPMGMT	•
	Description: SQL2K CAP file	
	Release: 1.0	
	<- Prev Next -> Car	ncel

Figure 8: Package the CAP to the APPMGMT Domain

- Enter a meaningful package name, such as **SQL2K_CAP_CTRL**.
- Select your CAP, control.xml, for packaging.



Instance Propert	ies - C:\Docume	ents and Settings\feifer\Deskt	t
Client Man Client Beh		Data Options Database Information	
Domain:	APPMGMT	V	
Class:	APPCNTRL	•	
			ľ
Note: Setting th	e properties on a fold	der will also affect all of its contents	
	OK	Cancel Apply	

• Use the **Database Information** tab in the file properties to set the class name to APPCNTRL.

Figure 9: Set the properties to the APPCNTRL class.

You can edit the path of this instance using System Explorer.

Packaging Server Applications



4 Preparing Server Applications

After packaging your custom application profile to the Radia Database, you are ready to use the System Explorer to perform further modifications.

Prepare the Package

After creating and packaging the media and control files, you will need to some modifications to the instances in the APPMGMT Domain using the System Explorer. To prepare the server application, you will need to perform the following tasks.

- 1 Create a Utility instance for the Server Application
- 2 Create a Service instance in the Configuration Server Database.
- 3 Connect the media package and utility instances to the Service.

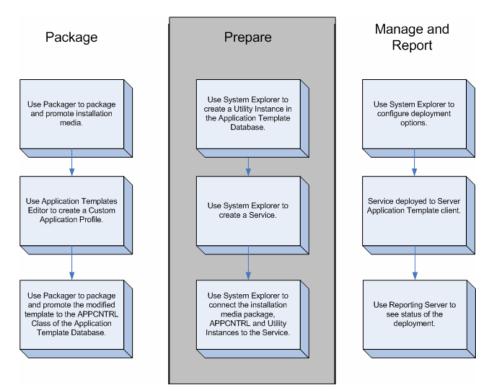


Figure 10: Workflow.



Overriding Values in the CAP (Utility Instances)

Utility Classes in the Configuration Server Database are used to create server specific overrides for the CAP. At the time of this writing, the following Utility Classes are available.

- IIS60 and IIS_WEB for Microsoft Internet Information Server
- MSSQL2K for Microsoft SQL Server. This is available for Windows only.
- APACHE2 and VIRTWEB for Apache Server Version 2.
- WEBLOGC8 for BEA WebLogic.

Use the Utility instance for a Server Application to override values in the Custom Application Profile. This allows you to use one profile with small variations for each target computer in your enterprise. Use System Explorer to create and modify Utility instances. To do this, navigate to the relevant Utility Class, create an instance, and double-click the appropriate attribute to edit it.

In the example, below we will create a Utility instance to override the SQL Instance name.

To create a Utility instance

- 1 Create a new instance of the APPMGMT.MSSQL2K class.
- 2 Double click the attribute you want to change. In this class, we select INSTNAME.

SQL Server Instanc	VER Instance - Last Update: e Name	- 05/09/05 14:38:44
Name	Attribute Description	Value
W INSTNAME	SQL Server Instance Name	FINAPPS
V SZNAME	Company Name	_NONE_
V CDKEY	CD Key	_NONE_
🚺 INSTDIR	Install Directory	_NONE_
V DATADIR	Data Directory	_NONE_
V TCPPORT	TCP Port Number	_NONE_
MEDIADIR	Media Directory	_NONE_
V ZCREATE	Create Method	hide nvdkit &(ZMASTER.ZSYSDRV)&(ZMASTER.ZSYSDIR). 😒
<		
		OK Cancel Restore

Preparing Server Applications

3 Click **OK**, and then **Save** to save the changes.

You will connect this Utility override instance to the ZSERVICE instance for the server application. If a value exists in the Utility Class, the value is used instead of the value in the CAP. Use _NONE_ to tell the client that this variable has no value in the Configuration Server database and the values from the CAP should be used.

