

Known Restrictions for PDF Publishing **SAP 3D Visual Enterprise Generator 9.0 SP20**

December 2023

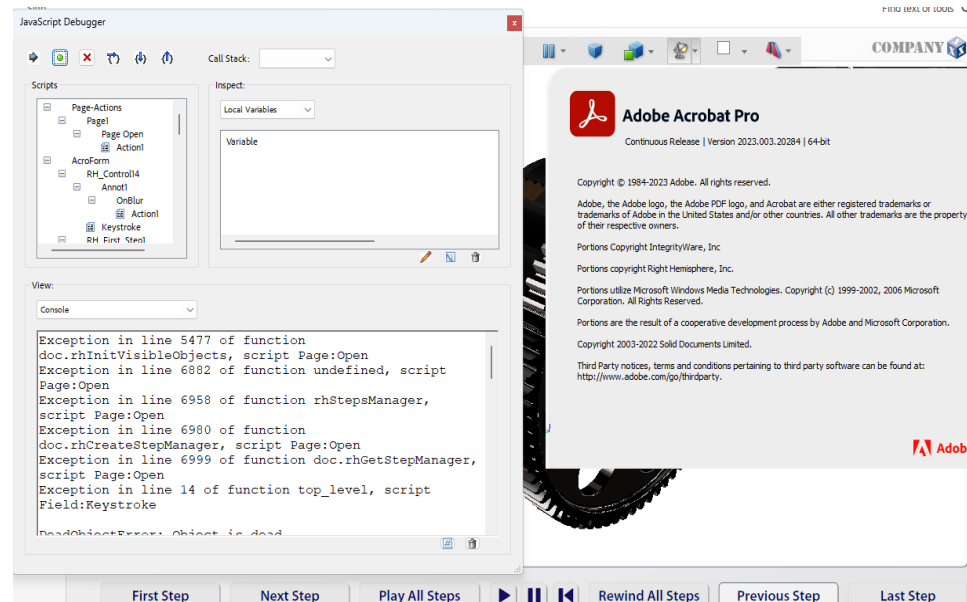
PUBLIC



Animations in Adobe Acrobat Pro 64bit

- **Issue:** Acrobat professional 64-bit version doesn't support playing animations
- **Workaround:** Use Adobe Acrobat Professional 32-bit version
- **Milestone:** It depends on Adobe Acrobat 64-bit to support animations properly in future version.

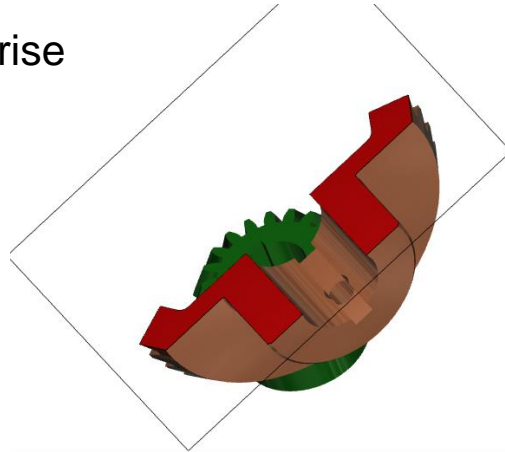
When an animation is played, a JavaScript debugger will open with error in Adobe Acrobat Pro 64-bit



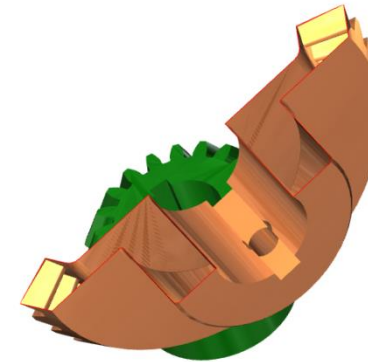
Cross-section Caps

- **Issue:** Cross-sections do not show caps in 3D PDF. Only outlines of the cross-section are drawn

3D Visual Enterprise
Author:



3D PDF:



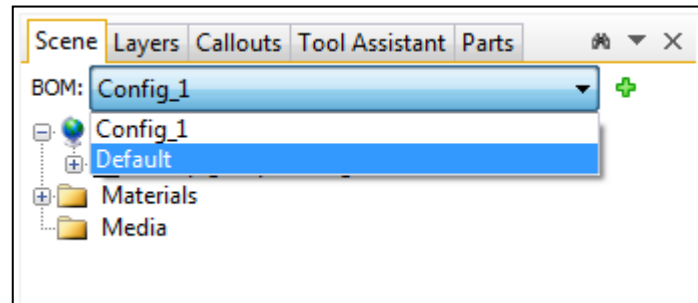
- **Workaround:** 3D PDF has its own cross-section tool which supports caps. This can be enabled manually:



- **Milestone:** Issue resolved in SAP 3D Visual Enterprise Author 8.0 SP1, but capping works only when a view is activated using the Views control toolbar

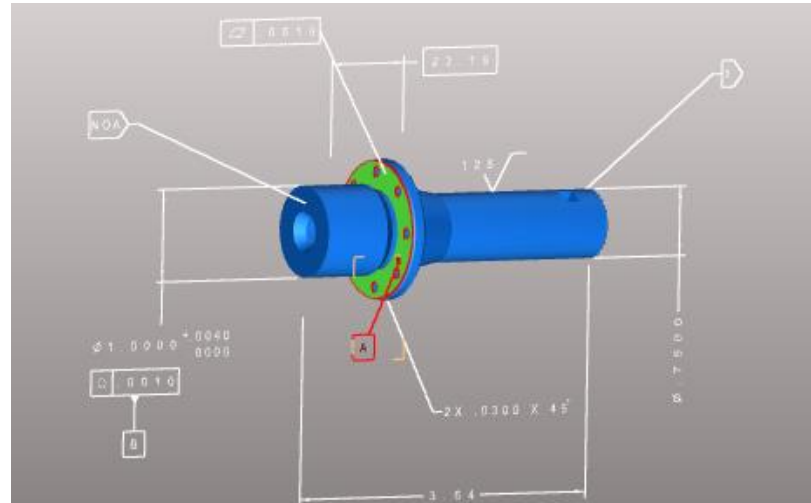
Multiple BOMs

- **Issue:** Multiple BOMs are not supported in 3D PDF, only the current active BOM is published out to 3D PDF. This could cause a problem with model views if they are referring to multiple BOMs.
- **Workaround:** SAP 3D Visual Enterprise Generator process can automatically activate BOMs, export PDF per BOM, and merge into single multi-page PDF file
- **Milestone:** Issue resolved in SAP 3D Visual Enterprise Author 8.0 SP1



PMI Highlight Association

- **Issue:** PMI highlight association with faces, edges, and parts is not supported



Note: There are duplicate nodes created, and as a result file size will increase, rendering/interaction speed will reduce, and the scene tree will look different with added nodes to support this feature. Only PMI → face, edge & points is supported. PMI → surfaces is not supported. In order for points to be highlighted, render mode in PDF for points must be changed to cross-hairs for better visualization of selection highlighting.

PDF publisher export option must be set to

 Enable PMI Highlight

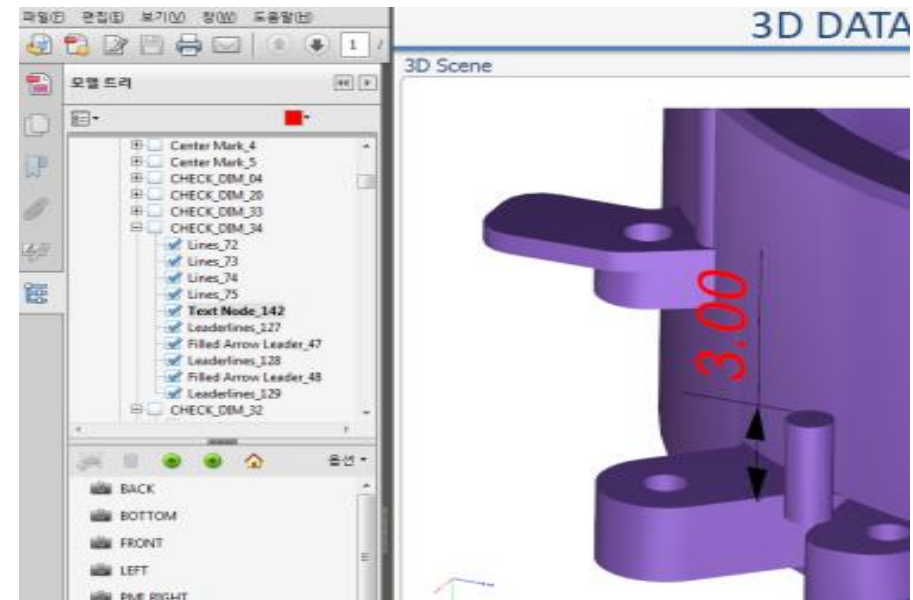
Go to PDF 3D preferences → :

