

HP OpenView Server Management Using Radia

for the Windows and UNIX operating systems

Software Version: 1.1

Application Management Profiles Guide

Document Release Date: November 2005



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 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>

Revisions

This manual's title page contains the following identifying information:

- Version number, which indicates the software version.
- Print date, which changes each time the document is updated.

To check for recent updates or to verify that you are using the most recent edition, visit the following URL:

http://ovweb.external.hp.com/lpe/doc_serv/

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Table 1 indicates changes made to this document since the last released edition.

Table 1 Changes in This Document

Chapter	Version	Changes
Chapter 3	1.1	Page 25, Managing Phases, use the Manage phases command to delete, modify, add, and change the order of phases.
Chapter 3	1.1	Page 30, Configuration Settings, the Add Parameter button has been changed to Manage Parameter.
Chapter 3	1.1	Page 33, Adding Commands, the following commands have been added: Loadbalancer interaction, Create directory, Remove directory, Rename file, Create file, Change UNIX owner/group/permission, Change Windows File/Directory Attributes, Verify UNIX File/Directory Attributes, Verify Windows File/Directory Attributes, Set Environment Variable.
Chapter 3	1.1	Page 77, Publishing a Profile, use the Publish to Database command in the AMP Editor to publish the profile.
Chapter 4	1.1	Page 82, Overriding Values in the AMP (Utility Instances), several new Application Management Profiles have been added.
Chapter 4	1.1	Page 83, Creating the Utility Class, use the AMP Editor Update RCS section from utility class command to manage the application's Utility class.

Chapter	Version	Changes
Chapter 4	1.1	Page 84, Creating a Utility Instance, use the AMP Editor Manage utility instances command to manage Utility instances.

Contents

1	Introduction	9
	Application Management Profiles	9
	Terminology	10
	Audience	11
	Prerequisites	11
	Additional Components	11
	Chapters Summary	12
	Related Documents.....	12
2	Installing Application Management Profiles.....	13
	Installation Media	14
	Prerequisites.....	14
	Installation Process	15
	Installing the Application Management Profiles Editor	16
3	Packaging Server Applications.....	19
	Packaging Server Applications	20
	Packaging the Installation Media	21
	Application Management Profile Editor	23
	Creating a Custom Application Profile	24
	Tabs and Phases.....	24
	Managing Phases.....	25
	Configuration Settings.....	28
	File Templates.....	32
	Adding Commands	33
	Pre-Conditions and Post-Conditions	37
	Building a String	37

Command Modes	38
Command Examples.....	39
Header Information	72
4 Preparing Server Applications	75
Prepare the Package.....	76
Publishing a Profile	77
Overriding Values in the AMP (Utility Instances).....	82
Creating the Utility Class	83
Creating a Utility Instance	84
Naming and Connecting the Utility Instance.....	87
5 Managing and Reporting.....	89
Management	90
Installing the Server Management Client.....	90
Reporting.....	92

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:

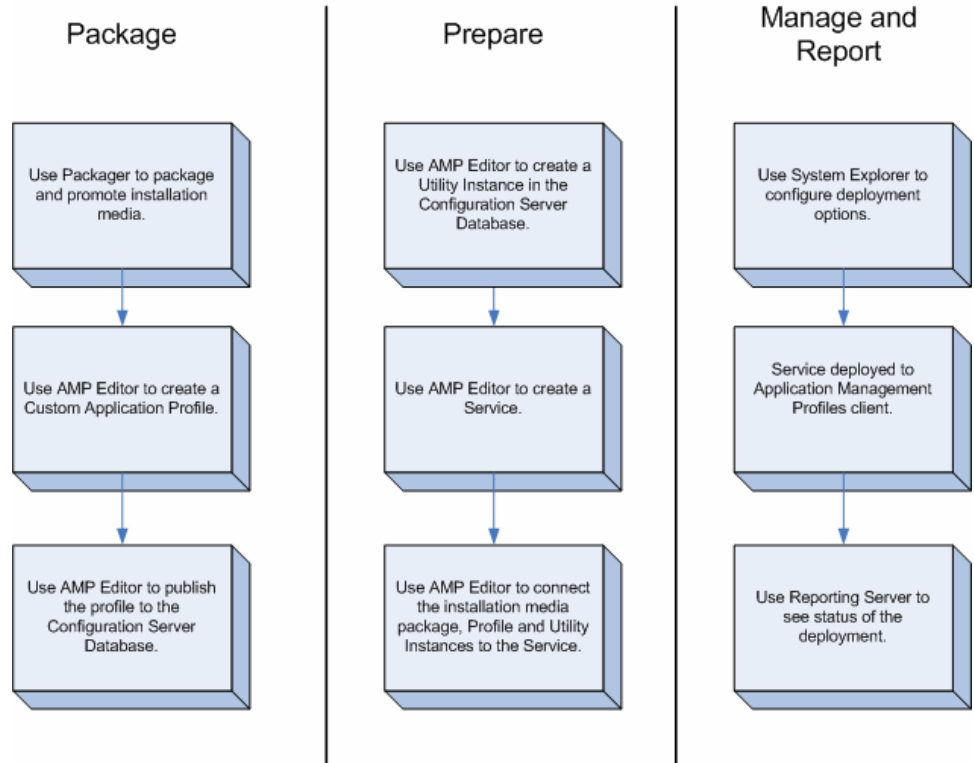
- Analyze and parameterize configuration control data for targeted products.
- Specify values in the form of a model to be used at deployment time.
- Articulate in the model pre-requisites and constraints that qualify the ability to deploy the products.
- Publish the control information and required 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 **Figure 1**



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.

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

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, and a Profile Note.
- *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 4.1 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

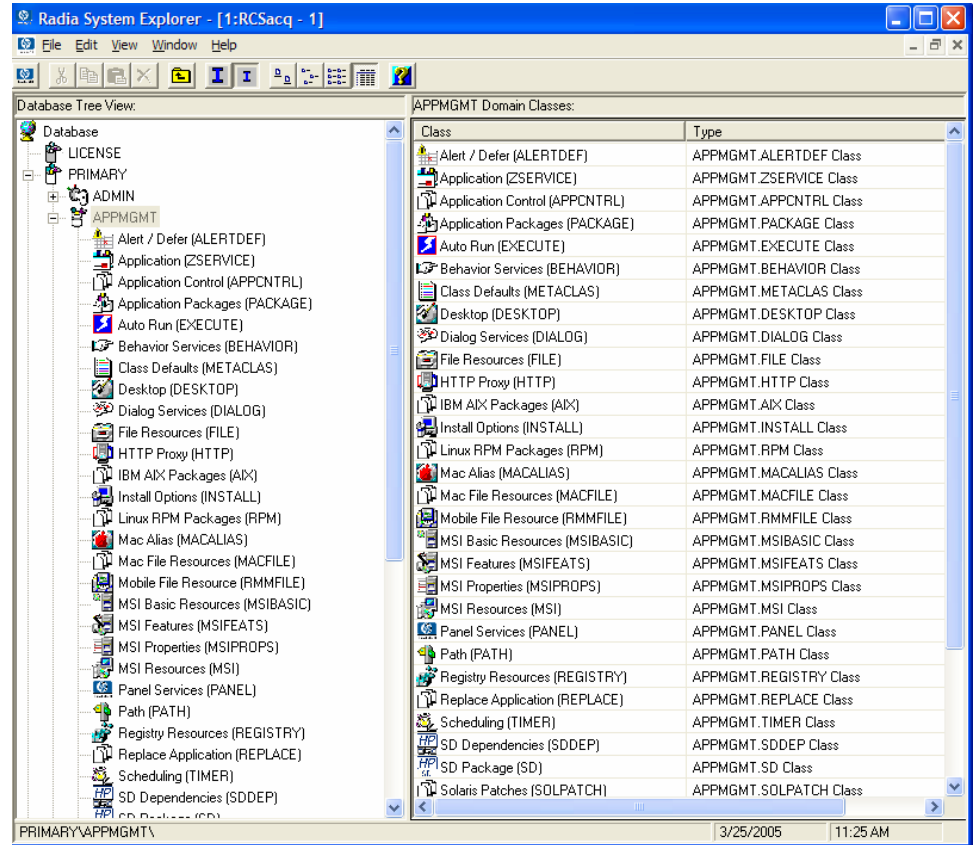
After meeting the prerequisites, you will need to do the following:

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

Figure 2 **Figure 2** **View the APPMGMT domain**



Installing the Application Management Profiles Editor

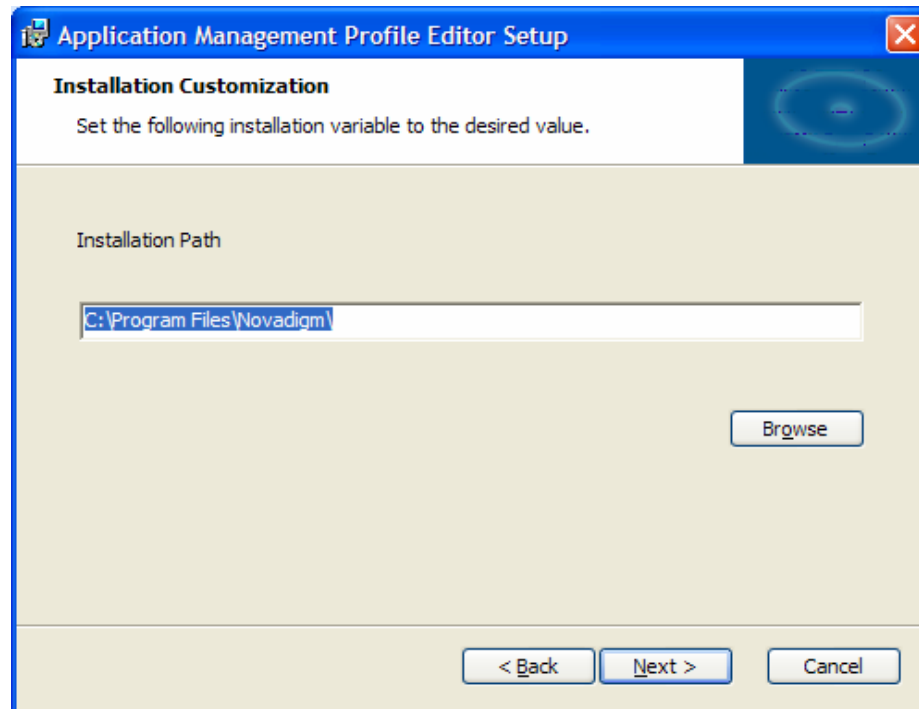
The Application Management Profiles Editor allows you to modify the profiles provided. You will probably want to install the Application Management Profiles Editor on the same computer as the System Explorer and Packager.



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** on the Welcome screen.
- 3 Read the license agreement.
- 4 Click **I accept the terms of the license agreement**.
- 5 Click **Next**.



- 6 Click **Next** to accept the directory path.
- 7 Click **Install**.
- 8 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.

3 Packaging Server Applications

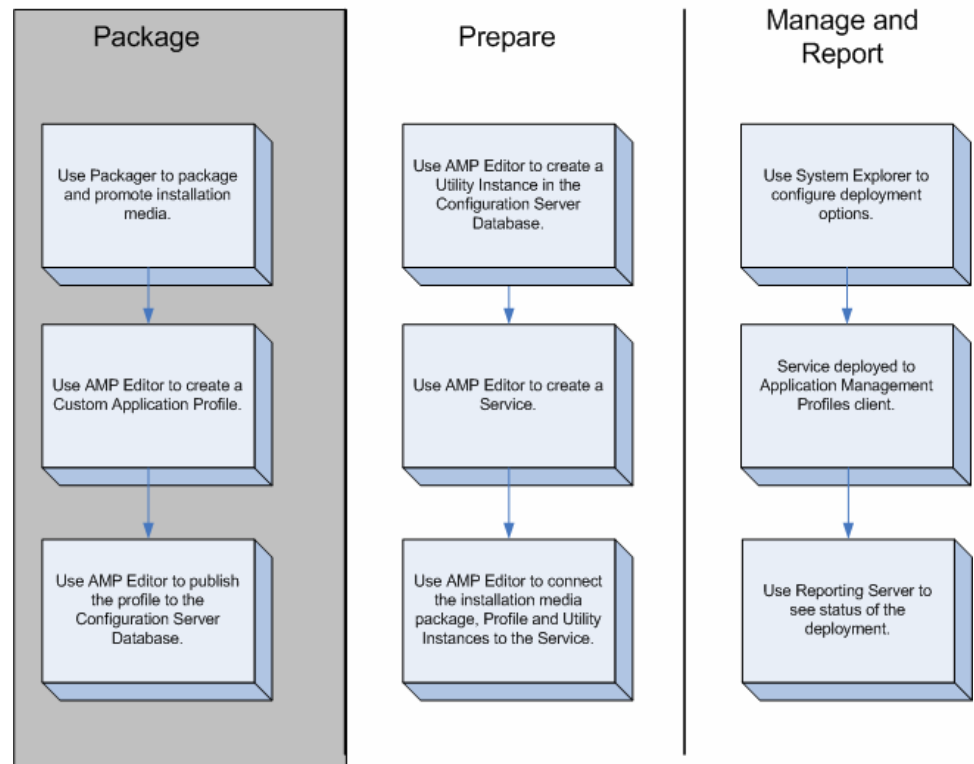
This chapter describes how to package the installation media, how to use the Application Management Profile Editor to create your Custom Application Profiles (CAP), and how to publish the CAP to the Configuration Server Database.

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 Profiles (CAP).
- 3 Package the CAP.

Figure 3 **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

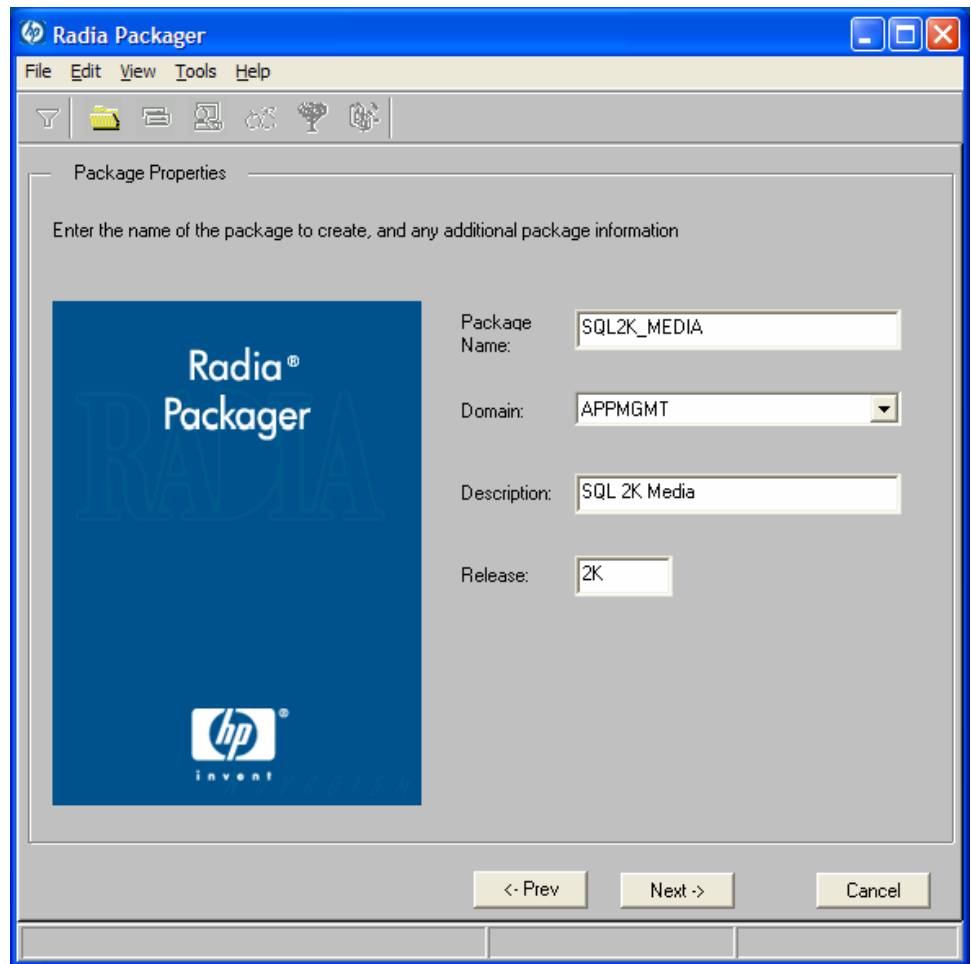
Use Packager's component selection mode to promote the server application's installation media. For complete information on Packager, see the *HP OpenView Application Manager using Radia Guide*.