Modifying the Path Instance

Use System Explorer to change attributes of the PATH instance for the Custom Application Profile (CAP) package you created to have the values shown below. This will ensure that the CAP goes to the APPMGMT folder under the current application on the target computer.

- DRIVE &(ZMASTER.ZLIBDRV)
- DIR &(ZMASTER.ZLIBDIR)APPMGMT

2 <u>X BEX 6 II 55000 / 8</u>				
latabase Tree View:		Path class SQL2K	CAP file:ControlPath Instance At	tributes:
🗄 🗄 🚰 APPMGMT	~	Name	Attribute Description	Value
Alert / Defer (ALERTDEF)		V DRIVE	Drive	&(ZMASTER.ZLIBDRV)
🛱 Apache V2 (APACHE2)		V DIR	Directory	& ZMASTER.ZLIBDIR) APPMGM1
- 🛱 Apache Virtual Web (VIRTWEB)		V NAME	Friendly Name	ControlPath
		V ZRSCPRI	Priority	5
E - D Application Control (APPCNTRL)		V ZRSCMO	Mandatory/Optional [M/O]	м
BASE_INSTANCE_		V OBJGUID	Instance GUID	_UNDEF_
🖻 🎒 SQL2K CAP file:				
SQL2K CAP file:B11168E6B680_D01F685	90			
Application Packages (PACKAGE)				
BASE_INSTANCE_				
🖻 - 🌆 SQL2K CAP file				
SQL2K CAP file: <al></al>				
SQL2K CAP file:ControlPath				
SQL2K CAP file: <all></all>				
SQL2K CAP file: <alb< td=""><td></td><td></td><td></td><td></td></alb<>				

Creating the Service

Once you have packaged the installation media and CAP, and created a Utility instance, you are ready to create the Service (ZSERVICE) instance for the server application.

Chapter 4

To create the service

1 Use System Explorer to create a new instance of the ZSERVICE class in the APPMGMT domain.



The APPMGMT domain has many of the same classes as the SOFTWARE domain. Be sure that you are performing all of these edits in the APPMGMT domain.

- 2 Connect the Installation Media package to the ZSERVICE.
- 3 Connect the Utility class instance to the ZSERVICE using the OVERRIDE Class Connection. For more information on connecting the Utility class, see Naming and Connecting the Utility Instance on page 76.



If you do not have a valid Utility instance, the installation will fail. The client methods for executing the installation of the server applications are part of the Utility instance.

4 Connect the CAP Package instance to the ZSERVICE.

X B B X B II B S B B B B B B B B B B B B B B B			
abase Tree View:	Application cla	ss SQL2K Instance Attributes:	
Database	Name	Attribute Description	Value
P LICENSE	3 ZSTOPO	0 Expression Resolution Method	
PRIMARY	30 ZSTOP00	1 Expression Resolution Method - 001	
🗄 😋 ADMIN	30 ZSTOP00	2 Expression Resolution Method - 002	
E B APPMGMT	30 ZSTOP99	9 Stop Unless Radia Connect	
	V ZSVCNA	AE Service Name/Description	SQL 2K
🖓 Apache V2 (APACHE2)	V ZSVCTT		
Apache Virtual Web (VIRTWEB)	V ZSVCMO	Mandatory or Optional [M/0/M0/0M]	м
 Application (ZSERVICE) 	V ZSVCCS1		999
BASE_INSTANCE_	ZSVCPRI	Service Create Ordering [01-99]	
	1C_ALWAY		APPMGMT.PACKAGE.SQL_BASE
- 🙅 SQL Base Depot			APPMGMT.MSSQL2K.&ZMASTER.ZUSERID
APPMGMT.MSSQL2K.&(ZMASTER.ZUSERID)_*			APPMGMT.PACKAGE.SQL2K_CAP_CNTRL
SQL2K CAP file	DC ALWAYS		
- D Application Control (APPCNTRL)	DT ALWAYS		
- Application Packages (PACKAGE)	IT_ALWAYS		
- I Auto Run (EXECUTE) - I Pehavior Services (BEHAVIOR)	IT_ALWAYS		
Class Defaults (METACLAS)	ALWAY:		
Desktop (DESKTOP)	BCREATE		
Desktop (DESkTOT) Services (DIALOG)	ZCREATE		
File Resources (FILE)	ZUREATE	Service Installation Method	
HITP Proxy (HTTP)	BDELETE		
IBM AIX Packages (AIX)			
IIS Version 6 (IIS60)	ZDELETE		
- T IIS Web (IIS_WEB)	BUPDATI		
- Provide Contraction (INSTALL)	ZUPDATI		
Linux RPM Packages (RPM)		Service Verify Method	
Mac Alias (MACALIAS)		Service Pre-Repair Method	
Mac File Resources (MACFILE)	ZREPAIR		
B Mobile File Resource (RMMFILE)	V ZAVIS	Available,Verified,Installed,Sync F	YXNX
MSI Basic Resources (MSIBASIC)	V PUBDATI		
MSI Features (MSIFEATS)	VERDATI	Verfied Date of Service	

