SIEMENS EDA

ODB++ Inside for Cadence® Allegro® Installation Guide

Release vNPI 2403
March 2024

SIEMENS

About Siemens Digital Industries Software

Siemens Digital Industries Software is a global leader in the growing field of product lifecycle management (PLM), manufacturing operations management (MOM), and electronic design automation (EDA) software, hardware, and services. Siemens works with more than 100,000 customers, leading the digitalization of their planning and manufacturing processes. At Siemens Digital Industries Software, we blur the boundaries between industry domains by integrating the virtual and physical, hardware and software, design and manufacturing worlds. With the rapid pace of innovation, digitalization is no longer tomorrow's idea. We take what the future promises tomorrow and make it real for our customers today. Where today meets tomorrow. Our culture encourages creativity, welcomes fresh thinking and focuses on growth, so our people, our business, and our customers can achieve their full potential.

Support Center: support.sw.siemens.com
Send Feedback on Documentation: support.sw.siemens.com/doc_feedback_form

Table of Contents

ODB++ Inside for Cadence® Allegro® Installation Guide

Chapter 1
ODB++ Inside Installation

This document provides instructions for installing the ODB++ Inside for Cadence Allegro software on a supported operating system.

Running the Installer

As you run the installation wizard, you must specify the locations of the ODB++ Inside directories. System files may be installed on a central computer accessible to all workstations that will be running the ODB++ Inside software.

> **Note:**
> The screen captures below are related to Windows installation. For the differences between Windows and Linux directory paths, see "Installation Directory Structure" on page 23.

The directory paths can use Windows or Linux network shares instead of drive letters. For example, the path to the Valor System Directory, VALOR_DIR, can be *my_server\ODB++_Inside_Cadence_Allegro\brd2odb_dir*.

Restrictions and Limitations

• No special characters other than Underscore (_) and Dash (-) are allowed in the paths to the ODB++ Inside install directories.
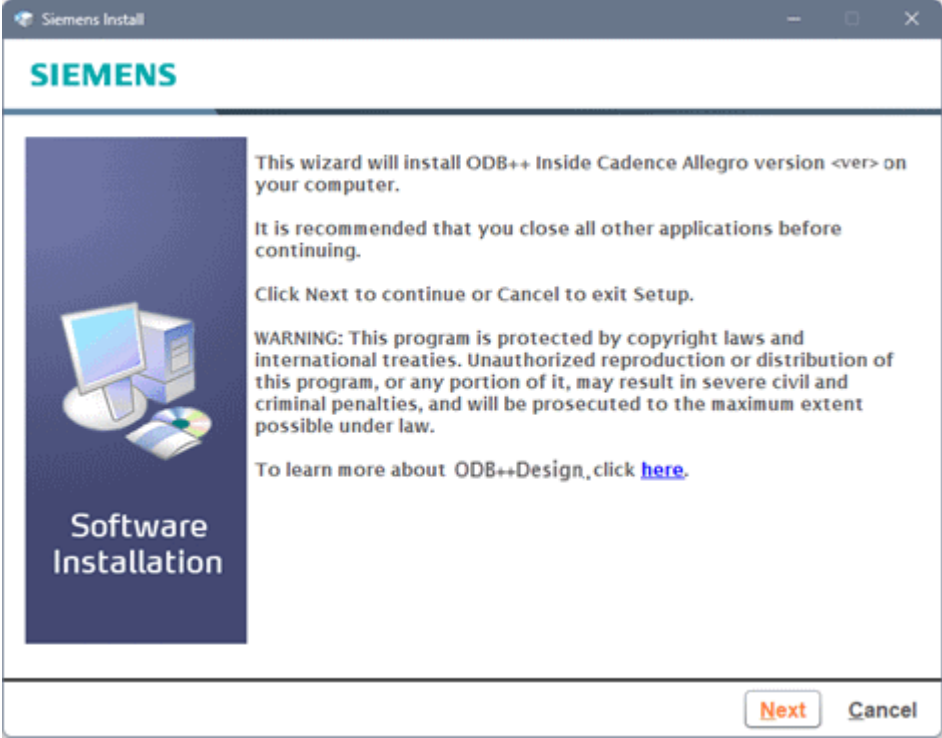
Prerequisites
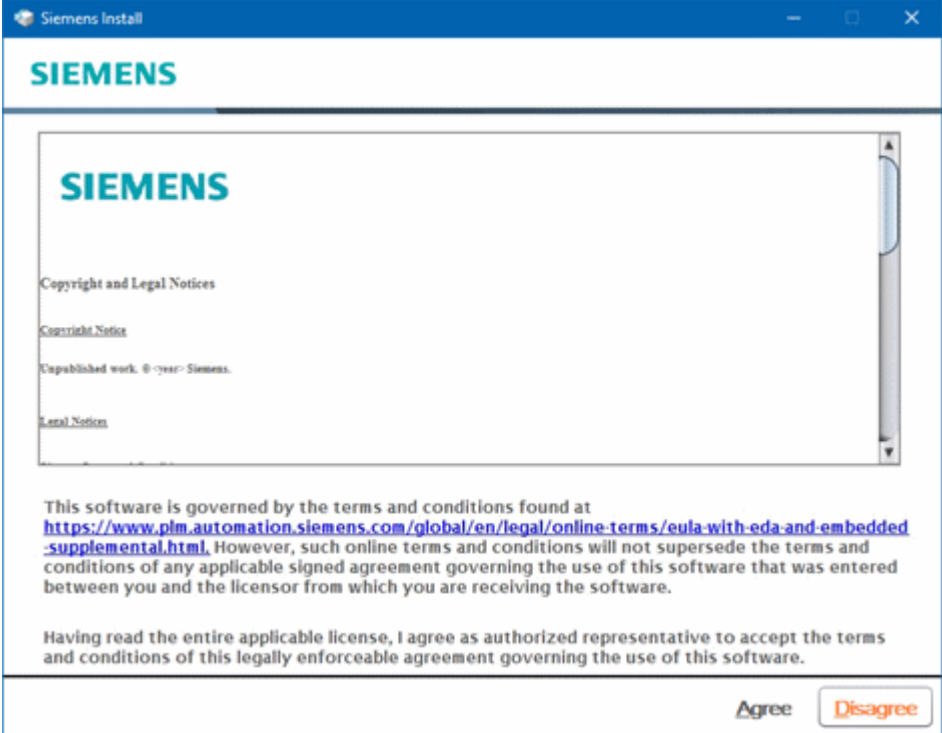
• Access to the installer executable. The installation package is available on the Download page of the ODB++Design website:

  ◦ (Windows) *ODB++_Inside_Cadence_Allegro_<ver>_Windows_64_SA_Setup.zip*

  ◦ (Linux) *ODB++_Inside_Cadence_Allegro_<ver>_Linux_64_SA_Setup.tar*

• (Linux) Root privileges on the machine where ODB++ Inside will be installed.
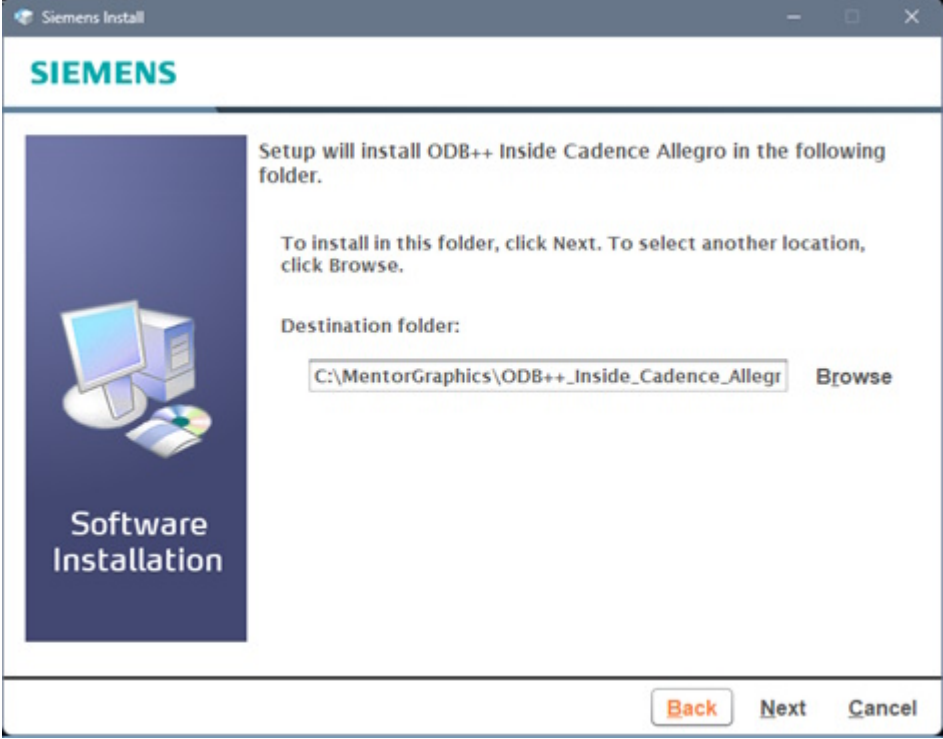
Procedure
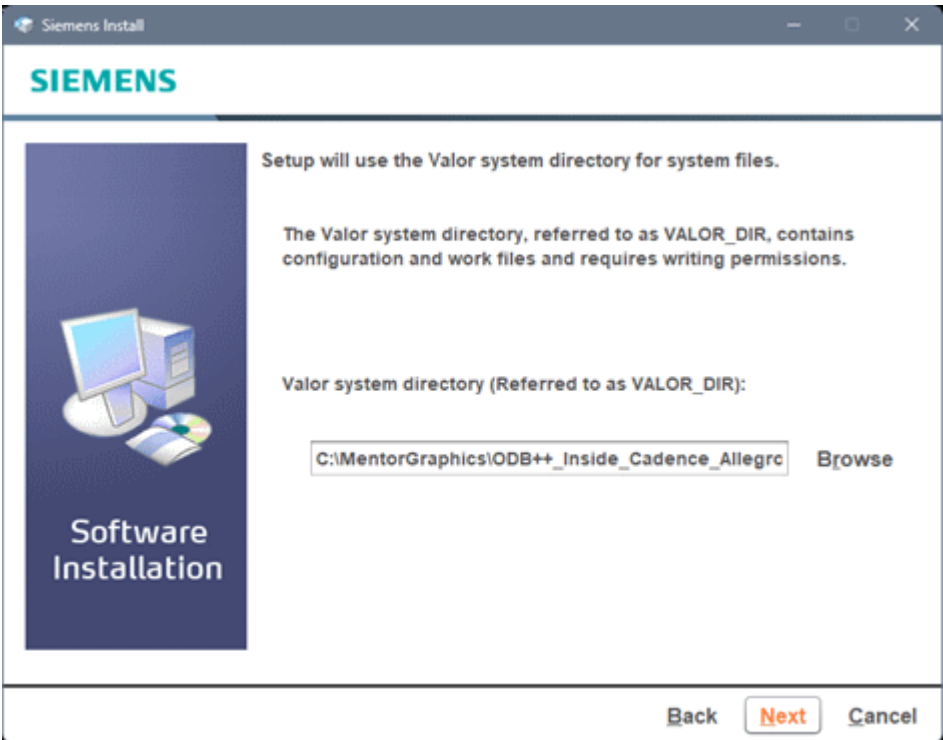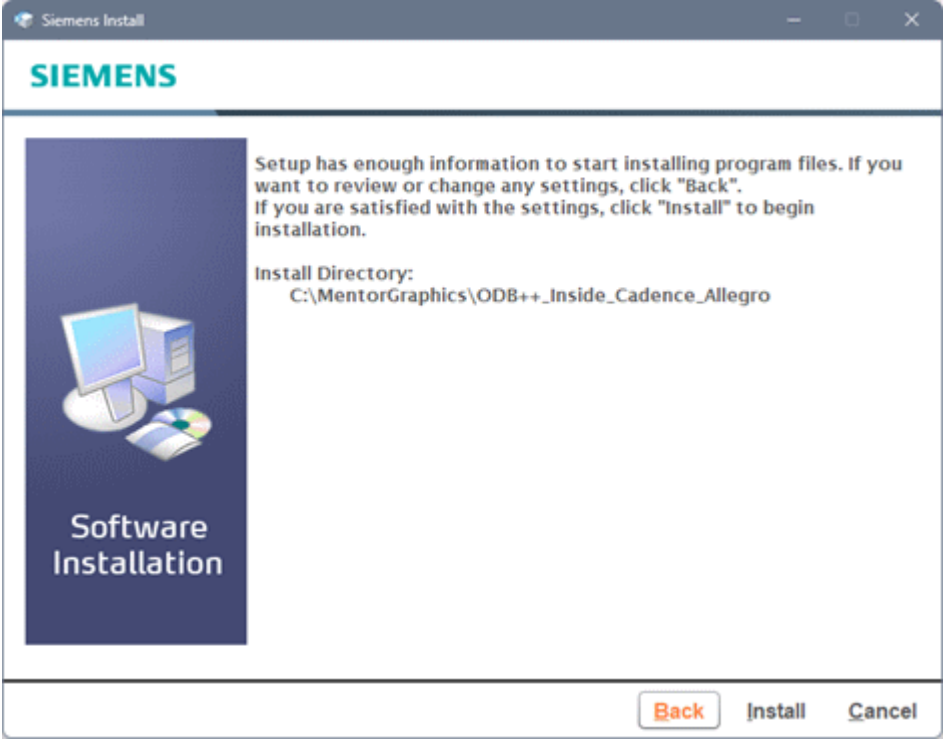
1. Log in with administrator rights.