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.

Figure 4 **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
- Publish the Application Management Profiles to the Configuration Server Database.

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.

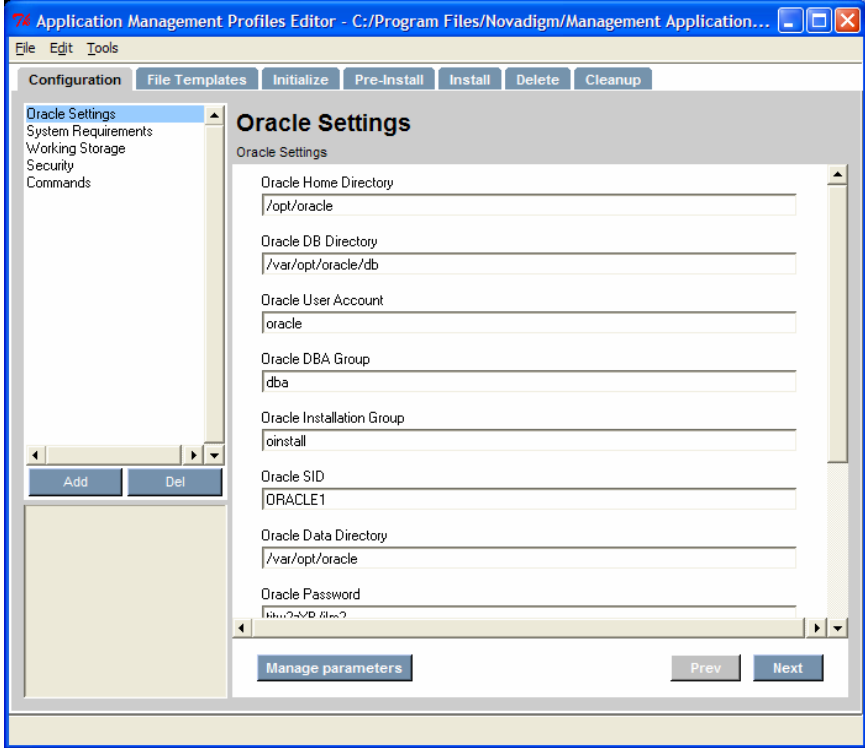
Creating a Custom Application Profile

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.

Tabs and Phases

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

Figure 5 **Figure 5** **Oracle Server sample file**



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

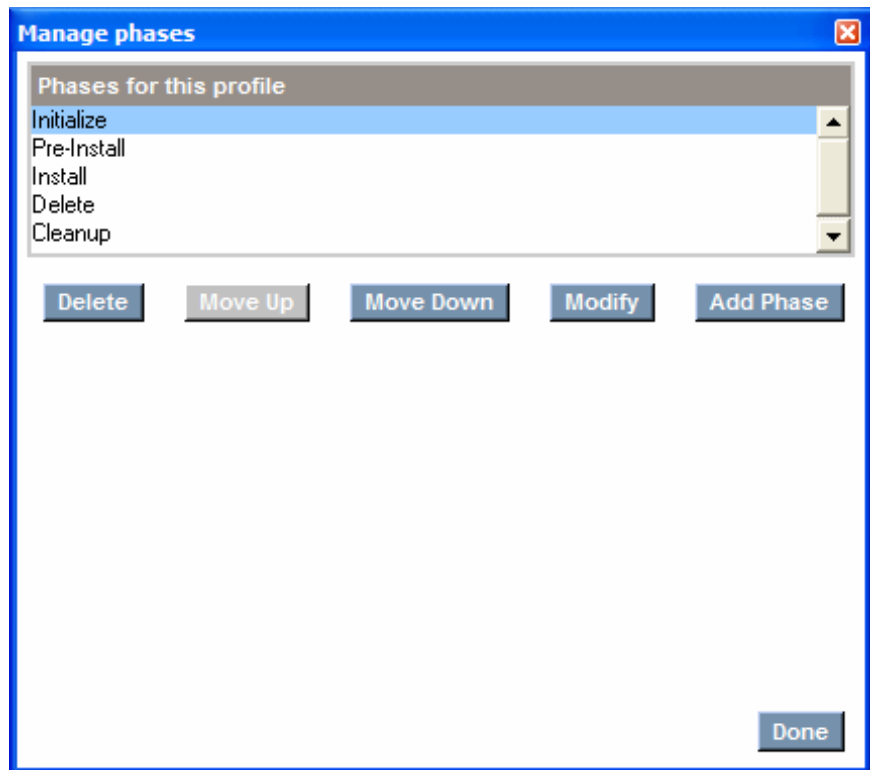
- **Configuration**
Use the configuration tab to edit installation parameters. These values can be referred to in commands that you create.
- **File Templates**
Shows the files that the profile will modify on the target computer.
- **Initialize**
During the Initialize phase, the Application Management 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.
- **Delete**
Specify any commands that you want to run when the application is removed from the target computer.

Managing Phases

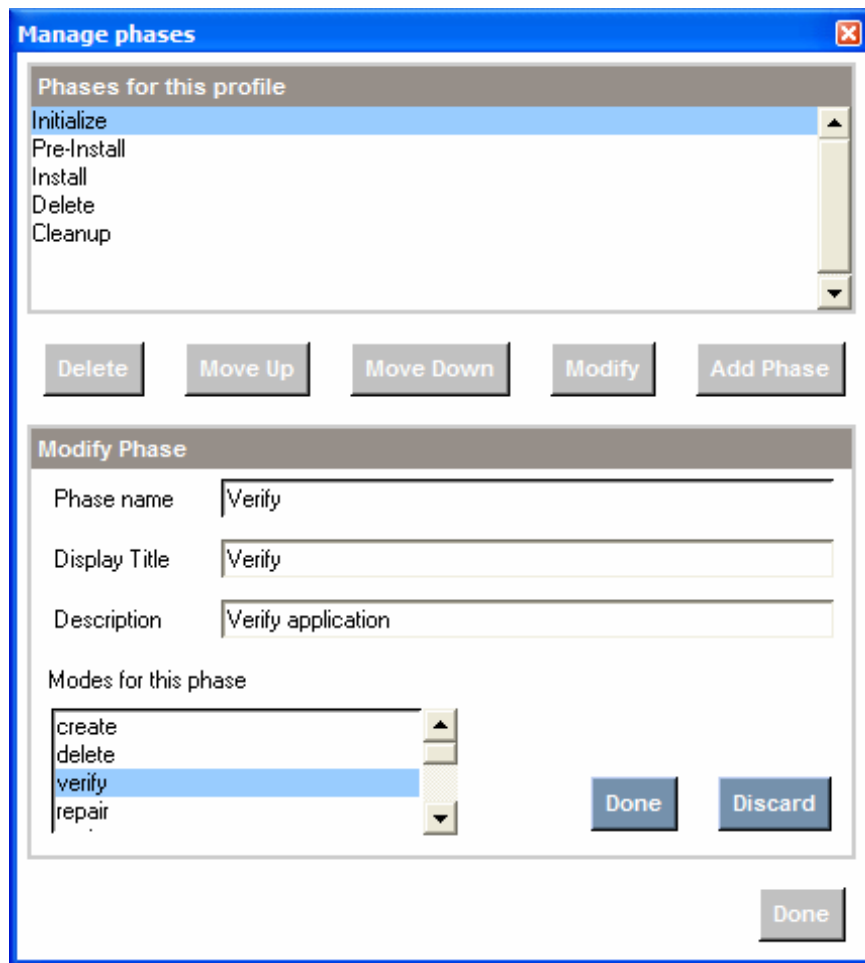
The Application Management Profiles Editor allows you to add and manage the phases in a profile.

To add a phase

- 1 From the Edit menu, click **Manage Phases**.



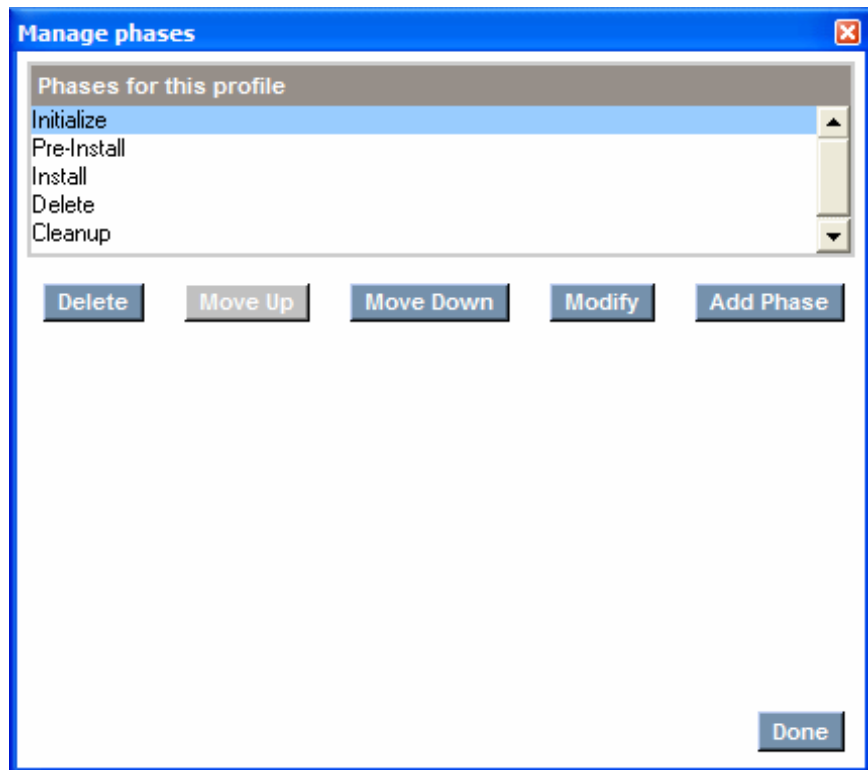
- 2 Click **Add Phase**.



- 3 Type a Phase name, Display Title, and Description. If needed, select a mode for the phase. See Command Modes on page 38 for more information.
- 4 Click **Done** to confirm the settings.
- 5 Click **Done** when you are finished managing phases.

To manage phases

- 1 From the Edit menu, click **Manage Phases**.



- 2 Click on the action you want to perform.
 - Click **Delete** to remove a phase.
 - Click **Move Up** to move a phase up.
 - Click **Move Down** to move a phase down.
 - Click **Modify** to change the Phase Name, Display Title, Description, or Modes for this phase.
 - Click **Add Phase** to add a phase.
- 3 When you have completed your changes, click **Done**.

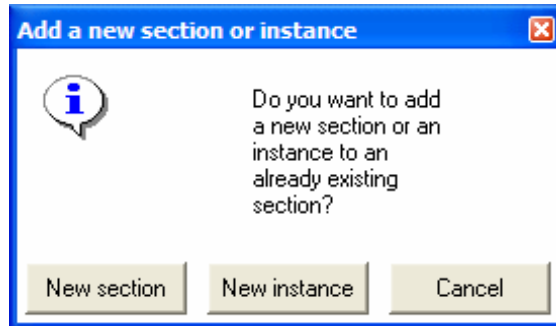
Configuration Settings

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.



- 2 Click **New section**.

Add a new section

Section name
Product Configuration

Display title
Product Configuration

Description (help text)
Application specific configuration parameters

Minimum number of occurrences
1

Maximum number of occurrences
1

Save Discard

3 Type a Section name, Display title, Description, and Minimum and Maximum number of occurrences. In this example, we are creating a section for Product Configuration parameters.

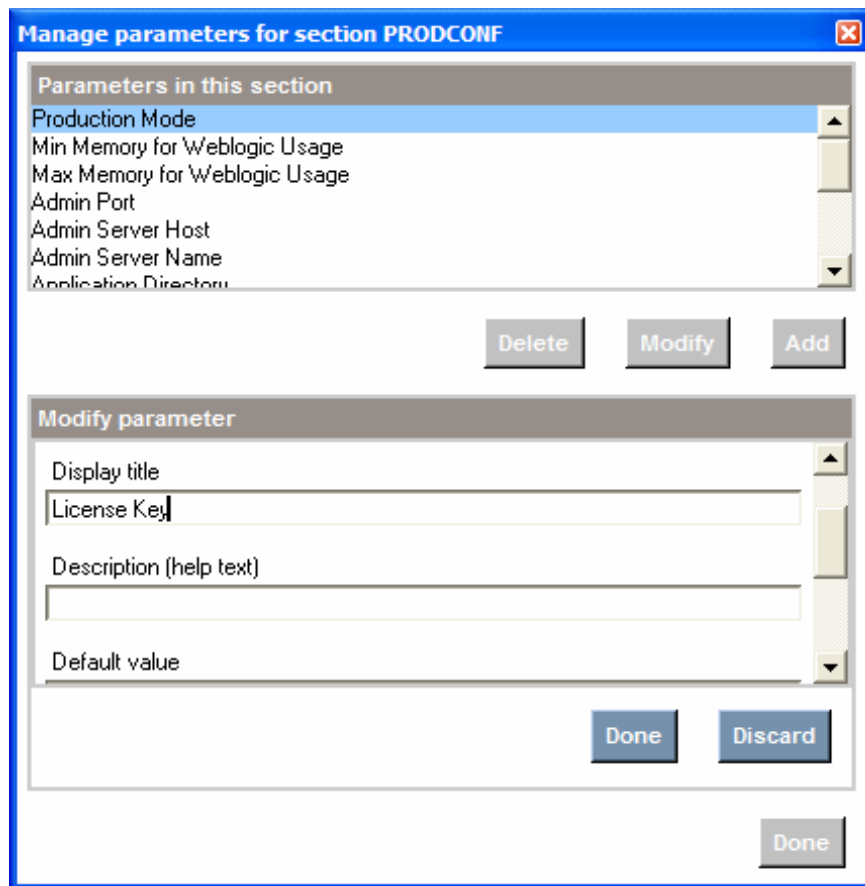
4 Click **Save**.