Preparing Server Applications

Naming and Connecting the Utility Instance

There are multiple methods for connecting the Utility instance. Decide on the method that best suits your needs. Then, you will need to use the appropriate naming convention for the Utility instance. The most common methods are described below.



If you do not have a valid Utility instance, the installation will fail. The client methods for executing the installation of the server applications are part of the Utility instance.

- Multiple computers with identical configurations
 - Use a descriptive name for the Utility instance. For example, create a DEMOWEB instance in the VIRTWEB class.

 ZSERVICE.OVERRIDE Value:	APPMGMT.VIRTWEB.DEMO WEB	

😤 Radia System Explorer - [1:RCS - 1]			
🔯 Eile Edit View Window Help			_ 8 :
👷 X B 🖻 X 🕒 I I 🖭 🖽 🖽	m 🗾		
Database Tree View:	Application class Virtual	Web - Demo Web Instance Attributes:	
🔮 Database 🔼	Name	Attribute Description	Value
- 🚰 LICENSE	30 ZSTOP000	Expression Resolution Method	
E PRIMARY	30 ZSTOP001	Expression Resolution Method - 001	
ti - ting ADMIN	30 ZSTOP002	Expression Resolution Method - 002	
E- B APPMGMT	30 ZSTOP999	Stop Unless Radia Connect	
Alert / Defer (ALERTDEF)	V ZSVCNAME	Service Name/Description	Demo Web
Apache V2 (APACHE2)	V ZSVCTTYP	Application Target Type [A/S]	
Apache Virtual Web (VIRTWEB)	V ZSVCMO	Mandatory or Optional [M/0/M0/0M]	0
Application (ZSERVICE) Application (ZSERVICE)	V ZSVCCSTA	Service Status on Client (999)	999
Apache 2.0.52 Template	V ZSVCPRI	Service Create Ordering [01-99]	70
IS Template	OC_ALWAYS_	Contains	
Sol Server 2000 Template		Contains	APPMGMT.VIRTWEB.DEM0_WEB
Sql Server 2000 Template	C_ALWAYS_	Contains	APPMGMT.PACKAGE.VIRTWEB_XML
Virtual Web · Demo Web	LALWAYS_	Contains	APPMGMT.PACKAGE.DEMOWEB
- I DEMO_WEB	I _ALWAYS_	Contains	
VirtWebTemplate Control File	I _ALWAYS_	Contains	
DemoWebSite	I _ALWAYS_	Contains	
- 🏪 Virtual Web - Demo Web 2	LALWAYS_	Utility Resolution Method	
📲 Web Logic 8.1 Template	BCREATE	Service Pre-Installation Method	
Application Control (APPCNTRL)	70BEATE	Service Installation Method	
	<		>
70 Application CLASS Virtual Web - Demo Web attribute(s)	displayed		6/7/2005 1:12 PM

- Each computer with one configuration
 - Create one instance for each target computer in the Utility Class.
 For example, create two instances in the APPMGMT.APACHE2 class.
 One named SRV020, and the other named SRV850. When the service is deployed, SRV020 will use APACHE2.SRV020. SRV850 will use APACHE2.SRV850. The computer name is taken from the ZUSERID attribute of the ZMASTER client object.



