DASSAULT SYSTEMES

SIMULIA

SIMULIA ESTABLISHED PRODUCTS 2018

INSTALLATION GUIDE

3DEXPERIENCE®

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Legal Notices

For a full list of the third-party software contained in this release, please go to the Legal Notices in the Abaqus 2018 HTML documentation, which can be obtained from a documentation installation, or in the SIMULIA Established Products 2018 Program Directory, which is available on *www.3ds.com*.

Contents

Installation Roadmap

The SIMULIA established products media lets you download and install Abaqus, fe-safe, Isight, the SIMULIA Execution Engine, Tosca, documentation, and your choice of license server.

A complete installation includes the individual software products as well as documentation and a license server. The established products media is called an assembly media, meaning it includes all of the files for each individual product media.

Before starting the installers, you should confirm that your computer is compatible with this release. Compare your system's configuration to the system requirements described in the Program Directory. The Program Directory is additional documentation, similar to release notes, available at *http://media.3ds.com/support/progdir*. Choose SIMULIA as the product line and *Established Products 2018* as the **Level**, then choose **Prerequisites - Abaqus** in the left-hand pane. A support contract and private login account are required for access (see *https://iam.3ds.com/self_service/login/service/websupport/*).

The SIMULIA established products are available for both Windows and Linux.

To start the installers on Windows, you must belong to the Administrators group or have the privileges assigned to the Administrators group.

Suite Installer

The assembly media contains a suite installer, which lets you install the following:

- HTML documentation for all products

  The SIMULIA documentation should be installed on at least one computer on your network. The documentation should be installed before licensing and products because the product installers use the documentation URL or location to configure network access to it.

- FLEXnet license server

  You can use either FLEXnet licensing or Dassault Systèmes licensing, depending on which type of license file you have. With FLEXnet licensing, you use the vendor daemon named `ABAQUSLM` for all of the established products.

- Abaqus services: Abaqus/Standard solver and Abaqus/Explicit solver. This software includes the SIMULIA Co-Simulation Engine and the foundation of all Abaqus APIs.
- CAA developer software for Abaqus APIs: output database (ODB) C^{++} API, user subroutines API, Abaqus Scripting Interface API, and SIMULIA Co-Simulation Engine C^{++} API. This software includes libraries and `.h` header files. The CAA (Component Application Architecture) API software is needed for using user subroutines and compiling and building ODB, SIM, or results file postprocessing applications.

  It is recommended that you always install the CAA (API) software, even if you are not sure that you will need it; otherwise, you may find that some components need to be installed later before you can upgrade to a fix pack (hot fix).

- Abaqus/CAE: interactive GUI. This software includes the command-line interface to the Abaqus solvers.
- fe-safe
- Tosca Structure
- Tosca Fluid
- Isight and the SIMULIA Execution Engine

When you start the suite installer, you can choose which product or products to install. Once you have made this selection, individual installers will run separately for each product.

Important: In order to use any Abaqus functionality, you must always install both the Abaqus services (solvers) and Abaqus/CAE. They cannot be used separately.

During the installation, default values are supplied whenever possible, and it is highly recommended that you use the defaults unless you have a good reason to change them. When you later install fix packs for any of the software, you will not be able to add any additional products. The suite installer is only provided for general availability (GA) major releases, not for hot fix releases.

Other Installers

The assembly media also contains separate installers for each of the following:

- Dassault Systèmes license server
- CAD associative interfaces for Abaqus

Extracting the Media

After you download the installation media, you must extract the archive files into a common directory before starting the installation.

The media files are in tape archive (`.tar`) format when you download the Linux package or ALLOS (all operating systems) package. The ALLOS media includes the software for both Windows and Linux. If you download the Windows-only media, the archive files are in ZIP (`.zip`) format.

1. Download the media archive files to a single folder/directory in any location.

   It is strongly recommended that you keep the length of this path reasonably short to avoid problems. The extracted media may create fairly long subdirectory paths under this root directory and the combined depth may cause a product installer to fail. The combined path should be no more than 60 characters deep.

   This download location is different from the folder/directory where the products will be installed (and may optionally be deleted once installation is complete). The media archive files may vary in number; the file names are similar to the following:

   ```
   xxx.AM_SIM_Abaqus_Extend.AllOS.1-4.tar
   xxx.AM_SIM_Abaqus_Extend.AllOS.2-4.tar
   xxx.AM_SIM_Abaqus_Extend.AllOS.3-4.tar
   xxx.AM_SIM_Abaqus_Extend.AllOS.4-4.tar
   ```

2. Extract each of the `.tar` or `.zip` files into the same directory, merging (combining) their contents.

   It is easiest to extract the files into a subdirectory/folder of the current (download) directory. A single subdirectory/folder will be created. In the instructions throughout this guide, <*download_dir*> represents the full path to this extraction directory; for example, `C:\download\` on Windows or `/tmp/download/` on Linux.

   On Windows, it is recommended that you use the free 7-Zip utility (V4.57 or higher) which handles `.tar` format. You can download 7-Zip from `http://www.7-zip.org`. On Linux you can use GNU Tar version 1.15.1 or higher, which is included in most modern Linux distributions.

   You can follow the detailed instructions below, if needed:

   Windows platforms

   1. In Windows Explorer, select all of the `.tar` or `.zip` files.
   2. Right-click on the selected files and choose **7-Zip** > **Extract here**.

      This will extract all of the compressed files into the current folder. A single media subfolder will be created.

   Linux platforms

   1. In a shell/terminal, change directory (`cd`) to the download directory and execute the command `tar -xf filename.tar` on each of the files.

      ```
      tar -xf filename.1-4.tar
      tar -xf filename.2-4.tar
      tar -xf filename.3-4.tar
      tar -xf filename.4-4.tar
      ```

      A single media subdirectory will be created.

3. Verify the integrity of the extracted media by using the `DSYInsMediaCheck` utility:

On Windows, execute the following file:

```
<download_dir>\media_name\1\0data\intel_a\DSYInsMediaCheck.exe
```

On Linux, execute the following file:

```
<download_dir>/media_name/1/0data/linux_a64/DSYInsMediaCheck
```

After you finish extracting the files, the extraction directory will look like this:

```
<download_dir>/media_name/1/
                          /2/
                          /3/
                          ...
```

where *media_name* is the name of the software package, for example `AM_SIM_Abaqus_Extend.AllOS`.

Media Organization (table_of_contents.txt)

The assembly media includes a plain text file that describes its contents. If you want to run an individual product installer, use this file to find the correct subdirectory.

The assembly media includes the following products and product components:

- Documentation
- FLEXnet license server
- DS license server
- Abaqus services (Abaqus/Standard and Abaqus/Explicit solvers)
- Abaqus services CAA API
- Abaqus/CAE
- Abaqus CAD associative interfaces
- Tosca
- Isight and the SIMULIA Execution Engine
- fe-safe

After you extract the media archive files, find the following file:

```
<download_dir>/media_name/1/table_of_contents.txt
```

This file shows how the various product installers are organized in numbered volumes (1, 2, 3, etc.) and subdirectories.

The number of volumes and the location of each product package within a volume is determined by the package size and the total size of the media. The ordering of product packages is random, and the contents of each volume may change from release to release.

An example of the `table_of_contents.txt` is shown below.

