Aspherix® Quick Start Guide

Contents

Once you have installed your Aspherix® product you are all set to begin. This brief guide will assist you in getting started. If you need help for the installation please refer to the installation instructions included with the Aspherix installer.

For more comprehensive information on usage and commands, consult the documentation included in your installation folder. You can also access the documentation directly from the Help menu in Aspherix® GUI.

Windows

Aspherix® GUI

Once you have installed Aspherix GUI, you can launch the program by accessing the Start Menu or you can look for the Aspherix® GUI executable in the installation folder under bin/aspherix-gui.exe. Once launched, you will be presented with a window, as depicted in Figure 1. From here, you can either begin a new project from scratch or select one of the many tutorials available in the Aspherix® GUI.
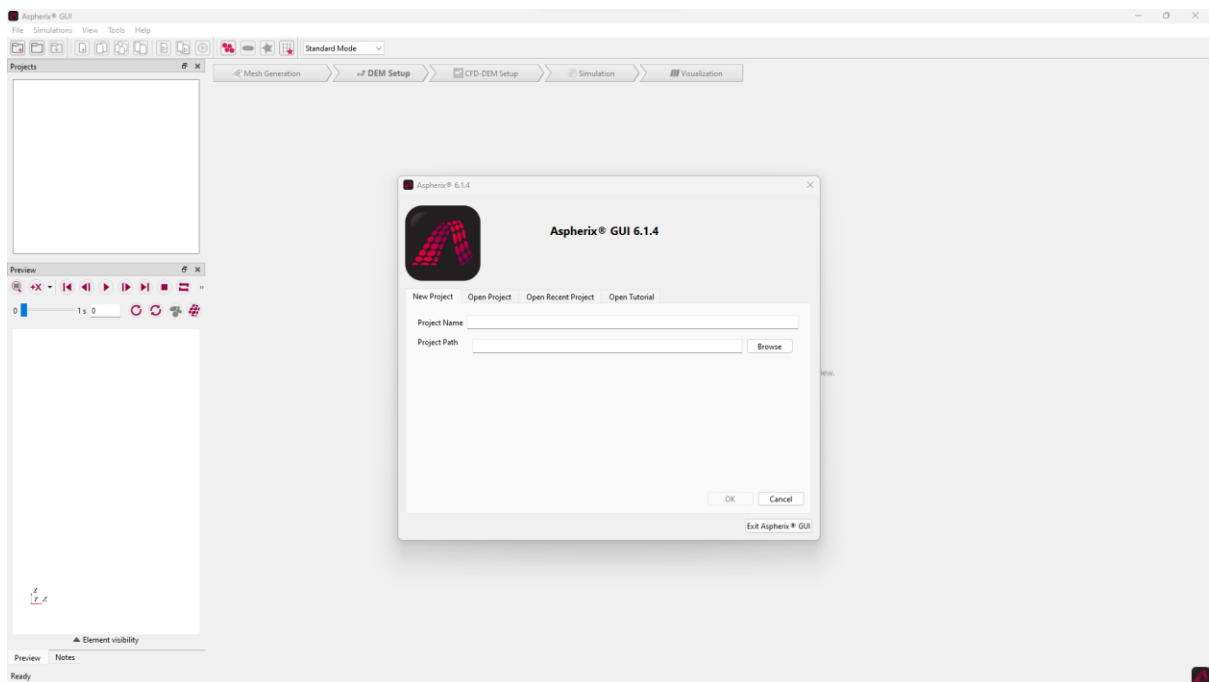

