Windows installation guide for Abaqus 2016

1 Licence Requirements

Before installing Abaqus please read the licence requirements, in particular noting:

Only appropriately authorised support staff may make physical copies of the software or documentation. Abaqus may only be installed on computers owned by the University of Manchester; it may not be installed on computers owned by staff or students. With limited exceptions use of Abaqus by students is limited to on-campus facilities. ABAQUS on-line documentation may not be made available over the open internet.

2 Supported compilers for Abaqus 2016

2.1 C++ Compiler

Visual Studio 2012 Update 4 (available from ESD)

2.2 Fortran Compiler

Intel® Fortran Composer XE 2011 Update 6
Download the installer
Installation guide

3 Installation

There are 4 installers which have to be run in the following order:

1. Documentation

   Note that installing the documentation is not optional - the solvers won't install unless the documentation has already been installed.

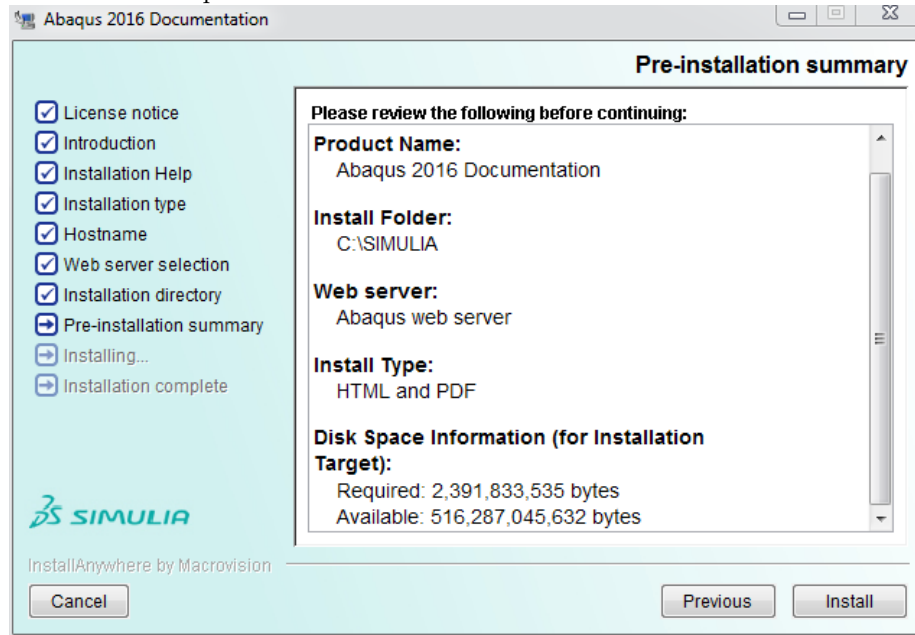2. Services (solvers)

3. CAA developer

4. CAE

It's generally just a process of double-clicking on each setup.exe in turn and accepting the defaults, but some details are given below for key steps.
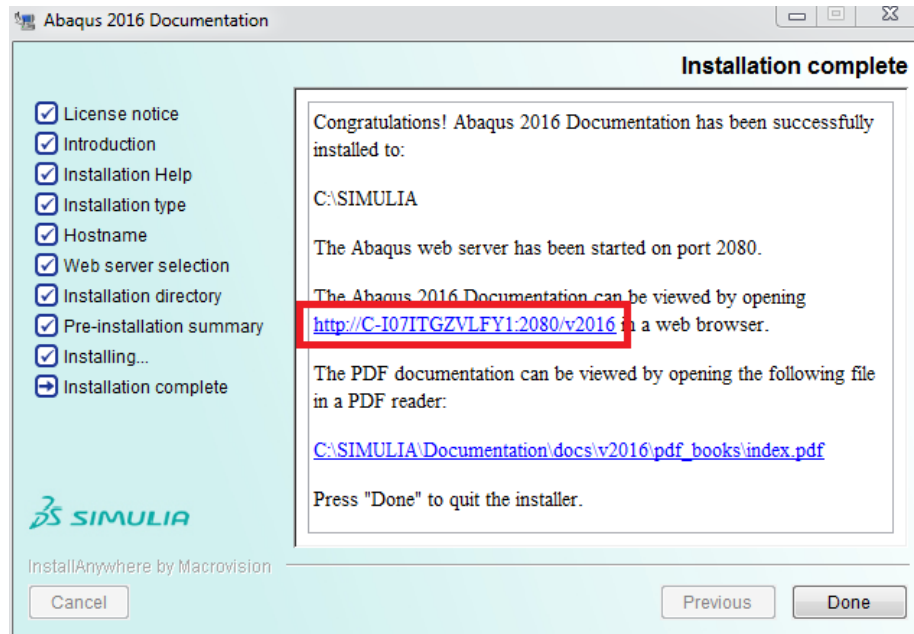
3.1 Documentation

