Comparing Models

This Tech Tip looks at one of the new features in Solid Edge 2020. Understanding changes between two versions of a design is a challenge, especially for large, complex 3D models. The new Compare Models command helps you track design changes across versions of a file. Using this command, you can compare two versions of a design file and easily understand what was added, removed, or modified between the two versions.

Many users have not got robust change control, so it is quite common that there may be 2 versions of the same file, but it is unclear whether they are the same or there are minor differences. The same may also be said for the 2 revisions of a file – if there is no change report stored to document the changes, it can be hard to know what was changed.
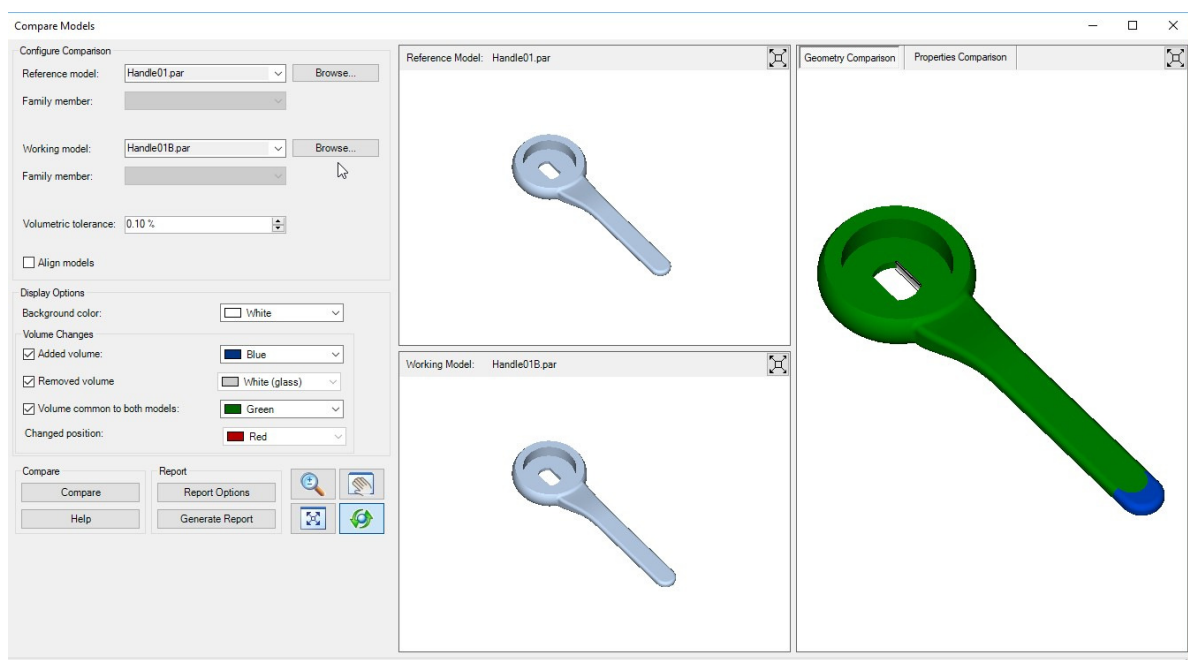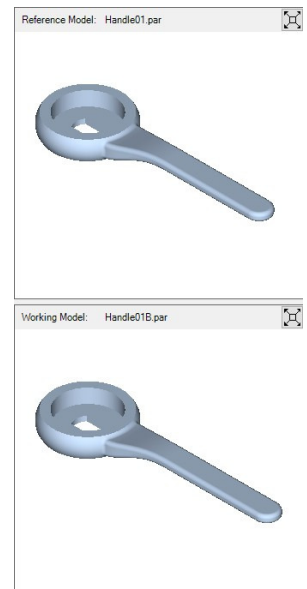
The new compare models command enables you to do a geometry comparison to visually see the differences. Take the example here of revision A and B of a handle. When looking at the parts side by side, it is extremely hard to determine where there are any variations?

