Optimize performance when importing geometries and floorplans

Geometries and floorplans exported from CAD software like AutoCAD, Inventor and Solid Works can be imported in FlexLink Design Tool by using the features in the Layout/Import group. To prevent and avoid performance issues it's recommended to follow a few principals described below.

FlexLink Engineering Tools team is working continuously to improve the performance. However, FlexLink Design Tool is not a high end CAD software.

File preparation

The general performance after CAD file import is highly dependent on the complexity of the imported file(s). It's often hard to decide what makes a CAD model complex and to predict how it will affect the performance of the complete layout. However, FlexLink Design Tool has similar behavior as other graphics software and to keep things simple is the best way to get good overall performance.

To reduce the size and/or and complexity of a CAD file before export from the source software it's recommended to perform the following operations:

- Remove irrelevant objects
- Merge/remove layers
- Minimize the amount of curved surfaces
- Remove small objects like for example fasteners
- Minimize the amount of small surfaces and fillets
- Remove threads
- Flatten floor layouts
- Reduce file size

Import settings

When using Layout/Import/Geometry it's quite difficult to predict the result of changed parameter settings in the Import model parameter window. The only solution is to try different settings and compare. However, default values with Feature Tree parameter set to Optimized mostly works best.

Floorplans are preferably imported by using Layout/Import/Floorplan. This feature automatically optimizes the import settings in the background and it also provides the ability to switch on/off the floorplan with View/3D/Show floorplan checkbox.

General performance settings

FlexLink Design Tool provides several features that can be used to improve performance when working with complex layouts:

Select *View/3D/Use lite geometries checkbox* to use geometries with fewer details.
Clear *View/3D/Show floorplan checkbox* to hide floorplan temporarily.
Select *View/Appearance/Quality/Fast* to decrease graphics quality an increase speed.
Select *View/Appearance/Shading/Wireframe* to change object appearance and increase speed.

Note: Currently there's no layer functionality or feature tree where it's possible to temporary hide/unhide objects that are not used.