Sample Table of Contents

```
Volume 1:
  /SIMULIA_Documentation/AllOS/1                  Documentation
  /SIMULIA_FLEXnet_LicenseServer/Windows64/1      FLEXnet Lic Server
  /SIMULIA_AbaqusServices/Windows64/1             Abaqus Services
  /SIMULIA_AbaqusServices_CAA_API/Windows64/1     Abaqus Services CAA API
  /SIMULIA_Abaqus_CAE/Windows64/1                 Abaqus/CAE
  /DS_License_Server/AllOS/1                      DSLS
  /SIMULIA_Abaqus_AI/SIMULIA_Abaqus_AI.AllOS.1-1.tar CAD assoc interfaces
```

```
Volume 2:
  /SIMULIA_FLEXnet_LicenseServer/Linux64/1        FLEXnet License Server
  /SIMULIA_AbaqusServices/Linux64/1               Abaqus Services
  /SIMULIA_AbaqusServices_CAA_API/Linux64/1       Abaqus Services CAA API
  /SIMULIA_Abaqus_CAE/Linux64/1                   Abaqus/CAE
  /SIMULIA_Tosca/Windows64/1                      Tosca
  /SIMULIA_Tosca/Linux64/1                        Tosca
  /SIMULIA_Isight/Windows64/1                     Isight

Volume 3:
  /SIMULIA_Isight/Linux64/1                       Isight
  /SIMULIA_fe-safe/SIM_fe-safe.AllOS.1-1.tar      fe-safe
```

If you want to install any product individually (separately from the suite installer), find the corresponding `setup.exe` or `StartGUI.sh` installer under the product subdirectory. To install just the Abaqus services/solvers, for example, run one of the following:

```
<download_dir>\media_name\1\SIMULIA_AbaqusServices\Windows64\1\setup.exe
```

```
<download_dir>/media_name/1/SIMULIA_AbaqusServices/Linux64/1/StartGUI.sh
```

Installing the DS License Server

You can use either FLEXnet licensing or Dassault Systèmes licensing, depending on which type of license file you have. Either license server will work with all of the SIMULIA portfolio products: Abaqus, fe-safe, Isight, the SIMULIA Execution Engine, and Tosca.

The Dassault Systèmes license server (DSLS) installer does not run from the suite installer—you must start it separately. You must do this before using the suite installer so that you have the license server machine name and port number ready to enter in the product installers. If you already have a current DS license server running, you can continue using it and skip this step.

If you are using an older version of the DSLS server software on Windows (**3D**EXPERIENCE platform R2015x or lower), it is recommended that you upgrade to DSLS R2018x with this release.

A new DS license file allows you to run all fix pack (hot fix) deliveries of the current version.

To install the Dassault Systèmes license server, you must be an Administrator on Windows or root on Linux.

Automatic configuration is recommended in most cases, particularly if you are not experienced in network administration. You can allow the installer to install, configure, and start the Dassault Systèmes license server automatically.

Warning: Virtual machines, such as VMware, are not supported. It is not possible to install or run the Dassault Systèmes license server on a virtual machine.

The DSLS software package includes the *Dassault Systèmes License Server Installation and Configuration Guide* (`DSLS.pdf`), which contains instructions for configuring the license server and administering licenses. Refer to this guide for all DS licensing operations. You can find the `DSLS.pdf` file in the following location:

```
<download_dir>/media_name/volume#/DS_License_Server/AllOS/1/DSLS.pdf
```

Install DSLS on Windows

1. Determine where the DSLS installer is located in the extracted media by viewing the following file in a text editor:

   ```
   <download_dir>\media_name\1\table_of_contents.txt
   ```

   For example, below you see that the DSLS subdirectory is under volume 2:

   ```
   Volume 1:
       ...
       ...

   Volume 2:
       ...
       /DS_License_Server/AllOS/1              DSLS - DSLS
       ...
   ```

2. To start the DSLS installer, double-click or execute the following file:

   ```
   <download_dir>\media_name\volume#\DS_License_Server\AllOS\1\SetupDSLSmsi.exe
   ```

3. Follow the instructions in the panels that appear to complete the installation.

After the installation finishes, you must use the Dassault Systèmes License Administration Tool to enroll the product licenses on the DS license server (see “Enrolling Product Licenses” in the *Dassault Systèmes License Server Installation and Configuration Guide*). You must enroll the licenses before continuing with the product installations.

After installation, you can use the `dslsstat` utility to check the license server status. For more information, see the following topic in the user assistance:

Installation, Licensing & Configuration > SIMULIA Licensing > SIMULIA products licensing > Using the dslsstat utility for a Dassault Systèmes license server

Install DSLS on Linux

1. Ensure that the `DISPLAY` environment variable is set for your computer.
2. Determine where the DSLS installer is located in the extracted media by viewing the following file in a text editor:

   `<download_dir>/media_name/1/table_of_contents.txt`

   For example, below you see that the DSLS subdirectory is under volume 2:

   ```
   Volume 1:
       ...
       ...

   Volume 2:
       ...
       /DS_License_Server/AllOS/1              DSLS - DSLS
       ...
   ```

3. To start the DSLS installer, execute the following file:

   `<download_dir>/media_name/volume#/DS_License_Server/AllOS/1/RedHat_Suse/startInstLicServ`

4. Follow the instructions in the panels that appear to complete the installation.

After the installation finishes, you must use the Dassault Systèmes License Administration Tool to enroll the product licenses on the DS license server (see “Enrolling Product Licenses” in the *Dassault Systèmes License Server Installation and Configuration Guide*). You must enroll the licenses before continuing with the product installations.

After installation, you can use the `dslsstat` utility to check the license server status. For more information, see the following topic in the user assistance:

Installation, Licensing & Configuration > SIMULIA Licensing > SIMULIA products licensing > Using the dslsstat utility for a Dassault Systèmes license server

Starting the Suite Installer

After you have extracted the media archive files, you can run the suite installer.

You can use either a graphical user interface (GUI) or a text user interface (TUI) for the suite installer. The TUI suite installer runs from the command-line.

Starting the GUI Suite Installer

The standard suite installer has an interactive graphical user interface.

1. To start the suite installer on Windows, use the right-click option **Run as administrator** to run the following `setup.exe` file.

   ```
   <download_dir>\media_name\1\setup.exe
   ```

   To start the suite installer on Linux, run the following shell script:

   ```
   <download_dir>/media_name/1/StartGUI.sh
   ```

2. Select the product components you want to install, then follow the prompts as directed. Separate child installers will start for each product, one after the other. See the next section for details.

After the individual product installers have finished, log files are generated for each one in the following subdirectories:

```
<product_install_dir>/InstallData/log/CODE/<os>/<media_name>/
```

Starting the Command-Line TUI Suite Installer

Your computer requires a graphics card even when you use the TUI installer.

Both the GUI and TUI installers are interactive; they prompt you to answer questions and make configuration choices. The sequence of prompts is identical in both cases, however.

1. Open a Command Prompt window on Windows or a shell on Linux.

   On Windows, open the Command Prompt with Administrator privileges. You can do this by using the right-click option **Run as administrator** on the `cmd.exe` executable file icon:

   ```
   C:\Windows\system32\cmd.exe
   ```

2. Change directory (`cd`) to the volume 1 subdirectory in the extracted archive.
3. To start the TUI suite installer on Windows, run the following file:

   ```
   <download_dir>\media_name\1\StartTUI.exe
   ```

   To start the TUI suite installer on Linux, run the following shell script:

   ```
   <download_dir>/media_name/1/StartTUI.sh
   ```

4. Follow the prompts as directed, and press **Enter** after each response.

   When a question shows a default answer or value, simply press **Enter** to accept the default. To change the default, type your value and press **Enter**.

If at any time you want to go back to the previous question, clear the default entry, or quit the installation, special commands are available. Entries beginning with the "!" character are considered special commands:

- type `!b` to return to the previous page
- type `!c` to clear the default value
- type `!q` and hit Enter to quit

If you want to have an entry beginning with a "!" that is not a command, you must precede it by an additional "!". For example, if the question is to enter a password and the password is `!toto`, you must write `!!toto`. Similarly, if you want to enter `!!toto`, you must write `!!!toto` (and so on).