ZSERVICE.OVERRIDE Value: APPMGMT.APACHE2.&(ZMASTER.ZUSERID)

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tabase Tree View:	Application class A	pache 2.0.52 Template Instance Attribute	8.
👚 LICENSE 🛛 🔼	Name	Attribute Description	Value
- 🕆 PRIMARY	30 ZSTOP000	Expression Resolution Method	WORDPOS(EDMGETV(ZMASTER,ZOS),/WIN2)
🗄 🔄 ADMIN	30 ZSTOP001	Expression Resolution Method - 001	
	30 ZSTOP002	Expression Resolution Method - 002	
Alert / Defer (ALERTDEF)	30 ZSTOP999	Stop Unless Radia Connect	
Apache V2 (APACHE2)	V ZSVCNAME	Service Name/Description	Apache 2.0.52 Template
	V ZSVCTTYP	Application Target Type [A/S]	
SRV020	V ZSVCMO	Mandatory or Optional [M/0/M0/0M]	0
	V ZSVCCSTA	Service Status on Client (999)	999
Apache Virtual Web (VIRTWEB) Application (ZSERVICE)	V ZSVCPRI	Service Create Ordering [01-99]	
BASE_INSTANCE_	C_ALWAYS_	Contains	
Apache 2.0.52 Template	A OVERRIDE	Contains	APPMGMT.APACHE2.&(ZMASTER.ZUSERID)
H-1 APPMGMT.APACHE2.&ZMASTER.ZUS	IC_ALWAYS_	Contains	APPMGMT.PACKAGE.APACHE_XML
- Apache Template Control File	1C_ALWAYS_	Contains	APPMGMT.PACKAGE.APACHE_2052_WIN
Apache 2.0.52 Components	II _ALWAYS_	Contains	
IIS Template	I _ALWAYS_	Contains	
Sql Server 2000 Template	IT_ALWAYS_	Contains	
Virtual Web - Demo Proxy	ALWAYS_	Utility Resolution Method	
🕀 📑 Virtual Web - Demo Web	CREATE SCREATE	Service Pre-Installation Method	
🛁 🏪 Virtual Web - Demo Web 2 🛛 👻	7CBFATF	Service Installation Method	

- One computer with multiple instances of the same application
 - Use this naming method when an application supports multiple instances, such as Microsoft SQLServer or Oracle. These server applications allow for multiple instances of the application on one computer.
 - Name the Utility instance using the name of the computer followed by a descriptive suffix. For example, create three instances in the APPMGMT.MSSQL2K class, SQLSRV_FINANCE, SQLSRV_HR, SQLSRV_DEV. In each of these instances, set the MSSQL2K. INSTNAME to a different value, such as FINANCE, HR, and DEV. Leave the other attributes at the _NONE_ value so the Application Management Profile's values will be used. When the service is deployed to SQLSRV, Microsoft SQL Server will be deployed with 3 named instances.

Preparing Server Applications



🞗 Radia System Explorer - [1:RCS - 1]			
🔯 Eile Edit View Window Help			- 8 ×
🛛 XBRX 🖻 II 🖭	± 🖩 🙎		
Database Tree View:	SQL Server 200 c	lass SQLSRV_DEV Instance A	Attributes:
Path (PATH)	Name	Attribute Description	Value
📲 🔐 Registry Resources (REGISTRY)	W INSTNAME	SQL Server Instance Name	DEVELOPMENT
Replace Application (REPLACE)	V SZNAME	Company Name	_NONE_
Scheduling (TIMER)	V CDKEY	CD Key	_NONE_
SD Dependencies (SDDEP)	🚺 INSTDIR	Install Directory	_NONE_
	V DATADIR	Data Directory	_NONE_
Solaris Patches (SOLPATCH)	V TCPPORT	TCP Port Number	_NONE_
i⊟ - []] SQL Server 200 (MSSQL2K)	V MEDIADIR	Media Directory	_NONE_
BASE_INSTANCE_	V ZCREATE	Create Method	hide nvdkit & (ZMASTER.ZS
	V ZUPDATE	Update Method	
	V ZDELETE	Delete Method	
	V ZVERIFY	Verify Method	
SVR4 Dependencies (SVR4DEP 🗸	V ZREPAIR	Repair Method	
	<		>
PRIMARY\APPMGMT\SQL Server 200 (MSSQL2K)\S	QLSRV_DEV\	6/7/2005	1:26 PM

