

HP Device Manager 4.7

Command Task (Windows Embedded) Troubleshooting Guide



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Overview

The purpose of this document is to demonstrate how to troubleshoot issues that might occur while using the Command Task or Script Task of HP Device Manager (HPDM) on Windows Embedded thin clients.

Differences between Command Task and Script Task

Script Task is more powerful than Command Task. We recommend using Script Task instead of Command Task. The following table illustrates the differences between Command Task and Script Task.

Command Task	Script Task
Only one command can be edited and executed at a time.	Users can edit and execute a batch script that contains multiple command lines.
The working directory of the command is C:\windows\system32 and cannot be changed.	The user can specify the start directory of the script.
By default, the execution user account for the HPDM Agent is SYSTEM.	The user can specify a particular account to execute the script.

Troubleshooting steps

Validity of the command line

Sometimes the HPDM Command Task returns error code 14004022. Use the following steps to check the validity of your command.

- Check that the command is correct. Execute the command line manually first.
- Check that **cmd.exe /c** is added to the beginning of cmd.exe build-in commands. For example: cmd.exe /c "dir".
- Check that the files needed to execute the command exist on the target thin client.
- Check that the return code of the command is 0. Create a batch script that contains the command line and add the tag (echo %ERRORLEVEL%) in the last line. Run the batch script to see the return code of the command.
- Keep in mind that the working directory of the command executed by the HPDM Agent is **c:\windows\system32**. To change it, create a batch script. In the script, add **cd <specified path>** to the beginning and write all the command lines with the full path. Then, use HPDM to execute the script.
- Keep in mind that the execution user account for the HPDM Agent is "SYSTEM", and that when you use the command at the cmd console or double-click a program to run it, the logged-on user account runs the command. Some commands that need an administrator account will not work using the HPDM Agent, such as the following example with the Microsoft Software Installer (MSI).

Validity of the batch script

Sometimes, the HPDM Script Task returns error code 14004022. Use the following steps to check the validity of your batch script.

- Create a batch script file that contains the content of the script task, and then add the tag (echo %ERRORLEVEL%) in the last line.
- Use **Deploy Task** to deploy the script file on the targeted device.
- Verify that the return code of the batch script is **0**. Run the script file to see the return code of the command.
- Keep in mind that the execution user account for the HPDM Agent is specified in the Script Task. Be sure to log on to the correct user account, and then run the batch script.
- Keep in mind that the working directory of the script executed by the HPDM Agent can be specified in the Script Task. Deploy the script file on the correct path, and then run the batch script.

MSI installation by a Command task

You can install the MSI using the File and Registry subtasks, Deploy Files and Command, in HPDM. This guide assumes you know how to use the Deploy Files task. If the MSI will not install correctly, it might be because of two common errors.

The first error is that the command line returns error code 14004022. The second is that the task appears to execute successfully, but the MSI does not install on the target thin client. This section demonstrates how to resolve these issues.

Command line error when installing MSI

If the command line returns the error code 14004022, use the following methods to troubleshoot.

- Make sure that you input the correct command and add **/quiet** if it is supported option. For example, **msiexec.exe /i c:\XXX.msi /quiet**.
- Make sure that **/norestart** is specified in the command line if it is supported. Otherwise, the HPDM Agent will not be able to return the execution result, and instead will get and execute the task again after the next reboot.
- Make sure that the MSI can be installed successfully without HPDM.
 - On a test thin client, manually copy the MSI file to the directory that you would use in the Deploy Files task.
 - Check whether the MSI file installed successfully using the command line that you used in the Command task.
- Check the return code of the **msiexec.exe** command. The install command **msiexec.exe** does not always return 0 after an installation, even if it successfully installs the program. If the system needs to reboot after the installation, the command **msiexec.exe** returns the error code 3010 (ERROR_SUCCESS_REBOOT_REQUIRED). This error means that the requested operation was successful, but the changes will not be effective until the system is rebooted. Although the task displays a failure in the HPDM Console, the MSI file installed successfully. To prevent this error, do the following steps.
 - Write a batch script as follows:
msiexec.exe /i Directory\xxx.msi /quiet /norestart (For an MSI file, please use the full path.)
if %ERRORLEVEL% equ 3010 (exit 0) else (exit %ERRORLEVEL%)
 - Add the batch script file to the Deploy Files task for the MSI files.
 - Use the command line to run the script. The command is the full path of the script file on the thin client. For example, **z:\temp\Install_XXX_MSI.cmd**.
 - Send the task to the target thin client to execute.

If **msiexec.exe** returns another acceptable error code, use **echo %ERRORLEVEL%** as shown previously to get the error code, and then change the script as follows:

```
msiexec.exe /i Directory\xxx.msi /quiet /norestart  
if %ERRORLEVEL% equ ErrorCode ( exit 0 ) else ( exit %ERRORLEVEL% )
```

User Account problem when installing MSI

Some MSI files need to be run by an administrator account. By default, HPDM runs as the SYSTEM account. When you install these files using HPDM, the task will return a success. However, the MSI does not install on the thin client. For this situation, we strongly suggest that you use the script subtask to install the MSI. For more details about the script subtask, see the *HP Device Manager Administrator Guide*.

MSI installation by a Script Task

You can also install the MSI using the File and Registry subtasks, Deploy Files and Script, in HPDM.

The HPDM Agent runs as a service and its TEMP path is Z:\temp, by default. However, partition Z might not have enough space for some big software packages.

To change the partition used, HP recommends that customers use a Script subtask in the File and Registry template. Enter these lines before using the task.

- `set TEMP="C:\temp"`
- `set TMP="C:\temp"`
- `<install software command line>`

You can set another folder, instead of C:\temp, as the TEMP path.

For more information

To read more about HP Device Manager, go to <http://www.hp.com/go/hpdm>.

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