 Render points as cross-hairs

- **Milestone:** Issue resolved in SAP 3D Visual Enterprise Author 8.0 SP1

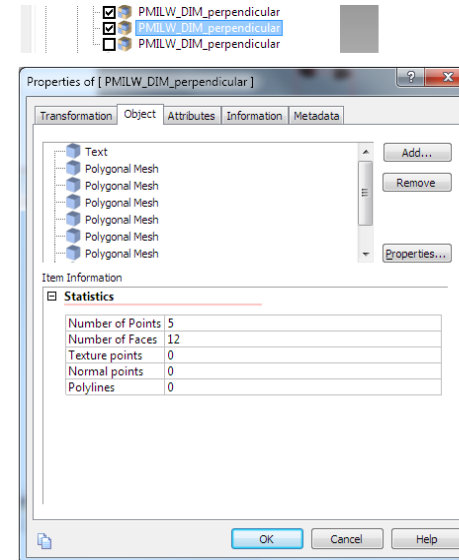
PMI Entities are Separated

- **Issue:** PMI is a collection of objects in PDF, so when a user selects a single node, others are not selected. In 3D Visual Enterprise Author, a collapse flag is used so PMI behaves as a single object. Collapse flag is not supported in PDF.
- **Milestone:** This issue exists in PDF files produced prior to version 8.0. It was fixed in v8.0 so now a user can select any PMI entity and it will select the top level node in the scene tree for that PMI node. PMI nodes are still not collapsible.

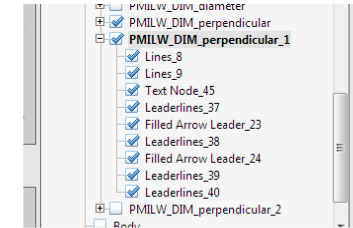


Closed Nodes

- **Issue:** Closed nodes created in 3D Visual Enterprise Author and 3D Visual Enterprise Generator are not supported in 3D PDF Publishing. Closed nodes are expanded and separate nodes are created for each item.
- **Workaround:** There is no workaround for this issue
- **Milestone:** Not in future Roadmap.



VEA and closed nodes

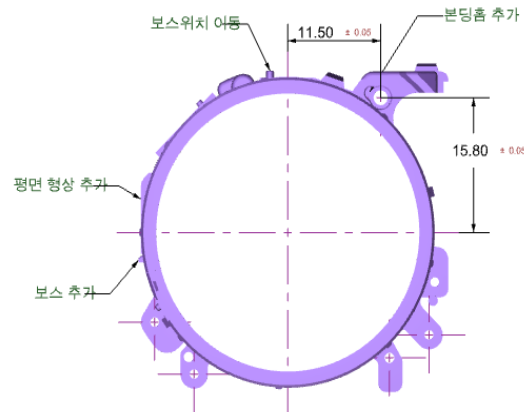


Acrobat and unclosed nodes

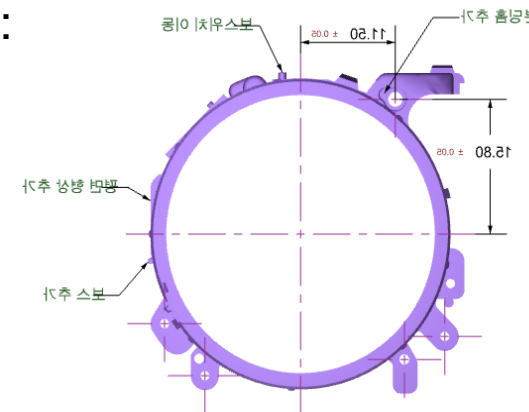
PMI Flip Label Feature

- **Issue:** Adobe 3D Viewer does not support “Flip Over” billboard type. As a result, CAD PMI exported to PDF from 3D Visual Enterprise Author or 3D Visual Enterprise Generator is not oriented correctly in a specific model views.