Radio buttons are identified by `( )`:

```
1 ( ) : unselected radio button
2 (X) : selected radio button
```

For radio buttons, only one choice is possible. To change the selected radio button, enter the number of the desired choice and press Enter; this will automatically unselect the previous choice.

Check boxes are identified by`[ ]`:

```
1 [ ] : unselected check box
2 [X] : selected check box
```

Some, all, or none of a set of check boxes can be selected. To check or uncheck a check box, enter its corresponding number and press Enter.

If the `Select All` and `Select None` choices are shown, do one of the following:

- use numbers 1 to n as usual
- enter 0 and press Enter to unselect all check boxes
- enter -1 and press Enter to select all check boxes

Suite Installer – Quick Reference

When you start the suite installer, you can choose which product or products to install. Once you have made this selection, individual child installers will run separately for each product.

Follow the prompts, and enter or select the options described below. During the installation, default values are supplied whenever possible, and it is highly recommended that you use the defaults unless you have a strong reason to change them.

Important:

The Dassault Systèmes license server (DSLS) installer does not run from the suite installer. If you are using DSLS rather than FLEXnet licensing, you must start the DSLS installer separately before using the suite installer. This will ensure that you have the DS license server machine name and port number ready to enter in the product installers. If you already have a current DS license server running, you can continue using it.

Documentation (User Assistance)

The documentation installer includes complete HTML documentation for all SIMULIA established products. You can install the documentation files locally on any computer or server on your network. Alternatively, end-users can access the documentation over the Internet at `http://help.3ds.com`.

Installer Option	Definition
Installation directory	On Windows, the default location is under `C:\Program Files\Dassault Systemes\SIMULIA2018doc\`.

After the files are installed, you can immediately view the documentation by opening the following file in a web browser:

```
C:\Program Files\Dassault Systemes\SIMULIA2018doc\DSSIMULIA_Established_homepage_English.htm
```

For details about serving the documentation locally with your web server software, see *Documentation Configuration*.

FLEXnet License Server

Installer Option	Definition
Installation directory	On Windows, the default location is under `C:\SIMULIA\License\2018\`.
Path to your license file	This is the FLEXnet license file that was mailed to you. The installer will save the license file in the `<flex_install_dir>/<os>/code/bin/` directory using the default name `simulialm.lic`.

Installer Option	Definition
Choose whether to automatically start the license server program after the files are installed	This option chooses between two scenarios: • Automatic configuration is recommended for most users, particularly those whose primary responsibility is not computer system or network administration. You can allow the installer to install, configure, and start the FLEXnet license server for you automatically. An existing license server using an older version of FLEXnet is upgraded automatically if it was previously installed and configured using the SIMULIA Abaqus installer. For redundant license servers the installer will install and configure the SIMULIA FLEXnet license server automatically, but you will have to manually start each server. Use this method for ease of maintenance so that future upgrades can be configured automatically. • Manual configuration is required for combining FLEXnet license files with other vendors. You will need to configure and start the FLEXnet license server manually. Use this method to allow the system administrator more control.

Licensing Notes

On Windows platforms the SIMULIA FLEXnet license server is usually started by the installer and will start up automatically upon reboot.

On Linux platforms the license server is started by the installer, but you should include the command to restart the license server in the system startup file for the computer to have the SIMULIA license server restart automatically after a system reboot. The command to restart the license server is written to the `licenseStartup.sh` file in the `<flex_install_dir>/<os>/code/bin/` directory.

Abaqus Services (Solvers)

Installer Option	Definition
Installation directory	On Windows, the default location is under `C:\Program Files\Dassault Systemes\SimulationServices\2018\`.

Components to install	It is strongly recommended that you install all components unless you are sure you will never need one.
	`Abaqus ODB API Services`
	`Abaqus/Explicit Solver`
	`Abaqus/Standard Solver`
	`Cosimulation Services`

The default installation directory for the Abaqus solvers, under `C:\Program Files\Dassault Systemes\`, is parallel to the default directories for other Dassault Systemes 3DEXPERIENCE products. The Abaqus solvers are installed here so that they can easily be used by both 3DEXPERIENCE simulation apps and Abaqus/CAE (as well as other SIMULIA established products such as Tosca Structure). If your company uses both SIMULIA established products and the 3DEXPERIENCE platform, sharing a single installation of the Abaqus solvers ensures simulation solver consistency and reduces the required disk space for installation.

Note: If you intend to use Abaqus on a Windows HPC cluster, it is recommended that you change the installation directory to install into a shared file system on the head node of the cluster. Enter a UNC path as the installation directory. For complete information about configuring Abaqus on Windows HPC, see the Knowledge Base item **QA00000008800** at *http://www.3ds.com/support/knowledge-base/*.

CAA Developer Software for Abaqus APIs

Installer Option	Definition
Installation directory	The directory/folder in which you installed the Abaqus services (solvers). You can only install CAA APIs for the software products you have already installed.

Abaqus/CAE

Installer Option	Definition

Installation directory	On Windows, the default location is under `C:\SIMULIA\CAE\2018\`. This folder/directory must be empty before the installer starts (unless you are installing additional product components into an existing installation). You can install multiple, side-by-side copies of Abaqus/CAE under the same parent directory, for example:
	`C:\SIMULIA\CAE\pretest\`
	`C:\SIMULIA\CAE\2018\`

License server configuration	You must use either FLEXnet licensing or Dassault Systèmes licensing. Include the port number being used on the license server machine, for example: • FLEXnet: `27000@jupiter` • DSLS: `jupiter:4085` If a set of redundant servers will be used, enter the host names of the redundant servers in the boxes provided in the dialog box. The installation will define settings in the Abaqus environment file according to information detected in the Abaqus license file on the server. If the license server contains an academic teaching license, Abaqus will be configured to use this license by default.
Abaqus solver installation path	The directory/folder in which you installed the Abaqus services (solvers). If you have multiple installations of the Abaqus solvers on this computer, the installer will find them and let you choose one.
Abaqus commands directory path	Enter your desired location for the Abaqus commands directory. The default is `C:\SIMULIA\Commands\`. See *Abaqus Command-Line Interface (Commands Directory)* for details.
Abaqus/CAE external plug-ins directory	Enter your desired location for the Abaqus/CAE central plug-ins directory. The default is `C:\SIMULIA\CAE\plugins\2018\`. See the following topic in the Abaqus user assistance for details: *Abaqus > Abaqus/CAE > Using plug-ins > The Plug-in toolset > How do I make a plug-in available from Abaqus/CAE? > Where are plug-in files stored?* Note that the same plug-ins directory can be used for multiple installations of a release.
Documentation configuration options	You choose this option to configure the connection between the Abaqus/CAE user interface and context-sensitive help in the SIMULIA HTML documentation. There are three options: **Connect to searchable documentation on help.3ds.com** — This option automatically configures Abaqus/CAE to access the context-sensitive help over the Internet at `http://help.3ds.com`. This is the simplest option.

Installer Option	Definition	
	Enter a file path for locally installed documentation	If you have installed the documentation on this computer (but not configured it on a local web server), use the **Browse** button to locate the file path to the installed documentation files. For example: `C:\Program Files\Dassault Systemes\SIMULIA2018doc\`
	Enter a URL for served documentation	If you have configured the SIMULIA documentation with web server software on another computer or server, use this format to specify the URL: `http://<servername>/<alias>`
Abaqus working directory (Windows only)	User files generated by Abaqus/CAE and Tosca will be created in this folder. The default location is `C:\temp`. Ensure that this folder has write permission for all users.	

Note: If the installer detects a wide area network (WAN) license file, you will be prompted for information about the geographic location of your computer. This information is used to automatically set the `computer_location` environment file parameter and enable license usage logging for report generation.

fe-safe

For complete information about the installation options, see "Using the fe-safe installer for product installation" in the *fe-safe Installation and Licensing Guide*.

