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Performing an automated installation

Programming and Operating Manual

Legal information

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Automated installation using the record / play mode

1.1 Start recording

Requirements

- Hardware and software of the programming device or PC meet the system requirements.

Procedure

To record the installation, proceed as follows:

1. Open the Windows command prompt with "Start > Run > cmd".
2. Switch to the directory that contains the "Start.exe" file.
3. In the command prompt, enter the following command:
 - "Start.exe /record"
4. Press the <Return> key to confirm your entry.

Result

The installation dialog opens with the information that you are in Record mode and the system will not be changed.

1.2 Selecting installation settings

Procedure

Proceed as follows to set the options for the installation:

1. In the dialog for selecting the setup language, select the language in which you want the setup program dialogs to be displayed and click the "Next" button.
The dialog for selecting the product languages opens.
2. Select the languages for the product user interface, and click the "Next" button.

Note

"English" is always installed as the default product language.

The dialog for selecting the product configuration opens.

1.3 Playing the recording

3. Select the products you want to install:
 - If you wish to install the program in a minimal configuration, click on the "Minimal" button.
 - If you wish to install the program in a typical configuration, click on the "Typical" button.
 - If you wish to manually select which products are to be installed, select/deselect the option boxes for the products you wish to install. This activates the "User defined" button automatically.
4. If you want to create a shortcut on the desktop, select the "Create desktop shortcut" check box.
5. Click the "Browse" button if you want to change the target directory for the installation.

Note

We recommend that you use the "Program Files" folder as the target directory. If you select a hard drive (e.g. "D:"), make sure that this drive is present on all computers on which the program is to be installed.

6. Click the "Next" button.
The dialog for the license terms opens.
7. To continue the installation, read and accept all license agreements and click "Next".
If changes to the security and permissions settings are required in order to install the TIA Portal, the security settings dialog opens.
8. To continue the installation, accept the changes to the security and permissions settings, and click the "Next" button.
The next dialog displays an overview of the installation settings.
9. Check the selected installation settings. If you want to make any changes, click the "Back" button until you reach the point in the dialog where you want to make changes. Once you have completed the desired changes, return to the overview by clicking "Next".
10. Click the "Next" button.
The dialog with the procedure to follow for a restart and in the event of errors opens.
11. Select the desired options and save the configuration.
12. Click the "Exit" button.

Result

The automated installation file has been created and saved.

1.3 Playing the recording

Requirements

- Hardware and software of the programming device or PC meet the system requirements.
- You have administrator privileges on your computer.

- The previously recorded file ("*.rec") is present.
- All running programs are closed.

Procedure

To play the installation, proceed as follows:

1. Open the Windows command prompt with "Start > Run > cmd".
2. Switch to the directory that contains the "Start.exe" file.
3. In the command prompt, enter the following command:
 - "Start.exe /play=<Drive>:\<Directory>\<File name>", e. g. "Start.exe /play=c:\siemens configuration\autoinstall.rec"
4. Press the <Return> key to confirm your entry.

Note

If no license key is found during the installation, the license transfer is skipped and you can take care of this later with the Automation License Manager.

Result

Installation takes place automatically using the settings recorded in the configuration file.

1.3 Playing the recording

Automated installation via the command line

2.1 Automating the installation

Requirements

- Hardware and software of the programming device or PC meet the system requirements.
- You have administrator privileges on your computer.
- All running programs are closed.

Procedure

To start the installation with the desired options directly via the command interface, proceed as follows:

1. Open the Windows command prompt with "Start > Run > cmd".
2. Switch to the directory that contains the "Start.exe" file.
3. In the command prompt, enter one of the following commands:
 - Installation with visible installation information: "Start.exe /qb <Parameter>"
 - Installation without visible installation information: "Start.exe /qn <Parameter>" or "Start.exe /silent <Parameter>"

Note

Installation with the /qb or /qn parameters has the effect that no alarm windows are displayed, even if an error occurs. You can only evaluate the results via the return value.

When using the option "REBOOT=Suppress", note that you need to evaluate the return value yourself and possibly restart the system and then restart the installation manually after the system restart in order to make evaluation of the return value possible.

4. Press the <Return> key to confirm your entry.

2.2 Automating updates

You have the option to automate updates of installed products. For this purpose, you can start the reinstallation with the desired options directly as a command line.

Requirements

- Hardware and software of the programming device or PC meet the system requirements.
- You have administrator privileges on your computer.
- All running programs are closed.

