

Level of Detail Display (Beta Feature 2020 R2)

Summary

Currently, the **Graphics** preference setting **Level of Detail** is available as a beta feature that enables you to improve application processing performance by reducing the level of complexity of the graphical display of the model in the **Geometry** window and the speed it takes to select objects in the **Outline**.

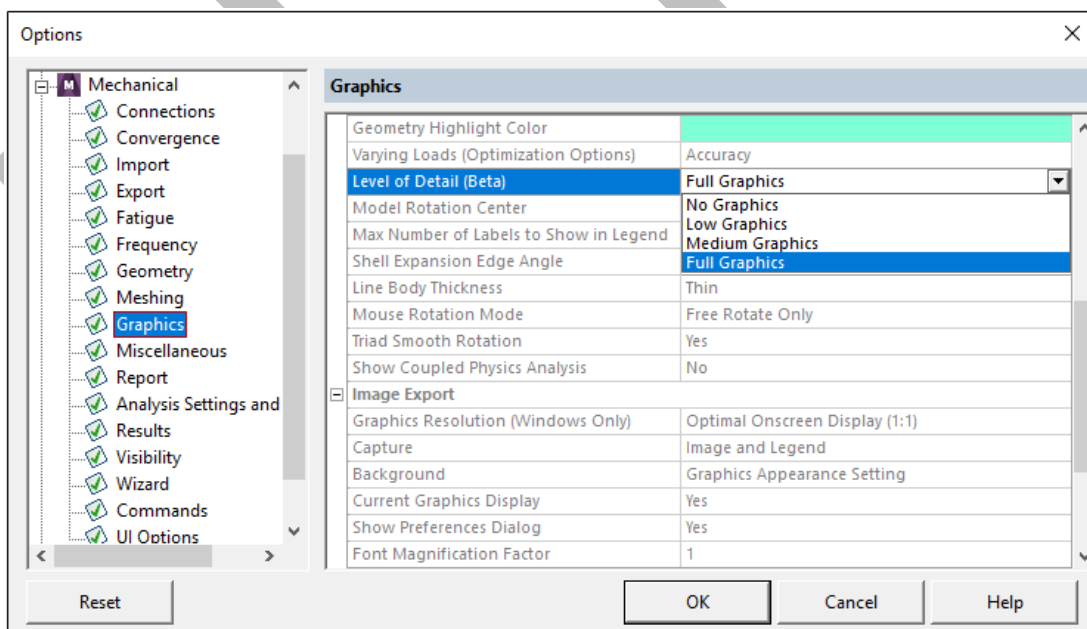
A specific characteristic of the settings is that the model is displayed simplistically as a solid, and the application does not redraw parts until necessary. This enables the application to process Outline selections much faster.

Activate Beta Key

To make the feature available, you must activate the Beta key. On the Workbench Project page, select the **Tools** drop-down menu and then **Options**. Select the **Appearance** category, scroll down the dialog, select **Beta Options**, and select **OK**.

Application

Once you have opened Mechanical, display the **Options** dialog and you specify your desired setting for the **Level of Detail** preference. The preference and its options are illustrated below.

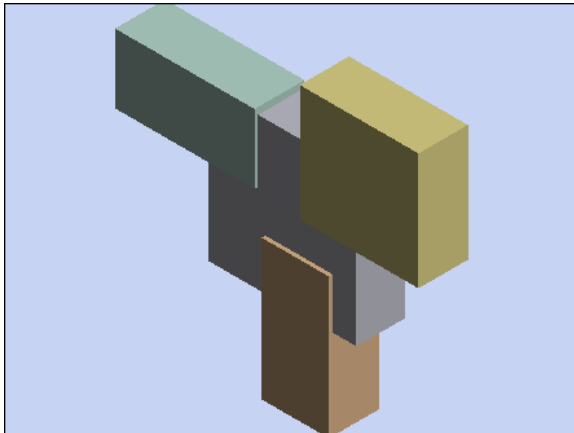


Application, continued

Display options include:

No Graphics: The **Geometry** window contains no graphical display.

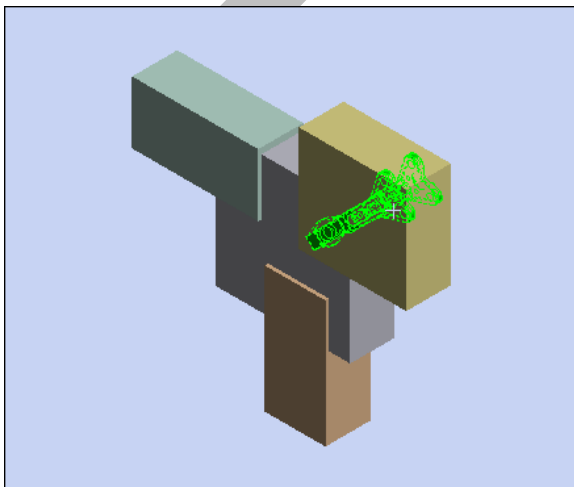
Low Graphics: The model is drawn with bounding boxes using the original body colors.