Installer Option	Definition
Installation directory	On Windows, the default location is under `C:\SIMULIA\fe-safe\2018\`.
License server configuration	You must use either FLEXnet licensing or Dassault Systèmes licensing. Include the port number being used on the license server machine, for example: • FLEXnet: `27000@jupiter` • DSLS: `jupiter:4085`

Tosca

You can choose to install Tosca Structure, Tosca Fluid, or both.

Installer Option	Definition
Installation directory	On Windows, the default location is under `C:\SIMULIA\Tosca\2018\` . This folder/directory must be empty before the installer starts (unless you are installing additional product components into an existing installation).
Documentation configuration options	You choose this option to configure the connection between Tosca and the SIMULIA HTML documentation. There are three options:

Installer Option	Definition	
	Enter a file path for locally installed documentation	If you have installed the documentation on this computer (but not configured it on a local web server), use the **Browse** button to locate the file path to the installed documentation files. For example: `C:\Program Files\Dassault Systemes\SIMULIA2018doc\`
	Enter a URL for served documentation	If you have configured the SIMULIA documentation with web server software on another computer or server, use this format to specify the URL: `http://<servername>/<alias>`
	Skip documentation configuration	You can configure the documentation after the installation has completed as described in *Changing Tosca documentation configuration* below.
Components to install	Tosca Structure and/or Tosca Fluid	
License server	If you have already installed Abaqus/CAE and specified your license server information in the same suite installer session, Tosca will automatically use the same license server. In this case you need not enter anything here.	
Interfaces for Tosca Structure	Abaqus, fe-safe, Femfat, MSC.NASTRAN, and/or ANSA. For multiple solver selection, Abaqus is set as the default solver.	
Interfaces for Tosca Fluid	STAR-CCM+	

Changing License Server Settings for Tosca

After the installation has finished, you can change the license server settings if necessary by modifying the `tosca_env.cmd` file in the following location:

```
<install_dir>/<os>/code/command/tosca_env.cmd
```

If you have installed in the default location on Windows, the file location is:

```
C:\SIMULIA\Tosca\2018\win_b64\code\command\tosca_env.cmd
```

By default, Tosca uses DSLS and server information from the `DSLicSrv.txt` file:

```
C:\ProgramData\DassaultSystemes\Licenses\DSLicSrv.txt
```

Changing Interface Information for Tosca Structure

After the installation has finished, you can change interface information if necessary by modifying the `toscaInstallConfig.ini` file in the following location:

```
<install_dir>/<os>/SMA/site/toscaInstallConfig.ini
```

Define the following interface paths:

```
INS_TSO_ABAQUS_PATH=/path/to/abaqus.executable
INS_TSO_MSCNASTRAN_PATH=/path/to/mscnastran.executable
INS_TSO_FESAFE_PATH=/path/to/fesafe.executable
INS_TSO_FEMFAT_PATH=/path/to/femfat.executable
INS_TSO_TOSCA_ANSA_PATH=/path/to/ansa-installdir
```

Define the default solver:

```
INS_TSO_DEFAULT_SOLVER=abaqus|mscnastran
```

Changing Interface Information for Tosca Fluid

After the installation has finished, you can change Tosca Fluid interface information if necessary by modifying the `solver.cfg` file in the following location:

```
<install_dir>/<os>/SMATfoResources/config/solver.cfg
```

Settings for STAR-CCM+:

```
(line 11): solverconfig['starccmp'].path = r'<path\to\STAR-CCMP-install_dir>'

 (line 17): solverconfig['starccmp'].options = '-power -podkey <YOUR_POD_KEY>
 -licpath 1999@flex.cd-adapco.com'
```

Changing Documentation Configuration for Tosca

After the installation has finished, you can change the configuration of the Tosca documentation if necessary by modifying the `toscaInstallConfig.ini` file in the following location:

```
<install_dir>/<os>/SMA/site/toscaInstallConfig.ini
```

For locally installed documentation, use file URI scheme format:

```
INS_TOC_DOC_PATH=file:///C:/Program Files/Dassault
Systemes/SIMULIA2018doc/win_b64.doc/English/DSSIMULIA_Established.htm
```

For server documentation, enter a URL:

```
INS_TOC_DOC_PATH=http://<servername>/<alias>
```

Isight and SIMULIA Execution Engine

The basic options for installing Isight Desktop, the SIMULIA Execution Engine (SEE) server, and the SIMULIA Execution Engine Station are described below. For complete information about installing and configuring Isight and the SIMULIA Execution Engine, see the following guides:

- *Isight Configuration Guide*
- *SIMULIA Execution Engine Configuration Guide - TomEE*
- *SIMULIA Execution Engine Configuration Guide - WebSphere*
- *SIMULIA Execution Engine Configuration Guide - WebLogic*

Isight Desktop

Installer Option	Definition
Installation directory	Choose a base directory/folder for the installation. The recommended installation directory is `C:\SIMULIA\Isight\2018\`. **Important:** Do not install Isight into any folder/directory path containing a space, including `C:\Program Files\`. The application will not work correctly in this case.
Documentation configuration options	You choose this option to configure the connection between Isight and the SIMULIA HTML documentation. There are three options:

Installer Option	Definition	
	Enter a file path for locally installed documentation	If you have installed the documentation on this computer (but not configured it on a local web server), use the **Browse** button to locate the file path to the installed documentation files. For example: `C:\Program Files\Dassault Systemes\SIMULIA2018doc\`
	Enter a URL for served documentation	If you have configured the SIMULIA documentation with web server software on another computer or server, use this format to specify the URL: `http://<servername>/<alias>`
Server Host Name	The host name of the computer running the SIMULIA Execution Engine server application, if you are using the SIMULIA Execution Engine. If the SIMULIA Execution Engine will be accessed from computers in multiple network domains (for example, `domain1.xxx.com` and `domain2.xxx.com`), you must specify the fully qualified host name (for example, `host.domain1.xxx.com`).	
Server Port Number	Port number on which the SIMULIA Execution Engine application is running on the server.	
License server	If you have already installed Abaqus/CAE and specified your license server information in the same suite installer session, Isight will automatically use the same license server. In this case you need not enter anything here.	

SIMULIA Execution Engine Server

Installer Option	Definition
Please enter a string to identify the new installation	You can use this option to keep track of different installations and hot fix (fix pack) versions.
Installation directory	Choose a base directory/folder for the installation.  **Important:** Do not install into any folder/directory path containing a space, including `C:\Program Files\`. The application will not work correctly in this case.
Launch TomEE configuration utility	Choose this option if you want to run the SEE server on the included TomEE application server. Skip this option if you plan to use your own WebSphere or WebLogic application server.
License server	If you have already installed Abaqus/CAE and specified your license server information in the same suite installer session, SEE will automatically use the same license server. In this case you need not enter anything here.

SIMULIA Execution Engine Station

Installer Option	Definition
Please enter a string to identify the new installation	You can use this option to keep track of different installations and hot fix (fix pack) versions.
Installation directory	Choose a base directory/folder for the installation.  **Important:** Do not install into any folder/directory path containing a space, including `C:\Program Files\`. The application will not work correctly in this case.
Enter the following details to configure access to the SEE Server	Indicate whether your SEE server is running on a TomEE, WebSphere, or WebLogic application server. Specify the **Server Host Name** and **Server Port** for the SEE server application. This information is used to create the `.cpr` connection profile file that will connect this station to the SEE server.

Using an Automated Silent Installer for Individual Products

The silent installer lets you automate a repeatable, customized installation that runs with no user interaction. The silent installer can be used for individual product installers or the suite installer.