VE Author:



3D PDF:



- **Milestone :** This issue was fixed in VE 8.0 MP1 (February 2014).
The following export option in PDF Publishing must be selected to get this feature working:

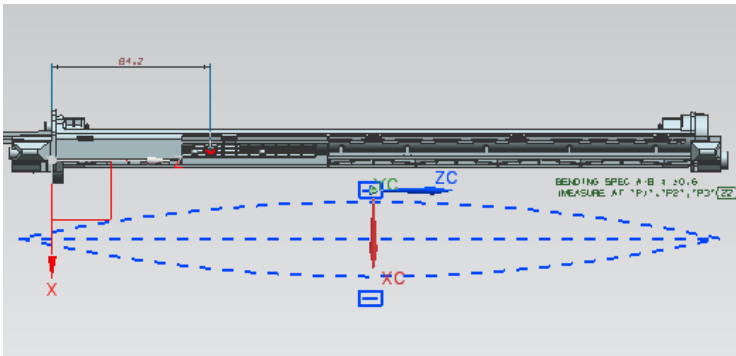


Note: At the time of PDF export, automatically vectorize PMI for each model view so PMI is oriented correctly for initial view. (Due to limitations of Billboarding mode in PDF, if a user rotates a scene, PMI rotates with the rest of 3D objects).

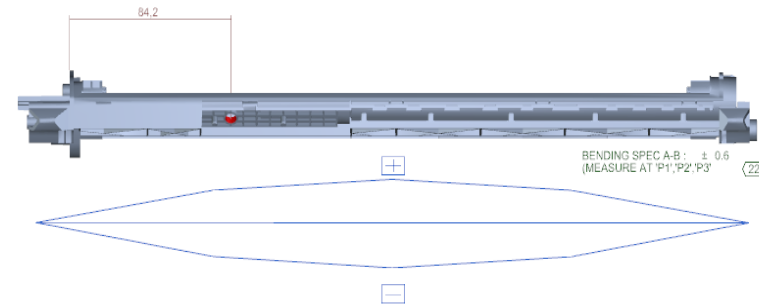
PMI or Polyline Line Style Support

- **Issue:** Adobe 3D Viewer limitation: U3D format is used to store mesh data (polyline) to represent PMI and wireframes, and does not support line styles.
- **Workaround:** There is no workaround for this issue.
- **Milestone:** On future Roadmap. No target release as yet.

3D Visual Enterprise Author:



3D PDF:



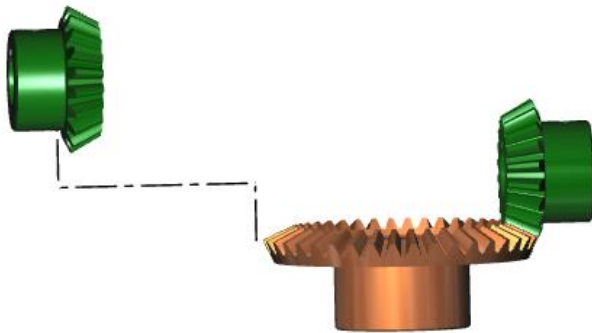
Thrustlines

- **Issue:** Thrustlines are not supported by Adobe 3D Viewer. The thrustline is automatically adjusted when objects are moved by animation or manually by the user so it is always pointing to them. Because there is no similar functionality in Adobe 3D Viewer, exact conversion to PDF is not possible.