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 **Manage parameter**.

2 Click **Add** to add a parameter. If you want to change an existing parameter, click **Modify**. To remove a parameter, click **Delete**.



- 3 Type in a Parameter name, Display title, Description, Default value (if needed), Length and Parameter Type.
- 4 Click **Done**.
- 5 Add as many parameters as you need.
- 6 Click **Done** when you have added all the parameters.

The parameters are created. Repeat this procedure whenever you need to create parameters 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**.
- 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.

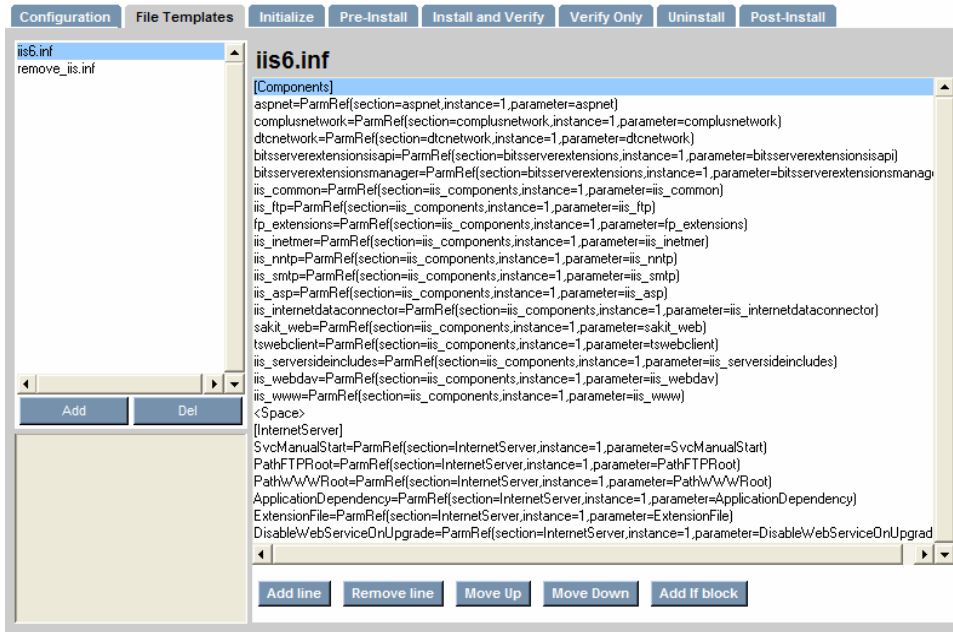


If there is only one instance of a section, that instance will automatically display when you click on the section name. If there are multiple instances, the instance names will be nested under the Section name.

File Templates

The Application Management Profiles Editor allows you to add and delete lines in File Templates, as well as add If statements. File templates may be used to modify installation files.

Figure 6 **Figure 6** **View the File Templates tab**

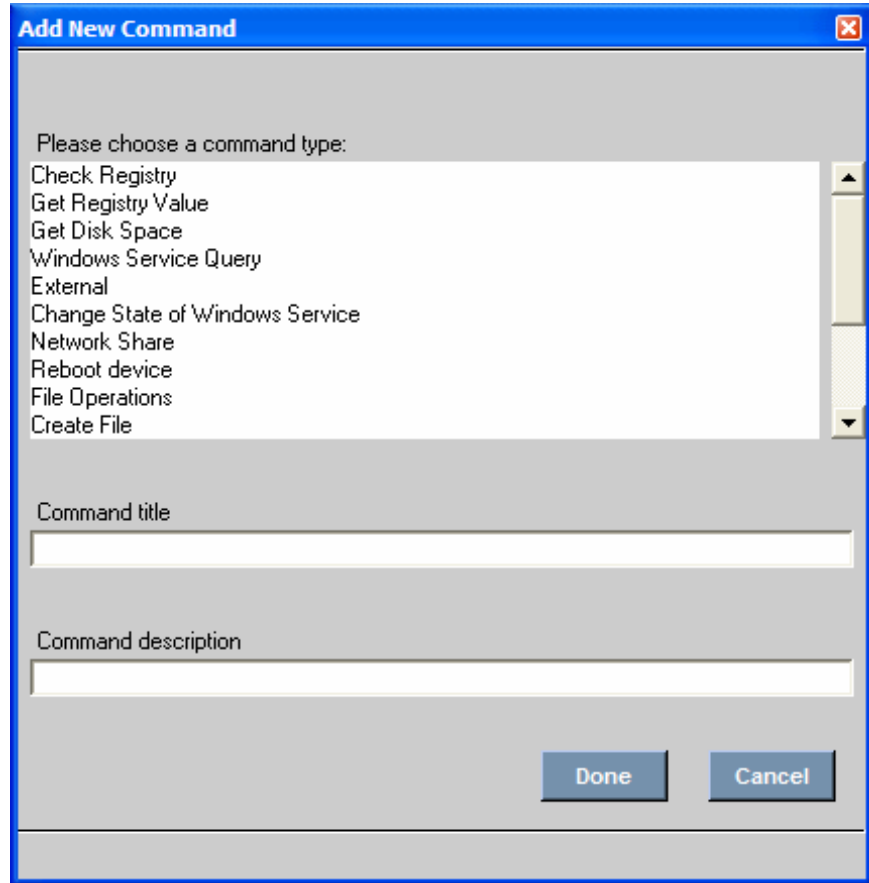


- Click **Add line** to add a line to the file template.
- Click **Remove line** to remove a line from the file template.
- Click **Move Up** to move a line up in the file template.
- Click **Move Down** to move a line down in the file template.
- Click **Add If block** to add an If statement. You will 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.

Adding Commands

Create commands to further control your installation. Add a command by clicking on **Add** in an application management phase such as Initialize, Pre-Install, Install, Verify, Update, or Delete.

Figure 7 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,

Table 1 Commands and Descriptions

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

Command Type	Description
	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 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	Use this to set the value of an attribute of a

Command Type	Description
object	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 commands 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.
Loadbalancer interaction	Use this to add or remove the application from a pool of load balancers. Application Management Profiles supports F5 BIG-IP, Cisco CSS 11500 Series Content Services Switches, and Nortel Application Switch Operating System 22.0.
Create directory	Specify a directory to create. If the intermediate directories don't exist, they will be created. If the directory already exists, then the directory will not be recreated.
Remove directory	Use this command to specify a directory to be removed. If the directory doesn't exist, then no action will be taken.
Rename file	Use this command to rename a file.
Copy file	Specify an existing file to copy.
Change UNIX owner/group/permission	Use this command to change ownership, group membership, or permissions of an existing UNIX file or directory.
Change Windows File/Directory attributes	Use this command to modify <code>readonly/archive/system/hidden</code> attributes of an existing Windows file or directory.

Command Type	Description
Verify UNIX File/Directory Attributes	Check attributes of an existing UNIX file or directory. You can verify the owner, group, permissions, accessed time, size, MD5 signature, or version. Any attribute that is left blank will not be checked.
Verify Windows File/Directory Attributes	Check attributes of an existing Windows file or directory. You can verify readonly, system, hidden, archive, accessed time, size, MD5 signature, or version. Any attribute that is left blank will not be checked.
Set Environment variable	Use this to set an environment variable.

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 post-condition 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.

Table 2 Available Operands in the String Builder

Operand	Description
Space	Use to add a space to the string.
Environment Reference	Use to create an Environment Reference.

Operand	Description
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. Note: If you are creating a string, that has a tab character in it, the tab will display as <Tab> in the String Builder.
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 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. Find these examples in the Application Management Profiles provided by H-P on the Server Management CD-ROM.

Get Registry Value

In the procedure below, you will fetch a registry value to get the installation path for Microsoft Windows. This is required for the installation of Microsoft Internet Information Server.

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 **Done**.

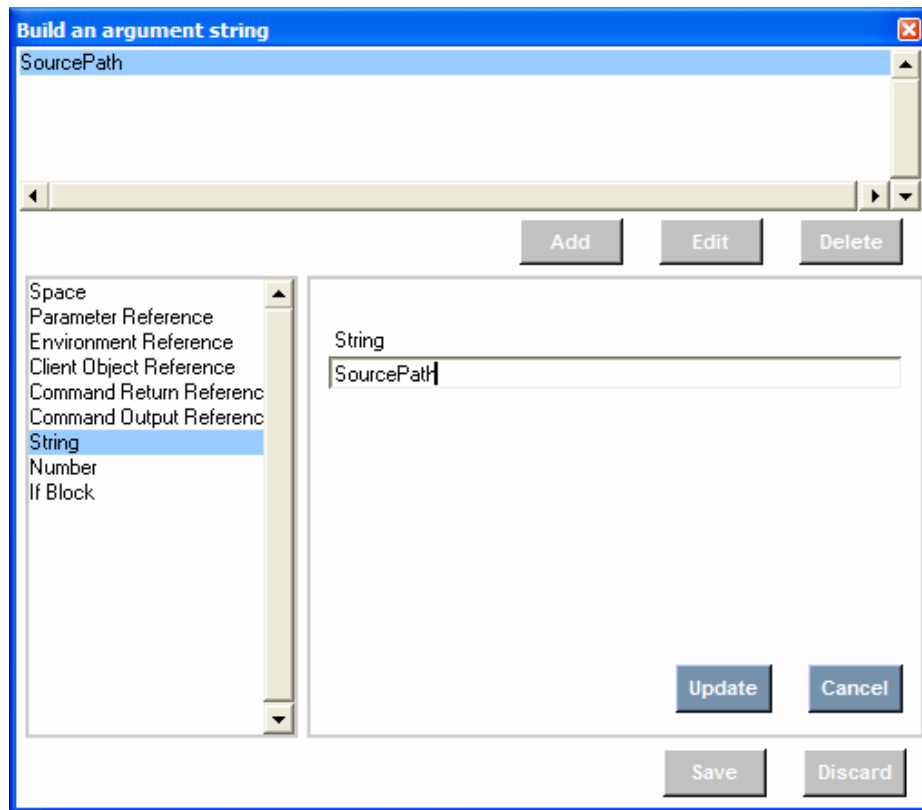
Get Source Path from Registry

Get Registry Value

This command is used to fetch a registry value.

Title	<input type="text" value="Get Source Path from Registry"/>
Description	<input type="text" value="Get Source path from registry"/>
Key	<input type="text" value="<Space>"/> ...
Value	<input type="text" value="<Space>"/> ...
Pre-condition expression	<input type="checkbox"/> Check pre-condition
Post-condition expression	<input checked="" type="checkbox"/> Check post-condition <input type="text"/> ...
Error message	<input type="text"/>
Modes for this command	<ul style="list-style-type: none">createdeleteverifyrepairupdate

- 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.



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

Get Source Path from registry

Get Registry Value

This command is used to fetch a registry value.

Title	Get Source Path from registry
Description	
Key	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Setup
Value	SourcePath
Pre-condition expression	<input type="checkbox"/> Check pre-condition
Post-condition expression	<input checked="" type="checkbox"/> Check post-condition CmdRef(phaseID=1,actionID=210,use=ReturnCode) EQ 0
Error message	Could not fetch Source Path from registry
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 the installation of Microsoft Internet Information Server. The drive will be specified by creating a parameter reference to a directory path. Then, 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 **Done**.

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> ...

Type
Free

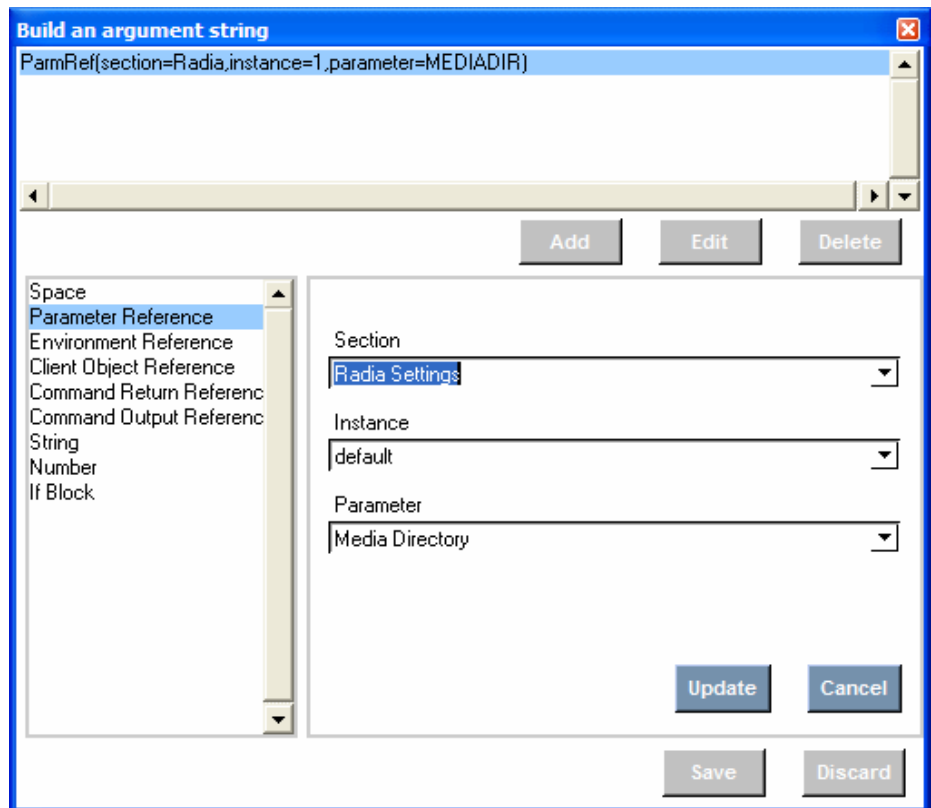
Pre-condition expression
 Check pre-condition

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 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**.



- 7 Click **Update**, then click **Save**.
- 8 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

Description

Drive Letter

Type

Pre-condition expression
 Check pre-condition

Post-condition expression
 Check post-condition

Error message

Modes for this command

External

In the example below, we need to run an external command. This command runs the installation for Microsoft Internet Information Server during the Install phase.

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 **Done**.

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> ...

Arguments (optional)
<Space> ...

Wait for command to end

Working Directory (optional)
<Space> ...

