

What's New in Creo Elements/Direct Modeling

Enhanced Augmented Reality (AR) Design Share

A series of new capabilities enhance Augmented Reality (AR) Design Share.

User Interface Location:

- Click **View** > **Target** > **ThingMark**.
- Click **View** > **Publish Model**.

Release: Creo Elements/Direct Modeling 20.3.0.0.

Watch a video that demonstrates this enhancement:

[Augmented reality design share](#)

What is the benefit of this enhancement?

The following new capabilities enhance Augmented Reality (AR) Design Share:

- New support for ThingMarks.
 - You can rapidly define, publish, and instantly distribute ThingMark-based AR experiences in addition to the previously available AR experiences based on Spatial Target definitions.
 - You can place multiple ThingMarks in Creo Elements/Direct Modeling, position them with the regular work plane positioning tools, scale them with the **Resize Target** tool, and then select a particular ThingMark as target to use for the published experience model.
- User-defined experience names.
 - You can define an experience name different from the model name.
- Improved naming for different targets to avoid automatic sharing.

Through the power of Vuuforia, PTC offers a new way for you to view and interact with your design throughout the design process.

Additional Information

Tips:	None.
Limitations:	No known limitations.
Does this replace existing functionality?	No.
Configuration options associated with this functionality:	None.

Auxiliary View for General Positioning Workflows

Positioning a part, assembly, or workplane is easier in Creo Elements/Direct Modeling.

User Interface Location: Click **Structure** > **Position**.

Release: Creo Elements/Direct Modeling 20.3.0.0.

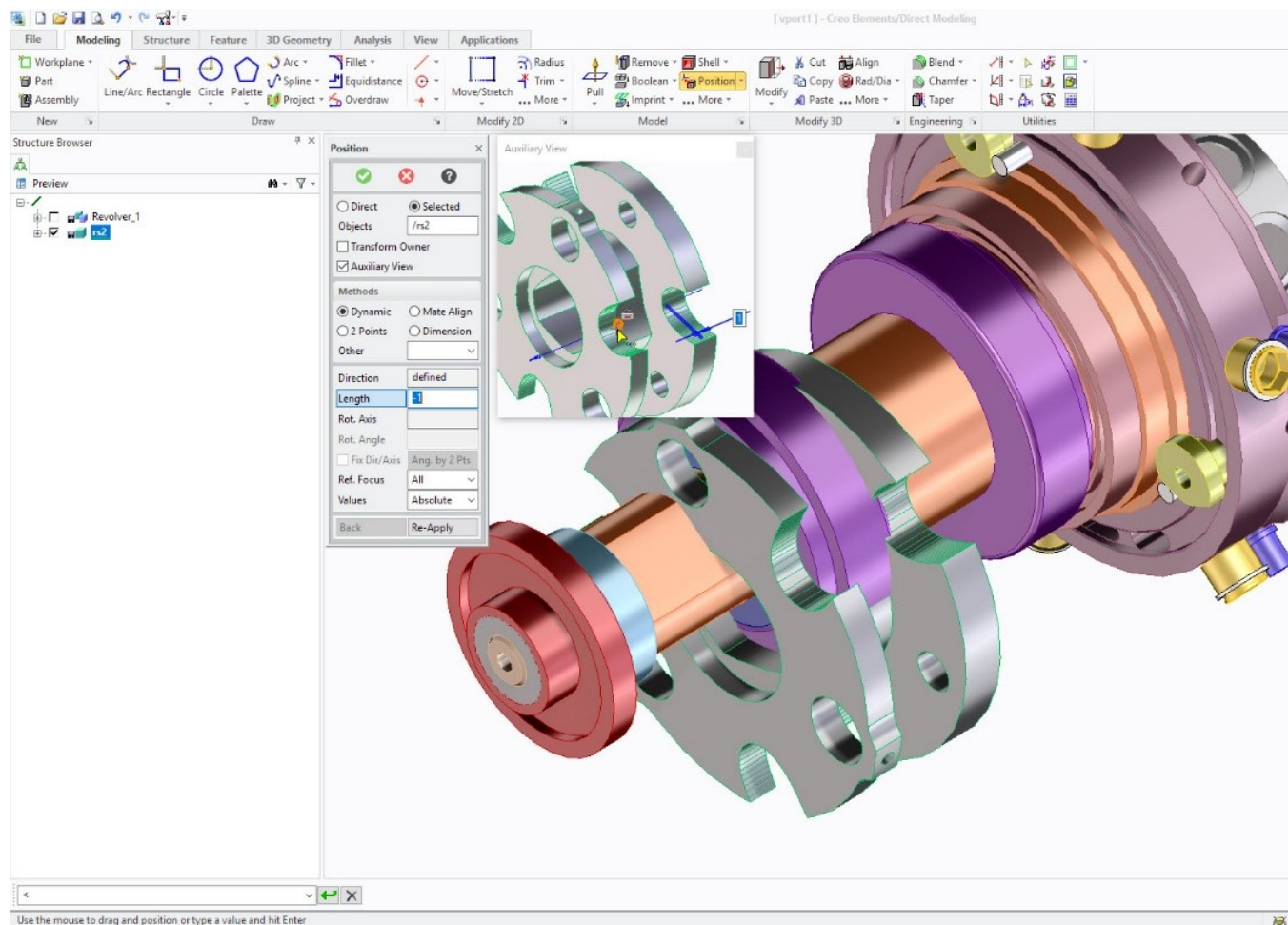
What is the benefit of this enhancement?