2. Close all open applications.
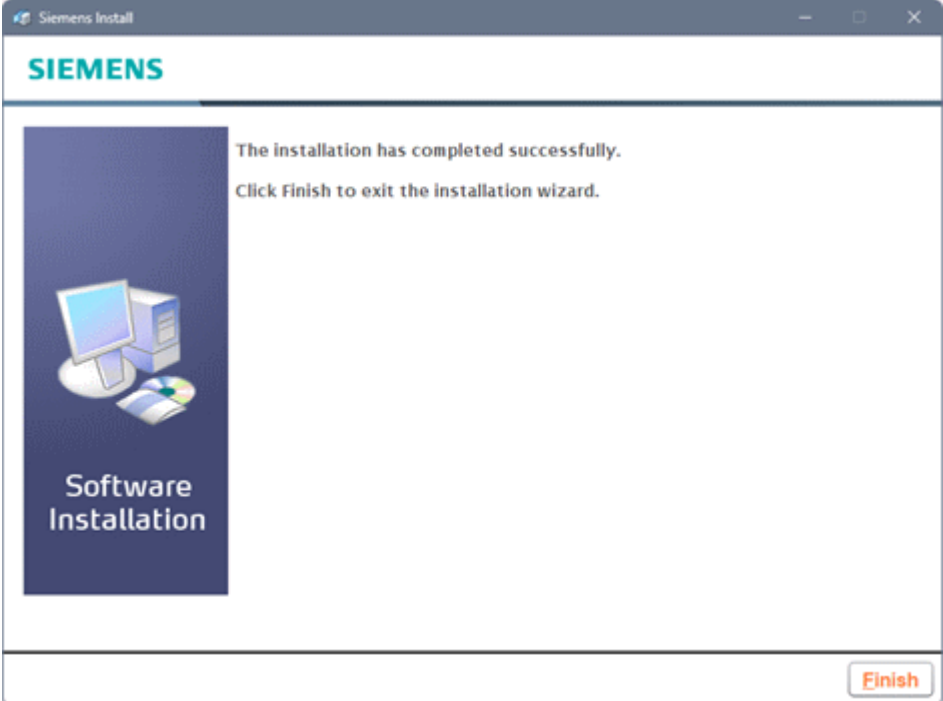
3. Extract the content of the ODB++ Inside installation package to a local disk.

4. Within the extracted content, locate and run the installer executable:

- (Windows) *ODB++_Inside_Cadence_Allegro_<ver>_Windows_64_SA_Setup.exe*

- (Linux) *ODB++_Inside_Cadence_Allegro_<ver>_Linux_64_SA_Setup.aol*

5. Provide the information requested by the wizard:

Page	Description
Welcome page	Read the warning and click **Next**.
Copyright and Legal Notices	Carefully read and click **Agree** to accept the license agreement.

Page	Description
ODB++ Inside Installation Directory	Specify the location where the ODB++ Inside application will be installed. **Note:** The environment variable ALLEGRO_BRD2ODB will point to the *brd2odb_<ver>* sub-directory inside the installation directory. On Windows, this variable is set automatically; on Linux, you must set it manually after the installation is complete. See "Installation Directory Structure" on page 23. Use the default location, or browse to a different location, and click **Next**.

Page	Description
Valor System Directory (VALOR_DIR)	System, configuration, and work files are stored in a directory called Valor System Directory referred to as VALOR_DIR.
	This directory can be installed locally or on a central computer, in a location available for read and write access by all Allegro users.
	Use the default location or browse to a different location and click **Next**

Page	Description
Installation Ready	Check the path to the install directory. If necessary, click **Back** to review or change any settings. When satisfied, click **Install**.

Page	Description
Installation Completed	Click **Finish**.

Results

You have installed ODB++ Inside as part of Cadence Allegro. Refer to the *ODB++Design for Cadence® Allegro®* manual for instructions on exporting a design to ODB++Design and viewing the resulting ODB++ product model.

Performing a Silent Installation

The ODB++ Inside installation provides a Batch Tool that generates a script using the paths you provide. You can further customize the script for your site by adding a statement to set the VALOR_DIR environment variable, and then run the script on multiple computers running Cadence Allegro to install ODB++ Inside with the appropriate parameters.

> **Tip**
> You can configure the Batch Tool as described in the Online Help for the tool.

Prerequisites

- The installer executable is stored at a central location accessible to all computers on which batch installations will be run.

- The Siemens Programs software is installed. If not, perform an interactive ODB++ Inside installation as described in

Procedure

1. Open the Batch Tool in one of these ways:

   - From the Windows Start menu, choose **Siemens > Batch Tool**.

   - From the Windows Start menu, choose **Siemens > Siemens Install**. On the opening page of the Siemens Install wizard, choose **Tools > Batch Tool**.