The command is started from the Application menu, by choosing "Compare Models" from the Tools option. You can run this with or without any files open.

In the Compare Models dialog box, select the Reference Model and the Working Model by selecting the Browse button to select the 2 files. The working model is compared to the reference model.

The comparison uses the base coordinate system as the default (if the parts are already aligned, skip this step). If the two models have different coordinate systems, select the Align Parts option.
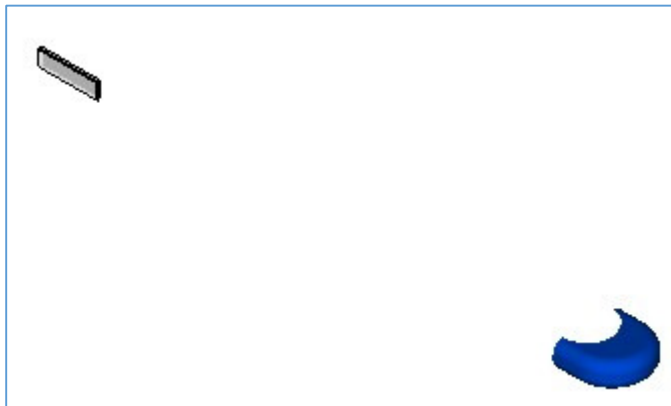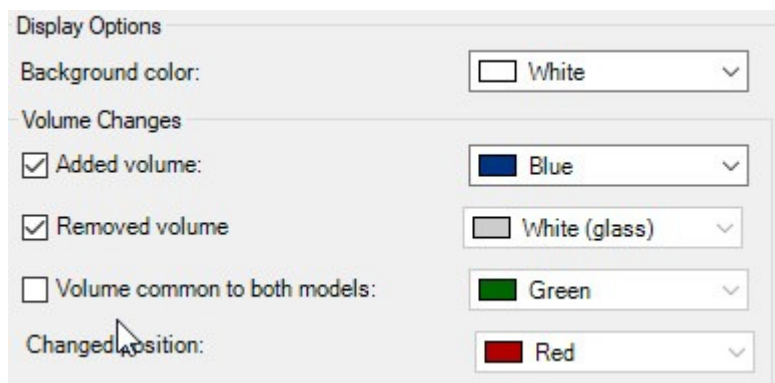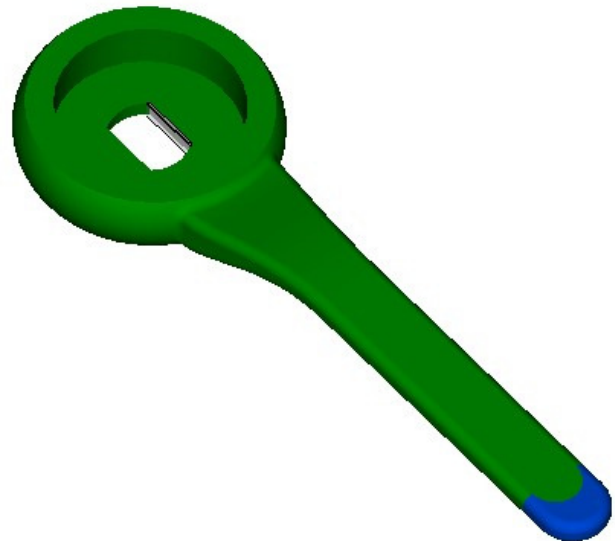
Click the "Compare" button to start the analysis.

Once it has finished, it highlights the added material in blue and the removed material in a white glass colour.

Again, this has limitations, as it can be difficult to see all changes, especially if small. For instance, in this case, it would quite easy to miss the removal of material from inside the keyway.

This can be overcome by using the options to turn off the display of added material, removed material or the main one is to turn off the common material, leaving just the added and removed material:

With the great new tool, you will be able to get a much better a quicker understanding of what changes have been made to files!