

SIMULIA Abaqus Learning Edition

Installation Guide



3DEXPERIENCE®

Product Features And Limitations

- The Abaqus Learning Edition consists of Abaqus/Standard, Abaqus/Explicit, and Abaqus/CAE.
- Full HTML documentation is included.
- The maximum model size is limited to 1000 nodes for structural analysis and postprocessing.
- Features requiring compilers are not available (user subroutines, Abaqus make, C++ ODB API).
- Parallel execution is not available.
- Add-on products are not available.
- Abaqus Learning Edition model databases are compatible with academically licensed but not with commercially licensed Abaqus releases.

Before You Begin:

1. Make sure you have Windows administrator privileges, as this is required for the installation.
2. Only 64-bit Windows operating systems are allowed, not 32-bit Windows. If you are unsure, open a command prompt window and type “systeminfo” in the window. If the “System type” field says “X86-based PC”, you have a 32-bit OS. If it says “X64-based PC”, you have a 64-bit OS.
3. Minimum supported operating systems: Windows 10
4. The installation will require 10.5 GB of disk space.
5. You must have Microsoft Internet Explorer 11.0.11 (minimum) installed on your computer; it is needed by the installer.
6. The minimum required Java version is Java Oracle JDK 11.0.8 or AdoptOpenJDK-OpenJ9 JRE 11.0.8 (or its IBM Semeru successor) but it is recommended to install the latest Update of Java 11.

The following are the minimal supported versions that can be used with the SIMULIA User Assistance (documentation):

Web browsers:

- Firefox x ESR, with x>60
- Google Chrome
- Microsoft Edge

Java:

- Java Oracle JDK 11.0.8 or AdoptOpenJDK-OpenJ9 JRE 11.0.8 (or its IBM Semeru successor)

The Abaqus Learning Edition installation consists of 3 basic sections:

- a) SIMULIA User Assistance (Documentation) Installation (3 GB disk space)
- b) Abaqus Product Installation (7.5 GB disk space)
- c) Abaqus Installation Verification

Detailed steps for all sections are included below.

Step 1

Extract the downloaded media .zip file using 7-Zip into a folder/directory of your choice.

Note: This path must be less than 60 characters, for example: C:\downloads

This download location is different from the folder/directory where the products will be installed (and may optionally be deleted once installation is complete).

It is recommended that you use the free 7-Zip utility (V4.57 or higher) which handles the zip format.

If you do not have 7-Zip, download the latest version at <http://www.7-zip.org>.

Step 2

Run the following executable from the extracted media directory to verify the integrity of the extracted media:

```
C:\downloads\AM_SIM_Abaqus_Learning.Windows64\1\0Data\intel_a\DSYInsMediaCheck.exe
```

Step 3

Double-click the `setup.exe` executable in the extracted media to begin the installation process:

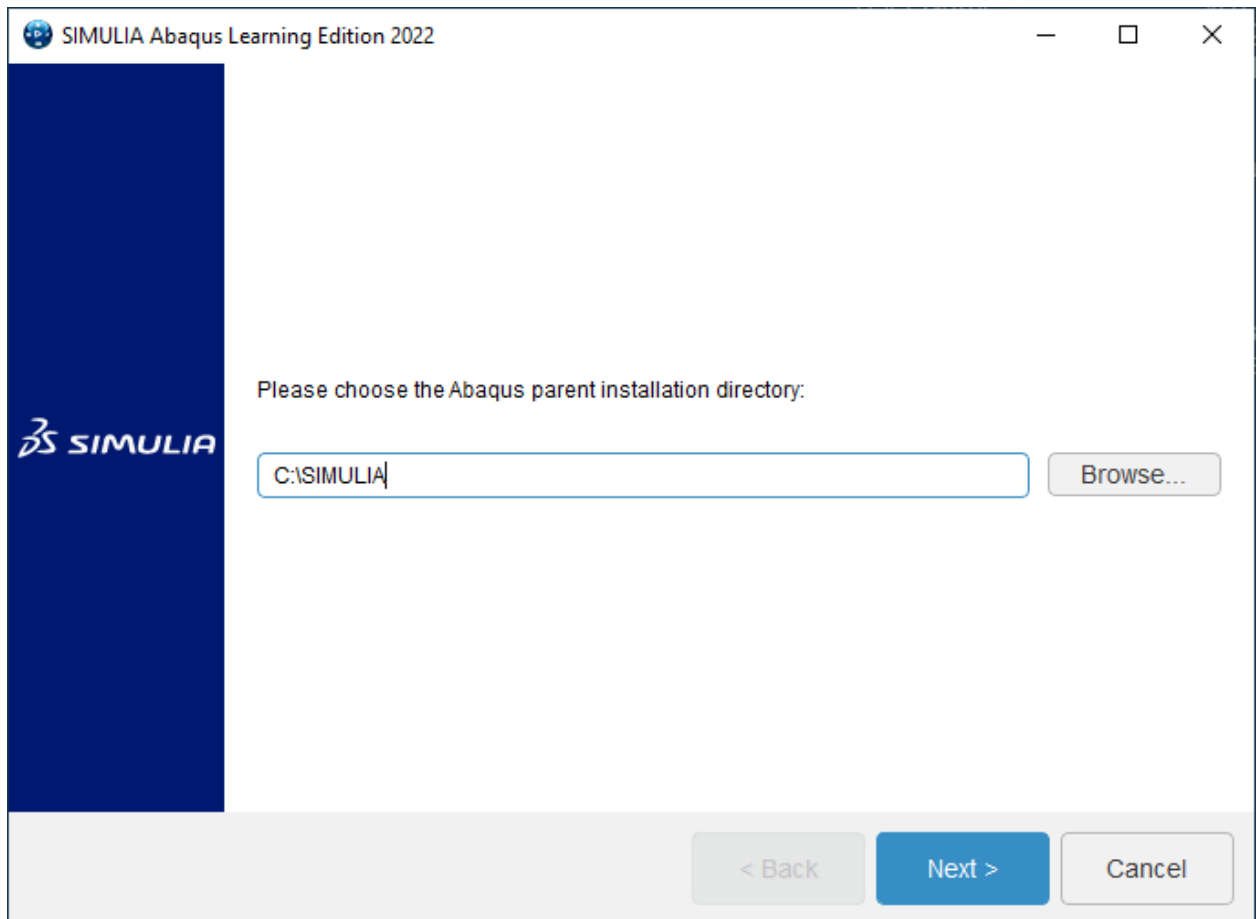
```
C:\downloads\AM_SIM_Abaqus_Learning.Windows64\1\SIMULIA_Abaqus_Learning.Windows64\setup.exe
```