Mount the iso file containing the documentation installer `Abaqus_fesafe_2016_`
`documentation.iso` Run this installer
`\1\DOC_SIMULIA_Abaqus_fe-safe\1\Abaqus_2016\setup.exe`
Choose HTML and pdf

Make a note of the link provided at the end of the installation which is required to view the documentation in a web browser (shown in the red box below). You are required to enter this later on in the installation process.

3.2 Services (solvers)

Mount the iso file containing the Abaqus installers `Abaqus_2016_Win_Lin.iso`. This will show up as `Abaqus2016`. Run the installer

`Abaqus2016\3DEXPERIENCE_AbaqusSolver\Windows64\1\setup.exe`

3.3 CAA developer

Run the installer `Abaqus2016\CAA_3DEXPERIENCE_AbaqusSolver\Windows64\ 1\setup.exe`
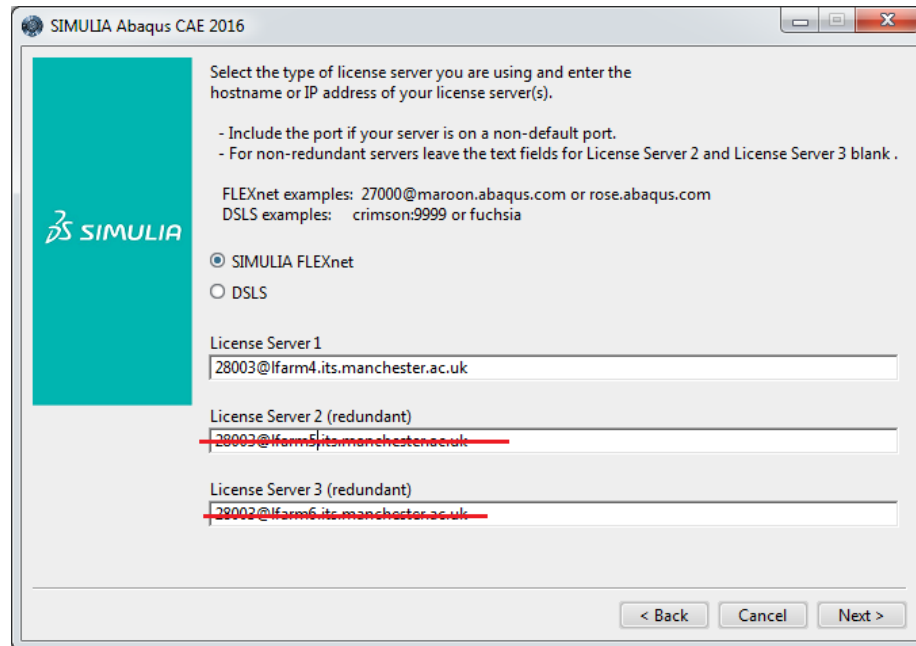
3.4 CAE

Run the installer `Abaqus2016\SIMULIA_Abaqus_CAE\Windows64\1\setup.exe`

Choose Flexnet as the licence type and enter the licence server: `28003@lfarm4.its.manchester.ac.uk`

There is a known bug in this version of Abaqus which causes the installation to fail if you enter the two redundant licence servers (`28003@lfarm5.its.manchester.ac.uk` and `28003@lfarm6.its.manchester.ac.uk`)- this should be fixed in following releases.

3.4.1 A warning about the working directory

You will be asked to choose a location for the Abaqus working directory. By default, this is `C:\temp` and this will be created if it doesn't already exist. If you want to use a different directory, make sure it exists. The text box suggests you can specify a path to be created (by changing the default `C:\temp`), however the installer won't create a new directory for you, and Abaqus won't install properly.