2. On the Welcome to the Batch Tool page, click **Next**.
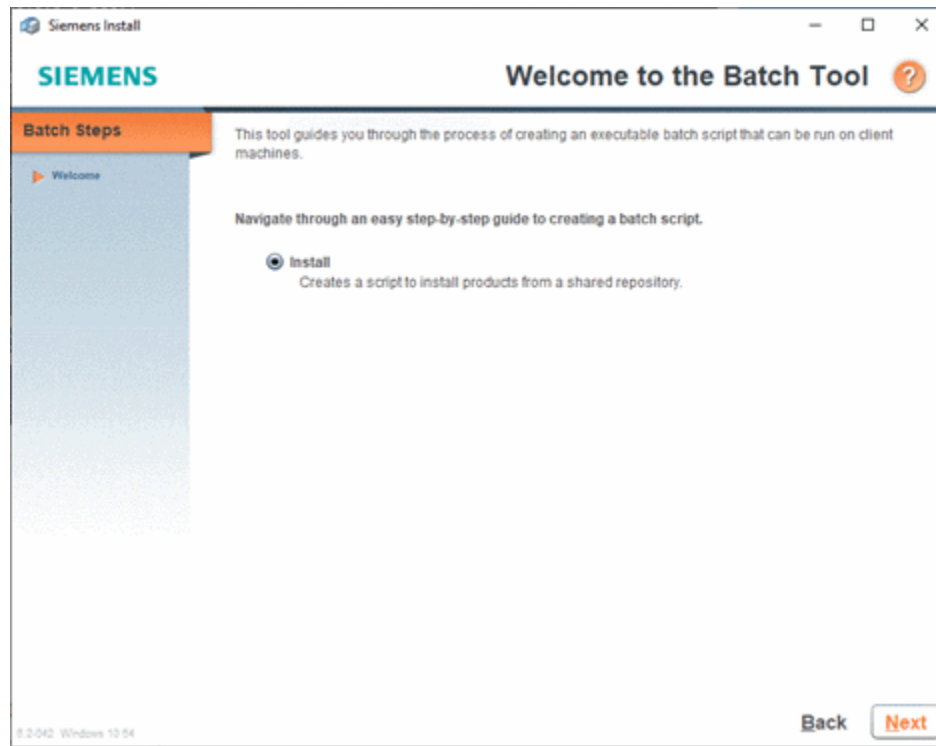
3. On the Repository Setup Overview page of the Batch Tool, click **Next**.
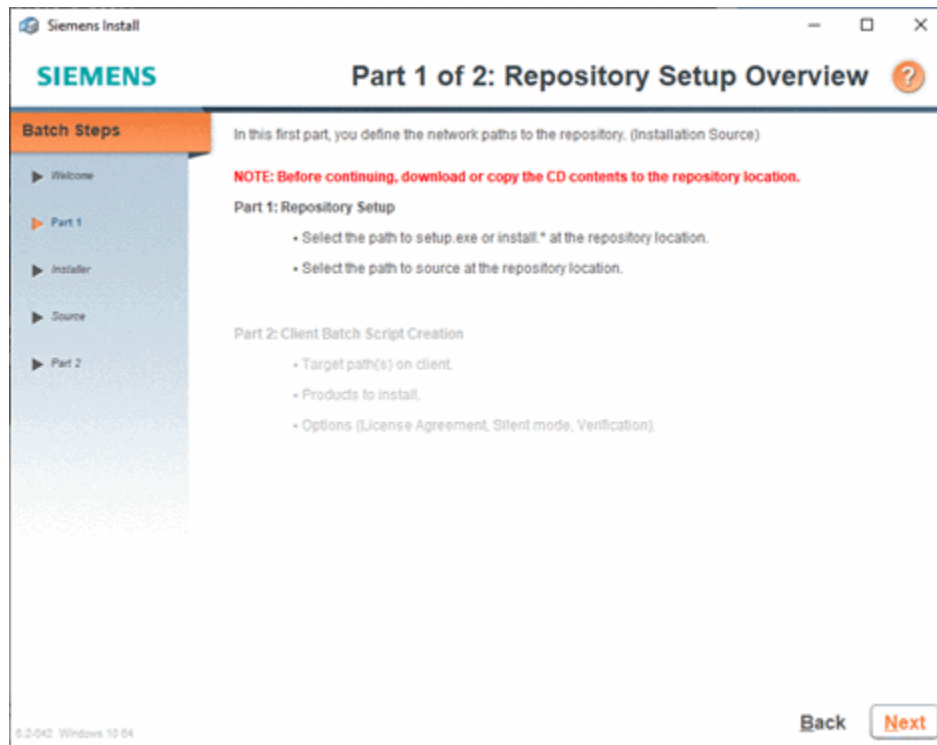
4. On the Siemens Install Program page, browse to the installer executable and click **Next**.
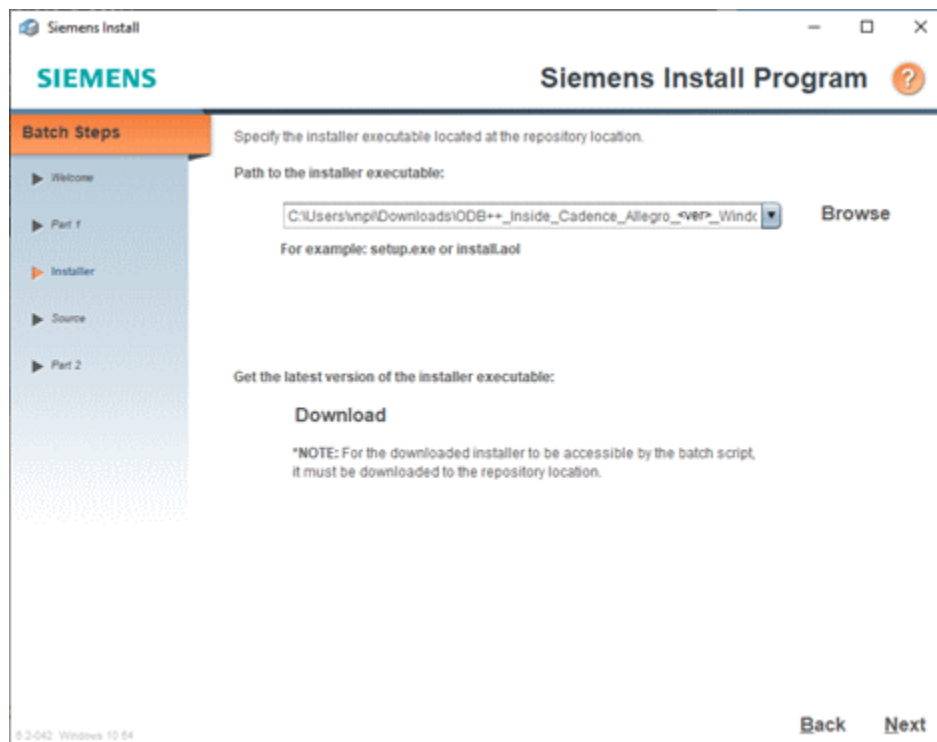
> **Note:**
> In the screenshots, the ODB++ Inside version number is represented as "*<ver>*".