Positioning a part, assembly, or workplane is easier in Creo Elements/Direct Modeling. The auxiliary view of the positioned part, assembly, or workplane previously introduced for the load and position workflow, can now be activated and used for positioning workflows in general.

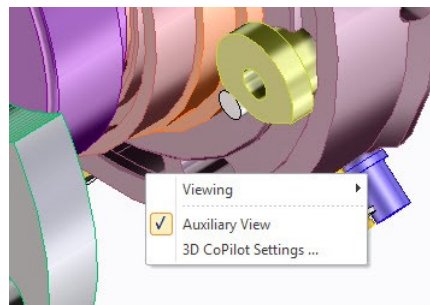
The auxiliary view allows you to view, pan, rotate and zoom the model independently from the main viewport. This makes it easier to select references for positioning constraints.

For the Position workflow, you can control visibility of the auxiliary view using a new option in the user interface as well as the context menu.

Position workflow with the auxiliary view window



For other commands that embed positioning workflows (such as Copy Part/Assy, Share Part/Assy, Position WP, Copy WP, Share WP), you can only use the context menu to control visibility of the auxiliary view.



Additional Information

Tips:	None.
Limitations:	No known limitations.
Does this replace existing functionality?	No.
Configuration options associated with this functionality:	None.

Quick Component Preview

You can quickly preview components in Creo Elements/Direct Modeling.

User Interface Location: Middle-click parts or assemblies in the Structure Browser.

Release: Creo Elements/Direct Modeling 20.3.0.0.

Watch a video that demonstrates this enhancement:

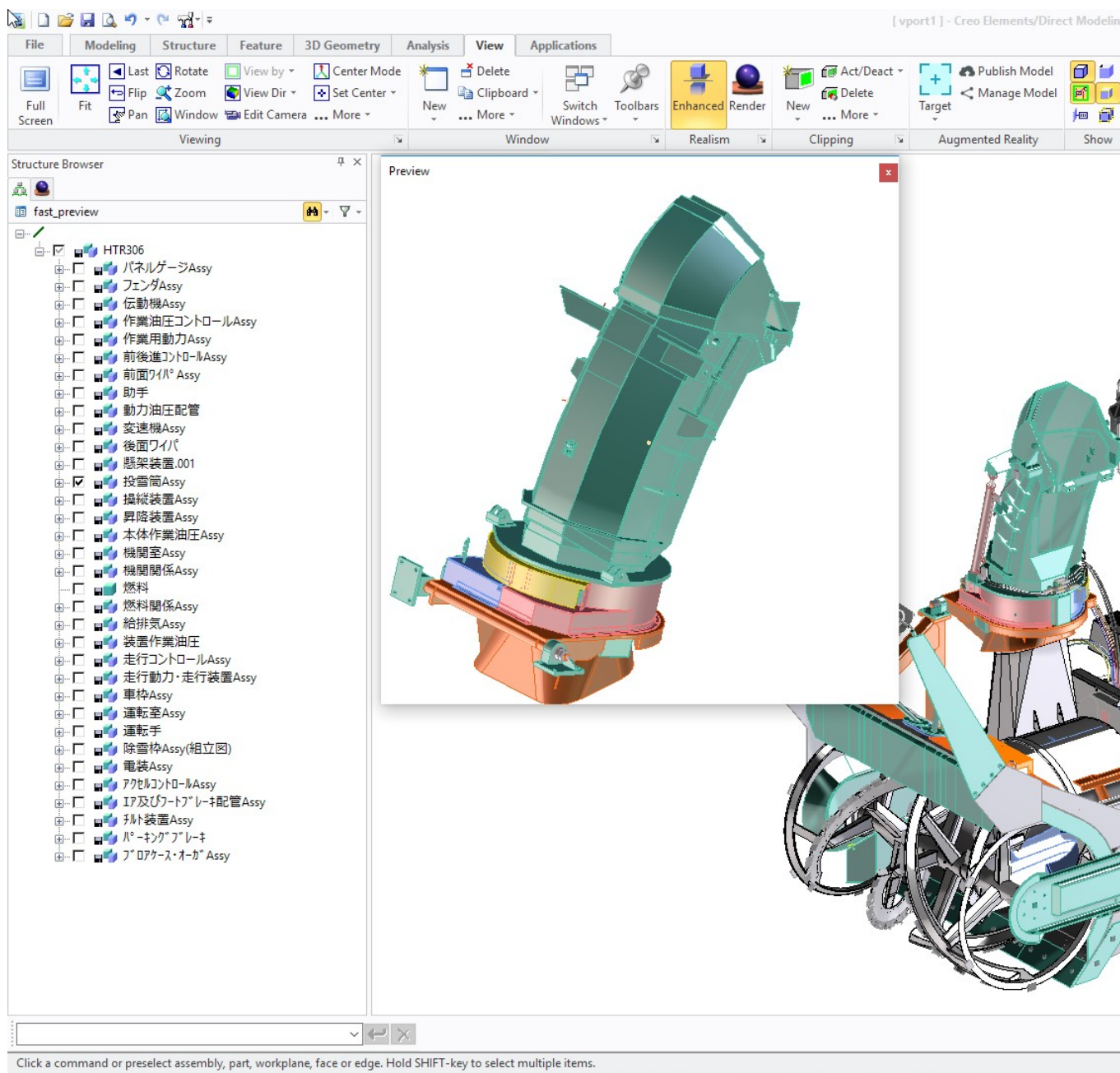
[Quick component preview](#)