Step 4

You are asked to provide an installation directory.

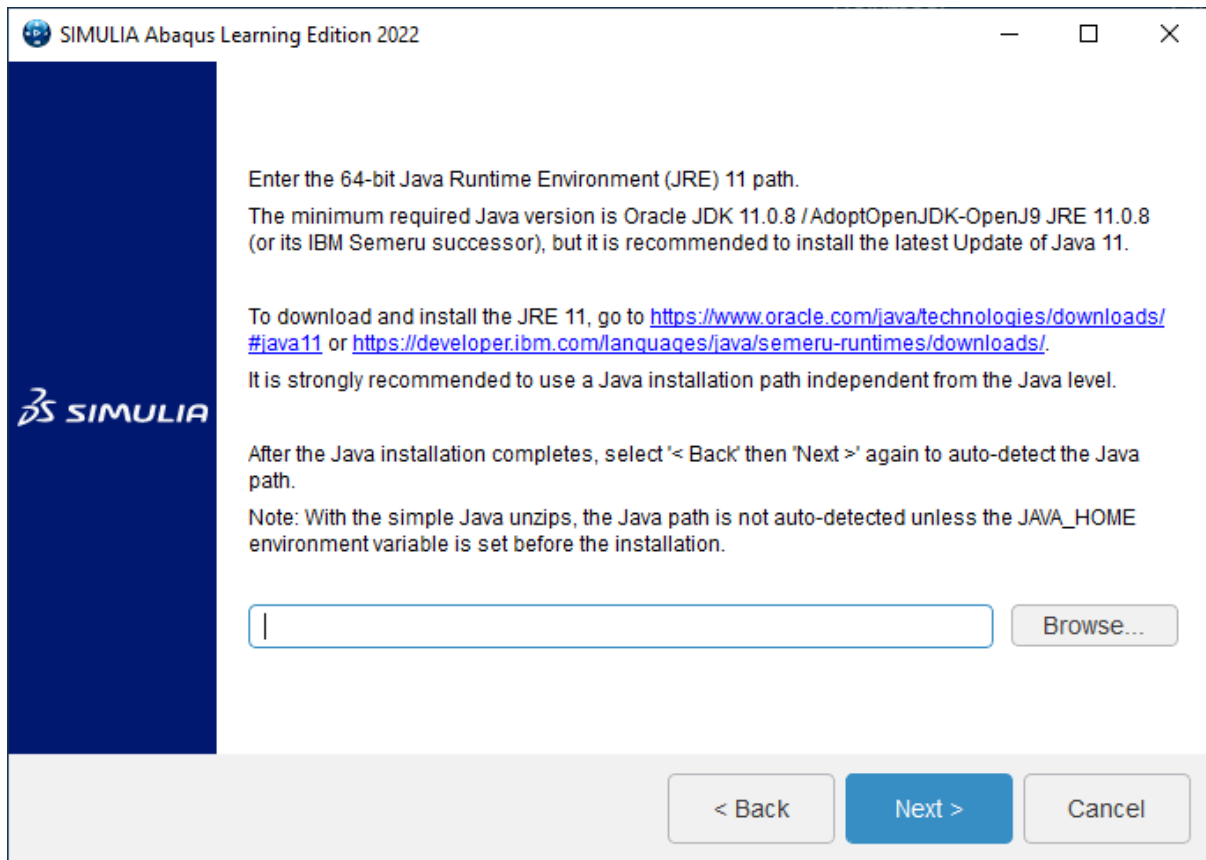
NOTE: This location is **different** from extracted media folder.

Choose your installation directory and click **Next**.



Step 5

Choose the Java Runtime Environment (JRE) path then click **Next**.



The image shows a screenshot of the SIMULIA Abaqus Learning Edition 2022 installation window. The window has a title bar with the SIMULIA logo and the text "SIMULIA Abaqus Learning Edition 2022". On the left side, there is a dark blue vertical bar with the SIMULIA logo. The main content area is white and contains the following text:

Enter the 64-bit Java Runtime Environment (JRE) 11 path.

The minimum required Java version is Oracle JDK 11.0.8 / AdoptOpenJDK-OpenJ9 JRE 11.0.8 (or its IBM Semeru successor), but it is recommended to install the latest Update of Java 11.