Before using the silent installer you must prepare a response file that is recorded during a trial run of the GUI or TUI product installer (not the suite installer). The response file is generated automatically by either a GUI or TUI installation. The response file saves your installation choices and configuration—it contains the responses to all the prompt questions that were asked.

Before you begin: To find the installer executable for a specific product, see *Media Organization (table_of_contents.txt)*.

1. Retrieve the response file from the trial installation.

   The file name and path is:

   `<install_dir>/InstallData/UserIntentions.xml`

   After retrieving the response file, you can put it anywhere.

   A response file is specific to:

   - a particular operating system; response files are different between Windows and Linux
   - a particular installation media
   - a particular release level or fix pack (hot fix) level

2. Edit the response file.

   You can edit the following variables:

   - path values
   - text values
   - port number values

   The response file must be:

   - XML well-formed
   - UTF8 encoded

3. Start the silent installation.

   You start the silent installation in the same manner as in console mode using the `StartTUI` installer, except that you must specify the `--silent` option followed by the full path name of the response file.

   For example, use the following command on Windows:

   ```
   <download_dir>\media_name\1\SIMULIA_AbaqusServices\Windows64\1\StartTUI.exe
    --silent <path>\UserIntentions.xml
   ```

   and on Linux:

   ```
   <download_dir>/media_name/1/SIMULIA_AbaqusServices/Linux64/1/StartTUI.sh
    --silent <path>/UserIntentions.xml
   ```

Optionally, you can specify the `--xmlreport` option to generate an XML file that generates an installation error report in XML format:

```
./StartTUI.sh --silent /opt/ds/UserIntentions.xml --xmlreport
<reportfilepath>
```

For example:

```
./StartTUI.sh --silent /opt/ds/UserIntentions.xml --xmlreport
/opt/ds/tmp/Report.xml
```

An XML file is created and can be parsed. The file contains a list of `<Message>` elements contained inside a `<Logs>` element. The `<Message>` elements contain the following attributes:

`id`	A unique identifier for each error. If the id ends with ".0", it means that the message is not an error.
`message`	Error message, localized in the user language
`techMessage`	Technical message
`msgCatalog`	Name of the `.CATNls` file (if any)
`msgKey`	Name of the key inside the file (if any)
`type`	Error type (info / warn / error / fatal)

Using an Automated Silent Suite Installer

The silent installer lets you automate a repeatable, customized installation that runs with no user interaction. You can use the silent installer for the product suite.

Before using the silent installer you must prepare a response file that is recorded during a trial run of the GUI or TUI suite installer. The response file is generated automatically by either a GUI or TUI installation. The response file saves your installation selections and configuration—it contains the responses to all the prompt questions that were asked.

1. Do a trial run of the suite installer, choosing all the product options you want.
2. Retrieve the response file from the trial installation.

   The file is named `UserIntentions.xml` and is located in the following folder/directory:

On Windows	The folder specified by the `TEMP` environment variable. You can find the setting of your `TEMP` variable by choosing **Environment Variables** in the System Properties control panel.
On Linux	The directory specified by the `TMPDIR` environment variable (`$TMPDIR`).

   After retrieving the response file, you can put it anywhere.

   A response file is specific to:

   - A particular operating system; response files are different between Windows and Linux
   - A particular release level or fix pack (hot fix) level

3. Edit the response file.

   You can edit the following variables:

   - path values
   - text values
   - port number values

   The response file must be:

   - XML well-formed
   - UTF8 encoded

4. Start the silent suite installation.

   You start the silent installer in the same manner as in console mode using the `StartTUI` installer, except that you must specify the `--silent` option followed by the full path name of the response file. Follow Steps 1-3 in *Starting the Command-Line TUI Suite Installer*.

   For example, use the following command on Windows:

   ```
   <download_dir>\media_name\1\StartTUI.exe --silent <path>\UserIntentions.xml
   ```

   and on Linux:

   ```
   <download_dir>/media_name/1/StartTUI.sh --silent <path>\UserIntentions.xml
   ```

Optionally, you can specify the `--xmlreport` option to generate an XML file that generates an installation error report in XML format:

```
./StartTUI.sh --silent /opt/ds/UserIntentions.xml --xmlreport
<reportfilepath>
```

For example:

```
./StartTUI.sh --silent /opt/ds/UserIntentions.xml --xmlreport
/opt/ds/tmp/Report.xml
```

An XML file is created and can be parsed. The file contains a list of `<Message>` elements contained inside a `<Logs>` element. The `<Message>` elements contain the following attributes:

`id`	A unique identifier for each error. If the id ends with ".0", it means that the message is not an error.
`message`	Error message, localized in the user language
`techMessage`	Technical message
`msgCatalog`	Name of the `.CATNls` file (if any)
`msgKey`	Name of the key inside the file (if any)
`type`	Error type (info / warn / error / fatal)

Manually Configuring Licensing for Abaqus

When you installed either the FLEXnet or Dassault Systèmes license server, you may have chosen to skip the installer's automatic setup of client application licensing. If so, follow the instructions below to manually configure an Abaqus installation for either license server.

Before you begin: You must finish installing the files for the FLEXnet licensing or Dassault Systèmes license server before performing this configuration.

Configure Abaqus for a FLEXnet License Server

1. Edit the following environment customization file in the Abaqus services installation:
   ```
   solvers_install_dir/os/SMA/site/custom_v6.env
   ```
2. In the `custom_v6.env` file, add the following parameters:
   ```
   license_server_type=FLEXNET
   abaquslm_license_type="port@license_server_hostname"
   ```
   For more information, see the following topic:

   Installation, Licensing & Configuration > Abaqus Configuration > Customizing the Abaqus environment > Using the Abaqus environment files > License management parameters

Configure Abaqus for a DS License Server

1. On Windows, create the following directory:

   `C:\ProgramData\DassaultSystemes\Licenses`

   On Linux, create the following directory:

   `/var/DassaultSystemes/Licenses`
2. Go to the directory and create an ANSI text file (multi-bytes such as UNICODE are not supported) named:

   `DSLicSrv.txt`
3. Edit the file to declare the DS license server to which the Abaqus client can connect.

   The syntax of the declaration is as follows:
   ```
   servername:port
   ```
   The server name can be declared as:

   - a simple hostname, for example: `lw5ses1dsy:4085`
   - a full qualified domain name, for example: `lw5ses1dsy.dsy.com:4085`
   - an IPV4 address, for example: `10.232.70.1:4085`
   - an IPV6 address, for example: `[2a00:4b00:220:172::103]:4085`

The port number is the license server listening port, not the administration port.

Note that if the DS license server is on the same computer as Abaqus, you must use the special keyword localhost instead of the computer name, for example:

```
localhost:4085
```

Note: The syntax for failover servers is different. The three failover servers must all be referenced on the same line as follows:

```
server1:4085,server2:4085,server3:4085
```

By default, load balancing of the three failover members is performed automatically by the licensing client (Abaqus). At startup, Abaqus selects randomly the failover member to contact from the three members declared. If the first selected member is down, the second member is randomly selected, and so forth. This ensures that the three members are statistically contacted by the same number of clients and results in automatic load balancing on the three members.

However, it is also possible to specify the order of priority in which failover members are contacted by Abaqus, replacing randomization by an explicit order defined by the administrator. This can be useful in the following cases, for example if:

- one member is more (or less) powerful than the others
- one member is located much closer to (or further from) the licensing clients than the others
- one member cannot be reached due to proxy constraints
- one member is temporarily down.

Note that you cannot mix automatic and manual configurations; in other words, the three failover members are either randomly accessed or are accessed through the specified order. So you cannot, for example, declare the first member then set random access to the remaining two members.

To explicitly specify an order of priority order between the failover members, use the following separator:

```
>
```

instead of:

```
,
```

which is reserved for automatic load balancing.