What is the benefit of this enhancement?

You can quickly preview components in Creo Elements/Direct Modeling. Middle-clicking a part or assembly in the structure browser opens a new preview window that allows you to quickly preview a selected item. The preview window allows you to quickly identify the selected component. The selected component is also cross-highlighted in the graphics window to indicate the component position in the assembly.

This makes it easier to find and identify a particular part or subassembly.

Structure Browser with the quick preview window



Additional Information

Tips:	None.
Limitations:	No known limitations.
Does this replace existing functionality?	No.
Configuration options associated with this functionality:	None.

Zoom-To-Selected for Geometry

Zoom-to-selected is enhanced and supports various geometry selection types.

User Interface Location: Command Mini Toolbar and Context Menu.

Release: Creo Elements/Direct Modeling 20.3.0.0.

What is the benefit of this enhancement?

The zoom-to-selected command previously available for selected components or assemblies is enhanced and supports zooming to a single selected face, edge, workplane, or workplane set.

This makes it faster and easier to graphically zoom to and focus on a selected geometric entity.



Additional Information

Tips:	None.
Limitations:	No known limitations.
Does this replace existing functionality?	No.
Configuration options associated with this functionality:	None.

Enhanced PVZ Export

New export options allow to accelerate PVZ export.

User Interface Location: Click **File** > **Save**, and in the **File type** box, select Creo View MCAD (*.pvz).

Release: Creo Elements/Direct Modeling 20.3.0.0.

What is the benefit of this enhancement?


New export options allow to accelerate PVZ export from by skipping mass properties calculation during export.

To modify default behavior during PVZ export, you can modify the following options in the master recipe file (cocreate2pv.pvr):

- Option 1: adapter/outputMassProps
- Option 2: adapter/attrFlag/MassPropertyParameters
- Option 3: adapter/convMassProperty

Alternatively, you can create a custom recipe file (*.rcp) and specify this file during PVZ export.

Additional Information

Tips:	The following table documents the behavior depending on the above listed options:			
	Option 1	Option 2	Option 3	Effect
	On (1)	On (1)	On (1)	Mass properties are computed, stored in PVZ as attributes and stored in geometry files
	On (1)	Off (0)	On (1)	Mass properties are computed and stored in geometry files only
	Off (0)	On (1)	On (1)	Mass properties are computed and stored in PVZ as attributes only
	For all other option value combinations, the mass property computation is skipped.			
	 You can find the PVR file in <Creo Elements/Direct Modeling installation directory>\personality\Granite\ProductView\recipe\cocreate2pv.pvr.			

Limitations:	No known limitations.
Does this replace existing functionality?	No.
Configuration options associated with this functionality:	None.