To download and install the JRE 11, go to <https://www.oracle.com/java/technologies/downloads/#java11> or <https://developer.ibm.com/languages/java/semeru-runtimes/downloads/>.

It is strongly recommended to use a Java installation path independent from the Java level.

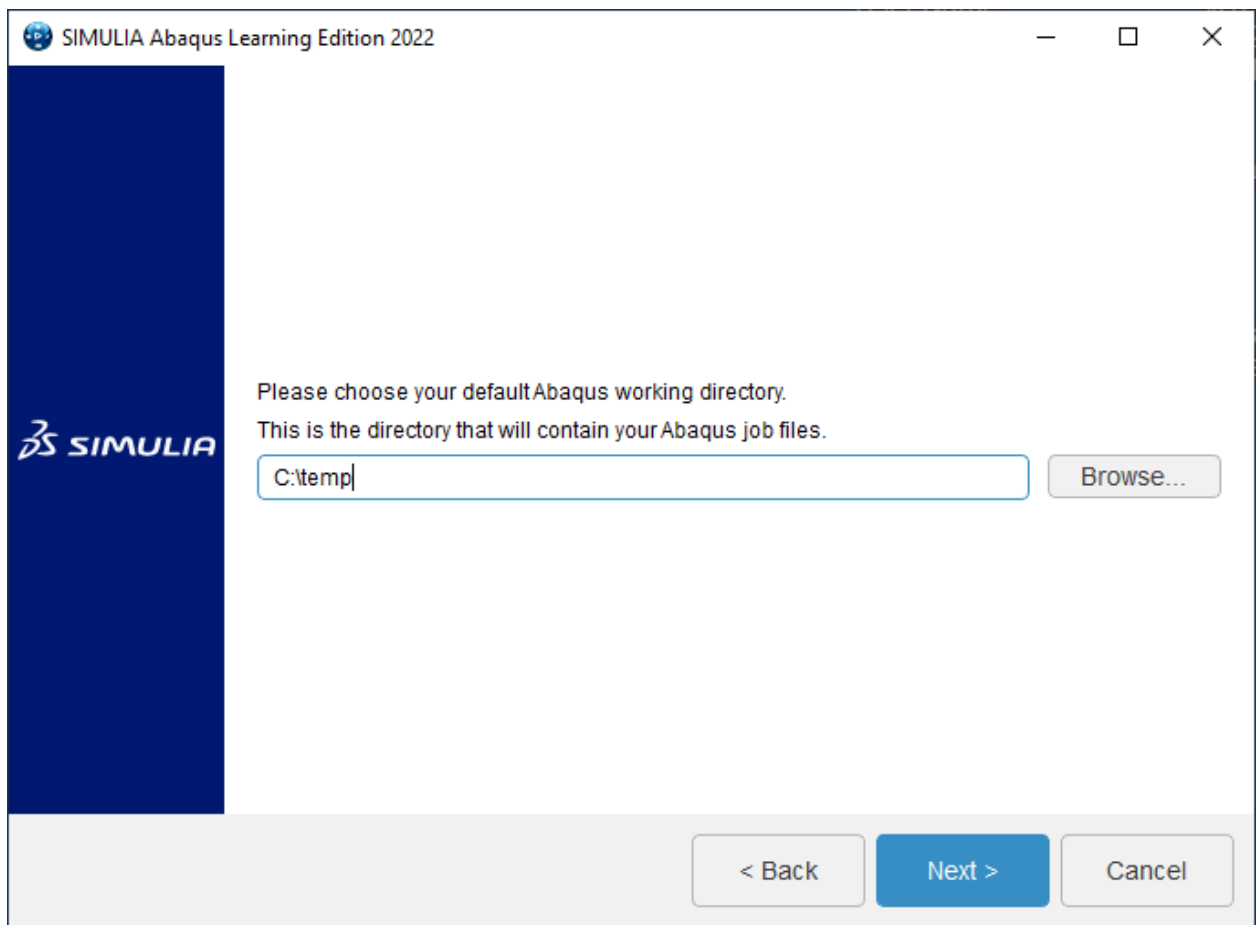
After the Java installation completes, select '< Back' then 'Next >' again to auto-detect the Java path.

Note: With the simple Java unzips, the Java path is not auto-detected unless the JAVA_HOME environment variable is set before the installation.

Below the text, there is a text input field with a cursor inside, and a "Browse..." button to its right. At the bottom of the window, there are three buttons: "< Back", "Next >" (highlighted in blue), and "Cancel".