Procedure

To update installed products directly via the command line, follow these steps:

1. Open the Windows command prompt with "Start > Run > cmd".
2. Switch to the directory that contains the "Start.exe" file.
3. In the command prompt, enter one of the following commands:
 - Installation with visible installation information: "Start.exe /qb" <parameter>
 - Uninstall without visible installation information: "Start.exe /qn <parameter>" or "Start.exe /silent <parameter>"

Note

Installation with the /qb or /qn parameters has the effect that no alarm windows are displayed, even if an error occurs. You can only evaluate the results via the return value.

When using the option "REBOOT=Suppress", note that you need to evaluate the return value yourself and possibly restart the system and then restart the installation manually after the system restart in order to make evaluation of the return value possible.

4. Press the <Return> key to confirm your entry.

See also

Principles of an automated installation (Page 15)

2.3 Automating repair

If you invoke "Start.exe" again with the parameter "REINSTALL=ALL" after having performed an installation, a reinstallation of all components take place exactly as if you had selected "Repair" during a dialog-guided installation. The installation is identical to that described previously. Automated repair via the command line is invoked in the exact same way as automated installation. You can determine the restart behavior by entering a parameter.

"REINSTALL" can be combined only with the "REBOOT", "/qn" and "/qb" parameters. All other parameters are prohibited.

Requirements

- Hardware and software of the programming device or PC meet the system requirements.
- You have administrator privileges on your computer.
- All running programs are closed.

Procedure

To repair an installation directly via the command line, follow these steps:

1. Open the Windows command prompt with "Start > Run > cmd".
2. Switch to the directory that contains the "Start.exe" file.
3. In the command prompt, enter one of the following commands:
 - Installation with visible installation information: "Start.exe /qb REINSTALL=ALL <REBOOT-Parameter>"
 - Installation without visible installation information: "Start.exe /qn REINSTALL=ALL <REBOOT-Parameter>" or "Start.exe /silent REINSTALL=ALL <REBOOT-Parameter>"

Note

The REBOOT parameter is optional. When using the "REBOOT=Suppress" option, however, remember that you must evaluate the return value yourself and possibly restart the system.

4. Press the <Return> key to confirm your entry.

2.4 Automating uninstall

If you want to remove an existing installation, you can accomplish this by means of an automated uninstall. This uninstalls all software packages. Automated uninstall via the command line is invoked in the exact same way as automated installation. You can determine the restart behavior by entering a parameter.

"REMOVE" can be combined only with the "REBOOT", "/qn" and "/qb" parameters. All other parameters are prohibited.

Requirements

- You have administrator privileges on your computer.
- All running programs are closed.

Procedure

To start the uninstall directly via the command line, follow these steps:

1. Open the Windows command prompt with "Start > Run > cmd".
2. Switch to the directory that contains the "Start.exe" file.

3. In the command prompt, enter one of the following commands:
 - Uninstall with visible installation information: "Start.exe /qb REMOVE=ALL <REBOOT parameter>"
 - Uninstall without visible installation information: "Start.exe /qn REMOVE=ALL <REBOOT parameters>" or "Start.exe /silent REMOVE=ALL <REBOOT parameters>"

Note

The REBOOT parameter is optional. When using the "REBOOT=Suppress" option, however, remember that you must evaluate the return value yourself and possibly restart the system.

4. Press the <Return> key to confirm your entry.

2.5 Examples of automated installation via the command line

Example of a typical installation with REBOOT=Auto

The following example shows a typical installation via the command line:

```
Start.exe /qb REBOOT=Auto INSTALLLANGUAGE=1031;1033 INSTALLDIR="D:\TIAPortal" INSTALLLEVEL=Typical
```

In this example, a typical installation ("INSTALLLEVEL=Typical") is performed for the languages German and English ("INSTALLLANGUAGE=1031;1033"). At the end of the installation, the system is restarted automatically without the request for a confirmation ("REBOOT=Auto"). The directory "D:\TIAPortal" is used as the installation directory ("INSTALLDIR=D:\TIAPortal").

Example of a complete installation with REBOOT=Suppress

The following example shows a complete installation via the command line:

```
Start.exe /qb REBOOT=Suppress INSTALLLANGUAGE=1031;1033  
INSTALLDIR="D:\TIAPortal" INSTALLLEVEL=Complete
```

In this example, a complete installation ("INSTALLLEVEL=Complete") is performed for the languages German and English ("INSTALLLANGUAGE=1031;1033"). At the end of the installation, restart of the system is suppressed ("REBOOT=Suppress"). This means that you must evaluate the return value yourself and possibly restart the system manually.

