SimLab 3D PDF

Settings

3D PDF Settings

PDF Settings dialog enables the user to control the exported 3D PDF file(s), from SimLab Composer and other 3D SimLab plugins. In SimLab Composer the dialog can be opened by clicking Settings from the 3D PDF menu. In any of the 3D SimLab plugins, the dialog can be opened by clicking PDF Export -> Settings from under the SimLab menu, or PDF Settings button in SimLab PDF Export ribbon, depending on the CAD application setting.

Upon selecting this option, the PDF Settings dialog will open. In 3D SimLab plugins the dialog has four tabs, while in SimLab Composer it has a fifth tab for Animation setting, which is not supported in 3D SimLab plugins. Another difference in this dialog between 3D SimLab plugins and SimLab Composer is the Export button in the lower left side of the dialog. This button is only shown in SimLab Composer where the user can export directly from this dialog after selecting the required template. In the other 3D SimLab plugins, the user will have to save the PDF settings and then click PDF Export from the plugin's menu, or ribbon.

Template Tab

Template tab is where the user can browse to the folder containing the 3D PDF template(s) to use, create New templates, Edit, Delete, or Refresh template(s).

Clicking the New button will open SimLab Designer window. SimLab Designer is a simple application that enables users to design and save their own 3D PDF templates, to be used when exporting their 3D models into 3D PDF. For more details about SimLab Designer, select Designer Help from the Help menu in SimLab Composer, or from the 3D SimLab plugin menu or ribbon.

In
SimLab Composer
ONLY

Page Tab

In this tab a user can add background music to the exported 3D PDF file, and a Password for protection.
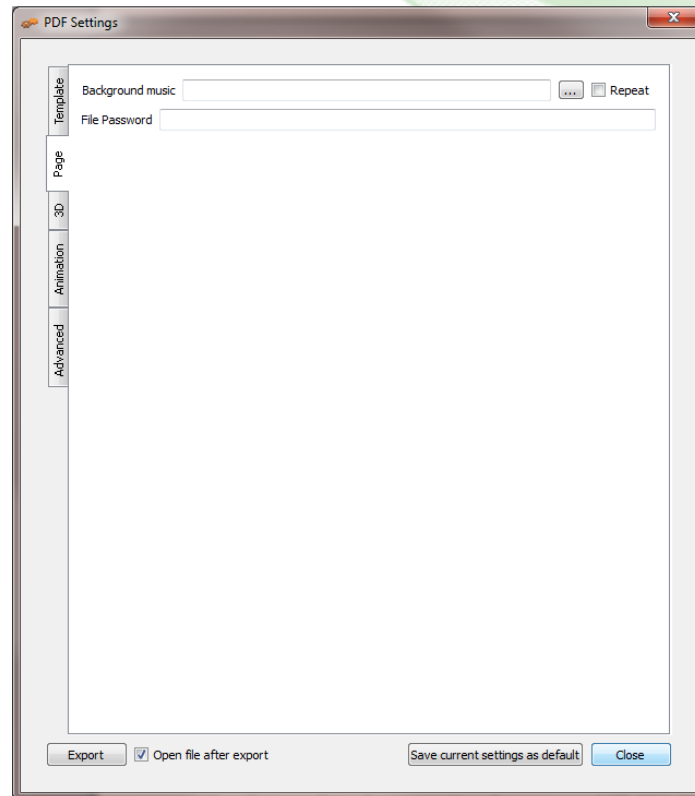
3D Tab

In this tab the user can set the properties of the 3D area in the 3D PDF template.

Show 3D Toolbar; shows or hides the 3D toolbar in Acrobat reader when opening the exported 3D PDF file.

Show World Axes; shows or hides the world axes, in the lower left part of the exported 3D PDF file.

Open Model Tree; opens the 3D model's tree in the exported 3D PDF file.

Disable Selection; disables/enables selection of geometries in the exported 3D PDF file.

Default Render Mode; using this option, the user can select the default render mode to be one of the following (Solid, Solid Wireframe, Transparent, Transparent Wireframe, Illustration, Shaded Illustration, Transparent Bounding Box, Solid Outline, or Bounding Box, Transparent Bounding Box Outline, Wireframe, Shaded Wireframe, Hidden Wireframe, Vertices, Shaded Vertices).