Step 6

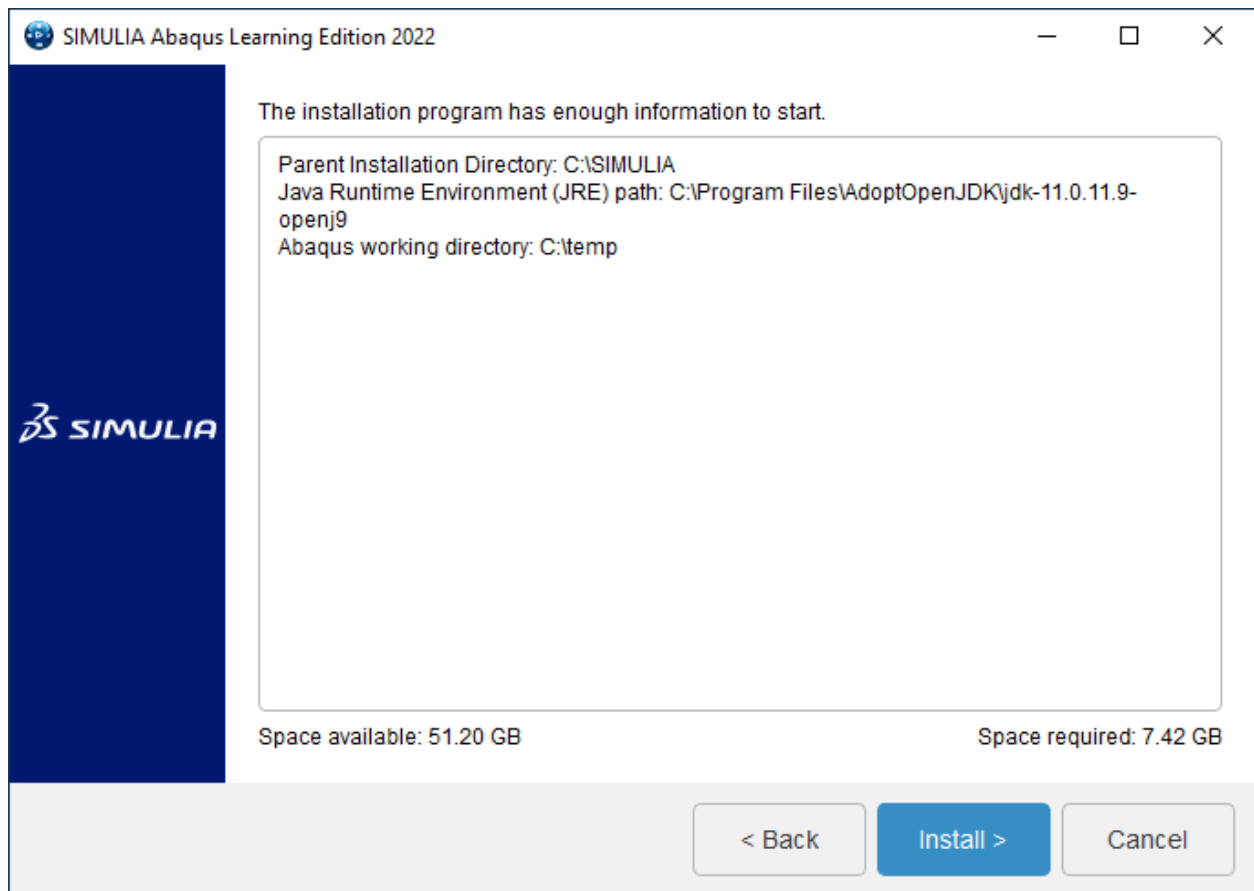
Choose the location for your Abaqus job files and click **Next**.



The image shows a Windows-style installation window titled "SIMULIA Abaqus Learning Edition 2022". On the left is a dark blue vertical bar with the "SIMULIA" logo. The main area has a light gray background with the text: "Please choose your default Abaqus working directory. This is the directory that will contain your Abaqus job files." Below this text is a text input field containing "C:\temp" and a "Browse..." button to its right. At the bottom right are three buttons: "< Back", "Next >" (highlighted in blue), and "Cancel".