The following declaration is valid, for example:

```
licmbr1:4085>licmbr2:4085>licmbr3:4085
```

4. If several logical (i.e. standalone or failover) DS license servers need to be accessed, add a new line for each logical license server.

   In this context, when Abaqus requests a license and this license is not already granted by one of the declared logical servers, then the order in which the logical license servers is declared is observed. If a license is available on the first declared logical server, this one is taken; if not, if a license is available on the second declared logical server, then this one is taken, and so forth.

5. **Optional:** Check that the `DSLicSrv.txt` file is correctly configured.

   The license client-side `DSCheckLS` command parses the `DSLicSrv.txt` file to check license server availability, and reports errors if, for example, the file is incorrectly configured.

Documentation Configuration

There are a few optional configurations you may want to make for the installed documentation.

Serve the Documentation with Web Server Software

If desired, you can configure your own web server software to serve the SIMULIA documentation by `http` over your internal network. For example, you can use Apache HTTP server or Microsoft Internet Information Services (IIS). If you do so, follow these guidelines:

- Configure the web server alias to point to the root installation directory of the documentation files, for example `C:\Program Files\Dassault Systemes\SIMULIA2018doc\` (the default).
- Force the MIME type configuration to be `text/plain` for the `/SIMAINPRefResources/` subdirectory (as shown below), to allow Abaqus input files to be served as plain text. In Apache HTTP server 2.2, MIME type settings are localized—edit the server configuration file (which is usually `httpd.conf`) and add the following:

  ```
  <Location "alias/English/SIMAINPRefResources">
      ForceType text/plain
  </Location>
  ```

  where *alias* is the alias you have defined for the SIMULIA documentation root directory.

  With older versions of Apache, you may need to use the more widely applicable `DefaultType` setting:

  ```
  DefaultType text/plain
  ```

For more information about configuring the SIMULIA documentation on a web server, see the DS Knowledge Base item **QA00000045026** at *http://www.3ds.com/support/knowledge-base/*.

Note:

When you install Abaqus/CAE, Tosca, and Isight, you will be prompted to enter the URL for the served documentation—you must enter `http://<servername>/<alias>`. This configures the connection between the served documentation and the application GUIs for context-sensitive (F1) help.

Installing MathJax Fonts for Firefox

Some 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.

There is one exceptional case in which the webfonts cannot be downloaded automatically: when Firefox is used to read documents in a local file system (as opposed to reading them from an HTTP server). In this case, Firefox's strict same-origin policy regarding the use of webfonts prevents the download.

Workaround

To read math with Firefox, you 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:

`<doc_install_dir>/Doc/English/MathJax/fonts/HTML-CSS/TeX/otf/`

where `<doc_install_dir>` is the root directory 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.

Getting the Abaqus CAD Associative Interfaces

Three CAD associative interface (AI) plug-ins are delivered on the assembly media: SOLIDWORKS, Pro/ENGINEER, and CATIA V5. These plug-ins let you use your CAD geometry in Abaqus/CAE simulations.

The AI plug-ins are delivered in a `.tar` file embedded in the assembly media archive `.tar` files.

1. After you have extracted the assembly media `.tar` files, find the `<download_dir>/media_name/1/table_of_contents.txt` file as described in *Media Organization (table_of_contents.txt)*.

   The `table_of_contents.txt` file shows you where the AI archive file is located, for example under Volume 1:

   ```
   <download_dir>/media_name/1/SIMULIA_Abaqus_AI/SIMULIA_Abaqus_AI.AllOS.1-1.tar
   ```

2. **Optional:** Copy the `SIMULIA_Abaqus_AI.AllOS.1-1.tar` file to a different location, if desired.
3. Extract the `.tar` file.
4. Under this extraction directory you will find three subdirectories:

   ```
   <extract_dir>/SIMULIA_Abaqus_AI.AllOS/1/CATIA_V5-6R201x_Associative_Interface/
   <extract_dir>/SIMULIA_Abaqus_AI.AllOS/1/ProENGINEER_Associative_Interface/
   <extract_dir>/SIMULIA_Abaqus_AI.AllOS/1/SolidWorks_2.0_Associative_Interface/
   ```

   These subdirectories contain the files for each AI plug-in (in a `.zip` or `.exe` file) and the associated PDF documentation. Refer to the documentation for each AI for specific installation and user instructions.

   For the SOLIDWORKS AI, for example, open the following guide:

   ```
   <extract_dir>/SIMULIA_Abaqus_AI.AllOS/1/SolidWorks_2.0_Associative_Interface/

     SolidWorksToAbaqus_AI.pdf
   ```

   In this guide, see "Installing the SOLIDWORKS Associative Interface add-in."

Upgrading to a Hot Fix Release

To upgrade any of the SIMULIA software products, you install a hot fix. A fix pack is a release that contains a collection of hot fixes for individual media.

Upgrade Overview

In order to upgrade to a hot fix, you must first have the general availability (GA) release installed, for example Abaqus 2018.

Each fix pack contains, at minimum, a hot fix with updated Abaqus services (solvers), Abaqus/CAE, and Tosca.

The hot fixes for the Abaqus services, Abaqus/CAE, and Tosca are delta installations, containing only the changed files required to upgrade the software. The delta installations provide a rollback option, which you can use if you want to ignore the hot fix and restore the previous version for any reason. If you decide to keep the new hot fix, you must use the commit option in the Dassault Systèmes Software Management tool. Committing a hot fix means applying the hot fix to your installation so that it becomes the official working level—this deletes the outdated files of the previous level, saving disk space. Once you use the commit option to permanently accept the changes, the rollback option is no longer available. These options allow you to test the new functionality without the hard disk space or time needed for another full installation.

If you prefer to leave your GA installation intact and install the hot fix separately, you must first install a separate copy of the GA software and then apply the hot fix upgrade to that.

The hot fixes for Isight and the SIMULIA Execution Engine are not delta installations; they install a complete new set of files.

Hot Fix Installation Order

Always install the hot fix upgrades in the following order:

1. Abaqus services (Abaqus/Standard and Abaqus/Explicit solvers)
2. Abaqus/CAE
3. Tosca
4. Isight and the SIMULIA Execution Engine

IdentTag for Multiple Installations

The **IdentTag** option provides a unique identifier for multiple installations of the same software on a single machine. When you launch the installer for a previously installed product, it asks if you want to apply an **IdentTag**. This feature is only available on Windows.

1. Repeat the installation of the GA media in a new target directory.

   The installer detects the existing installation and prompts you to enter an **IdentTag**.

2. Enter an identifying character string.

   The identifier can include lowercase and uppercase letters, numbers, dashes (-), or underscores (_), but it must not exceed 20 characters.

The identifier is displayed in the following places: Windows desktop shortcuts, registry entries, **Start** menu program entries, and the **Programs and Features** control panel.

Installing a Hot Fix

Follow these steps to install any hot fix.

1. Get the hot fix media for your operating system.

   The naming convention for the hot fix media is:

   ```
   VERSION.HFLEVEL.PRODUCT.PLATFORM.EXT
   ```

   where *EXT* is `.zip` on Windows and `.tar` on Linux.

   For example, for Windows:

   ```
   V6Rxxxx.FP.CFA.yyww.Part_3DEXP_SIMULATIONSERVICES.Windows64.zip
   xxxx.FP.CFA.yyww.Part_SIMULIA_Abaqus_CAE.Windows64.zip
   ```

   As shown, the Abaqus services/solvers naming (the first item) differs slightly from the other products. For all products, *xxxx* designates the release number, and *yyww* designates the year and week.

2. If you obtained the hot fix media in a Windows `.zip` file or Linux `.tar` file, extract (unpack) the archive to a temporary directory.
3. Start the hot fix installer. The installer can be run as a graphical user interface (GUI), as a command-line text user interface (TUI), or silently.