Example of querying the return value per batch file

The following example shows you how to query the return value per batch file:

```
SET SetupSuccess=%ERRORLEVEL%  
if '%SetupSuccess%' EQU '0' (  
    echo Setup successful. Return code: %SetupSuccess%  
) else (  
    echo Setup failed. Return code: %SetupSuccess%
```

```
    if '%SetupSuccess%' EQU '3010' (
        echo Setup successful. A reboot is needed! Return code:
%SetupSuccess%
    ) else (
        echo "ERROR during Setup! Return code: %SetupSuccess%"
    )
)
Pause
```

The return code "1641" also documents successful completion of the installation and that restart has already been initiated. Restart occurs, however, only if "/REBOOT=Auto" is used and for this reason was not evaluated in the batch file.

You can find all possible return values under Return values from the installation process (Page 21).

Principles of an automated installation

Introduction

If you are responsible for managing the software packages on several computers, you have several options for automating the installation.

Record / Play Function

You can use the record / play function to automate the following installation processes:

- **Installation**
The software is installed on the basis of the parameters selected.
- **Modify or update**
The software is reinstalled on the basis of the parameters selected.

Command line

You can use the command line to automate the following installation processes:

- **Installation**
The software is installed on the basis of the parameters selected.
- **Modify or update**
The software is reinstalled on the basis of the parameters selected.
- **Repair (REINSTALL)**
When this option is selected, the existing software installation is repaired by means of a reinstallation. You can combine the "REINSTALL" parameter only with the "REBOOT", "/qn" and "/qb" parameters. Thus, the software is reinstalled with the same parameters used for the original installation.
- **Uninstall (REMOVE)**
The software is removed from the system. You can combine the "REMOVE" parameter only with the "REBOOT", "/qn" and "/qb" parameters.

Note

To execute the install, modify or update, repair or uninstall commands automatically, you must use one of the two parameters "/qn" or "/qb". If you omit these parameters, the normal installation dialog opens, allowing you to perform a manual installation.

Special characteristics

- **Only one** modification can be made using the command line, e.g. the scope of the product languages.
- You can use the command line to update to a newer version. Only the parts already installed are updated, however.

- **No** individual product component can be installed or uninstalled using the command line. If you want to add the installation of an individual component, use the Record/Play mode.
- The removal of individual components is not supported.
- Only a complete removal of the software can be executed. Note that the components with their own entries in the Control Panel under "Programs and Features" are not removed automatically.

Parameter list

Parameters for automated installation

The following table shows the parameters available to you for an automated installation:

Parameters	Description	Permitted for	Possible values	Explanation of the values
/qb ¹⁾	<p>You can use this parameter to perform an automated installation. During the installation, you receive information on the installation currently being performed.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Without the parameter "qb" or "qn", you cannot perform an automated installation. • The parameters "qn" and "qb" cannot both be used together within one call. • The information during the installation appears in the set installation language. This means that this information matches the texts in the log files. You need these log files, for instance, if you need to contact Product Support. • You can take the results of the installation from the return values. 	Installation Reinstallation Uninstallation	-	
/qn or /silent ¹⁾	<p>You can use this parameter to perform an automated installation. During the installation, you will receive no information on the installation currently being performed.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Without the parameter "qb" or "qn", you cannot perform an automated installation. • The parameters "qn" and "qb" cannot both be used together within one call. • You can take the results of the installation from the return values. 	Installation Reinstallation Uninstallation	-	

Parameters	Description	Permitted for	Possible values	Explanation of the values
/lcid	<p>You can use this parameter to specify the setup language you want to use for the installation. Here, you enter the following local ID (LCID) for the desired language in decimal format.</p> <p>Example: /lcid=1031</p>	Installation Reinstallation Uninstallation	1031	German
			1033	English
			1040	Italian
			1036	French
			3082	Spanish
			2052	Chinese
...	Further product languages			
/record	<p>You can use this parameter to start the Record mode. It creates the "autoinstall.rec" file for automated installation</p>	Installation		
/play	<p>You can use this parameter to start the Play mode. In this mode, you need the configuration file that was created in the Record mode.</p> <p>Example: /play="C:\Siemens Configurations\autoinstall.rec"</p>	Installation		
INSTALLDIR ²⁾	<p>You can use this parameter to specify the target direction for the installation.</p> <p>Example: INSTALLDIR="D:\TIAPortal"</p>	Installation		
INSTALLLANGUAGE	<p>INSTALLLANGUAGE</p> <p>You can use this parameter to specify the product languages you want to install. Here, you enter the following local IDs (LCID) for the desired languages in decimal format.</p> <p>Example: INSTALLLANGUAGE=1031;1033</p>	Installation	1031	German
			1033	English
			1040	Italian
			1036	French
			3082	Spanish
			2052	Chinese
...	Further product languages			
REBOOT	<p>You can use this parameter to specify the restart characteristics during the installation.</p> <p>Example: REBOOT=Suppress</p>	Installation Reinstallation Uninstallation	Auto	A restart, if necessary, is performed automatically at the end of installation.
			Suppress ³⁾	The restart is suppressed at the end of installation. If a restart would have been necessary, the calling process must initiate the restart. Continuation of the installation is also suppressed if this is necessary after the restart (in the case of return value 13010).