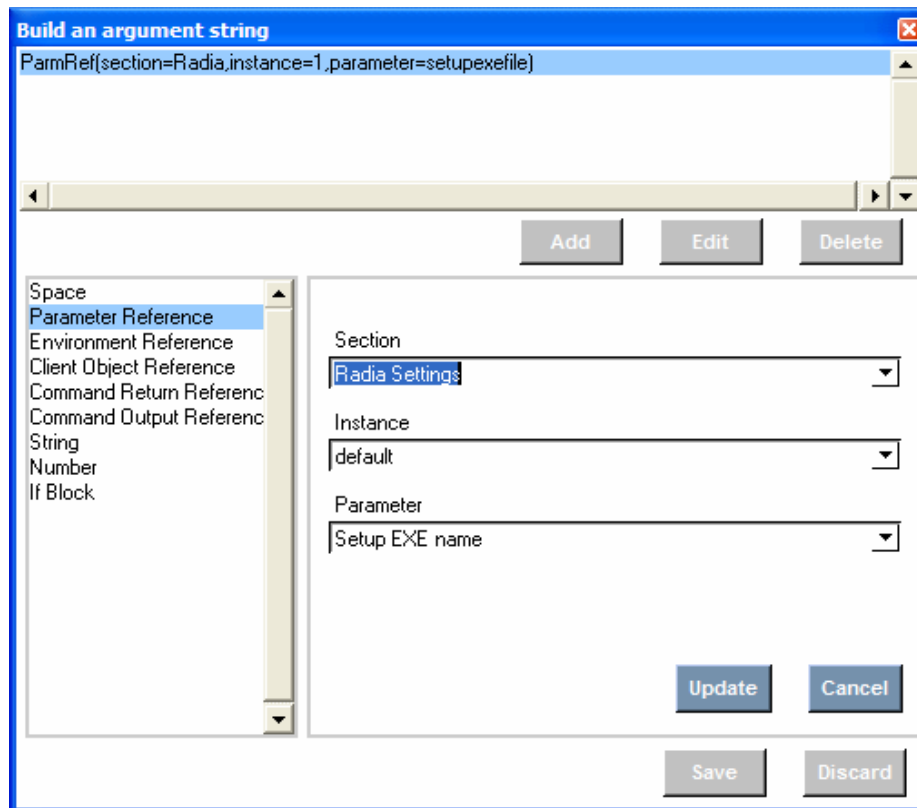
Output File (optional)
<Space> ...

Run As (optional)
<Space> ...

Pre-condition expression
 Check pre-condition

Post-condition expression
 Check post-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**.



- 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 start the Apache Service after installation. The Service to start will be specified by creating a parameter reference. You can find this in the Install phase.

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 **Done**.

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> ...

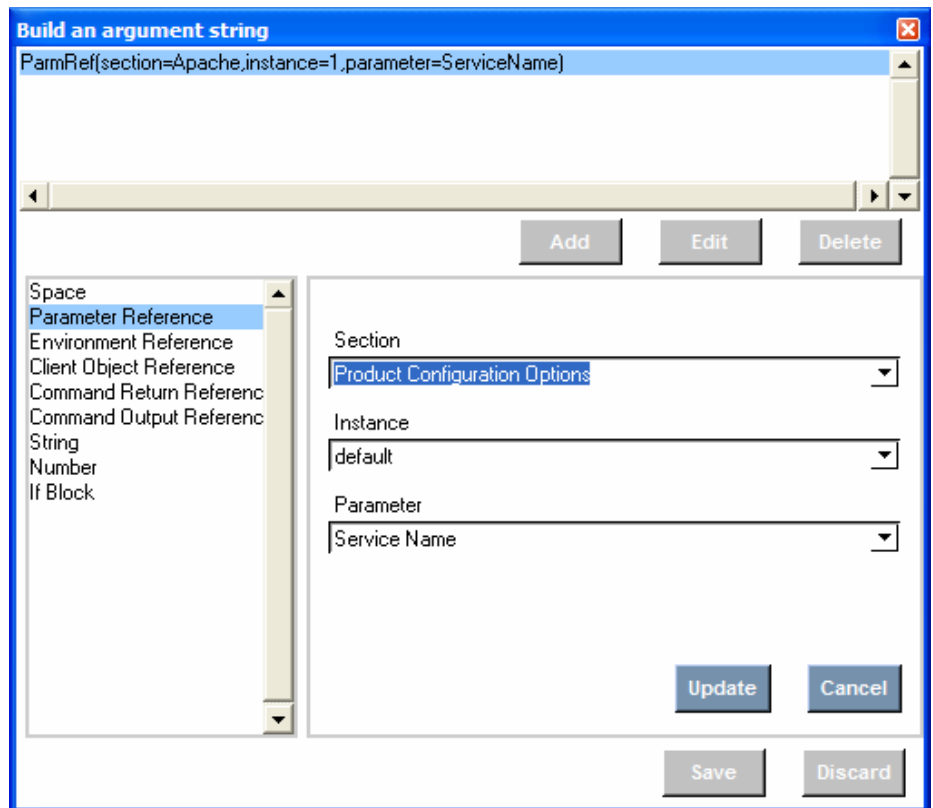
Action
Stop

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 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.



- 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	<input type="text" value="Start Apache"/>
Description	<input type="text" value="Start Apache"/>
Service Name	<input type="text" value="ParmRef(section=Apache,instance=1,parameter=ServiceName)"/> ...
Action	<input type="text" value="Start"/> ▼
Pre-condition expression	<input type="checkbox"/> Check pre-condition
Post-condition expression	<input type="checkbox"/> Check post-condition
Modes for this command	<input type="text" value="create"/> delete verify repair update

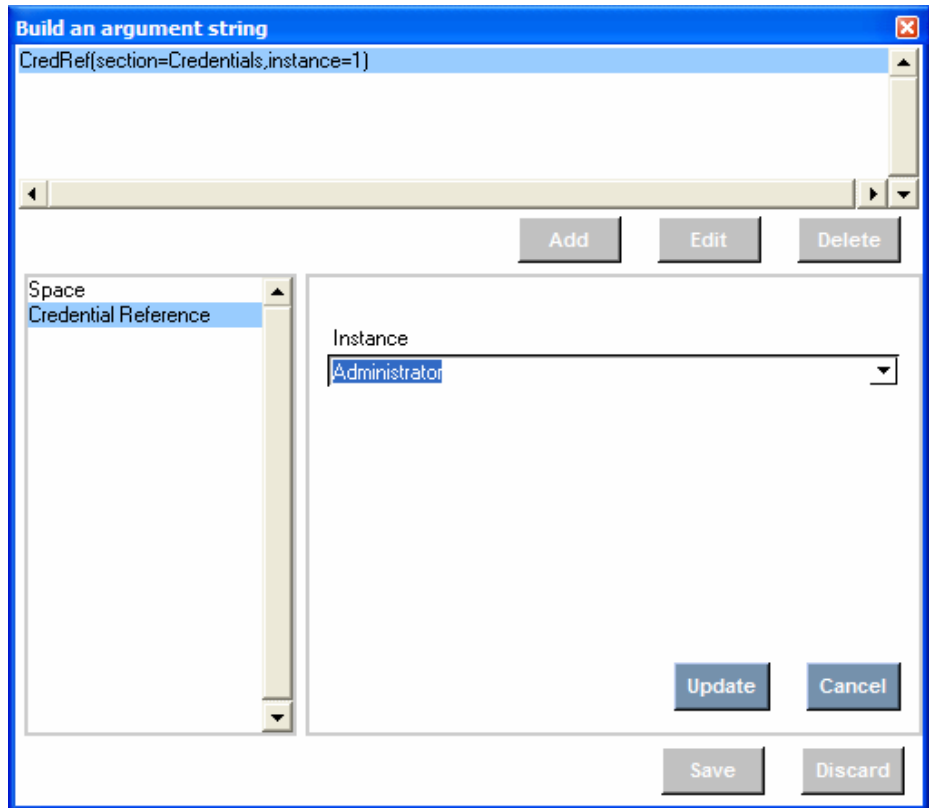
Network Share

In the procedure below, we need to connect to a network share to install Microsoft SQL Server. Credentials must be supplied during the Install phase.

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 **Done**. The main page of the Network Share command is displayed.
- 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**.



- 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	<input type="text" value="Connect to AIP"/>
Description	<input type="text" value="User defined command"/>
Share Name	<input type="text" value="ParmRef(section=Global,instance=1,parameter=InstallShare)"/> ...
Action	<input type="text" value="Connect"/>
Credentials (optional)	<input type="text" value="CredRef(section=Credentials,instance=1)"/> ...
Pre-condition expression	<input type="checkbox"/> Check pre-condition
Post-condition expression	<input checked="" type="checkbox"/> Check post-condition <input type="text" value="CmdRef(phaseID=2,actionID=250,use=ReturnCode) EQ 0"/> ...
Error message	<input type="text" value="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. This example is from the Install phase of the Microsoft SQL Server profile.

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 **Done**. The main page of the Reboot device command is displayed.
- 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
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

Type
Restart

Pre-condition expression
 Check pre-condition
CmdRef(phaseID=3,actionID=330,use=ReturnCode) EQ 3010

Error message
Reboot required

Post-condition expression
 Check post-condition

Modes for this command
create
delete
verify
repair
update

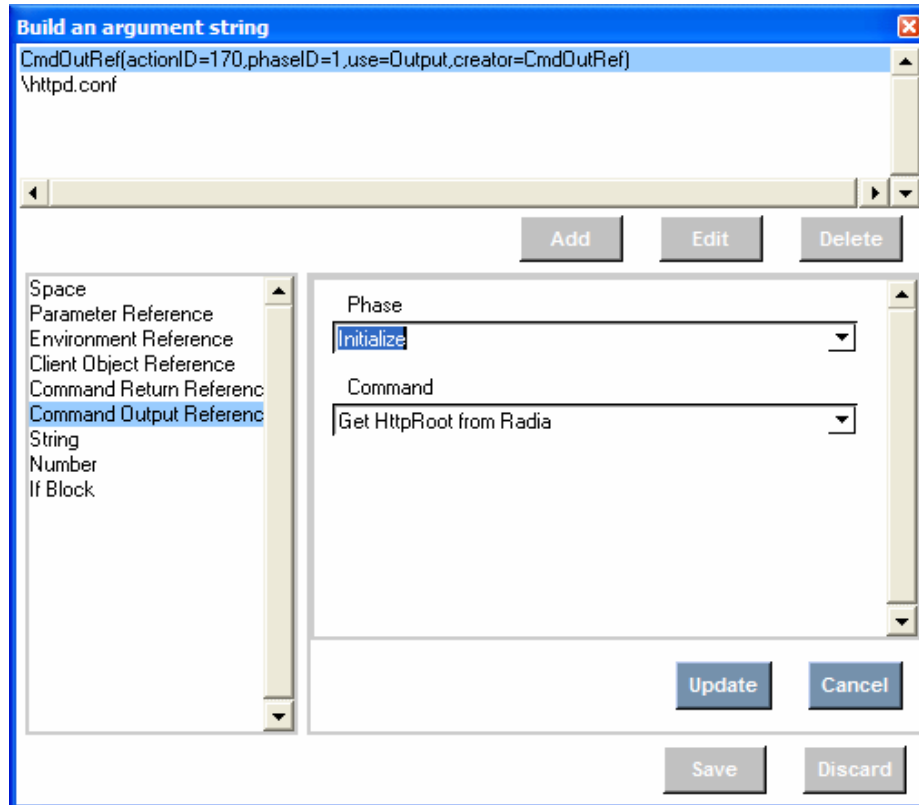
File Operations

In this example, we want to remove the configuration file for Apache as part of the Delete phase.

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 **Done**. The main page of the File Operations command is displayed.
- 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.



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

Delete the HTTP Configuration

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	<input type="text" value="Delete the HTTP Configuration"/>
Description	<input type="text" value="This step deletes the Apache configuration file as part of deleting the software"/>
Operation	<input type="text" value="Delete"/>
File name	<input type="text" value="CmdOutRef(actionID=170,phaseID=1,use=Output,creator=CmdOutRef)\httpd.conf"/> ...
Command Output Type	<input type="text" value="String"/>
Pre-condition expression	<input type="checkbox"/> Check pre-condition
Post-condition expression	<input type="checkbox"/> Check post-condition

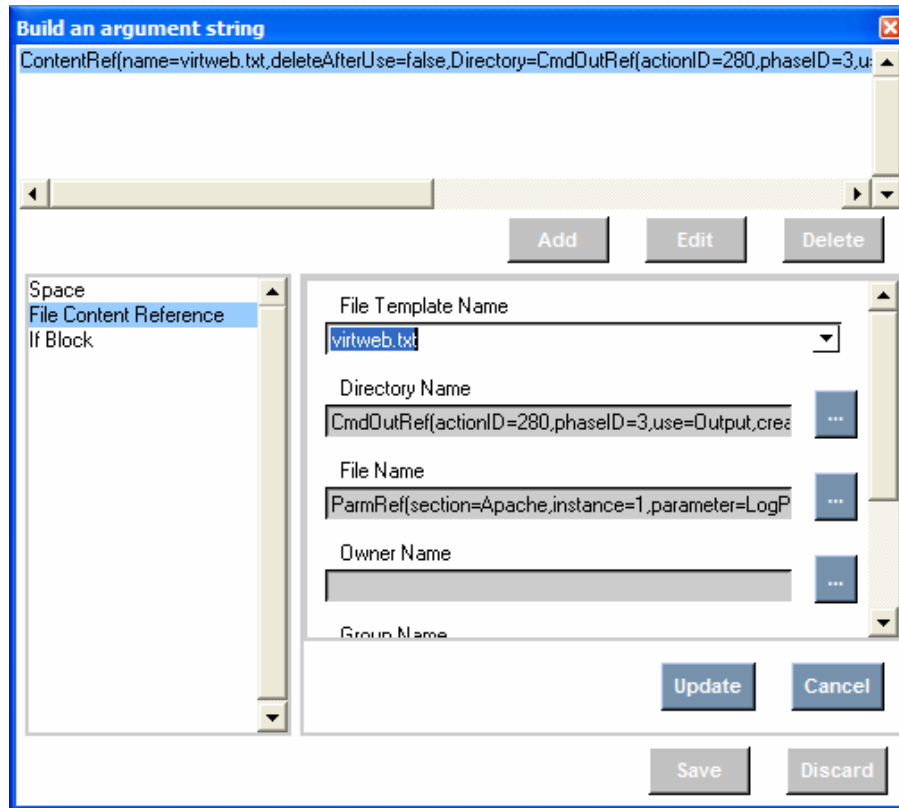
Create File

In the procedure below, you will create a configuration file, `virtweb.txt`, for Apache Virtual Web during the Install phase. 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 **Done**. The screen for the Create File command is displayed.
- 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**.

- 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.



