

HP Client Automation Enterprise for Windows Terminal and Citrix

For the Windows® operating system

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User Guide

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Chapter 1

Introduction

Audience

This guide is for systems administrators who want to use HP Client Automation (HPCA) to deploy applications to Windows Terminal Servers.

About This Guide

This guide describes:

- Classes in the HPCA Configuration Server Database (CSDB) for using this component.
- Publishing details for Terminal Server Applications.
- Deployment procedures

Windows Terminal Services is a thin-client server. With Terminal Services, the processing of one or more applications is moved completely off of a user's desktop and onto a centralized server. Only screen, mouse, and keyboard information is passed between the agent and the server.

The Terminal Services component of the HPCA Agent provides the ability to install and manage applications in a Windows Terminal Server environment for applications to be run by Windows Terminal Server agents, and for applications to be run locally on the Windows Terminal server.

As part of the application deployment process, the HPCA Agent automatically manages the Install and Execute modes in which a Windows Terminal Server can install and maintain applications. Before installing or updating an application, the HPCA Agent will query the Windows Terminal Server for active sessions, prompt users to logoff, and, if needed, disconnect user sessions. After the installation process is complete, the Windows Terminal Server is brought back online to accept incoming user sessions.

Chapter 2

Support for Windows Terminal Server and Citrix

Database Additions

Two classes are available to manage Windows Terminal Server applications. The two classes are:

- **WTS App Comp Scripts (WTSACS)**
Use an instance in this class to configure application compatibility scripts. For more information on this class, see the table [WTSACS Class attributes](#).
- **WTS Control (WTCTRL)**
Use instances in this class to describe some behaviors you may need for the application. For more information on this class, see the table [WTCTRL Class attributes](#).

Publishing the Applications and Scripts

Windows Terminal Server and Citrix applications are usually composed of two elements: the application and the application compatibility scripts. To use the HPCA Agent to manage Windows Terminal Server and Citrix applications, you must publish both elements. First, use the HPCA Administrator Packager and Publisher to publish the application as you would any other application. For more information on publishing applications, see the *HP Client Automation Enterprise Application Manager and Application Self-Service Manager Reference Guide*. Then, follow the procedure below to publish and prepare the application compatibility scripts. Publish each script separately.

To publish application compatibility scripts:

1. Use Component Selection Mode in the HPCA Administrator Packager to publish the application compatibility scripts (ACS) into the WTSACS Class. To do this, when you reach the Files tab, expand to the location of the ACS file. Right-click the ACS file and select **Properties**.
2. Click the **Database Information** tab.

- From the Class drop-down list, select **WTSACS**.

The screenshot shows a dialog box with the following elements:

- Tabbed interface with 'Agent Management', 'Agent Behaviors', and 'Data Options' tabs.
- Section header: **Database Information**
- Field 'Domain:' with a dropdown menu showing 'SOFTWARE'.
- Field 'Class:' with a dropdown menu showing 'WTSACS'.
- Note: 'Note: Setting the properties on a folder will also affect all of its contents'
- Buttons: 'OK', 'Cancel', and 'Apply'.

- Finish the packaging session, and exit HPCA Administrator Packager.
- Complete the procedure for each ACS. An instance will be created in the WTSACS Class. After the instance has been created, use the HPCA Administrator CSDB Editor to configure its attributes as shown in the next section.

Preparing the Service

After you have packaged the application and its scripts, you must now prepare the service for deployment. During this process, you will need to create a Service Group to deploy the Server Application. See the instructions in the *HP Client Automation Enterprise CSDB Editor Online Help* before beginning this procedure. To completely prepare the service, you will need to:

- Configure the WTS App Comp Scripts (WTSACS) instance.
- Configure the WTS Control (WTCTRL) instance.
- Create a Service.
- Assign the Service.

Task 1: Configuring the WTSACS Instance

Edit instances in the WTSACS Class to specify the type of application compatibility script.

To configure the WTSACS instance:

1. Use the HPCA Administrator CSDB Editor to navigate to the **PRIMARY.SOFTWARE.WTSACS** instance you want to configure.
2. Right-click the instance and select **Edit Instance**.
3. Use the table [WTSACS Class attributes](#) to set the attributes for the application compatibility script. Keep in mind the following:
 - For an ACS Install script, set the TYPE to I, and ZCREATE to &(WTSACS.LOCATION) &(WTSACS.ZRSCCFIL).
 - For an ACS Uninstall script, set the TYPE to U, and BDELETE to &(WTSACS.LOCATION) &(WTSACS.ZRSCCFIL).
 - For an ACS Logon script, set the TYPE to L.
4. Click **OK** to accept the new values.
5. Click **Yes** to confirm the changes.