5. On the Source Location page, click **Next**.
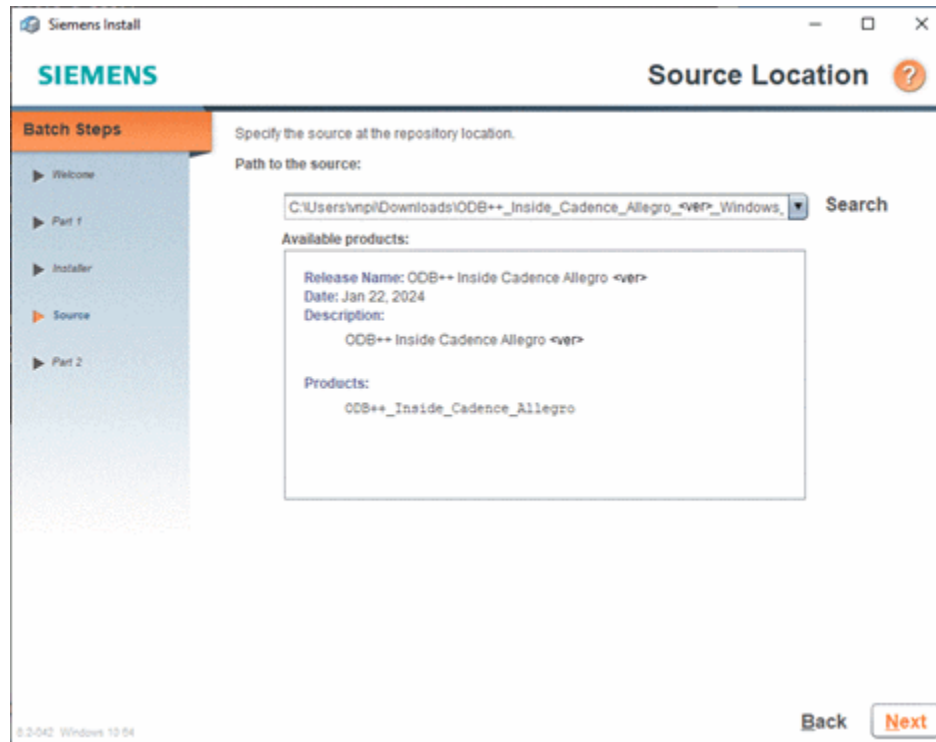
6. On the Client Batch Script Overview page, click **Next**.
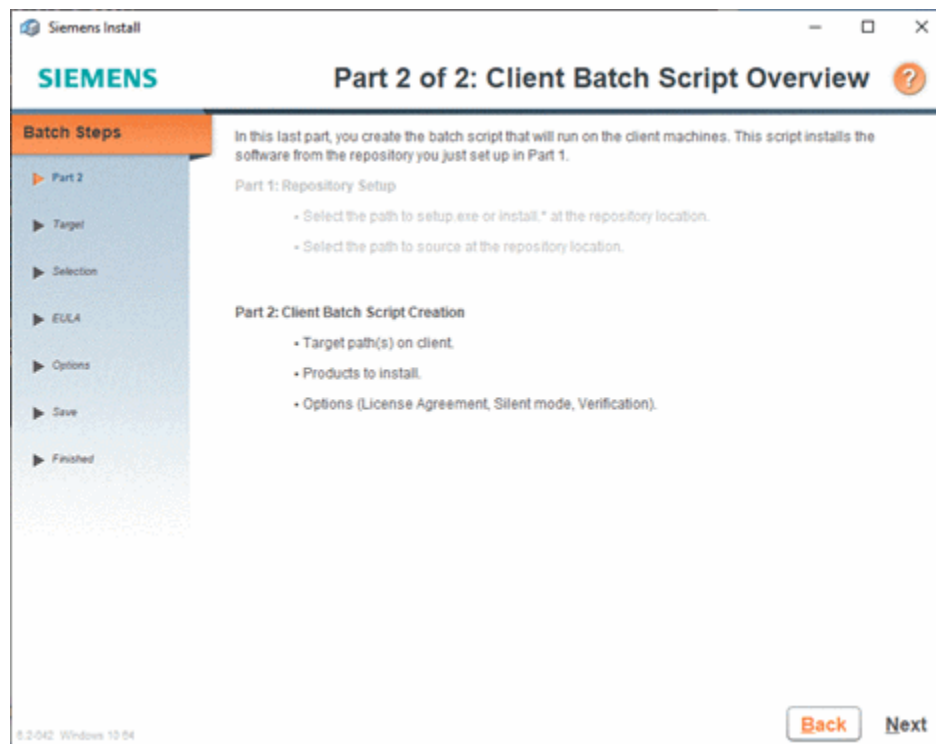
7. On the Default Target Location page, specify the location where ODB++ Inside software will be installed on the target computers, and click **Next**. This can be changed when the installation is performed.
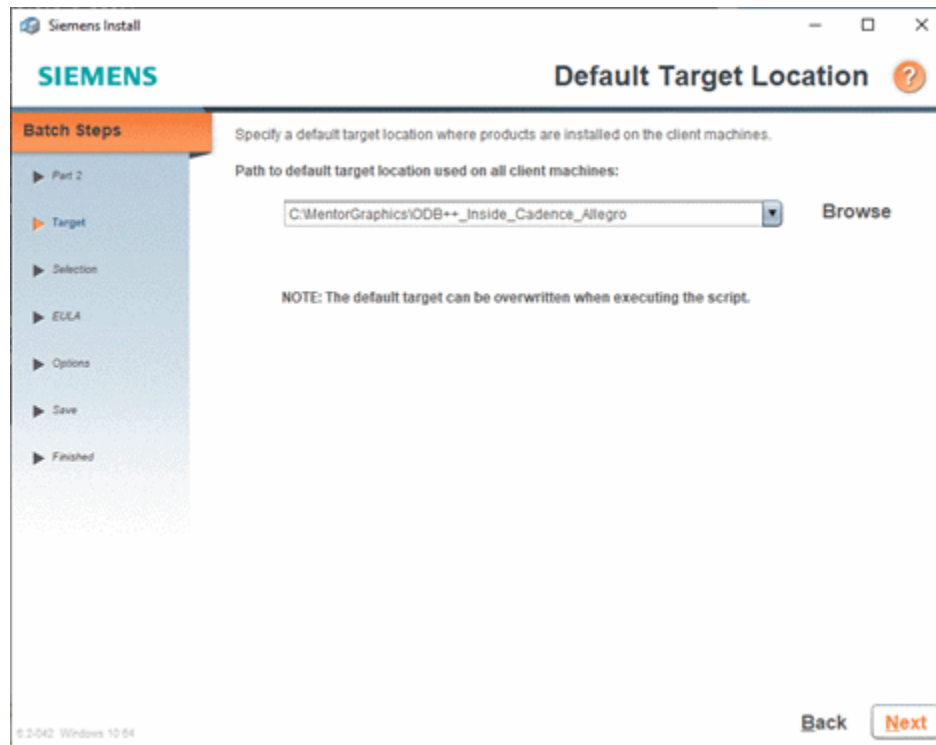
If the directory does not exist, executing the batch script creates the directory before loading the software to that location.

You can override this location when executing the batch script, by using the -tgt flag.