- Click **Update**, and then **Save**.
- 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	<input type="text" value="Create CONFIG File"/>
Description	<input type="text" value="Create the Virtual Host config file from the profile"/>
File name	<input type="text" value="ContentRef(name=virtweb.txt,deleteAfterUse=false,Directory=CmdOutRef(actionID=280,phaseID=3.us)"/> ...
Command Output Type	<input type="text" value="String"/>
Pre-condition expression	<input type="checkbox"/> Check pre-condition
Post-condition expression	<input type="checkbox"/> Check post-condition

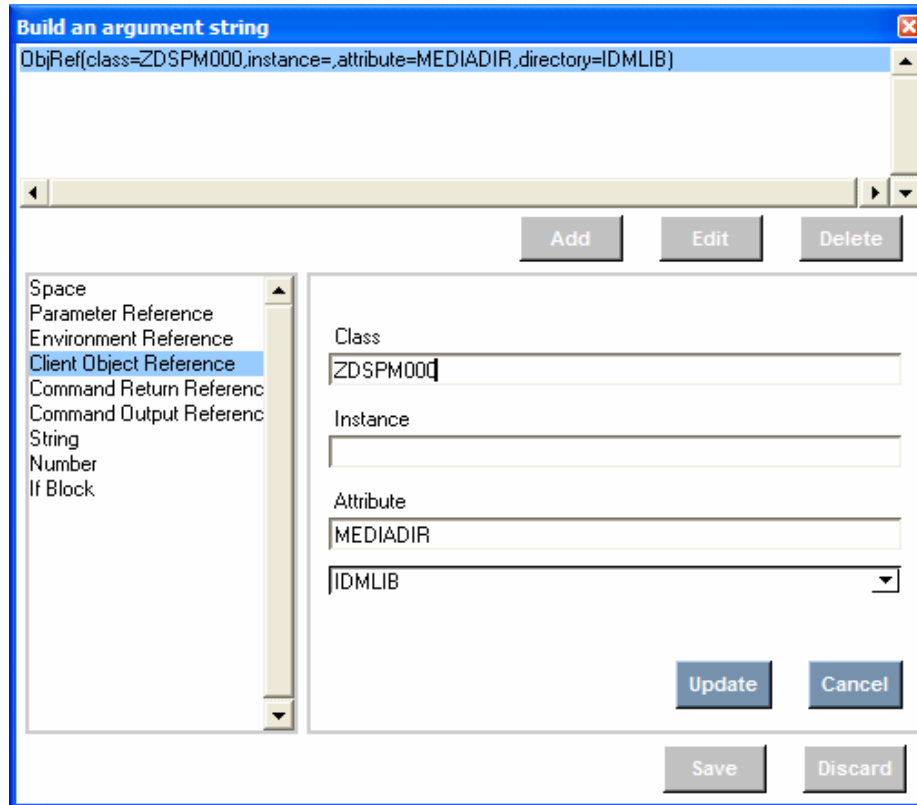
Set Parameter

In the procedure below, you will set the Media Directory for installation using the Set Parameter Command. This example is from the Install phase of the Oracle profile.

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 **Done**. The main screen for the Set Parameter command will display.
- 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 **Installation Configuration**, the default instance, and Install 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**.
- 11 Enter the required information.



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

Get Install Media Directory 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.

Title	<input type="text" value="Get Install Media Directory from Radia"/>
Description	<input type="text" value="Get Install Media Directory from Radia"/>
Parameter name	<input type="text" value="ParmRef(section=INSTCONF,instance=1,parameter=MEDIA DIR)"/> ...
Value	<input type="text" value="ObjRef(class=ZDSPM000,instance=,attribute=MEDIA DIR,directory=DMLIB)"/> ...
Command Output Type	<input type="text" value="String"/> ▼

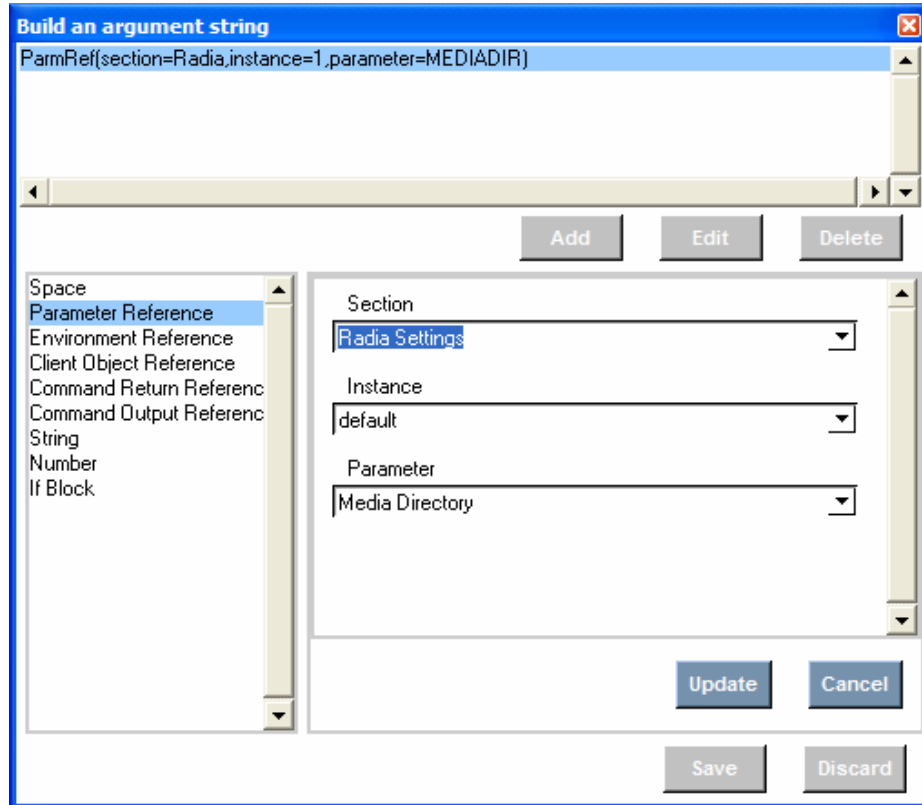
Set Registry Value

In the example below, the media directory for Windows must be reset in the registry. This is required in the Install phase for Microsoft Internet Information Server.

To set a registry value

- 1 In the Add Command dialog box, click **Set Registry Value**.
- 14 Type a short, descriptive Command Title, and an explanatory Command Description.
- 15 Click **Done**. The main screen for the Set Registry Value command will display.
- 16 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.
- 17 Click **Edit**.
- 18 From the Operands, click **String**.
- 19 Type the full path to the registry key you are going to set.
- 20 Click **Update**, and then **Save**.
- 21 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.

- 22 Click **Edit**.
- 23 From the Operands, click **String**.
- 24 Type the value you are going to set.
- 25 Click **Update**, and then **Save**.
- 26 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.
- 27 Click **Edit**.
- 28 From the Operands, click **Parameter Reference**. In this case, we are setting the Source Directory to the Media Directory.



- 29 Click **Update**, and then **Save**.
- 30 From the Type drop-down, select the data type.
- 31 The results of your new command will be displayed.

Set Source Path in registry

Set Registry Value

Returns 0 if the data was set in the registry, else returns the error code

Title	<input type="text" value="Set Source Path in registry"/>
Description	<input type="text"/>
Key	<input type="text" value="HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Setup"/> ...
Value	<input type="text" value="SourcePath"/> ...
Data	<input type="text" value="ParmRef(section=Radia,instance=1,parameter=MEDIA DIR)"/> ...
Type	<input type="text" value="String"/>
Pre-condition expression	<input type="checkbox"/> Check pre-condition
Post-condition expression	<input checked="" type="checkbox"/> Check post-condition <input type="text" value="CmdRef(phased=1,actionID=230,use=ReturnCode) EQ 0"/> ...

Loadbalancer Interaction

In the example below, we will add the ability to join a load balance pool in the Installation tab for the `apache-lb-control.xml`.

To add to a load balancer pool

- 1 In the Add Command dialog box, click **LoadBalancer interaction**.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click **Done**.
- 4 From the Action drop down, select if you want to JOIN or LEAVE the Load balancer pool.

- 5 From the Type drop down, select the type of loadbalancer. Select BIG-IP to use BIG-IP for F5 networks.
- 6 Click on the ellipsis at the end of the Administrative IP field to start the String Builder. This is IP address of the load balancer server.
- 7 Click **Edit**.
- 8 From the Operands, click **String**.
- 9 Type the IP address.
- 10 Click **Update**, and then **Save**.
- 11 Click on the ellipsis at the end of the Credentials field to start the String Builder. This is the set of credentials needed to connect to the load balancer computer. Select the appropriate credentials reference.
- 12 Click **Update**, and then **Save**.
- 13 Click on the ellipsis at the end of the Node field to start the String Builder. Use the String operand to type the actual IP address and port number, concatenated with a colon, of the computer being added to the pool.
- 14 Click **Update**, and then **Save**.
- 15 Click on the ellipsis at the end of the Virtual Server field to start the String Builder. Use the String operand to type the virtual IP address and port number, concatenated with a colon, that the clients will contact.
- 16 Click **Update**, and then **Save**.
- 17 Click on the ellipsis at the end of the Pool Name field to start the String Builder. Use the String operand to type the pool name.
- 18 Click **Update**, and then **Save**.

The results of your new command will be displayed.

During the Uninstall phase, you should create a similar command, but select LEAVE in the Action dropdown instead of JOIN.

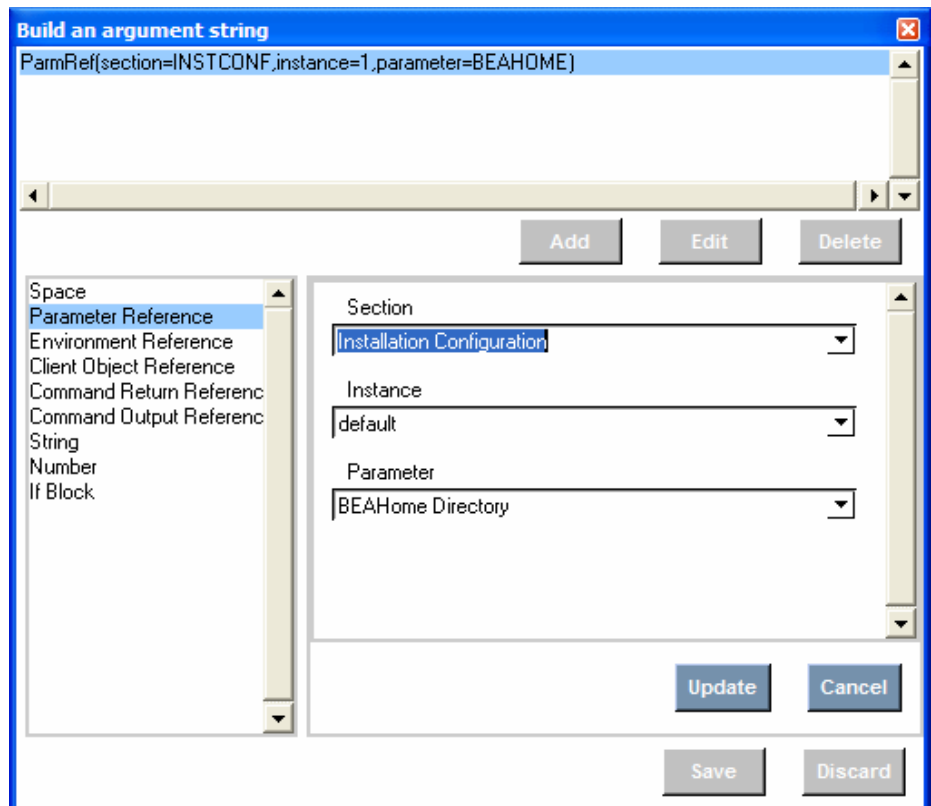
Create directory

In the example below, we will create the BEA Home directory for WebLogic during the Pre-Install phase.

To create a directory

- 1 In the Add Command dialog box, click **Create directory**.

- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click **Done**. The main page of the Create Directory command will display.
- 4 Click on the ellipsis at the end of the Directory Name field to start the String Builder. This is the name of the directory to create. Note that you can also specify an owner, a group, and permissions.
- 5 Click **Edit**.
- 6 From the Operands, click **Parameter Reference**. Select the set of values you need.



- 7 Click **Update**, and then **Save**.

Create the BEAHome Directory

Create directory

Specify the directory name, if the intermediate directories don't exist they would be created. If the directory already exists then this command is benign.

Title	<input type="text" value="Create the BEAHome Directory"/>
Description	<input type="text" value="Create the BEAHome Directory"/>
Directory Name	<input type="text" value="PamRef(section=WebLogic,instance=1,parameter=BEAHome)"/> ...
Owner (optional)	<input type="text"/> ...
Group (optional)	<input type="text"/> ...
Permissions (optional)	<input type="text"/>
Command Output Type	<input type="text" value="String"/> ▼
Pre-condition expression	<input type="checkbox"/> Check pre-condition

The results of your new command are displayed.

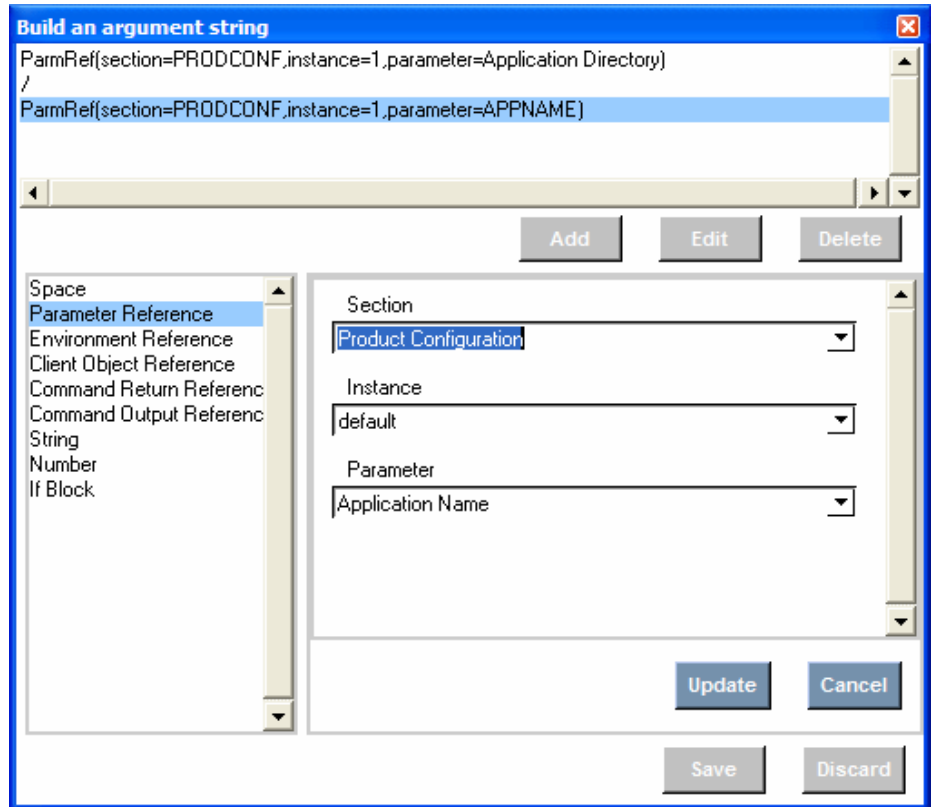
Remove directory

In the example below, we remove the domain directories during the Uninstall phase of BEA WebLogic.

To remove a directory

- 1 In the Add Command dialog box, click **Remove directory**.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click **Done**. The main screen of the Remove directory command is displayed.

- 4 Click on the ellipsis at the end of the Directory Name field to start the String Builder. This is the name of the directory to remove.
- 5 Click **Edit**.
- 6 From the Operands, click **Parameter Reference**. Select the set of values you need.
- 7 Click **Update**, and then **Save**.



- 8 Check the box to delete subdirectories.

Remove Domain Directories

Remove directory

Specify the directory name. If the directory doesn't exist then this command is benign.

