Model Based Definition (MBD)

SOLIDWORKS MBD is available as a separately purchased product that you can use with SOLIDWORKS Standard, SOLIDWORKS Professional, and SOLIDWORKS Premium. The top enhancements to SOLIDWORKS MBD include:
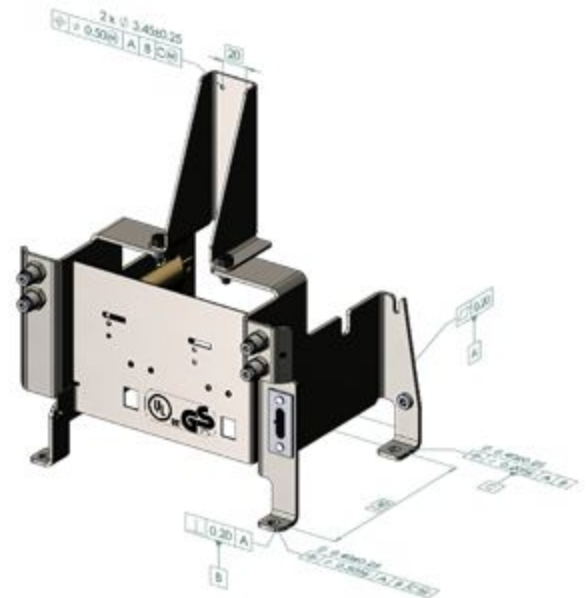
3D PDF Improvements

There have been many great enhancements to the publishing to 3D PDF capabilities. Enhancements include:

- You can use the display styles Shaded with Edges and Hidden Lines Removed.
- You can export non-rotated decals and textures to 3D PDF, but you cannot have decals and textures on the same face.
- You can include projected views in the 3D PDF.
- You can include an independent viewport in the 3D PDF if the template contains one.
- You can include multiple BOMs in the 3D PDF, and you can select which columns to include in the BOM.

3D PDF Template Editor

The 3D PDF Template Editor has received many top requested features to make it more robust and customizable. Enhancements include:

- Generic Tables. Users can now add generic tables to a template from existing SOLIDWORKS table templates.
- Multiple BOMs. Users can now add more than one BOM to a template. If there is more than one BOM, you can assign the table to a BOM in the original document or to follow the assembly order.
- Multiple Viewports. You can add more than one viewport to a template. You can project viewports from the primary viewport or the viewports can be independent and are assigned from the 3D PDF Publisher.
- Adding PDF Sheets. Users can add more than one PDF sheet to a template.
- Removing PDF Sheets. Users can remove PDF sheets from a template.

3D Views Tab Visibility

The 3D Views tab is visible to all users. Previously, only MBD users could access the 3D Views tab. All users can now access the 3D Views tab when a model includes 3D views, and can activate any of the views. You must have an MBD license to capture, edit, or publish 3D Views.

DimXpert Enhancements

In addition to the SOLIDWORKS MBD many useful enhancements to the DimXpert in SOLIDWORKS have been implemented which carry over into the MBD functionality and workflow. Top Enhancements include:

- You can use DimXpert in assemblies.
- You can now create basic dimensions manually.
- Datum enhancements include:
  - DimXpert datums and feature control frames display horizontal to orthographic views of the model.
  - DimXpert hole callouts are placed on the top face for blind, counterbore, and countersink holes.
  - Datums that represent the width between two faces have the following display options:
    - Change the annotation view
    - Change the annotation plane using drag handles
    - Move the dimension lines of linear dimensions to the inside or outside
    - Change a diameter dimension to linear display
  - Datum Reference Frames. When you create a geometry tolerance (also known as a feature control frame), a datum control frame is automatically created in compliance with the ASME 14.41 model based definition standard.
- Users can now select face edges to create size and location dimensions. Previously, you needed to select a face to create size or location dimensions. Now, you can select either faces or edges. For example, clicking any of the highlighted circles or curves in the models below selects the adjacent cylinders.
- Users can now select silhouette edges to create dimensions. Previously, you had to select a face to create size or location dimensions. Now, you can select silhouette edges. In the following examples, each pointer shows a selected silhouette edge and dimension.