

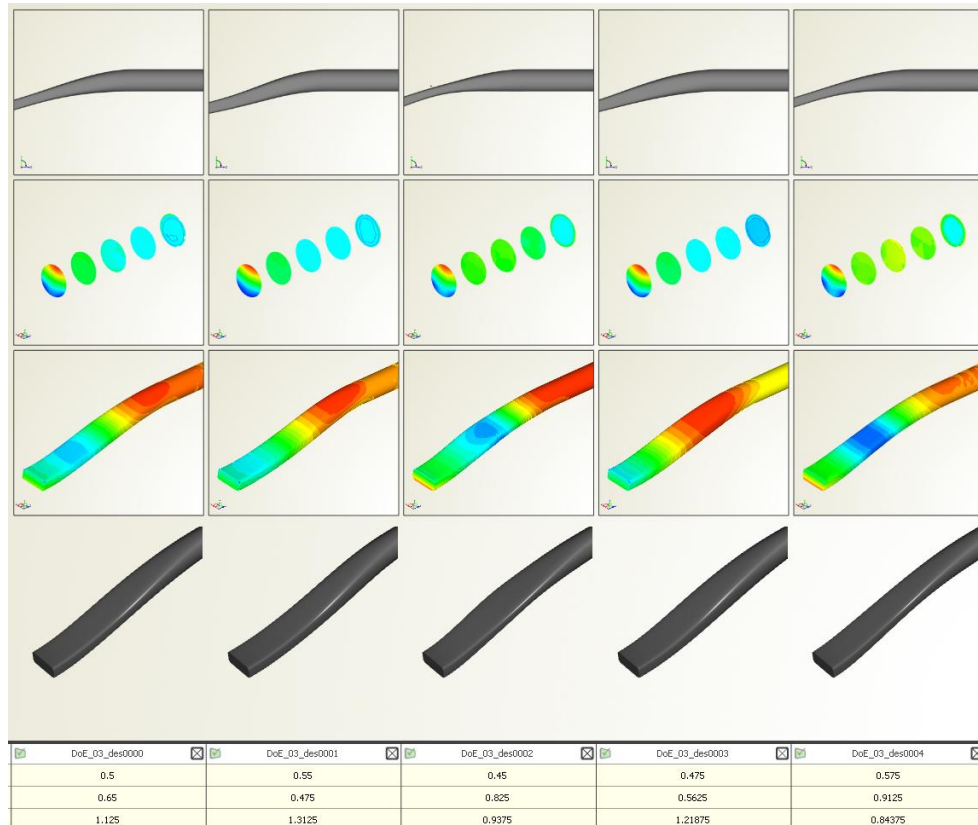
Design Viewer

With the *design viewer*, designs can be compared to each other within a single window. The input for this viewer comes from the design result table, which is automatically created within a design engine run.

Along with the design information (variables, parameters, constraints), two different contents are given in this viewer:

First, a set of screenshots is displayed for each design, where these images have been configured by the user beforehand.

Second, an interactive 3D geometry of each design is available right below the screenshot sets. In this area, you can zoom, rotate and translate the 3D geometry for detailed comparisons.