Title	<input type="text" value="Remove Domain Directories"/>
Description	<input type="text" value="Remove Domain Directories"/>
Directory Name	<input type="text" value="ParmRef(section=PRODCONF,instance=1,parameter=Application Directory)/ParmRef(section=PRODC"/>
<input checked="" type="checkbox"/> Delete files and sub-directories	
Command Output Type	<input type="text" value="String"/>

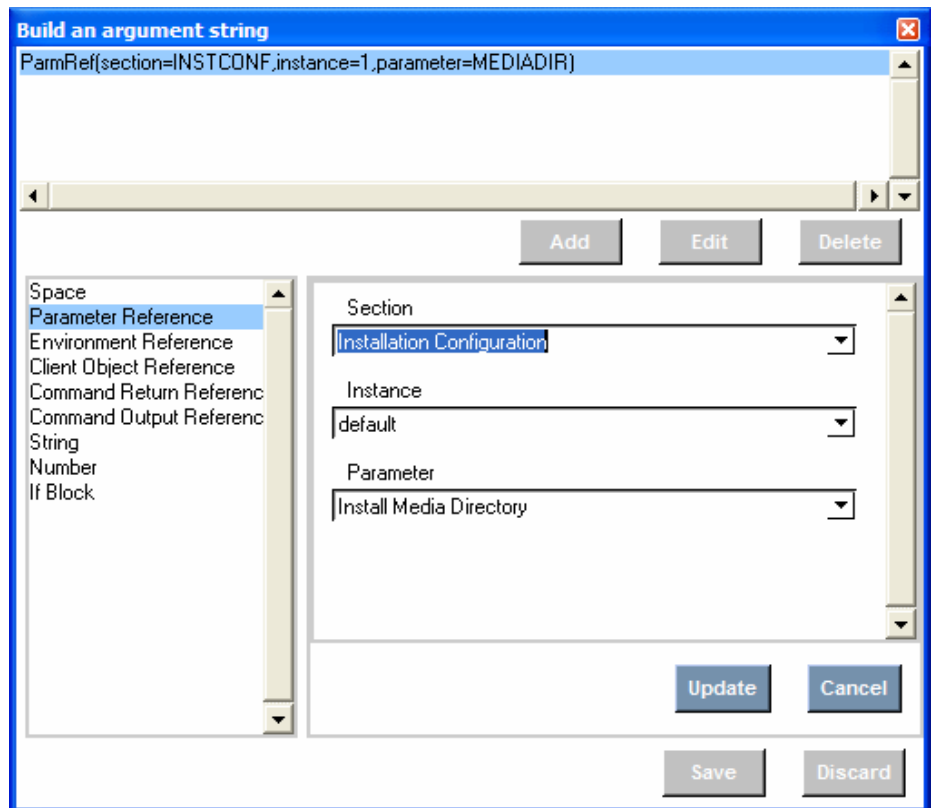
The results of your new command are displayed.

[Change UNIX owner/group/permission](#)

In the example below, we will change the owner of the media directory during the Pre-Install phase of the Oracle profile.

[To change the owner, group, or permission of a UNIX file](#)

- 1 In the Add Command dialog box, click **Change UNIX owner/group/permission**.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click **Done**. The main screen of the Change UNIX owner/group/permission command displays.
- 4 Click on the ellipsis at the end of the File/Directory Name field to start the String Builder. This is the name of the file or directory that you want to change.
- 5 Click **Edit**.
- 6 From the Operands, click **Parameter Reference**. Enter the appropriate reference.



- 7 Click **Update**, and then **Save**.
- 8 Check the box if you want to recurse subdirectories.

Change Owner on Install Depot

Change UNIX owner/group/permission

Change ownership, group membership and permission of an existing file/directory

Title

Description

File/Directory Name
 ...

Owner Name (optional)
 ...

Group Name (optional)
 ...

Permissions (optional)

Recurse sub-directories

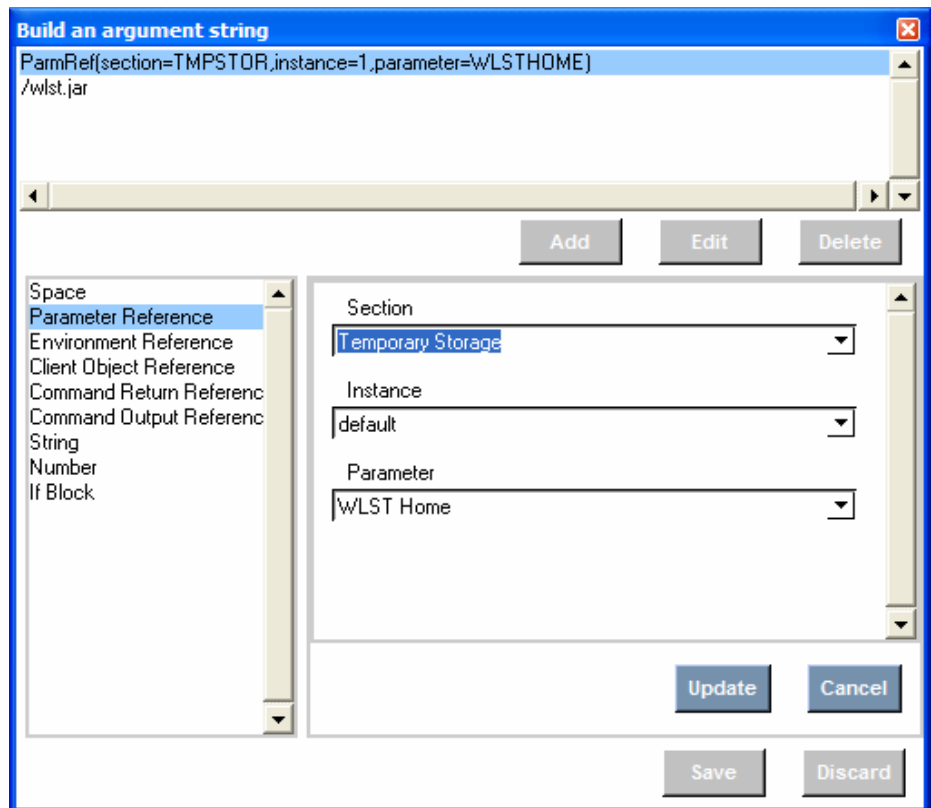
The results of your new command are displayed.

Verify UNIX File/Directory Attributes

In the example below, we will use this command to check the existence of the WLST files. These are a requirement for the installation of WebLogic Server.

To verify the attributes or existence of a UNIX file or directory

- 1 In the Add Command dialog box, click **Verify UNIX File/Directory Attributes**.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click **Done**. The main screen of the Verify UNIX File/Directory Attributes is displayed.
- 4 Click on the ellipsis at the end of the File/Directory Name field to start the String Builder. This is the name of the file or directory to check.
- 5 Click **Edit**.
- 6 From the Operands, click **Parameter Reference**.



- 7 Click **Update**, and then **Save**.
- 8 In the Type dropdown select if this is a file or a directory. In this case, we are checking file.
- 9 Edit the attributes as needed.
 - ▶ If no attributes are specified, only the existence of the file or directory will be checked.

Check if the WLST file exists

Verify UNIX File/Directory Attributes

Check attributes of an existing file/directory. You can verify owner, group, permissions, accessedtime,size MD5 signature, version. Any attribute that is left blank will not be checked.

Title	<input type="text" value="Check if the WLST file exists"/>
Description	<input type="text" value="Check if the WLST file exists"/>
File/Directory Name	<input type="text" value="ParmRef(section=TMPSTOR,instance=1,parameter=WLSTHOME)/wlst.jar"/> ...
Type	<input type="text" value="FILE"/>
Access Time (optional)	<input type="text"/> ...
Create Time (optional)	<input type="text"/> ...
Modified Time (optional)	<input type="text"/> ...

The results of your new command are displayed.

Verify Windows File/Directory Attributes

In the example below, we will check the existence of the WLST file for Weblogic for Windows. This is part of the Install phase.

To verify the existence or attributes of a Windows file

- 1 In the Add Command dialog box, click **Verify Windows File/Directory Attributes**.
- 2 Type a short, descriptive Command Title, and an explanatory Command Description.
- 3 Click **Done**. The main screen for Verify Windows File/Directory is displayed.
- 4 Click on the ellipsis at the end of the File/Directory Name field to start the String Builder. This is the name of the directory to remove.
- 5 Click **Edit**.

- 6 From the Operands, click **Parameter Reference**.
- 7 Click **Update**, and then **Save**.
- 8 In the Type drop-down select if this is a file or a directory. In this case, we are checking a directory.
- 9 Edit the attributes as needed.



If no attributes are specified, only the existence of the file or directory will be checked.

Check if the WLST file exists

Verify Windows File/Directory Attributes

Check attributes of an existing file/directory. You can verify readonly,system,hidden,archive accessedtime,size MD5 signature, version. Any attribute that is left blank will not be checked.

Title
Check if the WLST file exists

Description
Check if the WLST file exists

File/Directory Name
ParmRef(section=TMPSTOR,instance=1,parameter=WLSTHOME)\wlst.jar

Type
FILE

The results of your new command are displayed.

Header Information

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

To create header information

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

Edit 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.

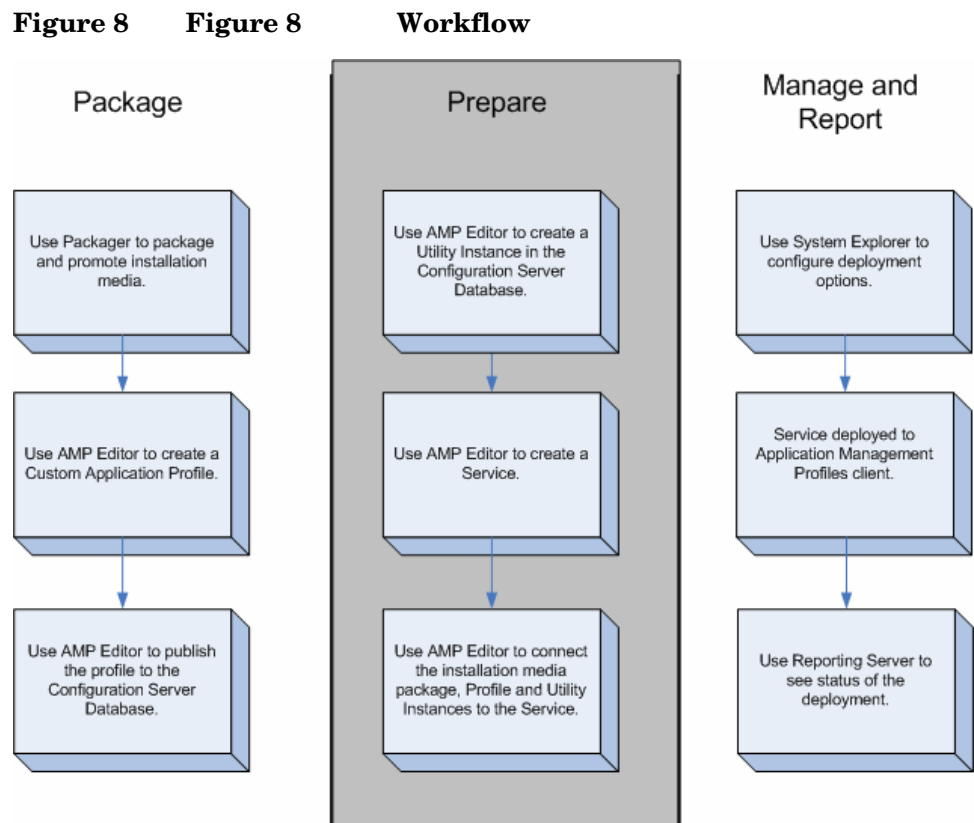
4 Preparing Server Applications

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 packaging the media and creating the CAP, you will need to prepare the application for deployment. Using the AMP Editor you will perform the following tasks.

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

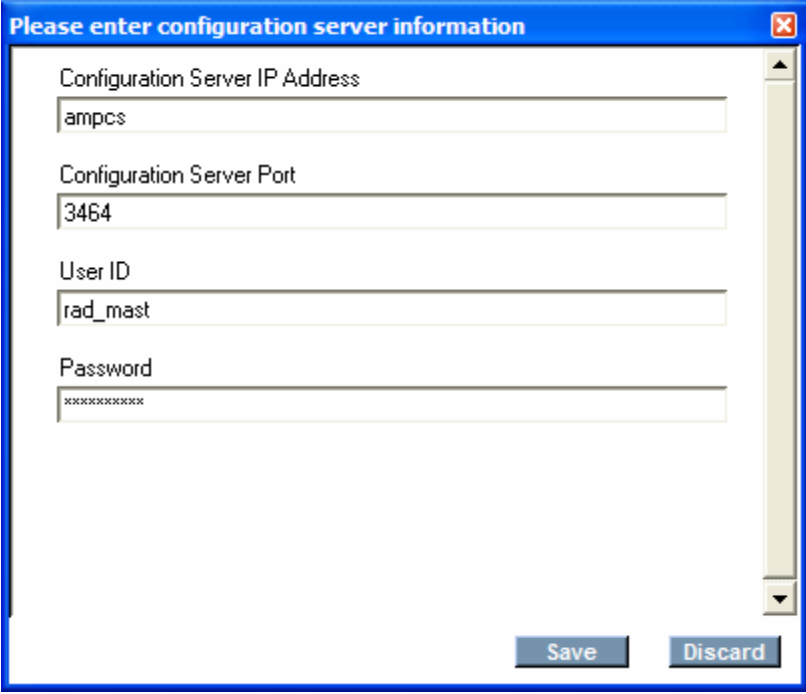


Publishing a Profile

After you have created your CAP, you are now ready to promote it to the Radia Database. During the publishing process, the AMP Editor will rename the CAP to `control.xml`, create an Application (ZSERVICE) instance, connect the ZSERVICE to the designated media packages, and allow you to modify the connection to the Utility instance.

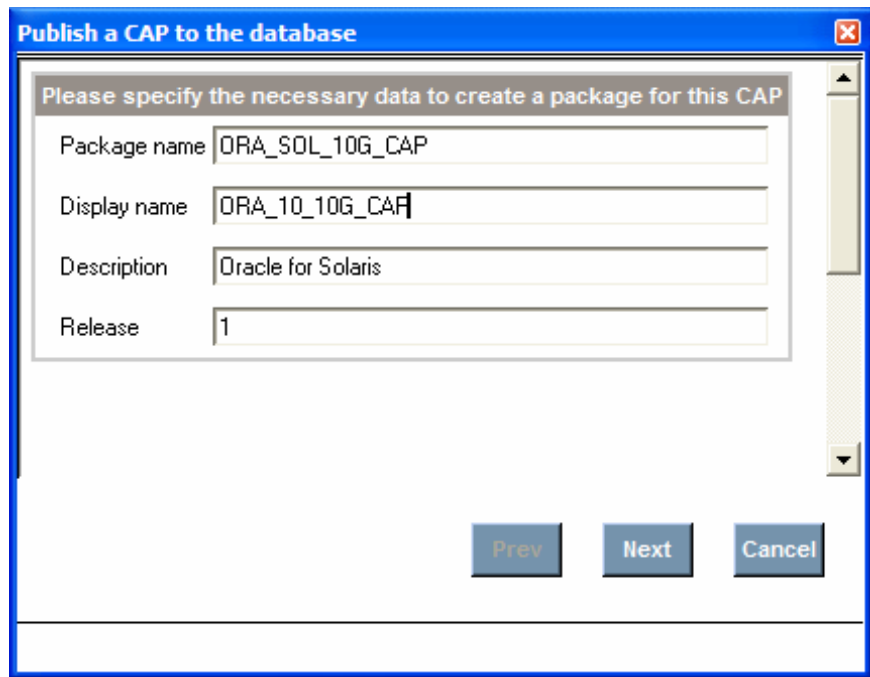
To promote an Application Management Profile

- 1 From the Application Management Profiles Editor, select Tools – Publish to Database.