WTSACS Class attributes

Attribute	Description
ZRSCNAME	Resource Name Default: &ZRSCCFIL
ZRSCCFIL	Resource File Name
ZRSCVRFY	Verify Resource File on Connect Default: Y
ZRSCRASH	DOS File Attribute [R/A/S/H]
ZRSCSTYP	Server File Type [BINARY/TEXT] Default: BINARY
TYPE	Install, Logon, Uninstall [I/L/U] <ul style="list-style-type: none"> • Set to I for Install script. • Set to L for a logon script. • Set to U for an Uninstall Script.
ZRSCDATE	Resource Date Stamp – from Promote
ZRSCTIME	Resource Time Stamp – from Promote
ZRSCSIZE	Resource Size – from Promote
ZCMPSIZE	Compressed File Size
ZRSCCSTA	Client File Status Default: 999

Attribute	Description
ZRSCPRI	Create Sequence Priority Default: 50
ZCREATE	Method to Install Resource Set this attribute for the Install ACS to &ZRSCCFIL so this script is run at service installation.
ZDELETE	Method to De-Install Resource Set this to the method to run when the resource is deleted. Default: RADREMF
BDELETE	Method Before Delete Set this attribute for the Uninstall ACS to &ZRSCCFIL so this script is run at service removal.
NAME	Friendly name of the instance
LOCATION	Location of the application compatibility script Default: & (ZMASTER.ZLIBDRV) & (ZMASTER.ZLIBDIR)
ZSTOP000	Stop Expression Default: / (EDMGETV (ZCONFIG, WTSSRVR) = 'Y') Note: The export deck may have this configured incorrectly with a period in place of the comma. Check to be sure it is shown as above.

Task 2: Configuring the WTCTRL Instance

Use instances in the WTCTRL Class to specify if you require logoffs for application events, the type of install, and timeout settings if needed

To configure the WTCTRL instance:

1. Use the HPCA Administrator CSDB Editor to navigate to the WTCTRL Class in the SOFTWARE domain.
2. Right-click **WTCTRL** and select **New Instance**.
3. Type in a display name and an instance name.
4. Click **OK**.
5. Right-click the new instance and select Edit Instance.
6. Use the table [WTCTRL Class attributes](#) to set logoff behaviors and timeouts.
7. Click **OK** to accept the new values.
8. Click **Yes** to confirm the changes.

WTSCTRL Class attributes

Attribute	Description
WTSTYPE	<p>Install/Execute Mode [I/E]</p> <ul style="list-style-type: none"> Set to E to install files natively on the Windows Terminal Server such as applications that an administrator may use specifically on the server. Set to I for an application that will be used by the Windows Terminal Server's clients. <p>Default: E</p>
LI	<p>Logoff for Install [Y/N]</p> <p>Specify Y to logoff for application installation.</p> <p>Default: N</p>
LU	<p>Logoff for Update [Y/N]</p> <p>Specify Y to logoff for application update.</p> <p>Default: Y</p>
LR	<p>Logoff for Repair [Y/N]</p> <p>Specify Y to logoff for application repair.</p> <p>Default: Y</p>
LD	<p>Logoff for Delete [Y/N]</p> <p>Specify Y to logoff for application removal.</p> <p>Default: Y</p>
TO	<p>Disconnect Time Out (minutes)</p> <p>Specify in minutes how long the Windows Terminal Server should wait before disconnecting any users from the server. A warning message will appear on the Windows Terminal Server showing how long before the logoff will occur.</p> <p>Default: 15</p>
RW	<p>Rewarn of Logoff at (minutes)</p> <p>Specify when you want a second warning to appear that the Server will be logged off.</p> <p>Default: 2</p>
NAME	<p>Friendly Name</p>
WTSOPTNS	<p>WTS Logoff Settings. Do not modify.</p> <p>Composite concatenated logoff field to flow down to the client.</p> <p>Default: LI=&(LI), LU=&(LU), LR=&(LR), LD=&(LD), TO=&(TO), RW=&(RW)</p>

After publishing the script and defining any special behaviors, you are ready to create the service.