   To start the installer with a graphical user interface, execute the following file on Windows with the right-click **Run as administrator** option:

   ```
   <extract_dir>\1\setup.exe
   ```

   To start the installer on Linux with a graphical user interface, execute the following file:

   ```
   <extract_dir>/1/StartGUI.sh
   ```

4. Install the hot fix in exactly the same manner as the GA software, using either the GUI, TUI, or silent mode.
5. Specify the installation directory to upgrade, and click **Next**.
6. Click **Install**.

The hot fix delta installers are cumulative. This means that the hot fix media does not contain all files--it only contains the files that are different from the previous hot fix or from the GA of the same version.

For example, having installed GA and HF1, the HF2 installation will not remove the HF1 files and then install the HF2 files. Only the HF2 files that are different from the HF1 files or from the GA files will be installed. Existing files modified by the HF are simply replaced. New files are added. If existing files are installed by the HF in another location, these files will not be removed during HF installation.

Since the HF media are cumulative, there is no need to install all HF versions until the needed HF version. For example, it is possible to install the GA, then HF3, then HF5 without installing the intermediary HF1, HF2 and HF4.

The HF media must always be installed in the same directory as the GA version. Hot fixes must belong to the same major version, for example Abaqus 2018.

Committing or Rolling Back a Hot Fix

After you install a hot fix, you must commit or roll back the changes using the Software Managment utility.

1. Start the Software Management utility by choosing **Start** > **Dassault Systemes Simulation Services** > **Tools** > **Software Management** or by running the following executable with administrator privileges:

   ```
   C:\Program Files\Dassault
   Systemes\SimulationServices\V6R2018x\InstallData\installer\setup.exe
         --mgt "C:\Program Files\Dassault
   Systemes\SimulationServices\V6R2018x\"
   ```

   This starts the GUI version of the utility on Windows; the Linux location is similar. The command-line TUI version is also available (`StartTUI.exe` and `StartTUI.sh`).

   The Software Management utility provides four commands:

   - **List installed products**
   - **Check integrity**
   - **Commit**
   - **Rollback**

   After installing a hot fix, you may want to spend some time using the hot fix for validation purposes, before making it officially available to your end users.

   Committing a hot fix means applying the hot fix to your installation so that it becomes the official working level. This deletes the outdated files of the previous level, saving disk space.

   After spending some time using the hot fix for validation purposes, you may find that the hot fix is not suitable. If this is the case, you can roll back the hot fix—rolling back uninstalls the files and restores the software level to the previous level.

2. To commit the hot fix, select **Commit** and click **Next**.

   You should see this message:

   ```
   Commit successful
   ```

   The **List installed products** command will now show you the latest hot fix level.

3. If you decide not to keep the hot fix upgrade, do the following:
   a. Manually stop any processes running in the installation directory.
   b. Select **Rollback** and click **Next**.

Running the Software Management Tool in Batch Mode

You can run the Software Management utility with a command-line TUI text interface.

1. Open a command prompt window with the right-click option **Run as administrator**.
2. Change directory to the following folder:

   ```
   C:\Program Files\Dassault
   Systemes\SimulationServices\V6R2018x\InstallData\installer\
   ```

3. Execute this program:

   ```
   StartTUI.exe --mgt "C:\Program Files\Dassault
   Systemes\SimulationServices\V6R2018x\"
   ```

   The following response is displayed:

   ```
   ***** Dassault Systemes Software Management Main menu*****
   Input q and hit Enter to quit. Just press Enter to continue.
   1 (*) Check integrity
   ```

```
2 ( ) List installed products
Enter selection (default: Next):
```

4. Choose `1` or `2` and press Enter twice.

You can also use the following alternative commands to list, check, commit, or roll back:

```
<install_dir>\InstallData\installer\StartTUI.exe" -SoftMgt -List
<install_dir>\InstallData\installer\StartTUI.exe" -SoftMgt -Check
<install_dir>\InstallData\installer\StartTUI.exe" -SoftMgt -Commit
<install_dir>\InstallData\installer\StartTUI.exe" -SoftMgt -Rollback
```

Uninstalling the Software

You can uninstall and remove any of the software components.

On Windows, you can use the **Programs and Features** control panel to uninstall any of the following applications:

- Abaqus services
- Abaqus/CAE
- FLEXnet license server
- Isight and the SIMULIA Execution Engine
- Tosca
- Documentation

On Linux, you can remove any application using the `Uninstall.sh` script that is installed in the base installation directory of each product.

For specific instructions for removing the Dassault Systèmes license server, see "Uninstalling the Dassault Systèmes License Server" in the *Dassault Systèmes License Server Installation and Configuration Guide* (`DSLS.pdf`).

For specific instructions for uninstalling Isight or the SIMULIA Execution Engine, see the following guides:

- *Isight Configuration Guide*
- *SIMULIA Execution Engine Configuration Guide - TomEE*
- *SIMULIA Execution Engine Configuration Guide - WebSphere*
- *SIMULIA Execution Engine Configuration Guide - WebLogic*

Uninstalling the FLEXnet License Server

You can use the Windows **Programs and Features** control panel or the silent uninstaller batch files to remove FLEXnet licensing.

The silent uninstallers allow you to automate these tasks from another batch/script file. The silent uninstallers are available on Windows and Linux.

The uninstallers may be unable to remove some files; for example, files that are open in another application. In addition, the uninstallers remove only directories and files that were written by the installers. You may want to delete any remaining directories and files manually.

You should create a backup of any files you wish to keep, such as your SIMULIA license file (typically named `abaquslm.lic` or `simulialm.lic`) and the FLEXnet licensing server debug log file (typically named `simulialm.log`).

Uninstall FLEXnet on Windows

The FLEXnet license server can be removed in either of the following ways:

- Use the **Programs and Features** control panel to **Uninstall a program**.
- To use the FLEXnet silent uninstaller, execute the following batch file from the command line or from another batch/script file:

  ```
  <flex_install_dir>\Uninstall.bat
  ```

Uninstall FLEXnet on Linux

1. Log into the license server host machine as root or as the owner of the license server.
2. Before you can remove the license server and license files, you must terminate the license server using the FLEXnet utility `lmdown`.
3. Do one of the following:
   - Run the silent uninstaller with the following shell script:
     ```
     <flex_install_dir>\Uninstall.sh
     ```
   - Manually delete the FLEXnet files using the following commands:
     ```
     cd <flex_install_dir>
     rm -rf License
     ```
4. Remove the license server restart command from the host machine's system startup file.

Uninstalling Abaqus

You can use the Windows **Programs and Features** control panel or the silent uninstaller batch files to remove both Abaqus services and Abaqus/CAE.

The silent uninstallers allow you to automate these tasks from another batch/script file. The silent uninstallers are available on Windows and Linux.

The uninstallers may be unable to remove some files; for example, files that are open in another application. In addition, the uninstallers remove only directories and files that were written by the installers. You may want to delete any remaining directories and files manually.

Uninstall Abaqus on Windows

Abaqus can be removed in either of the following ways:

- Use the **Programs and Features** control panel to **Uninstall a program**.

  Uninstall all of the Dassault Systèmes items listed:

  ```
  Dassault Systemes Documentation SIMULIA 2018
  Dassault Systemes Simulation Services 3DEXPERIENCE R2018x
  Dassault Systemes SIMULIA Abaqus CAE Abaqus 2018
  Dassault Systemes Software Prerequisites x86-64
  Dassault Systemes Software VC10 Prerequisites x86-64
  Dassault Systemes Software VC11 Prerequisites x86-64
  ```

- To use the silent uninstallers, execute the following batch files from the command line or from another batch/script file:

  ```
  <solvers_install_dir>\Uninstall.bat
  <cae_install_dir>\Uninstall.bat
  ```

Uninstall Abaqus on Linux

You can remove a release of Abaqus by deleting the installation directories and all underlying files. Your user account must have permission to delete the Abaqus directories. You must delete the installation directories for both the Abaqus solvers and Abaqus/CAE.