The images bellow show the same model using different render modes.
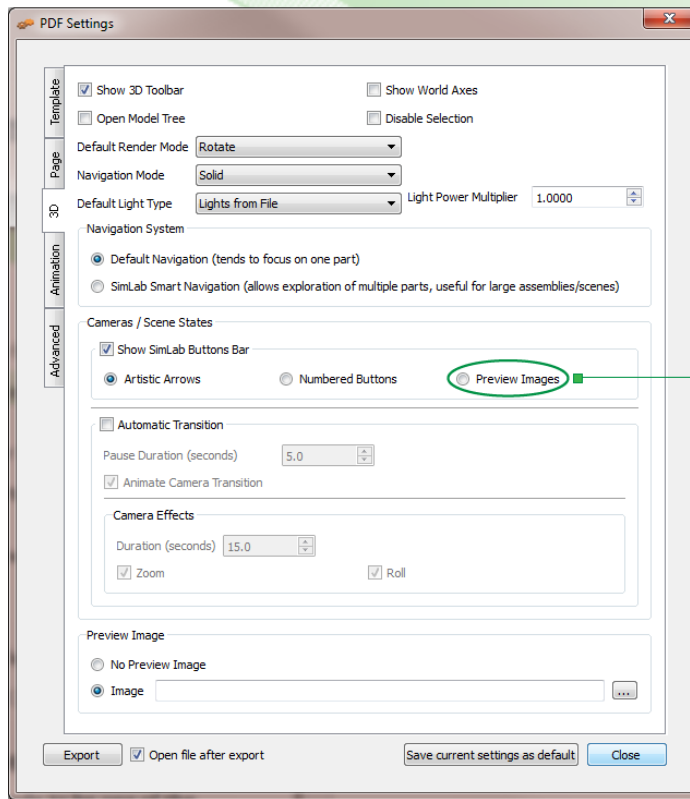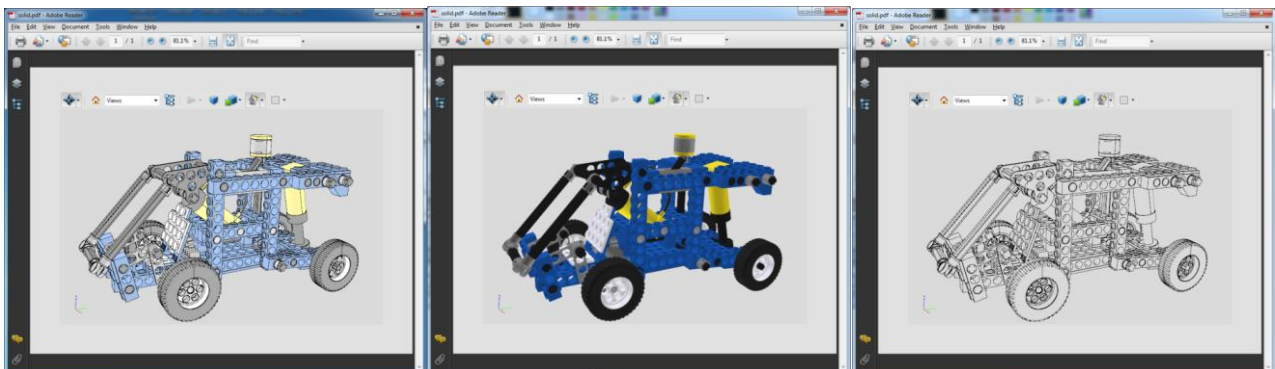
Navigation Mode; the user can set the default navigation mode for the exported 3D PDF file to be Rotate, Spin or Walk. The user of the 3D PDF file can choose to change this default mode from inside the exported 3D PDF file.

Default Light Type; light type can be one of the following: white, day, night, bright, CAD optimized, cube, or head lamp.

Light Power Multiplier; increasing this value increases the brightness in the exported 3D PDF file.

Navigation System; in this group the user can set the navigation mode, in the exported 3D PDF file. The navigation mode can be either Default Navigation; which tends to focus on one object in the scene, or SimLab Smart Navigation which is suitable for large scenes.

Cameras / Scene States; in this group the user can check the Show SimLab Buttons Bar option, to choose an option for navigating different cameras / scene states in the exported 3D PDF file. SimLab Buttons Bar can be:

- Artistic Arrows: arrows will be used for navigating between different cameras / scene states.
- Numbered Buttons: numbered buttons will be displayed to represent each camera / scene states.
- Preview Images: preview images of the exported cameras / scene states will be displayed to represent each camera / scene states. *(Available only in SimLab Composer)*

Automatic Transition; this option enables automatic switching between, the different cameras in the scene. When automatic camera is enabled, the user can select the Pause Duration, which is the time in seconds for which the camera will stand still before camera effect starts.