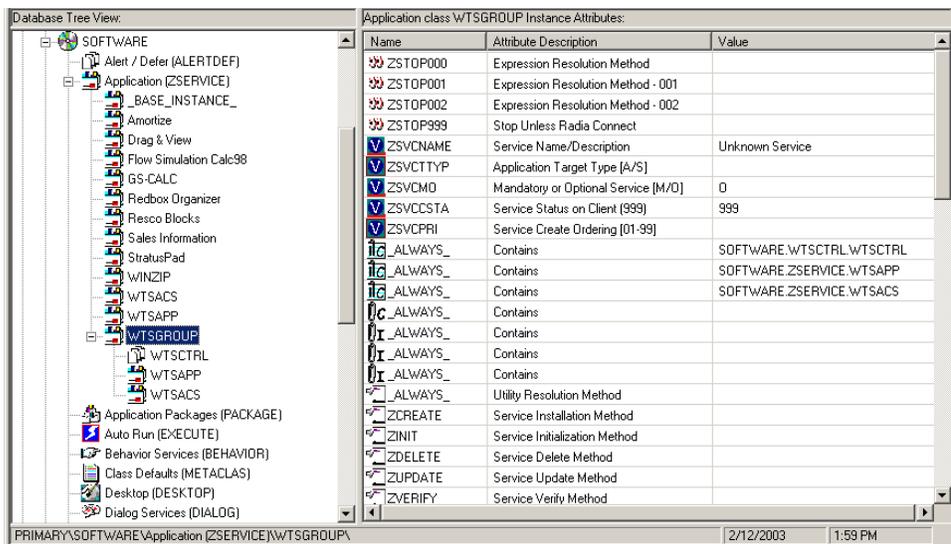
Task 3: Creating the Service

After configuring the WTSACS and WTCTRL instances, you need to create services for the WTSACS instance and the original application package. Then, the two services and the WTCTRL instance will become part of a Service Group. See the *Service Groups* section in the *HP Client Automation Enterprise CSDB Editor Online Help* before completing this procedure.

To create a service for the Windows Terminal or Citrix Server:

1. Create a Service Group for the application using the HPCA Administrator CSDB Editor.
2. Set the ZSVCGRP attribute on the Service Group to D for dependent. See the *HP Client Automation Enterprise CSDB Editor Online Help* for information about adding this variable and using Service Groups.
3. Create Application (ZSERVICE) instances for the application and the WTSACS instance.
4. Connect the WTCTRL instance and the services created in Step 3 of this procedure to the Service Group instance in the following order:
 - WTCTRL instance
 - Main application Service
 - WTSACS Service

In the example shown below, a Service Group named WTSGROUP is created. Next, the WTCTRL instance, and the services for WTSAPP and WTSACS, are connected in that order.



Note: The services in a Service Group will install in “visual order”. This means, from the top downward as connected to the Service Group. Services in a Service Group do not honor the settings in ZSVCPRI.

Task 4: Entitle the Service

For details on how to entitle services to users and groups, see the *Connecting Services to Groups* section in the *HP Client Automation Enterprise Administrator User Guide*.

Deploying the Service

RADSVMAN . EXE is the module responsible for managing Server Applications. RADSVMAN completes the following tasks:

1. Changes the Windows Terminal Server to Execute mode.
2. Downloads necessary data.
3. Installs sever applications. These applications have the WTSTYPE attribute of the WTCTRL instance set to E.
4. Changes the Windows Terminal Server to Install mode.
5. Installs agent applications. These applications have the WTSTYPE attribute of the WTCTRL instance set to I.
6. Switches back to Execute mode.

Run RADSVMAN through a Scheduling (TIMER) instance or from the command line on the Windows Terminal Server. In the example below, the applications are assigned to a user based on the computer name.

```
radsvman ip=<IP_ address>, uid=$MACHINE
```

RADSVMAN accepts the same parameters as RADSKMAN. For more information on RADSKMAN, see the *HP Client Automation Application Manager and Application Self-Service Manager Reference Guide*.

Running Exit Methods

You may need to run a method either before or after installing applications. Use SVRBEXIT (Before Exit Point method) to specify a method to run before installing applications, and use SVRAEXIT (After Exit Point method) to specify a method to run *after* installing applications. These attributes must be present in the RADSETUP agent object to run. You can add them in any of the following ways:

- Add the variables before installation in the install.ini.
- Use the HPCA Administrator Agent Explorer to manually add them to the RADSETUP object on the agent computer.
- If you are using Client Operation Profiles, add SVRBEXIT and SVRAEXIT as variables to the CLIENT.SETTINGS Class.

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