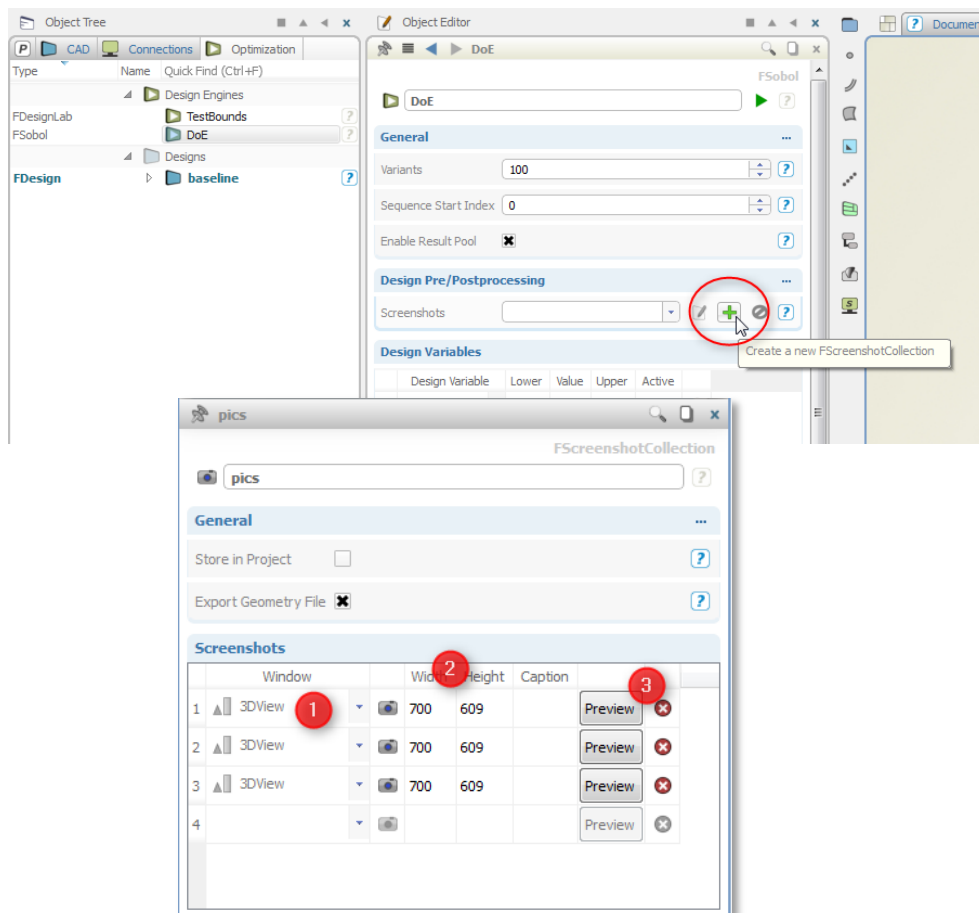


1

Configuring Screenshots

You can configure your screenshots either *before* you start a design engine, or *after* an engine run. Let's consider before the run first:

- ▶ Select your design engine.
- ▶ Add a screenshot collection by clicking on the “+” button.
- ▶ In the screenshot collection, choose a window (1), set the image size (2) and check your screenshot with the preview button (3).
- ▶ Close the screenshot collection.
- ▶ Run your design engine as usual.

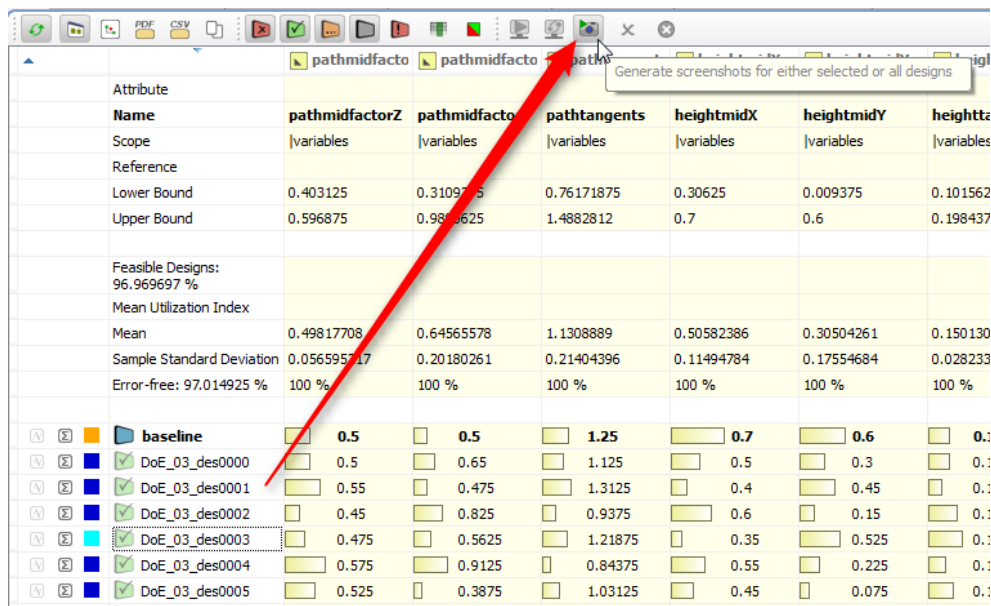


2

Configuring Screenshots after a Design Engine Run

For instance, if you notice after a design engine run that you forgot to configure a specific view, you can still configure new screenshots or change old screenshots directly at the design result table.