8. On the Product Selection page, select **ODB++_Inside_Cadence_Allegro** and click **Next**.
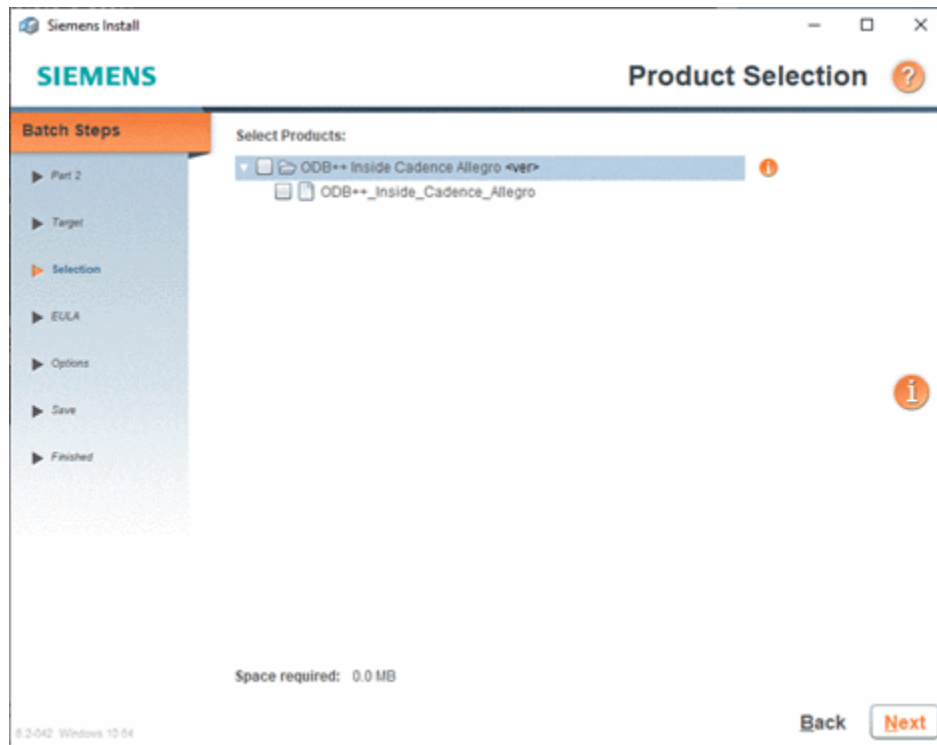
9. On the License Agreement Viewing Preference page, select the option "Agree now" and click **Next**.
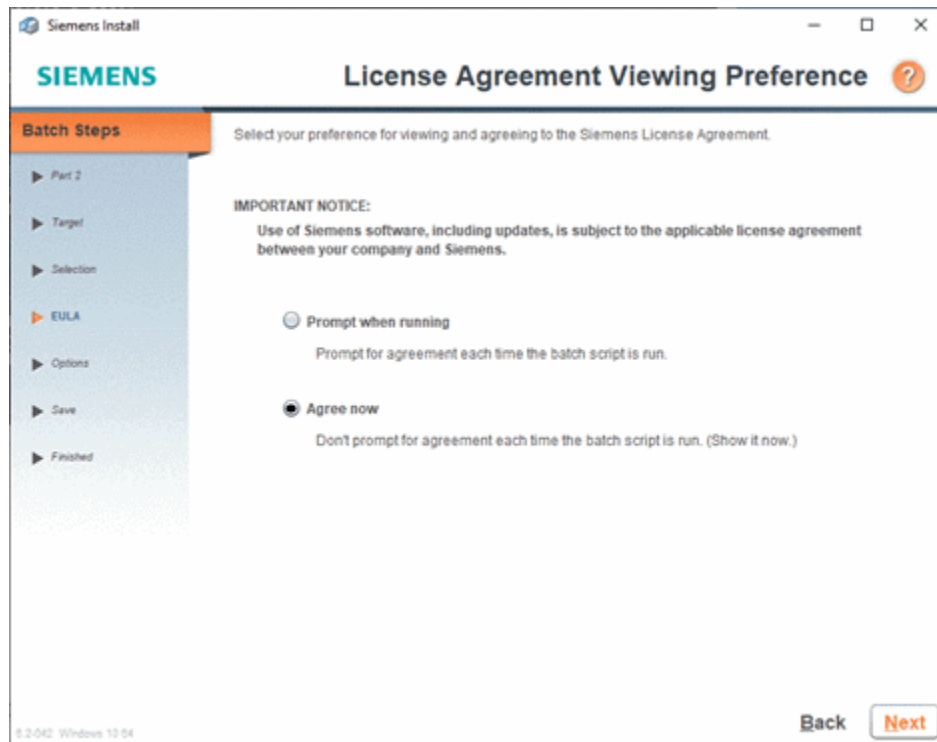
10. On the License Agreement page, click **Agree**.
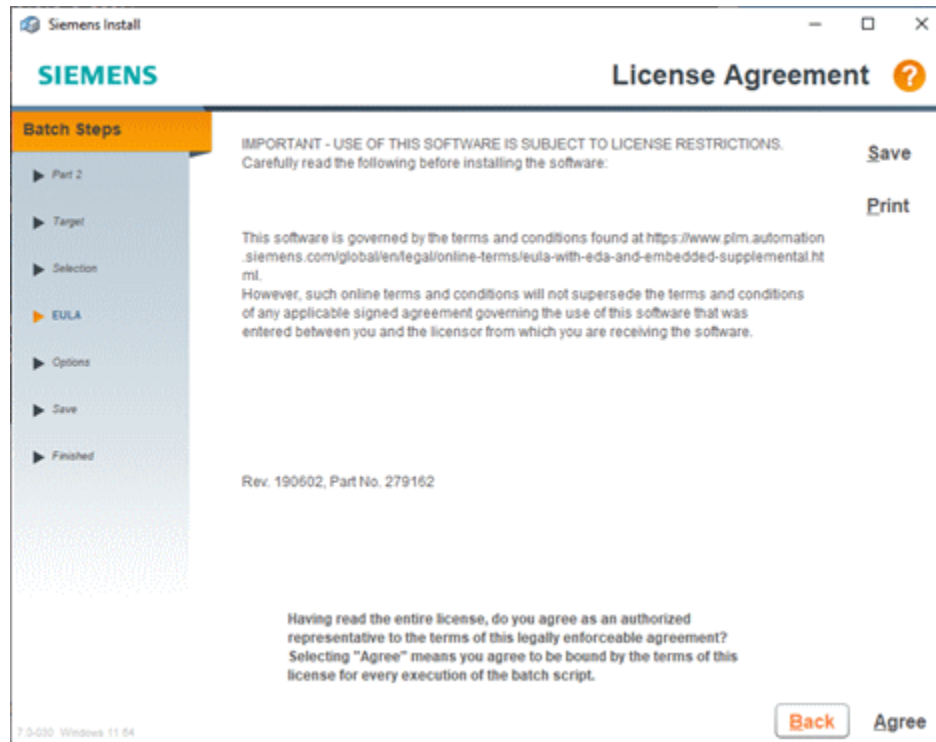
11. On the **Options** tab of the Batch Script Options page, specify optional script behavior and click **Next**.

  - **Verbose mode** — Controls whether the batch script will display detailed progress during product installation.

  - **Verify installation (takes extra time)** — Not relevant to the stand-alone ODB++ Inside installation.

  - **Copy log file to location** — Controls whether the log files from each installation will be written to a central location, so that the status of each installation can be monitored centrally. The computers must all be able to access this location. If this option is selected, the repository directory is used for log file storage by default.
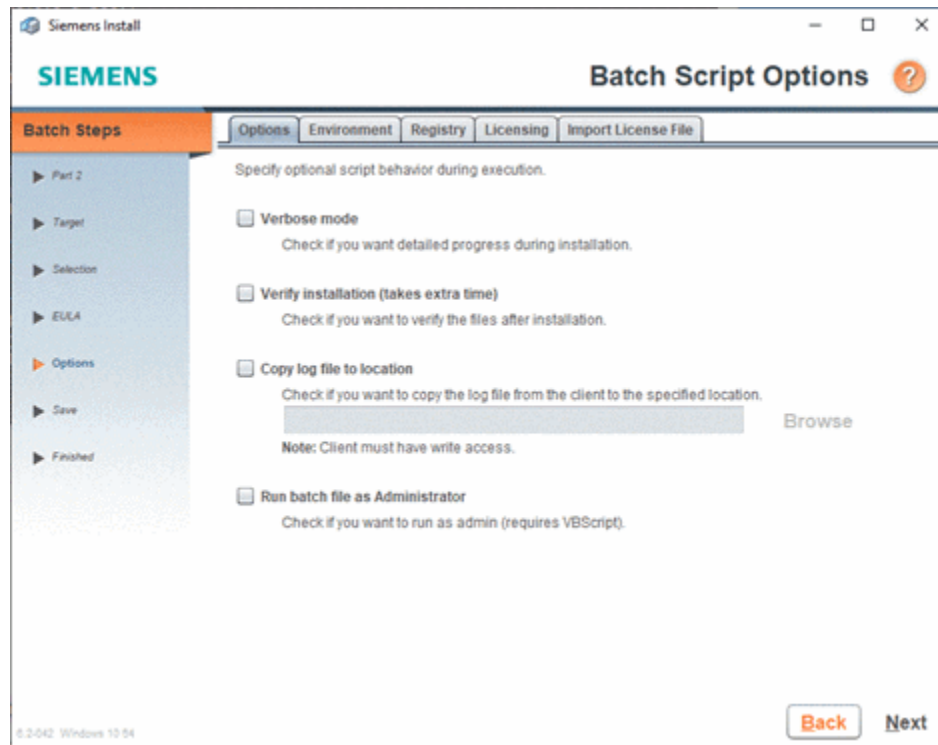
12. On the Confirm and Save page, check the information that you have selected, save the batch script, and click **Save**.

- **Selected products** — Check that the script will be created using the appropriate information.

- **Save batch script to** — Select a directory and name for the batch script.