Figure 1 Aspherix GUI when you first open it

If you close this initial window, you can access the tutorials via File/Open tutorial. The selected tutorial has to be copied to a new location from where it will be loaded. This guarantees that the original tutorials remain untouched and can be reloaded as often as desired.
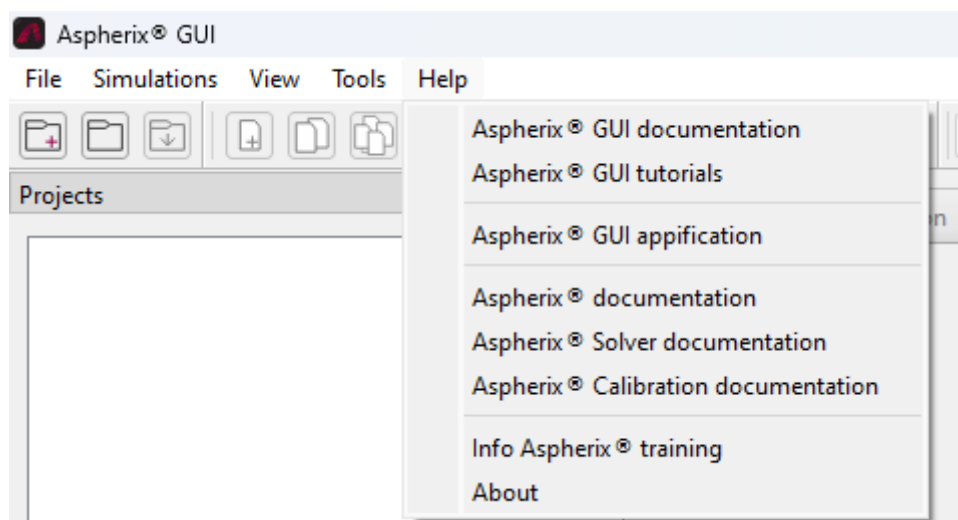

Figure 2 Help menu in the GUI

All the relevant information is found in the Help Menu, as shown in Figure 2. In Aspherix® GUI Documentation you find a description of the tutorial cases. In the Aspherix® Solver documentation contains a detailed description of all available commands and features.

For **setting up a new case**, please just click on File/New project, type Ctrl + N or click on the according symbol, [icon].
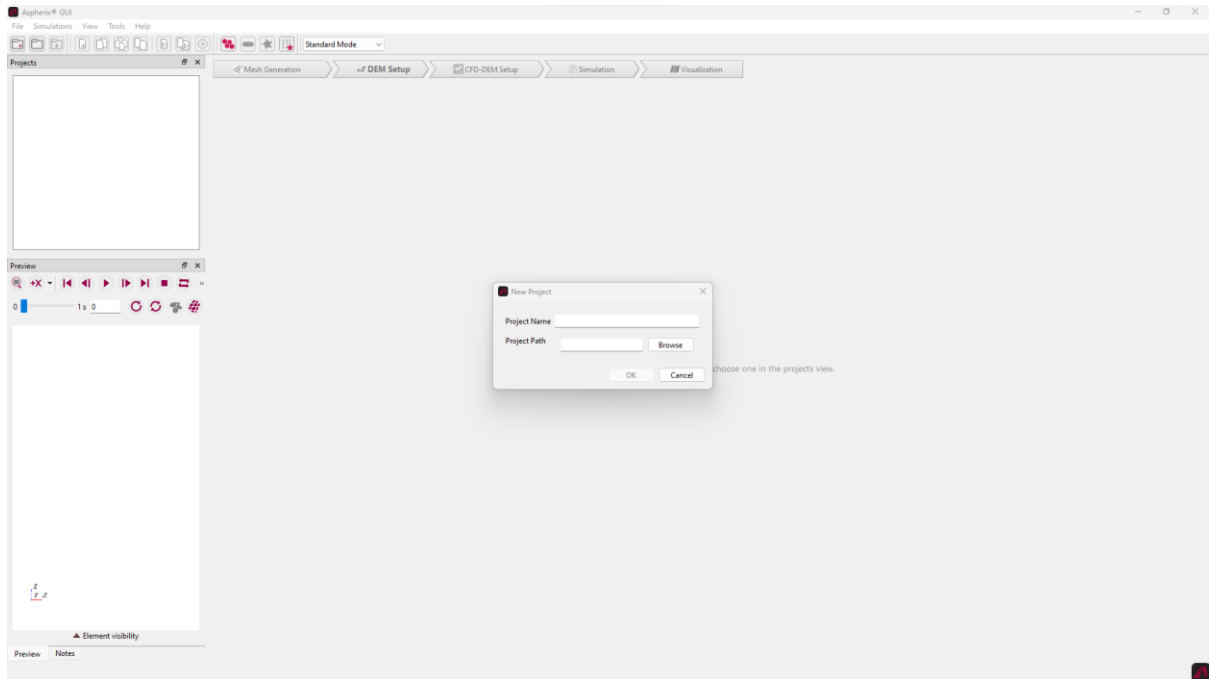