Parameters	Description	Permitted for	Possible values	Explanation of the values
ONERROR	You can use this parameter to specify the procedure to follow in the event of an error at the end of installation. Example: ONERROR=Suppress	Installation Reinstallation Uninstallation	Suppress	The dialog with the errors that occurred is suppressed at the end of installation. The errors can be evaluated on the basis of the return values during the process.
			User	In the event of an error, the dialog with the errors that occurred is displayed at the end of installation.
INSTALLLEVEL	You can use this parameter to specify the type of installation. Example: INSTALLLEVEL=Complete	Installation ⁴⁾	Minimal	Minimum installation
			Typical	Typical installation
			Complete	Complete installation

¹⁾ Installation with the /qb or /qn parameters has the effect that no alarm windows are displayed, even if an error occurs. You can only evaluate the results via the return value.

²⁾ Make sure that you enter the real Windows path here ("C:\Program Files\...", and not e.g. "C:\Programme\...") and also do not use any variable paths (e.g. [ProgramFilesFolder]). The parameter is not necessary if you want to install to the default directory (C:\Program Files\Siemens\Automation).

³⁾ If the installation is not yet finished (return value 13010), you first need to restart the system and then the installation in order to make evaluation of the return value possible.

⁴⁾ This parameter may only be used during the initial installation of the software.

Return values from the installation process

List of return values

The following table shows the return values from an automated installation along with their descriptions:

Return value	Technical fault description	Description
?	OtherError	Any return value that is not described in the following table generally indicates an error. Detailed information on all errors can always be found in the installation log. Open the most recent log file whose name begins with "SIA".
0	Success	The installation was successful. No errors have occurred.
5	AccessDenied	You do not have appropriate rights. The installation requires administrator's rights.
112	DiskFull	Not enough free space on the target media.
1601	InstallServiceFailure	An internal error has occurred during initialization.
1602	UserExit	Cancellation by user occurs most often as the result of Cancel being selected in a dialog.
1603	InstallFailure	An error has occurred while performing the installation.
1605	UnknownProduct	An internal error has occurred during product configuration.
1610	BadConfiguration	An internal error has occurred during product configuration.
1618	InstallAlreadyRunning	Another installation is already running. A simultaneous installation is not possible.
1622	InstallLogFailure	An error has occurred while writing the log.
1627	FunctionFailed	An internal error has occurred.
1633	InstallPlatformUnsupported	This operating system is not supported.
1639	InvalidCommandline	There is an error in the indicated command line.
1641	SuccessRebootInitiated	The installation was successful. A restart has already been initiated to complete the operation.
3010	SuccessRebootRequired	The installation was successful. A restart is absolutely necessary to complete the operation!
5001	PrerequisitesFailure	The installation conditions have not been fulfilled. For more information, you can restart the installation by double-clicking start.exe.
5002	InvalidIEVersion	Internet Explorer is not installed or an unsupported version is installed.
5003	ResourcesFailed	An internal error has occurred during initialization.
5004	ProductInitFailed	An internal error occurred (the installation media may be defective).
5005	ProductInitNewerVersionInstalled	A newer version of the product is already installed.
5006	ProductInitMoreValuableEditionInstalled	A more complete edition of the product is already installed (e.g. if you are attempting to install a basic version although a professional version is installed).
5007	ProductInitOptionalWithoutMain	You are attempting to install an optional package without the main software.

Return values from the installation process

Return value	Technical fault description	Description
5008	ProductIncompatibility	A product that is incompatible with the product to be installed is already present.
5009	AutoinstallFileNotFound	The file required for the Play mode could not be found.
5010	AutoinstallUnexpectedContent	The file for the Play mode cannot be read (wrong format, wrong version or unsuitable installation media).
11641	NotCompleteReboot	Setup is not complete and must be continued after restarting. Restarting has already begun. After restarting, you must restart installation.
13010	NotCompleteRebootRequired	Setup is not complete and must be continued after restarting. You must initiate a restart and then restart the installation again.

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Automated Installation

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