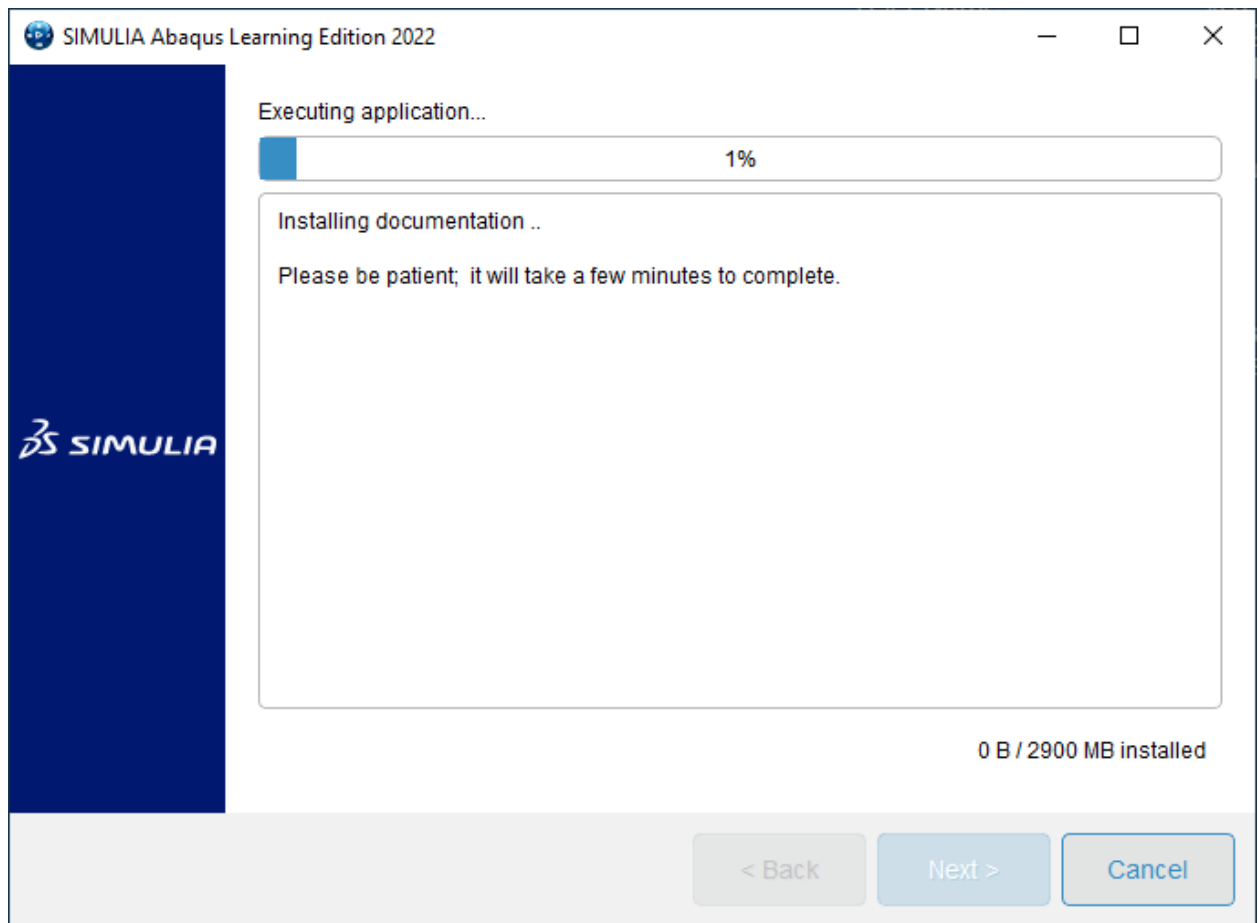
Step 7

Review the information in the pre-installation summary. Click **Install** when you are ready to proceed.



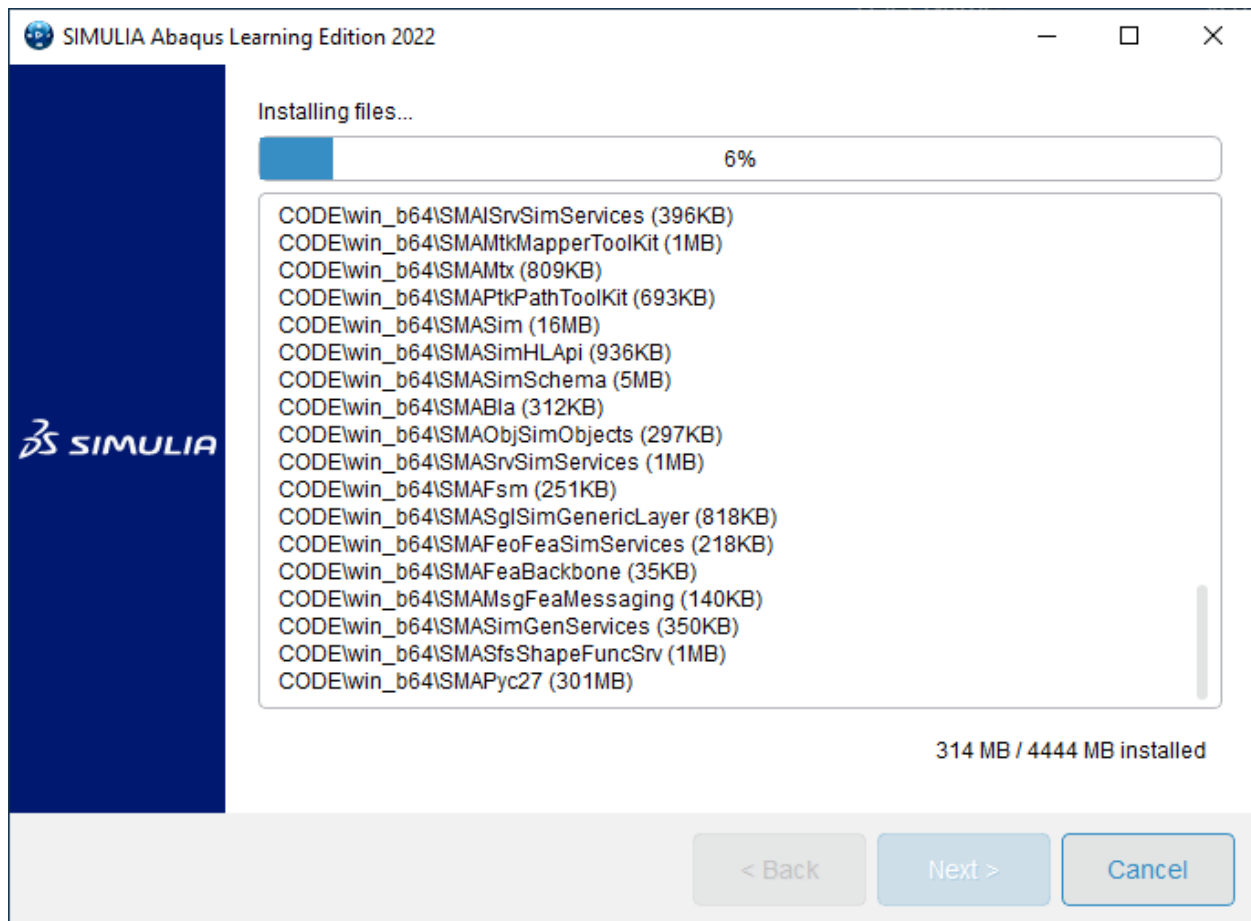
Step 8

First, the Abaqus Learning Edition Documentation is installed. This process may take up to 30 minutes to complete.