For this setting, the application displays the model as bounding boxes that are aligned by the X, Y, and Z axes of the coordinate system. This changes the appearance of complex structures that are not well-aligned with the axes. This setting significantly improves model drawing and rotation speeds, especially for complex models.

Limitations

- Does not support the Show Mesh display.
- Explode feature not supported.
- Cannot hide or suppress faces/bodies.

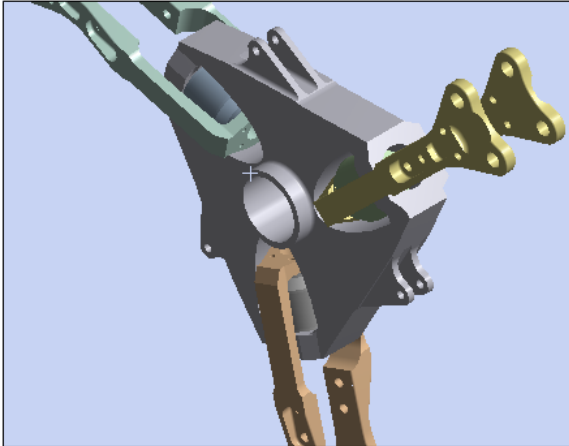


Selected geometric entities highlight normally.

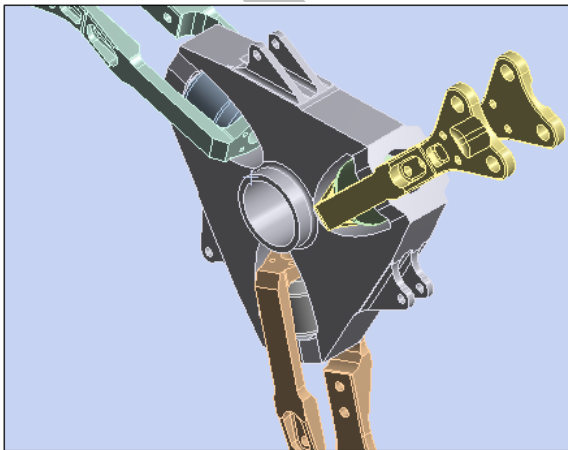
Application, continued

Display options, continued:

Medium Graphics: The model does not display edges and edge-connectivity.



Full Graphics (default): The model displays using application default settings.



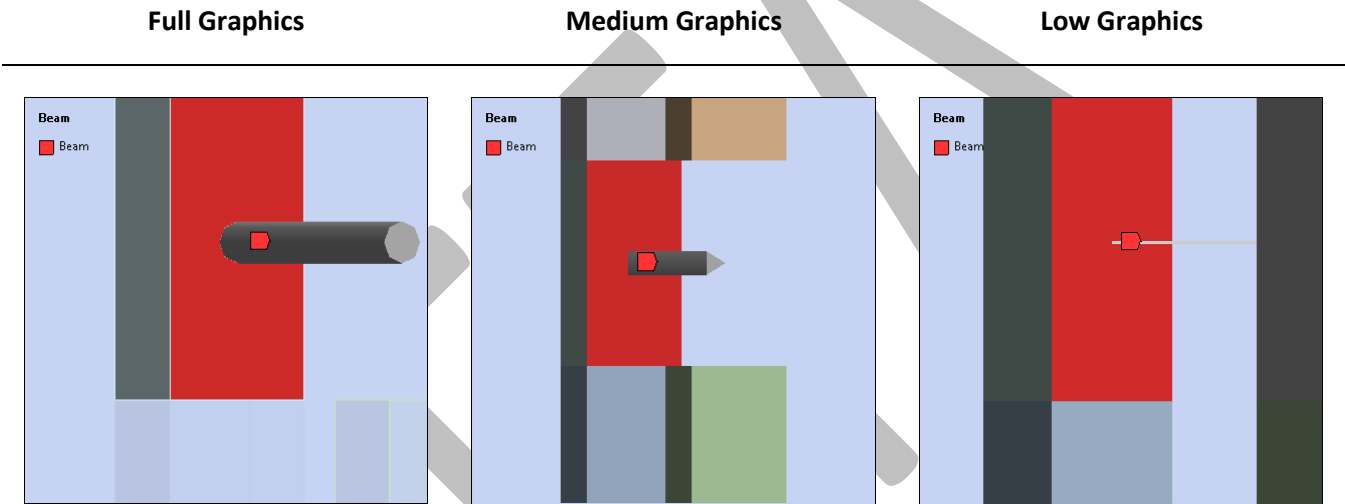
Display of Beams and Springs

To further lessen drawing times, the Level of Detail option affects the display of Beams and Springs.

For the Medium Graphics setting, the number of divisions displayed are reduced from 8 (in Full Graphics) to 3 and bodies are drawn without edges. As a result, the display does not include edge-connectivity information, however, this is desirable for the improvements to the time it takes to draw the part and rotate the model.

Beams

A full beam, three divisions, or a single line are drawn based of the selected setting.



Springs

For springs, all turns, reduced turns, or no turns - a single line - are drawn based of the selected setting.