The screenshot shows a dialog box titled "Please enter configuration server information". It contains four text input fields with the following values: "ampcs" for Configuration Server IP Address, "3464" for Configuration Server Port, "rad_mast" for User ID, and "xxxxxxxx" for Password. At the bottom right, there are two buttons: "Save" and "Discard".

- 2 If this is the first time that you are publishing in the AMP Editor session, you will be asked to confirm the Configuration Server settings.
- 3 Verify the Configuration Server setting, and click **Save**.



- 4 Type in the required data for the package information, and click **Next**.

Publish a CAP to the database

Please specify the necessary data to create a service for this CAP

Create new
 Use existing
 No service

Name: ORA_SQL_10G

Display name: ORA_SQL_10G

Vendor:

URL:

Description:

Author:

Override: APPMGMT.ORACLE.&[ZMASTER.ZUSERID]*

Prev Next Cancel

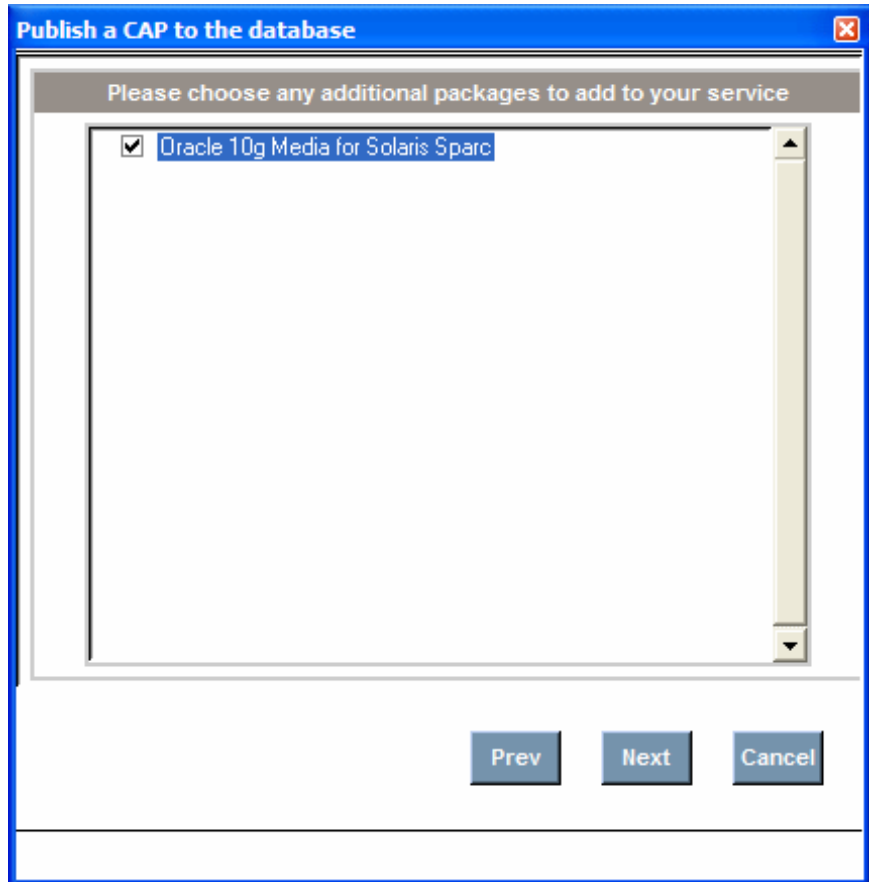
5 Choose one of the following actions:

- Click **Create New** to create a new Application (ZSERVICE) instance in the APPMGMT domain.
- Click **Use existing** to connect to an existing Application (ZSERVICE) instance.
- Click **No service** to publish the Application Management Profiles only. You will need to connect it to an Application (ZSERVICE) instance using System Explorer.

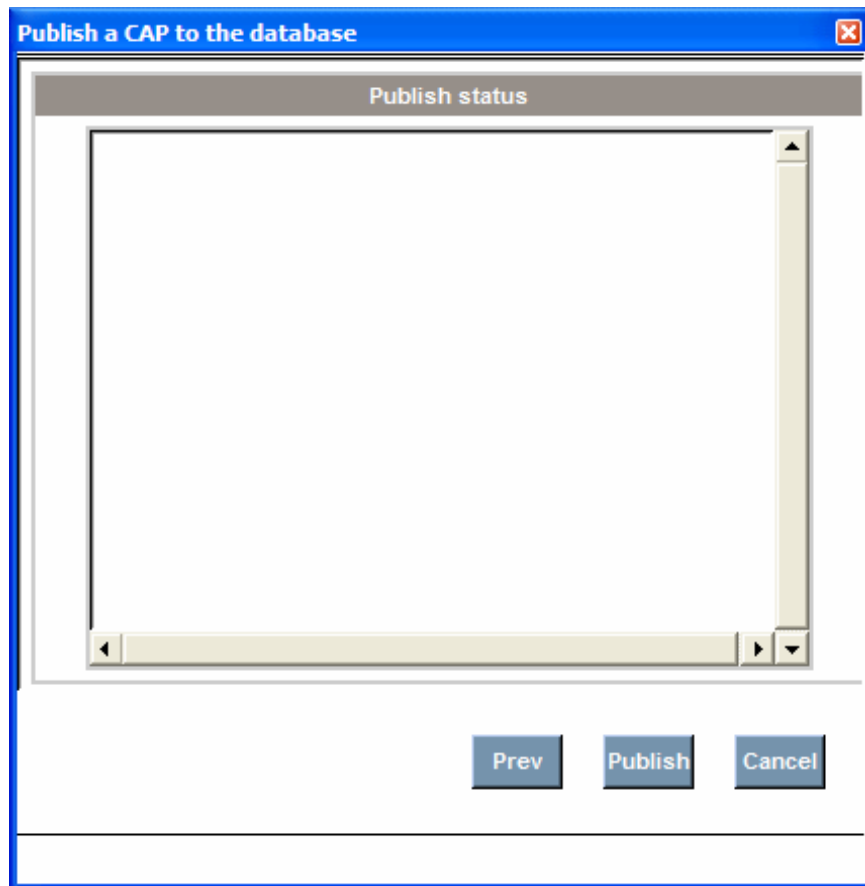
In this example, we will create a new Application (ZSERVICE) instance.

- ▶ The Override connects to an instance of the Utility class. For more information on creating the Utility Class and Instances, see Overriding Values in the AMP (Utility Instances) on page 82.

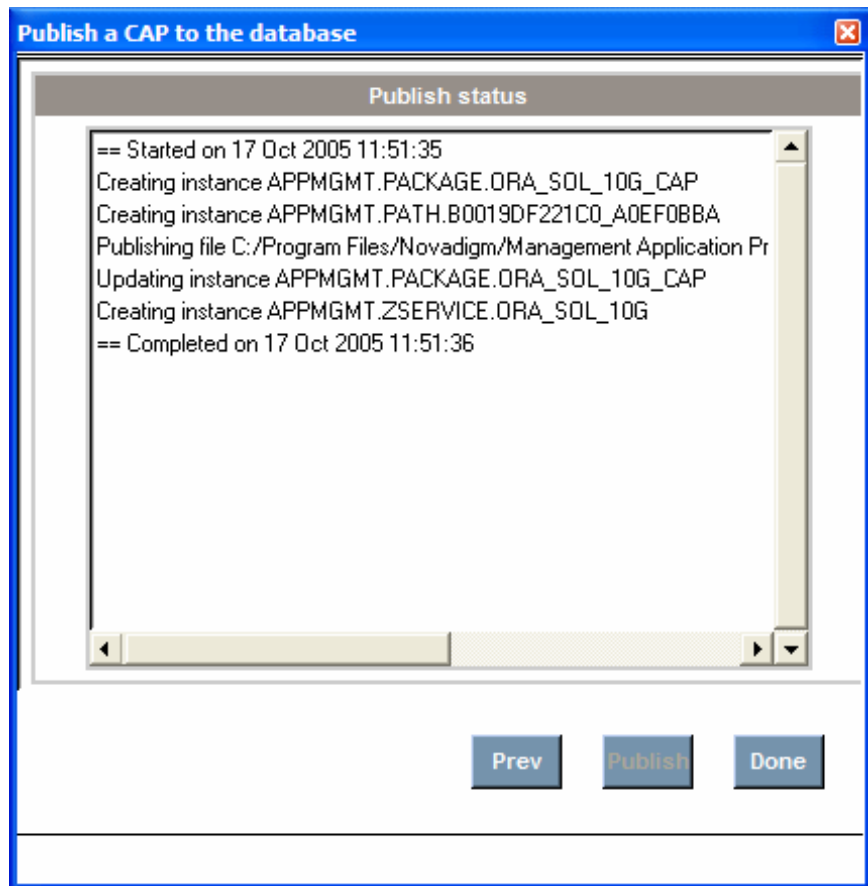
Type in the appropriate values and click **Next**.



- 6 All instances in the Application Packages (PACKAGE) class will be listed. Select the packages to connect to the Application (ZSERVICE) instance in addition to the Application Management Profiles, and click **Next**.



- 7 Click **Publish**. Status will appear in the dialog box.



- 8 Click **Done** when publishing is complete.

Overriding Values in the AMP (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.

- WLSADMIN and WLSMGD for WebLogic 8.1.
- ORACLE for Oracle 10g.

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 the AMP Editor to create and modify Utility instances.

Creating the Utility Class

Use the AMP Editor Update RCS section from utility class command to synchronize the RCS Section of the AMP with the appropriate Utility Class on the Configuration Server.

- If there is an RCS section in the AMP and no corresponding Utility Class in the Configuration Server Database, then the Utility Class will be created on the Configuration Server based on the RCS section in the AMP.
- If there is no RCS section in the AMP and a corresponding Utility Class in the Configuration Server Database, then the RCS section will be added to the AMP based on the Utility Class.
- If there is an RCS section in the AMP and a corresponding Utility Class in the Configuration Server Database, then the RCS section will be synchronized to match the Utility Class in the Configuration Server Database.

In the example, below, the ORACLE Class needs to be created on the Configuration Server Database.

To synchronize the Utility Class

- 1 Select the **Update RCS section from utility class** command from the Tools menu.

If the Utility Class does not exist on the Configuration Server Database, you will be asked to create it. If it does exist but there are differences, you will be prompted with the changes and asked to accept them.

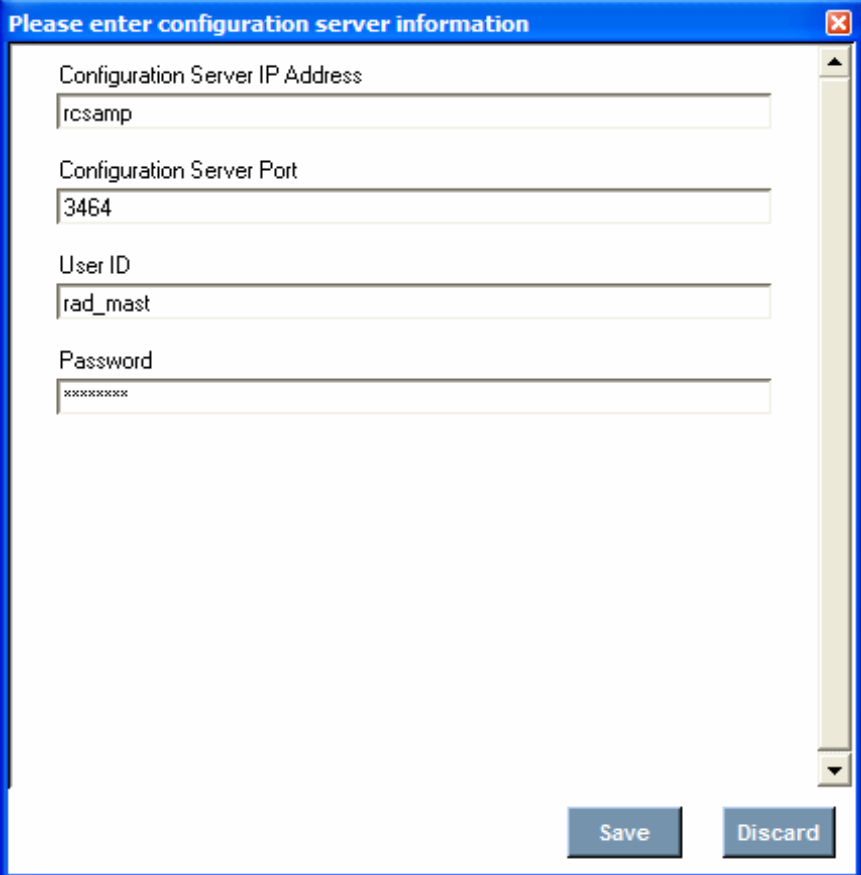
- 2 Click **Yes** to create the class.
- 3 The class is created. Click **OK**.

Creating a Utility Instance

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

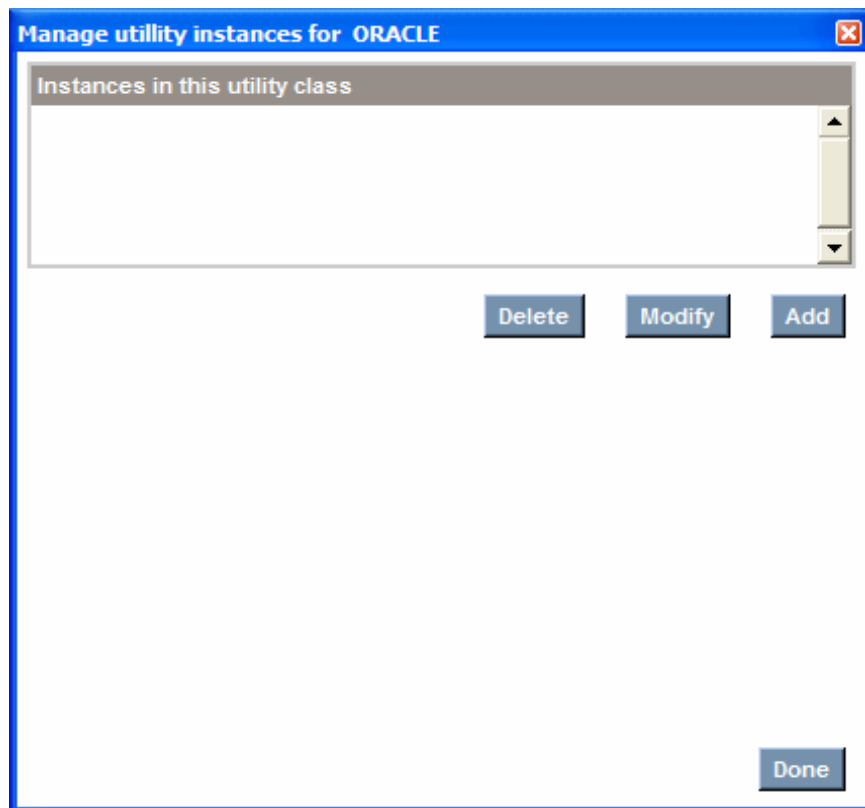
To create a Utility instance

- 1 From the tools menu, click **Manage utility instances**.