Animate Camera Transition is an option for animating the transition between different cameras in the scene. The Duration (seconds) is the time of the animated transition. In case of no animated transition:

Time before switching cameras = Pause Duration + Duration (seconds)

A user can select the camera effect to be Zoom, Roll or the two combined. The camera effect will take place for the camera effect duration.

In case the Automatic Camera option is not checked, the 3D PDF file will be exported with the scene cameras, but without switching between them.

The Preview Image group is available for the user to choose to include or not to include a preview image for the exported 3D PDF file. In case of selecting an image, it will be displayed upon browsing for 3D PDF files, to help the user in selecting the required file. This image will also be displayed when the user first opens the 3D PDF file. The image can be a rendered view image of the model/scene.
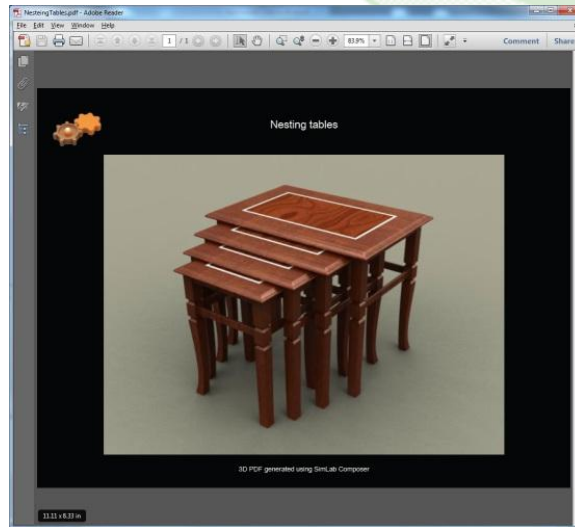
Animation Tab

In this tab SimLab Composer users can set the properties of the animation(s) in the exported SimLab 3D scene.

Frames Per Second (FBS); is the number of frames played per second for all animations created in the exported 3D SimLab scene. This controls the speed of playing all the animations in the scene, a value of 5 will result in a slower motion animation than a value of 15.

Playing Mode; is the mode to use when the animation(s) reaches an end. The Repeat option will keep on repeating the animation(s), from beginning to end, as long as the PDF file is open.

Swing option will keep on playing the animation(s), from beginning to end then from end to beginning, as long as the PDF file is open. The Play Once option will play the animation(s) only once.