1. Change directory (`cd`) to the *solvers_install_dir* directory, for example `/usr/DassaultSystemes/SimulationServices/2018/`.
2. Move up two levels:
   ```
   cd ../..
   ```
3. Change the permissions of the directories and files by typing the command:
   ```
   chmod -R 755 SimulationServices
   ```
4. Remove the installed files by typing the command:
   ```
   rm -rf SimulationServices
   ```
5. Repeat steps 1-4 for the Abaqus/CAE installation.

Reference Information

After the installations are completed, refer to the topics below for further information.

Getting a List of Dassault Systemes Software Installed

You can use the `DSYListInstalls.exe` utility to generate a list of all Dassault Systèmes software products installed on a Windows computer.

This utility is available in the extracted assembly media and in each product installation:

In the extracted media	`<download_dir>\media_name\1\InstallData\installer\inst\win_b64\code\bin\DSYListInstalls.exe`
In a product installation	`<install_dir>\InstallData\installer\inst\win_b64\code\bin\DSYListInstalls.exe`

Run the utility from a Command Prompt window.

The information is returned in an XML file, which contains the following data:

- Build level (the build level of the SIMULIA Established Products 2018 release is "B420")
- HotFix level
- Identifier label
- Installation path
- Installation type

Example output of the utility is shown below:

```
<?xml version="1.0" encoding="UTF-8"?>
<installs>
  <install buildLevel="B420" hfxLevel="420.2" ident="hf2"
path="C:\SIMULIA\CAE\2018" type="SIMULIA_Abaqus_CAE"/>
  <install buildLevel="B420" hfxLevel="420" ident="!"
path="C:\SIMULIA\Tosca\2018" type="SIMULIA_Tosca"/>
  <install buildLevel="B420" hfxLevel="420.3" ident="secondInstall"
path="C:\SIMULIA\Tosca\2018secondInstall" type="SIMULIA_Tosca"/>
  <install buildLevel="B420" hfxLevel="420.2" ident="!" path="C:\Program
Files\Dassault Systemes\SimulationServices\V6R2018x" type="SIMULIA_Compute"/>

  <install buildLevel="B420" hfxLevel="420" ident="!"
path="C:\SIMULIA\License\2018" type="SIMULIA_FlexNet_License_Server"/>
  <install buildLevel="B420" hfxLevel="420" ident="!" path="C:\Program
Files\Dassault Systemes\SIMULIA2018doc" type="Documentation_SIMULIA"/>
  <install buildLevel="B420" hfxLevel="420" ident="!"
path="C:\SIMULIA\Isight\2018" type="SimuliaIsight"/>
</installs>
```

You can fine-tune and filter the data returned by using various command-line options—for help on these options, use the following command:

```
DSYListInstalls.exe -h
```

Abaqus Command-Line Interface (Commands Directory)

The Abaqus/CAE installer creates two commands to run Abaqus from the command line: `abaqus` and `abq2018`. The Windows batch files or Linux links are created in a directory named `Commands`.

On both Windows and Linux, the installer prompts you to choose the location for this directory.

On Windows, the default commands directory is:

```
C:\SIMULIA\Commands\
```

For a list of all Abaqus command-line options, use the `help` command-line option with either the `abaqus` or `abq2018` command.

On Windows platforms the `Commands` directory path is added automatically to each user's `PATH` environment variable during installation. On Linux platforms the `Commands` directory should be prepended to each user's path manually.

For hot fix (maintenance) releases, the release-specific command has the hot fix number appended. For hot fix 3, for example, the command is named `abq2018hf3`.

In a beta release there is no specific command created for the beta version.

Visual C++ and MPI Libraries for Abaqus

Visual C++ libraries and Message Passing Interface (MPI) libraries are required to run Abaqus.

When you install Abaqus on Windows, the Microsoft Visual C++ 2012 and 2010 runtime libraries are installed automatically. The following libraries are installed:

- 64-bit 2012 libraries
- 64-bit 2010 libraries

MPI components must be installed to 1) use MPI-based parallel job execution in Abaqus/Standard or 2) to use domain-level parallelization in Abaqus/Explicit. If your Abaqus users will be running these types of simulations, you must have the required MPI components preinstalled or allow the Abaqus installer to install them for you:

- On Windows/x86-64, the Abaqus services installer automatically installs the Microsoft MPI libraries, if necessary. If you have a 64-bit Windows HPC Server, however, this is not needed because the MPI components are included with the operating system.
- On Linux 64-bit (lnx86-64) operating systems, the Abaqus installer installs the IBM Platform Computing MPI libraries.

For more information on MPI and thread-based parallel processing modes, see the following section of the Abaqus user assistance:

Abaqus > Execution > Parallel Execution

Any other third-party software that will be used in conjunction with the Abaqus products (compilers, operating system patches, etc.) should be installed before installing the Abaqus products. See the Program Directory for more details.

Setting the TOSCA_INSTALL_PATH Environment Variable for Abaqus/CAE

The environment variable `TOSCA_INSTALL_PATH` must be set in the startup environment of Abaqus/CAE for its Optimization module to work properly.

The Tosca installer normally sets this variable in the `custom_v6.env` file of the Abaqus services/solvers installation.

If any problems occur when running an optimization job from Abaqus/CAE, make sure that the environment variable `TOSCA_INSTALL_PATH` is set to the full path of the Tosca Structure launch command (Windows batch file or Linux shell script):

```
<tosca_install_dir>/<os>/code/command/ToscaStructure.[bat|sh]
```

To manually set this environment variable for a default installation on Windows, you can add the following lines to the Abaqus `<solvers_install_dir>/<os>/SMA/site/custom_v6.env` file:

```
import os
os.environ['TOSCA_INSTALL_PATH'] =
"C:\\SIMULIA\\Tosca\\2018\\win_b64\\code\\command\\ToscaStructure.bat"
```

About SIMULIA

Dassault Systèmes SIMULIA applications, including Abaqus, Isight, Tosca, and Simulation Lifecycle Management, enable users to leverage physics-based simulation and high-performance computing to explore real-world behavior of products, nature, and life. As an integral part of Dassault Systèmes' **3D**EXPERIENCE® platform, SIMULIA applications accelerate the process of making highly informed, mission-critical design and engineering decisions before committing to costly and time-consuming physical prototypes. **www.3ds.com/simulia**

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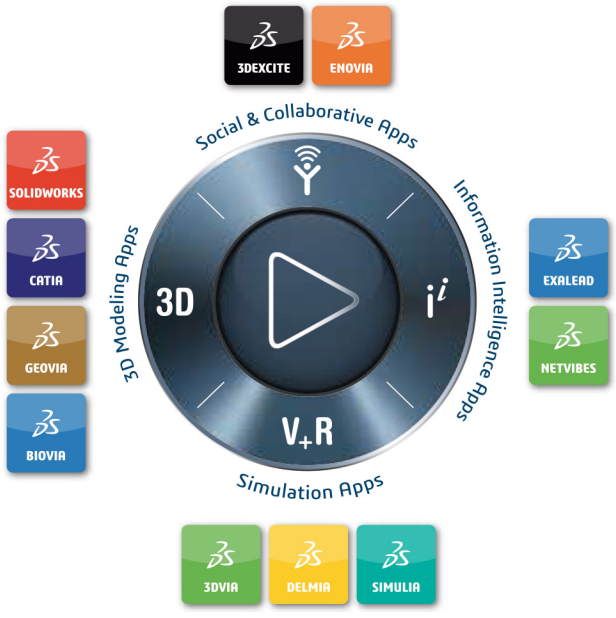

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