The screenshot shows a dialog box with a blue title bar that reads "Please enter configuration server information". Inside the dialog, there are four text input fields. The first field is labeled "Configuration Server IP Address" and contains the text "rcsamp". The second field is labeled "Configuration Server Port" and contains the text "3464". The third field is labeled "User ID" and contains the text "rad_mast". The fourth field is labeled "Password" and contains a series of asterisks "*****". At the bottom right of the dialog, there are two buttons: "Save" and "Discard".

- 2 Click **Save** to confirm the Configuration Server Settings.

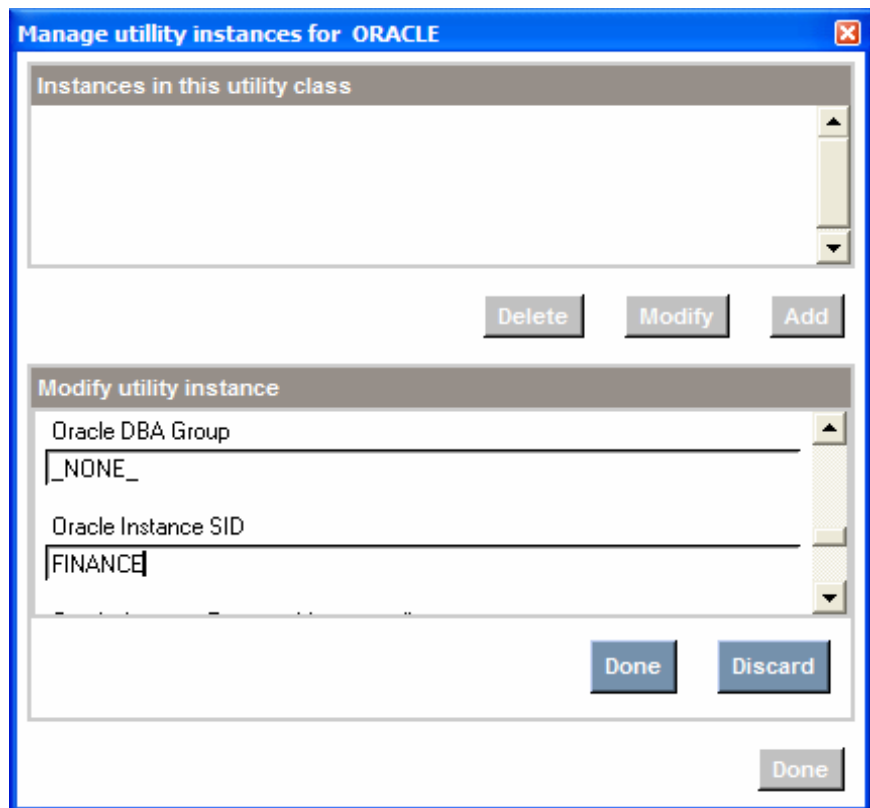


- 3 Click **Add** to add an instance. If an instance already exists, you can delete or modify it.

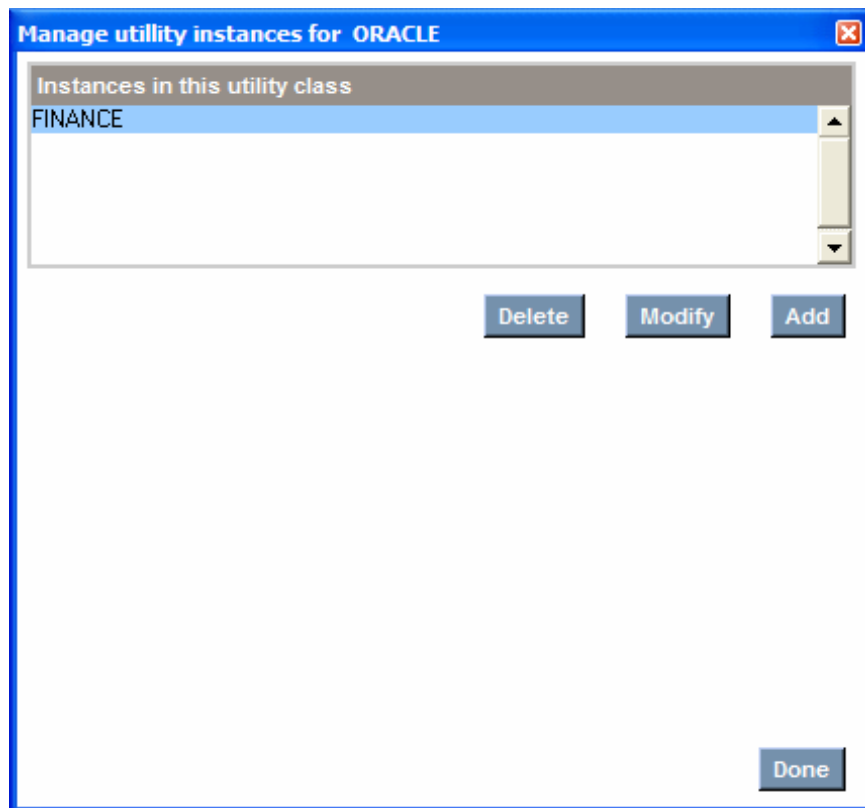


When you modify an instance, the values that are inherited from the base instances will be displayed in red and “**” will precede the name of the variable.

In this example, we create an instance called FINANCE for a computer called FINANCE and change the ORASID to FINANCE.



- 4 Click **Done**. The instance appears at the top of the dialog box.



- 5 When you have finished adding, modifying, or deleting Utility instances, click **Done**.

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.

Naming and Connecting the Utility Instance

There are multiple methods for connecting the Utility instance. The Utility instance for an AMP is specified in the Override value during publishing of the AMP. (If you are using the System Explorer this corresponds to the ZSERVICE OVERRIDE attribute.) 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.
 - OVERRIDE Value: APPMGMT.VIRTWEB.DEMO_WEB
- 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.
 - OVERRIDE Value: APPMGMT.APACHE2.&(ZMASTER.ZUSERID)
- 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.
 - OVERRIDE Value:
APPMGMT.MSSQL2K.&(ZMASTER.ZUSERID)*

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

- 1 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:	<input type="checkbox"/>
Software Manager:	<input type="checkbox"/>
Inventory Manager:	<input type="checkbox"/>
OS Manager:	<input type="checkbox"/>
Patch Manager:	<input type="checkbox"/>
Server Management:	<input checked="" type="checkbox"/>

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

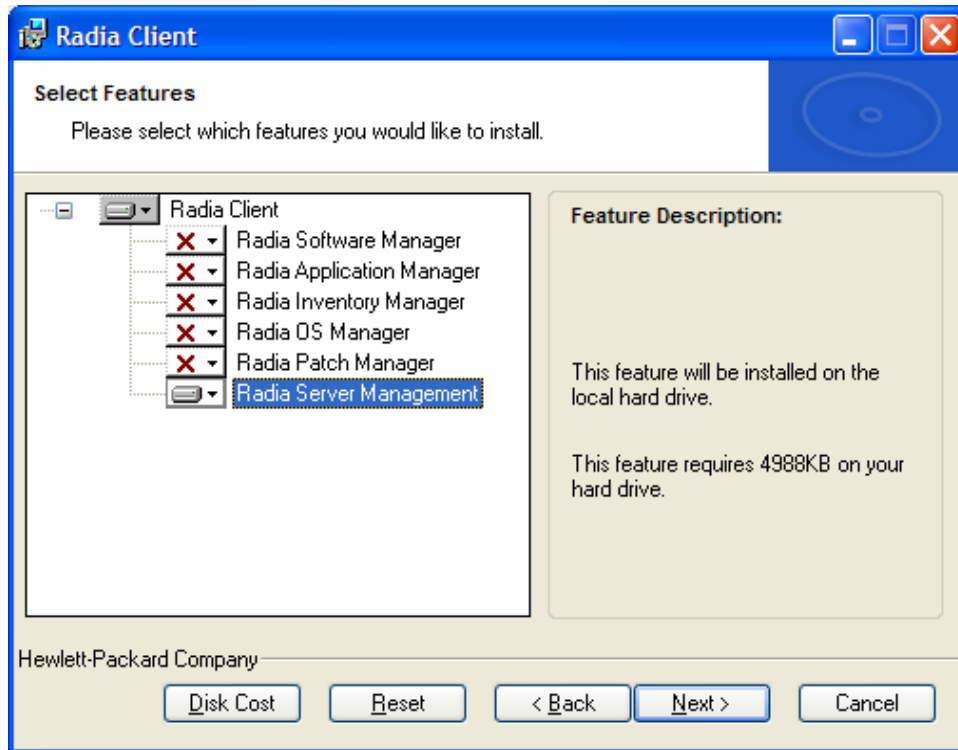
5 Schedule the installation and submit the job.



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 your operating system on the Radia v41 applications CD-ROM. Double-click **setup.exe**. When prompted, select the **Radia Server Management** feature.



To use the install.ini file for Windows Clients

In the [PROPERTIES] section of the `install.ini` file, add the following line:
`ADDLOCAL=NVDINSTALLSVR`

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

To update the client to release 4.2

- 1 Install the 4.1 client.
- 2 See the Release Notes for Application Management Profiles for release 4.2, version 1.1.

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 4.1.1 is the minimum version required. To use Reporting Server with Application Management Profiles, the Messaging Server and the Reporting Server must be configured. Also a file of the Configuration Server must be updated as described in the section Configuration Server Modification.

Before performing these steps, be sure that you have set up a database to store the Application Management Profiles data and that, on the Messaging Server and Reporting Server, there is an ODBC connection to that database.



The same Data Source Name (DSN) can be used for Application Management Profiles and HP OpenView Inventory Manager Using Radia (Inventory Manager).

Implementation Details

See the *Installation and Configuration Guide for the HP OpenView Reporting Server Using Radia* for information on installing the Reporting Server and the *Installation and Configuration Guide for the HP OpenView Messaging Server Using Radia* for information on installing the Messaging Server. You must perform the additional steps listed in this section to enable the Application Management Profiles reports.

Configuration Server Modification

- 1 On the installation media for version 4.2 release of the Messaging Server, navigate to `\management_infrastructure\configuration_server\migrate_rcs`.

- 2 Copy ZTASKEND from this directory to the Configuration Server's \rexx directory. The default location is C:\Novadigm\ConfigurationServer\rexx.

Messaging Server Installation

- 1 At the Select Data Delivery Agent window of the Messaging Server installation, select **Load the core.dda module to post Core objects via ODBC**. This will enable the posting of data to an SQL database or an Oracle database for the Server Management Reports.



This information is also included in the *Installation and Configuration Guide for the HP OpenView Messaging Server Using Radia*.

- 2 When prompted, enter the DSN information.
- 3 Continue with the installation, following the instructions on the remaining dialog boxes.

Reporting Server Installation

- 1 After installing the Reporting Server, go to **http://<reportingserveripaddress>/reportingserver/setup.tcl**
- 2 Under Configuration Options, click **RIM/RAM Configuration**.
- 3 Type in your DSN information in the RIM DSN, RIM DSN User, and RIM DSN Password boxes.
- 4 Under Configuration Options, click **Server Management Configuration (SCM)**.
- 5 For Enable SCM Reports, select **1**.
- 6 Click **Apply** and follow the on-screen directions.

Viewing the Reports

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.

Figure 9 **Figure 9** **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.

Device	Status	Successful	Warning	Reboot Pending	Failed	Total Jobs	Last Job Started	Last Job Ended
SRVR1	✓	4	0	0	0	4	2005-05-30 13:42:52	2005-05-30 13:42:59
SRVR43	✓	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.

Job Status by Service										
15 items										
1 - 3 of 3 items										
Service	Description	Status	Devices	Successful	Warning	Reboot Pending	Failed	Total Jobs	Last Job Started	Last Job Ended
APACHE2_WIN	Apache 2.0.52 Profile	✓	2	3	0	0	0	3	2005-05-30 13:42:52	2005-05-30 13:42:59
VIRTWEB_DEMOWEB	Demo Web	✓	1	1	0	0	0	1	2005-05-29 16:51:12	2005-05-29 16:51:22
VIRTWEB_DEMOWEB2	Demo Web 2	✓	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.

Index

A

- Application Management Profile Editor
 - using, 23
- Application Management Profiles
 - definition, 9
- Application Management Profiles Editor
 - installation, 16
- Application Profiles Editor
 - tabs, 24

C

- Change State of Windows Service, 35
 - example, 48
- Change UNIX owner/group/permission, 36
 - example, 67
- Change Windows File/Directory attributes, 36
- Check Registry, 34
- Client Object Reference, 38
- Command Modes, 38
- Command Output Reference, 38
- Command Return Reference, 38
- Commands, 33
 - descriptions, 34
- Configuration Server, 92
- Configuration Settings, 28
- Configuration tab, 25
- Copy file, 36
- Create directory, 36
 - example, 63
- Create File, 35
 - example, 56
- Credential Reference, 38
- Custom Application Profile
 - creating, 24

D

- Delete tab, 25

E

- Environment Reference, 37
- External, 35
 - example, 45

F

- File Content Reference, 38
- File Operations, 35
 - example, 54
- File Templates, 32
- File Templates tab, 25

G

- Get an attribute value from a client object, 35
- Get Disk Space, 35
 - sample, 42
- Get Registry Value, 35
 - example, 39

H

- Header Information, 72

I

- If block, 38
- Initialize tab, 25
- Install tab, 25
- Installation, 15
 - prerequisites, 14
 - process, 15

L

Loadbalancer interaction, 36
Loadbalancer Interaction
 example, 62

M

Master Application Profile (MAP)
 definition, 10
Messaging Server, 93

N

Network Share, 35
 example, 51
Number, 38

P

Packaging the Installation Media, 21
Parameter Reference, 38
Phases
 managing, 25
Pre-Install tab, 25
Prerequisites, 11
Profile
 publishing, 77

R

Read File Data, 36
Reboot device, 35
 example, 53
Remove directory, 36
 example, 65
Rename file, 36
Reporting, 92
Reporting Server, 93

Reports

 Job Status by Device, 94
 Job Status by Service, 94

S

Server Management Client, 90
 installagion, 90
Set an attribute in a client object, 36
Set Environment variable, 37
Set Parameter, 35
 example, 58
Set Registry Value, 35
 example, 60
Sleep for seconds and milliseconds specified, 36
Space, 37
String, 38
String Builder, 37
 operands, 37

U

Utility Class
 creating, 83
 definition, 11
Utility Instance
 connecting, 87
 creating, 84

V

Verify UNIX File/Directory Attributes, 37
 example, 69
Verify Windows File/Directory Attributes, 37
 example, 71

W

Windows Service Query, 35