 ZSERVICE.OVERRIDE Value: APPMGMT.MSSQL2K.&(ZMASTER.ZUSERID)_*

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<u>xeex e II •:###</u>	2		
abase Tree View:	Application class Sql	Server 2000 Instance Attributes:	
B PMGMT	Name	Attribute Description	Value
Alert / Defer (ALERTDEF)	30 ZSTOP000	Expression Resolution Method	WORDPOS(EDMGETV(ZMASTER,ZOS), WIN2K3 WI
🛱 Apache V2 (APACHE2)	30 ZSTOP001	Expression Resolution Method - 001	
- 🛱 Apache Virtual Web (VIRTWEB)	30 ZSTOP002	Expression Resolution Method - 002	
- Application (ZSERVICE)	30 ZSTOP999	Stop Unless Radia Connect	
BASE_INSTANCE_	ZSVCNAME	Service Name/Description	Sql Server 2000
Apache 2.0.52 Template	V ZSVCTTYP	Application Target Type [A/S]	S
erics	V ZSVCMO	Mandatory or Optional [M/O/MO/OM]	M
IIS Template	V ZSVCCSTA	Service Status on Client (999)	999
B - T GI Server 2000 B - T APPMGMT,MSSQL2K,&/ZMASTER,ZU	V ZSVCPRI	Service Create Ordering [01-99]	
Sql Server 2000 Control File	C_ALWAYS_	Contains	
SQL Server 2000 Base Depot	IA OVERRIDE	Contains	APPMGMT.MSSQL2K.&[ZMASTER.ZUSERID]_*
SQL Server 2000 SP3	IC_ALWAYS_	Contains	APPMGMT.PACKAGE.SQL2K_CONTROL
Sql Server 2000 Template	IC_ALWAYS_	Contains	APPMGMT.PACKAGE.SQL2K_BASE_DEPOT
Virtual Web - Demo Proxy	IT_ALWAYS_	Contains	APPMGMT.PACKAGE.SQLSP3
Virtual Web - Demo Web	II _ALWAYS_	Contains	
Virtual Web - Demo Web 2	I _ALWAYS_	Contains	
	<		>

5 Managing and Reporting

This chapter describes management and reporting methods.

Management

The Application Management Profiles Client Agent is part of the Server Management Client. It must be installed on any target computer that you want to deploy server applications to. Install it using the Management Portal or using the installation from the CD-ROM. For detailed installation instructions, refer to the *Management Portal Guide* or the *Application Manager Guide*. For minimum system requirements, refer to the *Application Manager Guide* for the appropriate operating system.



To use the Application Management Profiles Client Agent, you must own a Server LTU for Application Manager using Radia.

Installing the Server Management Client

The directions shown below are for installation through the Management Portal version 2.0. These screens and instructions may change in future versions. See the Management Portal Guide for additional information.

To install the Server Management Client from the Management Portal

- Select the option to install the "Remotely Installable Client Modules" when you install the Management Portal. You must use the client install 4.0.1 or above CD-ROM. If not, you will need to copy the files to the appropriate operating system directory.
- 2 Use the Management Portal's Install Client task to begin the installation process.
- 3 In the Product section of the Management Portal's Client-opts screen, select Server Management.