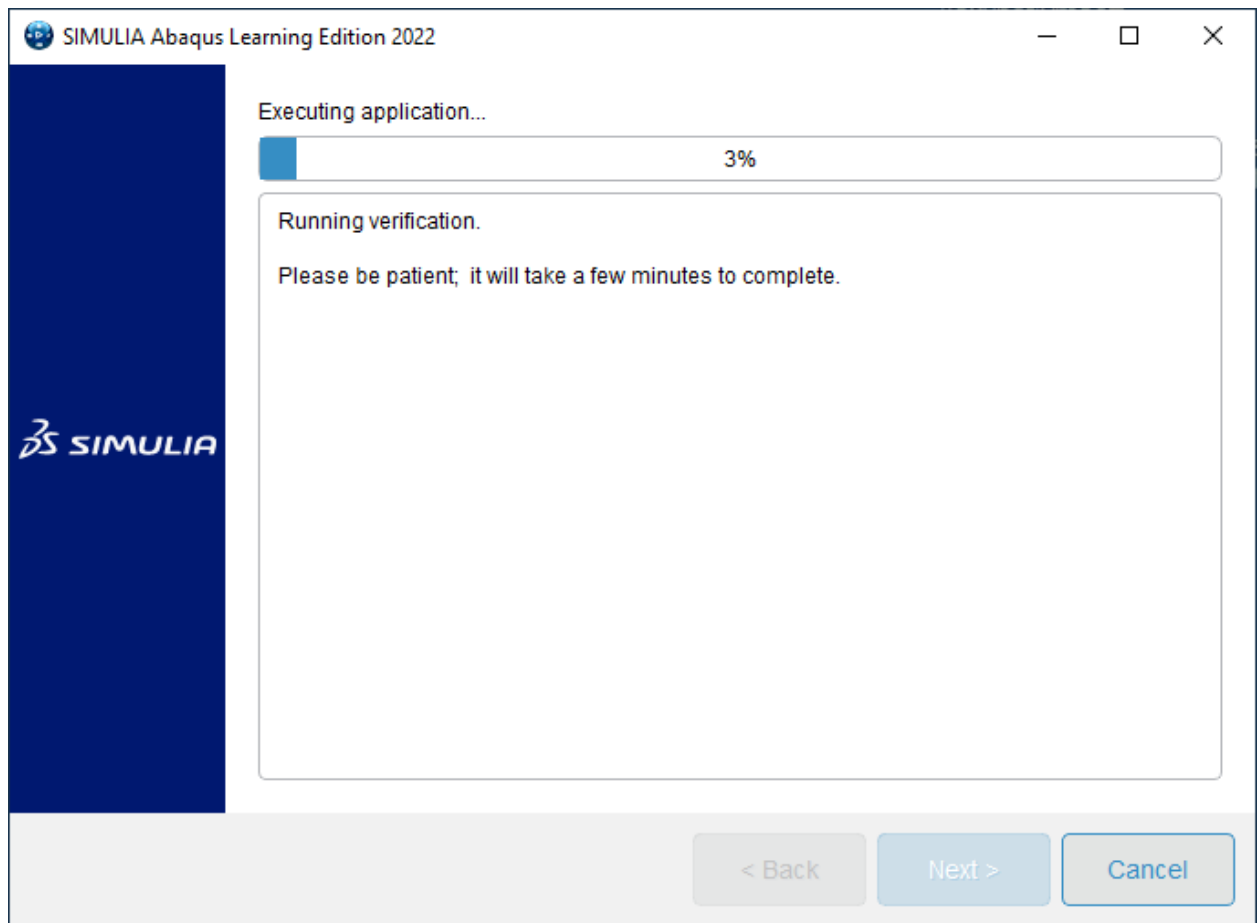
Step 9

After the documentation installation completes the Abaqus Learning Edition product installation will start.



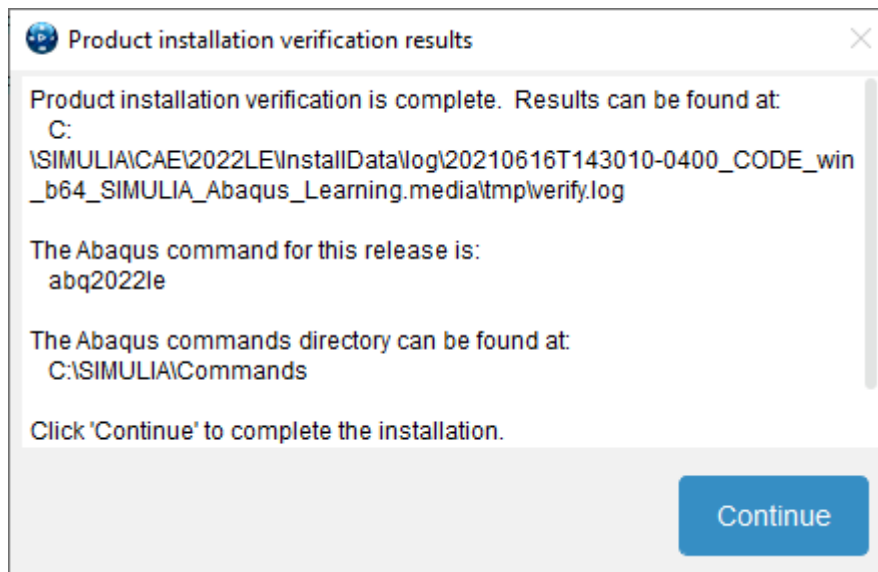
Step 10

Once the Abaqus product installation has completed, the product verification begins automatically. This tests the integrity of the installation.