Figure 3 New simulation in the GUI

If you want to load a **prepared case**, please Use File/Open project [icon].

All Aspherix® GUI cases can be run within Aspherix® GUI and with Aspherix® Solver directly in a terminal (see next section).

Aspherix® Solver

After installing Aspherix® Solver of Aspherix® GUI on your system, the Aspherix® Solver executable is available. For running cases with Aspherix® Solver please open a terminal (e.g., Windows Power Shell) and navigate to the folder with the input script (using cd).

For running cases (in this example the input script is called input.asx) serially please type

```
aspherix -in input.asx
```

For running the case (in this example the input script is called input.asx) in **parallel** (in this example with 4 processors) please type

```
mpiexec -np 4 aspherix -in input.asx
```

It is important to keep in mind that the number of processors you can use in Aspherix DEM is determined by the number of license coins available to you. You can verify the availability of licenses

by checking the message "`Checkout of asx_solver OK.`" in the terminal, which will appear once for each process (i.e., 4 times for the above example).

All Aspherix® Solver cases can ONLY be run with Aspherix® Solver (currently, they cannot be loaded within Aspherix® GUI).

Aspherix® Calibration

After installing Aspherix® Calibration on your system, the Aspherix® Calibration executable is available. For running cases with Aspherix® Calibration please open a terminal (on Windows e.g., Windows Power Shell) and navigate to the folder with the input script (using cd).

For running cases (in this example the input script is called aspherix-calibration.asx) please type

```
aspherix-calibration run -in aspherix-calibration.casx
```

All Aspherix® Calibration cases can ONLY be run with Aspherix® Calibration (currently, they cannot be loaded within Aspherix® GUI).

Unix

Aspherix GUI

After installing Aspherix GUI it can be launched by typing

```
aspherix-gui
```

to a terminal (if this was not disabled during the installation by removing all path and bashrc settings during the installation). Alternatively, one can launch the GUI by using its entire path (/home/USERNAME/DCS-Computing/Aspherix-VERSION/bin/aspherix-gui when the default installation path has been used).

The instructions for starting a case, accessing tutorials, and seeking help in Aspherix GUI on Windows are applicable in Unix as well.

Aspherix® Solver

After installing Aspherix® Solver on your Unix system the Aspherix® Solver executable is available on your system. For running cases with Aspherix® Solver please open a terminal and navigate to the folder with the input script.

For running cases (in this example the input script is called input.asx) **serially** please type

```
aspherix -in input.asx
```

For running the case (in this example the input script is called input.asx) in **parallel** (in this example with 4 processors) please type

```
mpirun -np 4 aspherix -in input.asx
```

It is important to keep in mind that the number of processors you can use in Aspherix DEM is determined by the number of license coins available to you. You can verify the availability of licenses by checking the message "`Checkout of asx_solver OK.`" in the terminal, which will appear once for each process (i.e., 4 times for the above example).

All Aspherix® Solver cases can ONLY be run with Aspherix® Solver (currently, they cannot be loaded within Aspherix® GUI).

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aspherix-calibration run -in aspherix-calibration.casx
```

All Aspherix® Calibration cases can ONLY be run with Aspherix® Calibration (currently, they cannot be loaded within Aspherix® GUI).