13. On the Finished page, check the information and click **Done**.
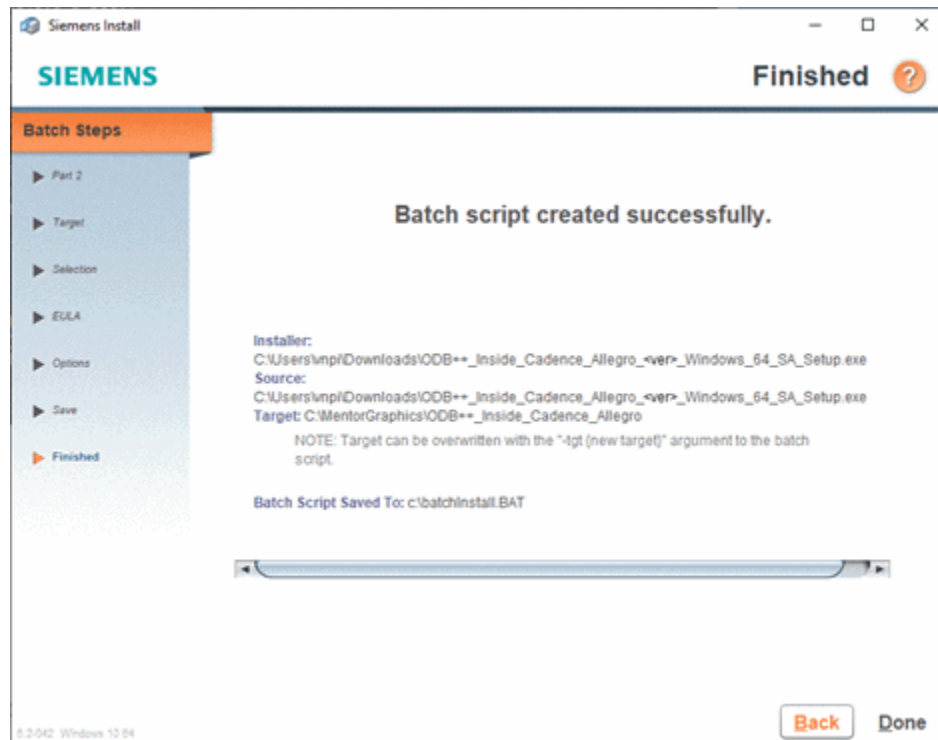
14. Browse to the batch file you have created and open it in a text editor.

15. In the PRE INSTALL section, add a statement to set the VALOR_DIR environment variable. See "Installation Directory Structure" on page 23.

> For example:

```
SET
  VALOR_DIR=C:\MentorGraphics\ODB++_Inside_Cadence_Allegro\brd2odb_dir
```

16. Save and close the batch file.

17. Run the batch file as Administrator to install ODB++ Inside on the computers that require the ability to generate and review ODB++ data.

Results

Non-critical warnings are suppressed during a batch installation. After installation completes, you can view warnings in the file *<ID>mip_history.txt*. These are the default locations for this file:

- (Windows) *C:\MentorGraphics\Install\LOGS*

- (Linux) *$VALOR_HOME/mgc/install.<vco>/LOGS*

Examples

The following is an example of a batch file with the ODB++ Inside parameters:

```
@echo off
SET LC_ALL=en_US
VER | FINDSTR /IL "5." > NUL
IF %ERRORLEVEL% EQU 0 goto Start
VER | FINDSTR /IL "6.0" > NUL
IF %ERRORLEVEL% EQU 0 goto Start
CHCP 65001
:Start
REM ************************************************************************************
REM *** This file is provided as-is.  Modifications to this file are at your own risk.  ***
REM *** The End User License Agreement was accepted during the creation of this script  ***
REM *** by the user: m3nrca
REM ************************************************************************************
REM Generated by MIP v7.0-030
SET PROMPT_TARG=F
SET
 "MIPPATH=c:\users\vnpi\downloads\ODB++_Inside_Cadence_Allegro_<ver>_windows_64_sa_setup.exe"
VER | FINDSTR /IL "6." > NUL
IF %ERRORLEVEL% NEQ 0 SET
 "MIPPATH=c:\users\vnpi\downloads\ODB++_Inside_Cadence_Allegro_<ver>_windows_64_sa_setup.exe"
SET MG_INSTALL_PID=%COMPUTERNAME%-%Time::=.%%RANDOM%
SET MG_INSTALL_PID=%MG_INSTALL_PID:,=.%
SET NEWTARG=
SET NEWSRC=
SET NEWMIPLOC=
```

```
SET NEWDOCLOC=
SET MIP_PATH_ERRORS=0
SET Self=%~f0
SET TEMP=%TEMP:/=\%
SET MIPBATCMD=-batch "%Self%"
SET MIPSKIP=
SET MIPEXTRAARGS=
SET MIPTARG="C:\MentorGraphics\ODB++_Inside_Cadence_Allegro"
SET
 MIPSRC="c:\users\vnpi\downloads\ODB++_Inside_Cadence_Allegro_<ver>_Windows_64_SA_Setup.exe"
PUSHD "%~dp0"
:LOOP
IF [%1]==[] GOTO DoneArgs
IF /I [%1]==[-tgt] GOTO TARG
IF /I [%1]==[-src] GOTO SRC
IF /I [%1]==[-msiloc] GOTO MSILOC
IF /I [%1]==[-accesspath] GOTO DOCLOC
IF /I [%1]==[-batchremove] GOTO REMOVEVERIFY
IF /I [%1]==[-batchverify] GOTO REMOVEVERIFY
IF /I [%1]==[-repair] GOTO EXTRAARGS
IF /I [%1]==[-nojw] GOTO EXTRAARGS
IF /I [%1]==[-deleteUserModifiedFiles] GOTO EXTRAARGS
IF /I [%1]==[-batchall] GOTO OTHERBATCH
IF /I [%1]==[-batchlicensed] GOTO OTHERBATCH
IF /I [%1]==[-batchupdate] GOTO OTHERBATCH
echo "USAGE: %~nx0 [-tgt <target>] [-src <source>] [-msiloc <path>] [-batchremove] [-repair]"
GOTO :EOF
:TARG
SHIFT
SET NEWTARG=-tgt "%~1"
SET PROMPT_TARG=F
GOTO NEXT
:SRC
SHIFT
SET NEWSRC=-src "%~1"
GOTO NEXT
:MSILOC
SHIFT
SET NEWMIPLOC=-msiloc "%~1"
GOTO NEXT
:DOCLOC
SHIFT
SET NEWDOCLOC=-accesspath "%~1"
GOTO NEXT
:REMOVEVERIFY
SET MIPBATCMD=%1 "%Self%"
SET MIPSKIP=T
GOTO NEXT
:EXTRAARGS
SET EXTRAARGS=%EXTRAARGS% %1
GOTO NEXT
:OTHERBATCH
SET MIPBATCMD=%1 -tgt "%MIPTARG%" -src "%MIPSRC%"
```

```
GOTO NEXT
:NEXT
SHIFT
GOTO LOOP
:DoneArgs
FOR %%A IN ("%MIPPATH%") DO SET MIPFILE=%%~nxA
DIR /A-D /B "%MIPPATH%" 2>NUL | FINDSTR /I /X /C:"%MIPFILE%" >NUL 2>&1
IF ERRORLEVEL 1 echo MIPPATH of "%MIPPATH%" must exist and not be a directory.
IF NOT ERRORLEVEL 1 GOTO CheckTarg
SET /A MIP_PATH_ERRORS+=1
IF NOT %MIP_PATH_ERRORS% lss 10 GOTO :EOF
SET /P MIPPATH=Enter path to SETUP.EXE (or 'x' to quit):
IF [%MIPPATH%]==[x] GOTO :EOF
GOTO DoneArgs
:CheckTarg
IF NOT ["%PROMPT_TARG%"]==["T"] GOTO MakeTarg
SET /P ENTERED_TARG=Enter a Target Directory:
SET NEWTARG=-tgt "%ENTERED_TARG%"
:MakeTarg
SET ansfile="%TEMP%.\~ans.tmp"
echo d> %ansfile%
echo yes>> %ansfile%
SET ansfile=-%ansfile:~-8,-1%
IF ["%MIPSKIP%"]==["T"] GOTO MIPINSTALL
REM *** ADD YOUR OWN PRE INSTALL COMMANDS BELOW HERE ***

SET VALOR_DIR=C:\MentorGraphics\ODB++_Inside_Cadence_Allegro\brd2odb_dir

REM *** ADD YOUR OWN PRE INSTALL COMMANDS ABOVE HERE ***
:MIPINSTALL
START "" /WAIT "%MIPPATH%" -noexecute %NEWMIPLOC%
IF NOT ["%ProgramFiles(x86)%"]==[""] FOR /f "skip=2 tokens=2,*"  %%a IN
 ('%WINDIR%\SysWOW64\REG QUERY HKLM\SOFTWARE\Siemens\SiemensJI /v InstPath') DO SET
 INST_PATH=%%~b
IF ["%ProgramFiles(x86)%"]==[""] FOR /f "skip=2 tokens=2,*"  %%a IN ('REG QUERY
 HKLM\SOFTWARE\Siemens\SiemensJI /v InstPath') DO SET INST_PATH=%%~b
IF ["%MIPSKIP%"]==["T"] GOTO RUNMIP
REM
REM
REM
REM
REM
:RUNMIP
"%INST_PATH%\Install.exe" -silent %MIPBATCMD% %NEWTARG% %NEWSRC% %NEWDOCLOC% %EXTRAARGS%
 %ansfile%
SET INSTALLEXIT=%ERRORLEVEL%
IF ["%MIPSKIP%"]==["T"] GOTO COPYLOG
REM
REM
:COPYLOG
REM
REM
IF ["%MIPSKIP%"]==["T"] GOTO MIPEXIT
```

```
REM *** ADD YOUR OWN POST INSTALL COMMANDS BELOW HERE ***


REM *** ADD YOUR OWN POST INSTALL COMMANDS ABOVE HERE ***
:MIPEXIT
POPD
IF %INSTALLEXIT% NEQ 0 EXIT /B %INSTALLEXIT%
GOTO :EOF

REM ##### BELOW HERE IS XML DATA #####

<batchFile>
 <source value="c:\users\vnpi\downloads\brd2odb_<ver>_Windows_64_SA_Setup.exe"/>
 <target value="C:\MentorGraphics\ODB++_Inside_Cadence_Allegro"/>
 <installType value="all"/>
 <platform value="Windows 64-bit"/>
 <release name="ODB Inside Cadence Allegro <ver>">
  <product name="ODB_Inside_Cadence_Allegro" productroot="brd2odb_<ver>"/>
 </release>
</batchFile>
```