Product		
Application Manager:		
Software Manager:		
Inventory Manager:		
OS Manager:		
Patch Manager:		
Server Management:	V	

4 Complete the remaining information in the Client-Opts screen.

Chapter 5



5 Schedule the installation and submit the job.



If the Radia Management Agent is not already installed on the client computer, the Agent will be installed as part of the Server Management Client installation.

To install from the CD-ROM for Windows Clients

Navigate to the appropriate subdirectory for you operating system on the Radia v41 applications CD-ROM. Double-click setup.exe. When prompted, select the **Radia Server Management** feature.

🗒 Radia Client	
Select Features Please select which features you would like to install.	•
Radia Client Radia Software Manager Radia Application Manager Radia Inventory Manager Radia OS Manager Radia Patch Manager Radia Server Management	Feature Description: This feature will be installed on the local hard drive. This feature requires 4988KB on your hard drive.
Hewlett-Packard Company Disk Cost <u>R</u> eset <	Back Next > Cancel

To use the install.ini file for Windows Clients

In the [PROPERTIES] section of the <code>install.ini</code> file, add the following line: ADDLOCAL=NVDINSTALLSVR

After installing the client, you will need to assign the appropriate services to the client computers.

Managing and Reporting

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0	I

Use standard Application Manager and Software Manager Deployment methods for your server applications.

Reporting

Application Management Profiles uses the Reporting Server for deployment status. Reporting Server version 4.1.1is the minimum version required. To view the reports, use an internet browser to go to your Reporting Server's address. Then, click on Server Management Reports to view the list of Application Management Reports. Two reports are provided, Job Status by Device and Job Status by Service.

🗆 📃 Server Management Reports
😑 🗰 Application Management
🔑 Job Status by Device
Job Status by Service

Figure 11: Application Management Profile Reports.

• Job Status by Device

Use this report to see the status of jobs by device name. The report includes information on status, reboots, and time of the last job's start and end time.

۲	3 Job Status by Device										
₽.						15 items	Y 🚺 1-2	of 2 items 🚩 🚺 🚺			
Device	Status	Successful	Warning	Reboot Pending	Failed	Total Jobs	Last Job Started 🔻	Last Job Ended			
SRVR1	0	4	0	0	0	4	2005-05-30 13:42:52	2005-05-30 13:42:59			
SRVR43	٢	1	0	0	0	1	2005-05-30 11:32:47	2005-05-30 11:32:51			

- Click **Successful** to view the successful jobs for the device.
- Click Warning to see warnings associated with this device
- Click Reboot Pending to see the jobs that require a reboot for completion.
- Click **Failed** to see the list of failed jobs for this device.
- Click Total Jobs to see the list of all jobs for this device. From within this report, you can drill down further to see detailed information for each job including installation parameters used.



• Job Status by Service

Use this report to see the status of jobs by Service name. The report includes service description, information on status, reboots, and time of the last job's start and end time.

۲				🔋 Job Sta	tus by Se	rvice				
A 😣						15 items	*		1 - 3 of 3 ite	ms 🚩 D D
Service	Description	Status	Devices	Successful	Warning	Reboot Pending	Failed	Total Jobs	Last Job Started 🔻	Last Job Ended
APACHE2_WIN	Apache 2.0.52 Profile	0	2	3	0	0	0	3	2005-05-30 13:42:52	2005-05-30 13:42:59
VIRTWEB_DEMOWEB	Demo Web	0	1	1	0	0	0	1	2005-05-29 16:51:12	2005-05-29 16:51:22
VIRTWEB_DEMOWEB2	Demo Web 2	0	1	1	0	0	0	1	2005-05-29 16:50:53	2005-05-29 16:51:03

- Click **Devices** to see the list of devices that received this service.
- Click **Successful** to view the successful jobs for the service.
- Click Warning to see warnings associated with this service.
- Click Reboot Pending to see the services that require a reboot for completion.
- Click **Failed** to see the list of failed jobs for this service.
- Click Total Jobs to see the list of all jobs for this service. From within this report, you can drill down further to see detailed information for each job.

Managing and Reporting