- At the table toolbar, click on the button for screenshot generation:



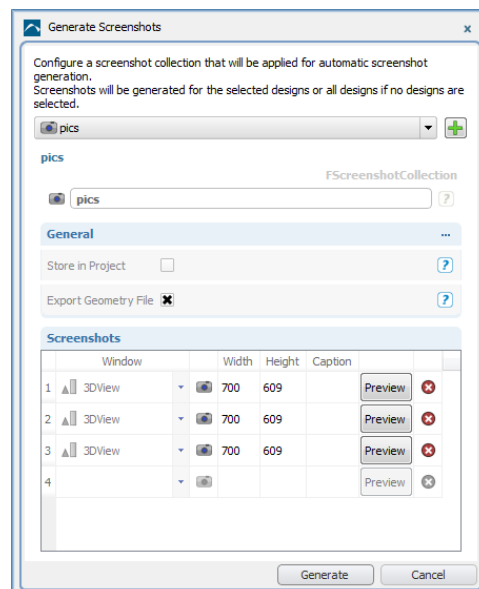
Generate screenshots for either selected or all designs

| Attribute | pathmidfacto | pathmidfacto | pathmidfacto | pathmidfacto | pathmidfacto | pathmidfacto |
|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Name | pathmidfactorZ | pathmidfactorX | pathmidfactorY | pathmidfactorZ | pathmidfactorX | pathmidfactorY |
| Scope | variables | variables | variables | variables | variables | variables |
| Reference | | | | | | |
| Lower Bound | 0.403125 | 0.310975 | 0.76171875 | 0.30625 | 0.009375 | 0.101562 |
| Upper Bound | 0.596875 | 0.989375 | 1.4882812 | 0.7 | 0.6 | 0.198437 |
| Feasible Designs: | | | | | | |
| 96.969697 % | | | | | | |
| Mean Utilization Index | | | | | | |
| Mean | 0.49817708 | 0.64565578 | 1.1308889 | 0.50582386 | 0.30504261 | 0.150130 |
| Sample Standard Deviation | 0.05659517 | 0.20180261 | 0.21404396 | 0.11494784 | 0.17554684 | 0.028233 |
| Error-free: 97.014925 % | 100 % | 100 % | 100 % | 100 % | 100 % | 100 % |
| baseline | 0.5 | 0.5 | 1.25 | 0.7 | 0.6 | 0.1 |
| DoE_03_des0000 | 0.5 | 0.65 | 1.125 | 0.5 | 0.3 | 0.1 |
| DoE_03_des0001 | 0.55 | 0.475 | 1.3125 | 0.4 | 0.45 | 0.1 |
| DoE_03_des0002 | 0.45 | 0.825 | 0.9375 | 0.6 | 0.15 | 0.1 |
| DoE_03_des0003 | 0.475 | 0.5625 | 1.21875 | 0.35 | 0.525 | 0.1 |
| DoE_03_des0004 | 0.575 | 0.9125 | 0.84375 | 0.55 | 0.225 | 0.1 |
| DoE_03_des0005 | 0.525 | 0.3875 | 1.03125 | 0.45 | 0.075 | 0.1 |

- As shown in on the previous page, configure your screenshots. You can modify an existing screenshot collection, and you can add new screenshots.
- Press "Generate".

✓ If no designs are selected in the table, the screenshot generation will process all design of the table (otherwise, only the selected ones).

All screenshots are stored in the project directory.