Installation Directory Structure

The ODB++ Inside installation results in files stored in several directories.

- **ODB++ Inside Installation Directory** — The location where ODB++ Inside Application Directories for each version are installed.

  Default path used by interactive installation:

  - (Windows) *C:\MentorGraphics\ODB++_Inside_Cadence_Allegro*

  - (Linux) */usr/local/BRD2ODB*

- **ODB++ Inside Application Directory** — Contains ODB++ Inside executables and other installed files, and cannot be altered by the user. The directory naming is version-specific.

  The environment variable ALLEGRO_BRD2ODB points to this location.

  Note:
  On Linux, use the setenv command to set ALLEGRO_BRD2ODB:
  setenv ALLEGRO_BRD2ODB *<path>*

  Default path used by interactive installation:

  - (Windows) *<ODB++ Inside Installation Directory>\brd2odb_<ver>*

  - (Linux) *BRD2ODB/brd2odb_<ver>*

A file named *env_file* resides in this directory. The file contains Valor environment variables set during installation: VALOR_DIR, VALOR_HOME, and VALOR_TMP. The paths defined in this file are not overwritten during an upgrade.

- **Valor System Directory (VALOR_DIR)** — Contains system, configuration, and work files. This directory can be installed locally or in a remote location accessible for reading and writing by all Allegro users.

  The environment variable VALOR_DIR points to this location.

  Default path used by interactive installation:

  - (Windows) *<ODB++ Inside Installation Directory>\brd2odb_dir*

  - (Linux) *BRD2ODB/brd2odb_dir*

- **Valor Home Directory (VALOR_HOME)** — Once the user starts working with ODB++ Inside, a directory named *.genesis* is created under VALOR_HOME to store user-level configuration files.

  The environment variable VALOR_HOME points to this location.

  Default path:

  - (Windows) *<ODB++ Inside Installation Directory>\brd2odb_dir*

  - (Linux) *BRD2ODB/brd2odb_dir*

- **Valor Temporary Directory (VALOR_TMP)** — The directory where the system creates volatile, temporary files.

  The environment variable VALOR_TMP points to this location.

  Default path used by interactive installation:

  - (Windows) *<ODB++ Inside Installation Directory>\brd2odb_dir\tmp*

  - (Linux) *BRD2ODB/brd2odb_dir/tmp*

Troubleshooting the ODB++ Inside Installation

These issues might be encountered during or after ODB++ Inside installation.

Issue	Explanation
TCP/IP errors in stand-alone mode (Windows only)	ODB++ Inside requires that TCP/IP be installed even on stand-alone computers. Make sure that TCP/IP networking is installed, and that there is a network adapter for TCP/IP. • If TCP/IP is not installed, install it. • If no network adapter is installed, install one. • If the computer has no network card, install MS Loopback adapter.
File Not Found when loading the system	If the system does not load, check that the QT shared library file is available at the appropriate location: • (Windows) *%ALLEGRO_BRD2ODB%\nv\deps\valor_qt_514* • (Linux) *BRD2ODB/brd2odb_<ver>/misc/deps/valor_qt_514*
Sort and find commands fail when run from scripts (Windows)	The sort and find commands are built into Windows in */winnt/system32*. If they fail, perform one of these actions: • Put the string *%ALLEGRO_BRD2ODB%\nv\bin* in your path before *\winnt\system32* • Alias sort to *%ALLEGRO_BRD2ODB%\nv\bin\sort* in startup scripts. Alias find to *%ALLEGRO_BRD2ODB%\nv\bin\find* in startup scripts.
ODB++ Inside cannot be run from a remote machine (Linux only)	On the machine where the software is installed, check the paths defined in the environment variables in the *BRD2ODB/brd2odb_<ver>/env_file* file: if these are not valid for the machine where the software is to be run, edit *env_file* appropriately.