3.4.2 Subset verification suite

As part of the installation process, Abaqus will run the verification suite and report the results. Note this is only a sub-set of the verification suite, so the verification should be run again post-installation.

4 Post-installation tasks
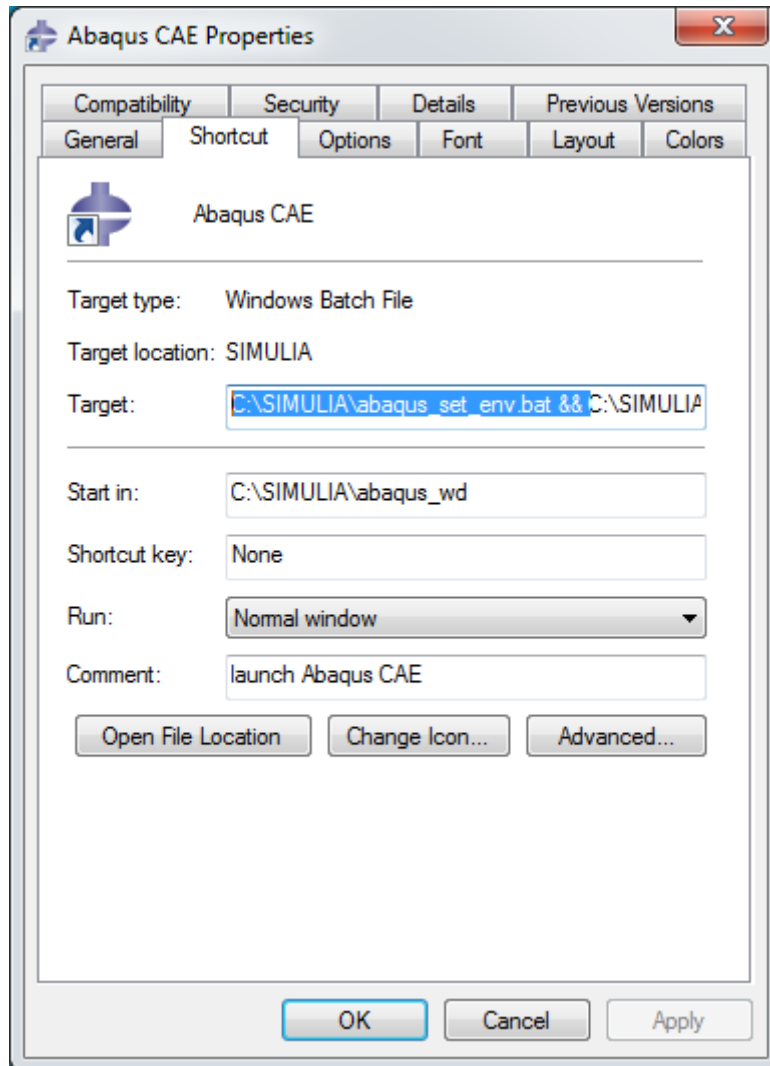
4.1 Modify shortcuts to get user subroutines working

To get User Subroutines working with Intel Compiler XE 2011, copy `Abaqus2016\abaqus_set_env.bat` to `C:\SIMULIA\` and then modify the Abaqus start menu shortcuts thus:

1. Go to the **Start Menu → All Programs → Dassault Systemes SIMULIA Abaqus CAE 2016**, right click on **Abaqus CAE**, then left click on **properties**

2. Copy and paste the below string (everything within, but not including the quote marks) to the very beginning of the **Target** field. Ensure there is a

single space either side of the final "**&&**"
```
"C:SIMULIA\abaqus_set_env.bat && "
```

3. Repeat this for the Abaqus Command and Abaqus Verification shortcuts in the **Dassault Systemes SIMULIA Abaqus CAE 2016** sub-menu

4.2 Verification suite

Run the verification suite to test the installation was successful. Start Menu → All Programs → Dassault Systemes SIMULIA Abaqus CAE 2016 → Abaqus verification. Tests should report PASS (or skipped for unlicensed features) in the verify.log file. If Abaqus has not been configured correctly to use the Fortran and C++ compilers then tests will fail for user subroutines and make utilities.