Step 11

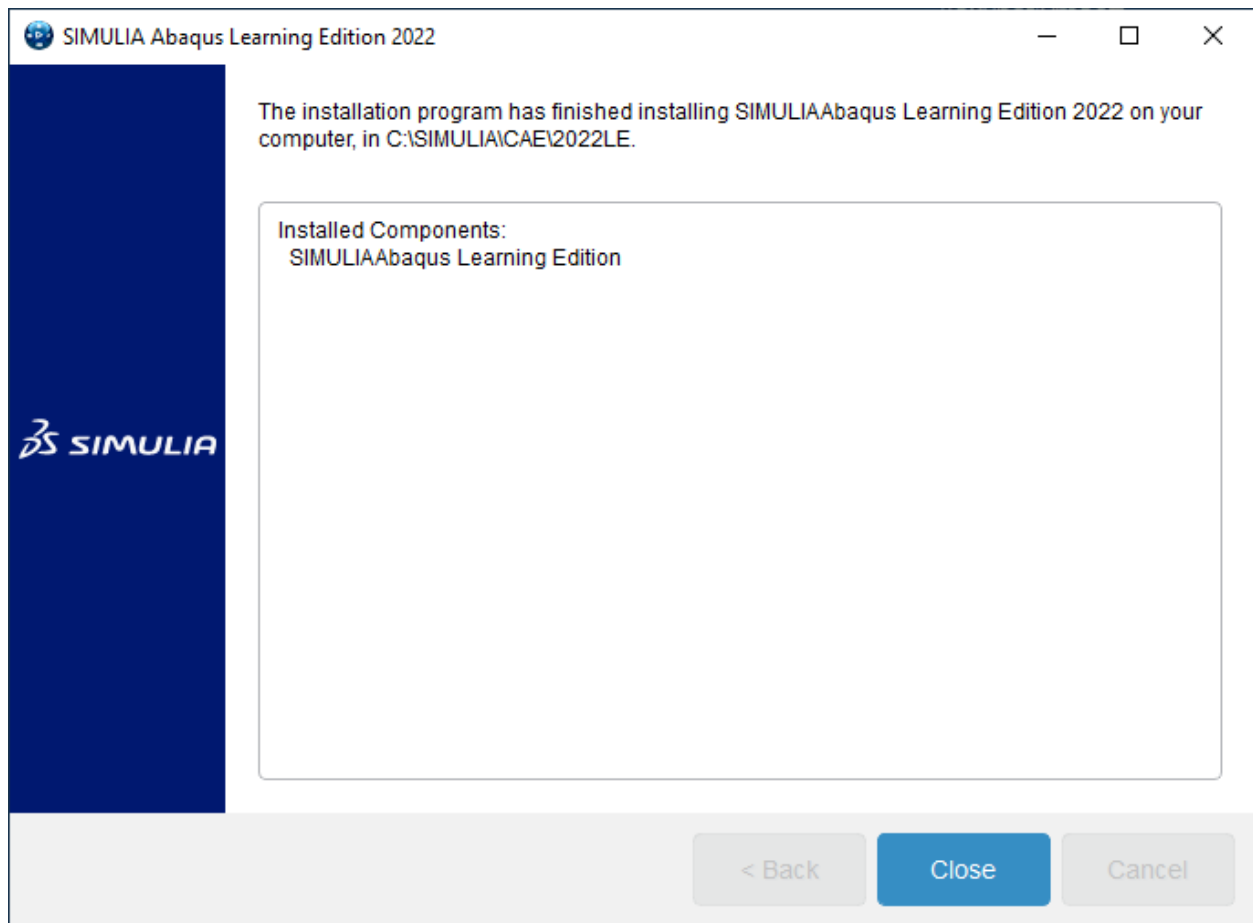
After verification completes, a panel is displayed giving you the path to where the verification results are located and information about launching the Abaqus Learning Edition software.



Open the `verify.log` file specified in the panel for additional information and troubleshooting.

Step 12

After clicking **Continue** the final screen will appear. Clicking **Close** will finish the installation and exit the window.



Execute the newly installed Abaqus Learning Edition:

From the icons in the **Apps** screen under section **Dassault Systemes SIMULIA Abaqus Learning Edition 2022**

To Uninstall:

Right click on the Start Menu icon, select **Programs and Features**

1. Right mouse click on the entry '**Dassault Systemes SIMULIA Abaqus Learning Edition 2022**' and select 'Uninstall'
2. Right mouse click on the entry '**Dassault Systemes Documentation SIMULIA Abaqus Learning Edition 2022**' and select 'Uninstall'

Known Issues:

- Some User Assistance (documentation) contains mathematical notation written in the MathML markup language. To render this notation in HTML output, the Open Source MathJax javascript package is used. The fonts that MathJax normally uses are webfonts, included with the documentation and downloadable by MathJax as it performs the rendering.

If using **Mozilla Firefox** for your browser to use the User Assistance, the math may display as a *[Math Processing Error]*. If that is the case, you will need to install the MathJax TeX Open Type fonts on the local computer. Installing the appropriate fonts is straightforward. The fonts are the Open Type MathJax TeX fonts found in:

<Parent Installation

directory>/[Documentation/2022LE/English/MathJax/fonts/HTML-CSS/TeX/otf](#)

where *Parent Installation directory* is the directory you specified during installation in which the documentation has been installed.