In SimLab Composer ONLY
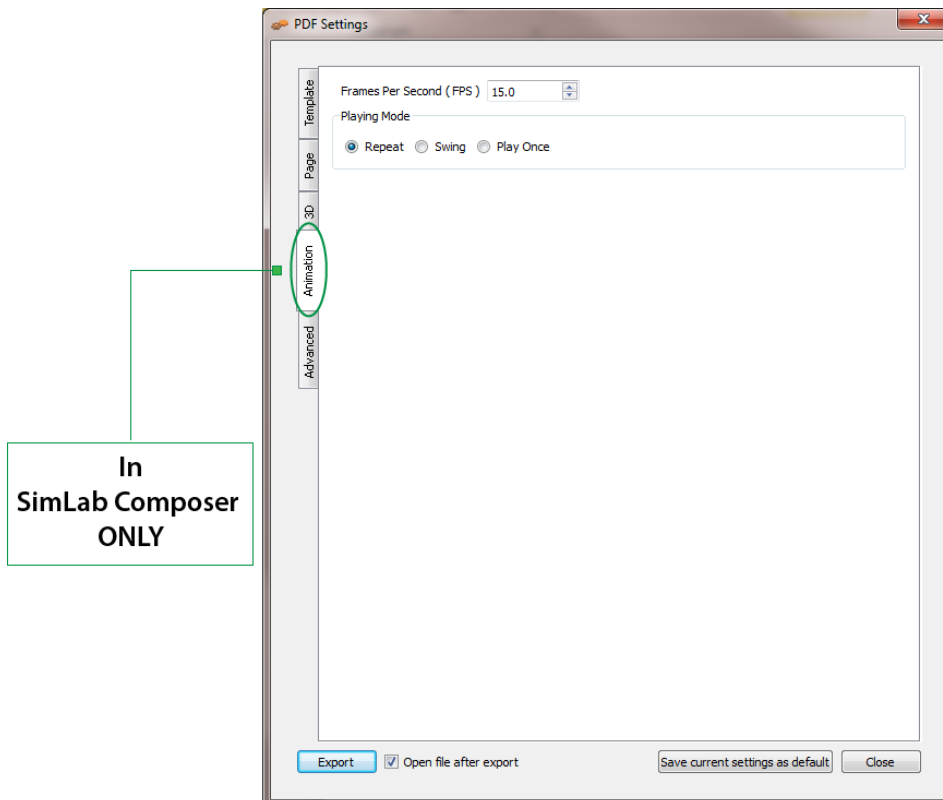
Advanced Tab

Document Java Script and 3D Java Script can be used by advanced users to insert Java scripts to control both, the PDF document, and the included 3D model.

Java scripts can be applied to designed templates, to make specific actions. Details about Java script support in 3D PDF files can be found at;

http://www.adobe.com/devnet/acrobat/javascript.html
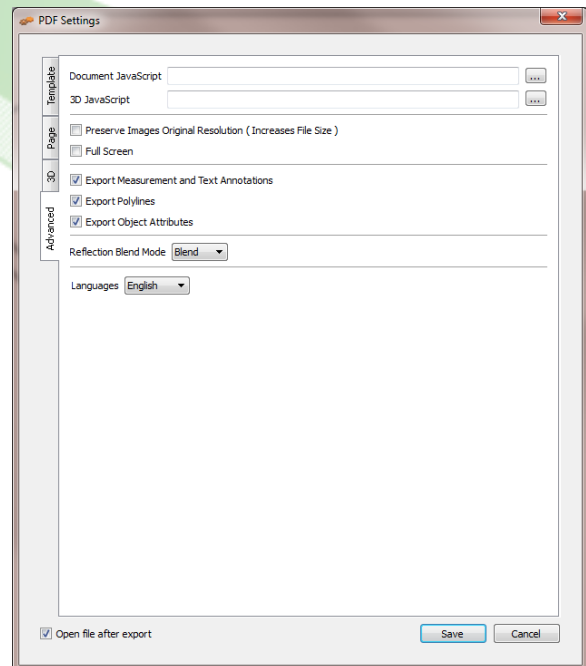
Preserve Images Original Resolution, if the PDF template includes an image, this option when checked will preserve the image's original resolution, and will increase the file size.

Full Screen check box; if checked will make the 3D PDF file start in Full screen mode.

Export Measurement and Text Annotations checkbox; when checked will enable exporting measurements and text annotations in a 3D scene to 3D PDF.

Export Polylines checkbox; will export 2D polylines in the scene.

Export Object Attributes; in CAD applications supporting attributes to describe objects/geometry in 3D scenes, these attributes can be exported into 3D PDF files. This can help designers communicate data with files' recipients.

Open file after export check box; will open the exported 3D PDF file.

Embedding PDF inside Html

With Html support, users can embed 3D PDF files into Html documents. Html5 Settings are found under the Html5 menu; where a user can select the template for the 3D PDF file. If a new template needs to be designed, clicking the New button will launch SimLab Designer window.

After selecting the required 3D PDF template, clicking Export will open the Export Geometry dialog where a user can select the name and location of the Html5 file.
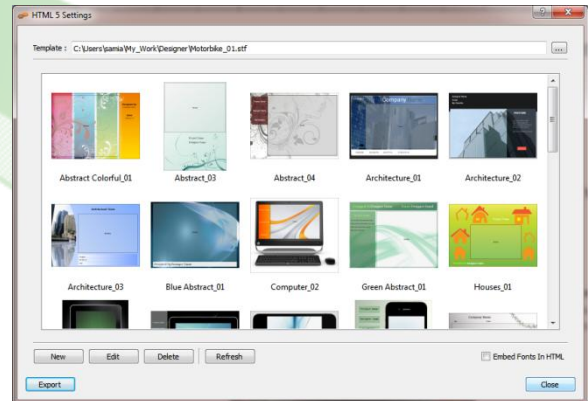
Merging PDF files

This option enables users to merge two or more PDF files together. This can be used to append a 3D model to a company's header, or a project description available in PDF format. PDF files can be generated using different programs, such as; Acrobat, WinWord, PowerPoint, or Open Office. Different 3D PDF files generated using SimLab products can also be merged together. Upon selecting this option the Merge PDFs window will open.