Generate Screenshots

Configure a screenshot collection that will be applied for automatic screenshot generation. Screenshots will be generated for the selected designs or all designs if no designs are selected.

pics

FScreenshotCollection

pics

General

Store in Project ☐

Export Geometry File ☒

Screenshots

| | Window | Width | Height | Caption | |
|---|--------|-------|--------|---------|---------|
| 1 | 3DView | 700 | 609 | | Preview |
| 2 | 3DView | 700 | 609 | | Preview |
| 3 | 3DView | 700 | 609 | | Preview |
| 4 | | | | | Preview |

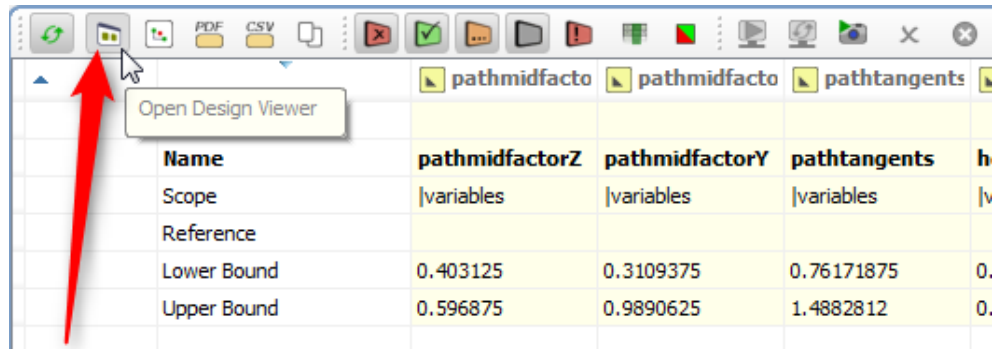
Generate Cancel

3

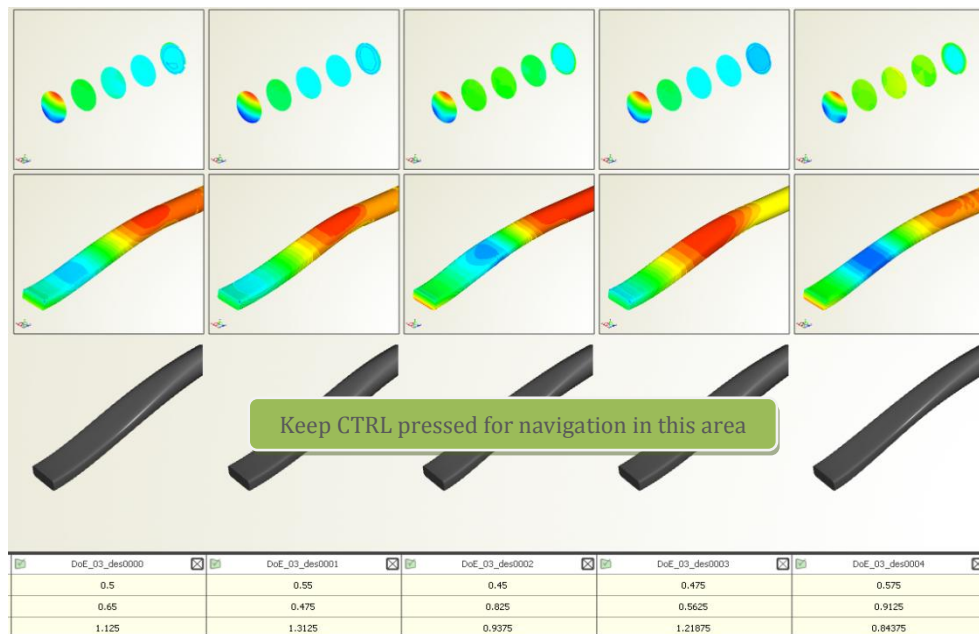
Design Viewer

After the design engine run (step 1), or after the separate screenshot generation process (step 2), you can open the design viewer window.

- Press the design viewer button at the toolbar:



- Use your mouse to globally navigate in this window: left mouse button to move the entire scene, mouse wheel to zoom into it.
- For the 3D geometry (that is colored dark grey in our example) at the bottom of the screenshots, keep CTRL pressed and use your standard mouse gestures for navigation.



4

More Information

The design viewer window comes with filter and selection options; these are the most important ones for a start:

- ▶ At the left-hand side of the viewer, you can choose which content gets displayed.
- ▶ At the bottom, select/deselect either all designs at once or single designs manually for filtering (1). Click on the filter button (2) to show only selected designs.
- ▶ Click on the splitter line (3) and drag it up and down for showing more design variables and parameters.