With appropriate user privileges (e.g., by running as "Administrator"), the files should be copied to one of the computer's font directories and installed as required by the operating system.

For example, on Windows the font directory is [C:\Windows\Fonts](#) and to install any or all of the fonts, just right-click a selection and choose **Install**.

- If you installed MathJax fonts for a previous release and you are having math display issues, you may need to update these fonts. Even if the fonts were originally installed to solve a problem with Firefox, you may encounter math display issues in other browsers if you are not using the newer fonts.

For example, check the equation display on the MathJax homepage (<https://www.mathjax.org>) in your browser. If 2π bumps into the fraction bar, you will need to reinstall the fonts as described above.

- Due to a CORS feature introduced on Firefox 68 (see <https://developer.mozilla.org/en-US/docs/Web/HTTP/CORS/Errors/CORSRequestNotHttp>), in order to view the table of contents of the User Assistance (documentation), you must set the *privacy.file_unique_origin* preference to **false**:
 - (1) In a new tab, type or paste **about:config** in the address bar, and then press **Enter** or **Return**. Click the button promising to be careful or accepting the risk.
 - (2) In the search box above the list, type or paste **uniq** and pause while the list is filtered.
 - (3) Double-click the **privacy.file_unique_origin** preference to switch the value from "true" to "false".
- Some of the Python scripts obtained with earlier releases of Abaqus Student Edition for Abaqus training course workshop problems and "Getting Started with Abaqus/CAE" example problems are not compatible with Abaqus Learning Edition.

If you find that a Python script fails in this scenario, open the .py file and change the following from:

```
if re.search('Student', uti.getProductVersion()):
```

to:

```
if re.search('Learning', uti.getProductVersion()):
```

then save the .py file.

Post Installation Troubleshooting

If you see an error dialog during installation like:

Unable to properly install interoperability files.

To complete this step manually after installation completes, please see the section 'Post Installation Troubleshooting' of the InstallationGuide.pdf located at the top level of your extracted media.

If so, click the **Continue** button.

After the installation completes, follow the steps below to correct the issue:

Run the following in a command prompt window with administrative privileges:

```
<installation directory>\CAE\2022LE\win_b64\code\bin\SMAExternal\unzip.exe -q -o  
<installation  
directory>\CAE\2022LE\win_b64\code\bin\SMAExternal\Interop\InteropPkg.zip -d  
<installation directory>\CAE\2022LE\win_b64\code\bin\SMAExternal\Interop
```

For example if you install in the default location (C:\SIMULIA) then run:

```
C:\SIMULIA\CAE\2022LE\win_b64\code\bin\SMAExternal\unzip.exe -q -o  
C:\SIMULIA\CAE\2022LE\win_b64\code\bin\SMAExternal\Interop\InteropPkg.zip -d  
C:\SIMULIA\CAE\2022LE\win_b64\code\bin\SMAExternal\Interop
```

NOTE: Before running the product uninstallation, remove the following folders from the installation:

```
<INSTALLATION DIRECTORY>\CAE\2022LE\win_b64\code\bin\SMAExternal\Interop\code  
<INSTALLATION DIRECTORY>\CAE\2022LE\win_b64\code\bin\SMAExternal\Interop\reffiles  
<INSTALLATION DIRECTORY>\CAE\2022LE\win_b64\code\bin\SMAExternal\Interop\resources  
<INSTALLATION DIRECTORY>\CAE\2022LE\win_b64\code\bin\SMAExternal\Interop\startup
```

If you see an error dialog during installation like:

Unable to update documentation configuration.

To perform the manual configuration after installation, please see the section 'Post Installation Troubleshooting' of the InstallationGuide.pdf located at the top level of your extracted media.

If so, click the **Continue** button.

After the installation completes, follow the steps below to correct the issue:

Open the following file in notepad (If it doesn't exist, create it):

```
<parent installation directory>/CAE/2022LE/win_b64/SMA/site/custom_v6.env
```

Add the following line to the file

```
doc_root="http://<fully qualified machine name>:<Node.js server port  
number>/English"
```

NOTE: You can find the <fully qualified machine name> and <Node.js server port number> by reading the following file with Notepad that is located the Abaqus Learning Edition documentation installation below:

<Parent installation
directory>\Documentation\2022LE\StartDocumentationUsingJavaSearch

For example: If you selected the default parent installation directory it would be

C:\SIMULIA\Documentation\2022LE\StartDocumentationUsingJavaSearch

For example: If the fully qualified machine name for your computer is mypc.myhouse.com and the available Node.js server port number that was found during the installation was 4040, the custom_v6.env would contain one line:

```
doc_root="http://mypc.myhouse.com:4040/English"
```

Save the custom_v6.env and exit notepad

If you see an error dialog during installation like:

Unable to add Abaqus command directory C:\SIMULIA\Commands to PATH variable.

To perform the manual configuration after installation, please see the section 'Post Installation Troubleshooting' of the InstallationGuide.pdf located at the top level of your extracted media.

If so, click the **Continue** button.

After the installation completes, please follow these instructions below:

1. Open an Administrator Command Prompt window.
2. Enter the command:

```
setx /m PATH "C:\SIMULIA\Commands;%PATH%"
```

Where 'C:\SIMULIA' is the Parent installation directory that you specified when you did the Abaqus Learning Edition installation.

3. Close the Administrator Command Prompt window and open a new Command Prompt window.
4. Run the Abaqus commands using just the launcher name:

```
abq2022le cae
```