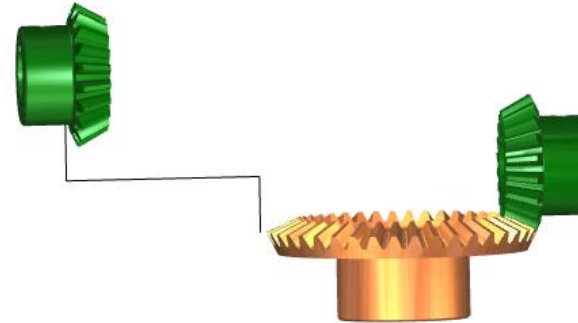
When converting a 3D Visual Enterprise Author scene into PDF, thrustlines are converted into static polylines. If objects move, the static polyline is not adjusted to connect them

- **Workaround:** In 3D Visual Enterprise Author do not use thrustlines on animated objects

VE Author:

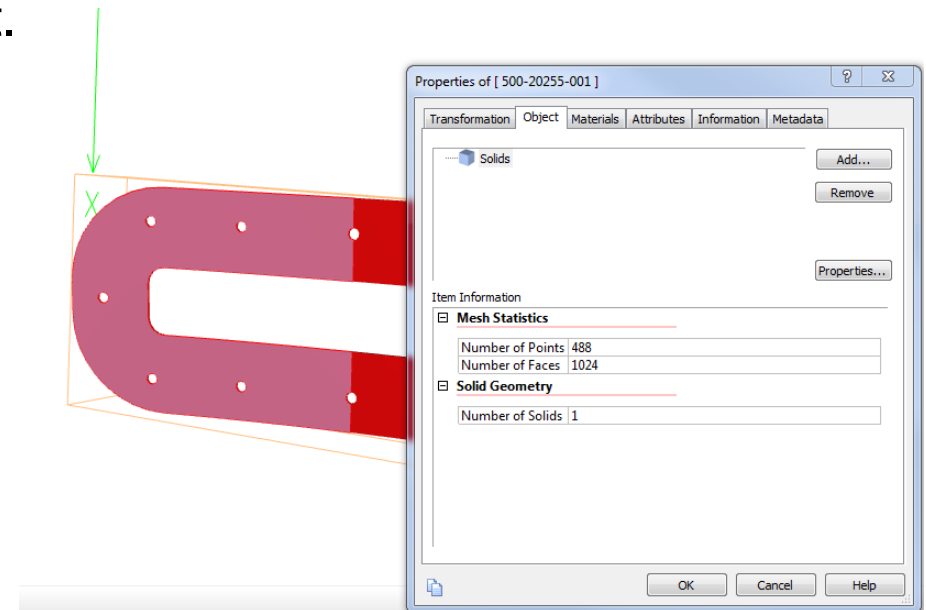


3D PDF:



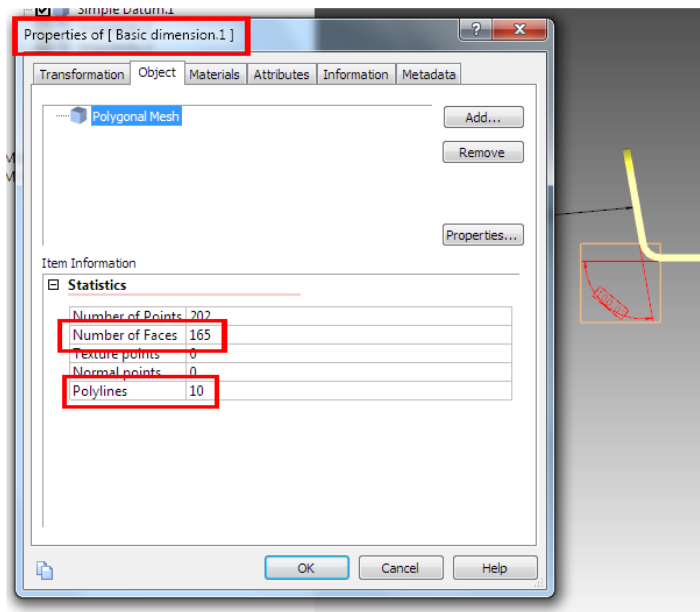
Solids

- **Issue:** 3D PDF Publishing does not support Solid objects. Solid objects are converted to the default PDF standard 3D File format *.U3D which can only contain meshes.
- **Workaround:** There is no short term workaround.
- **Milestone:** On future Roadmap. No target release as yet.

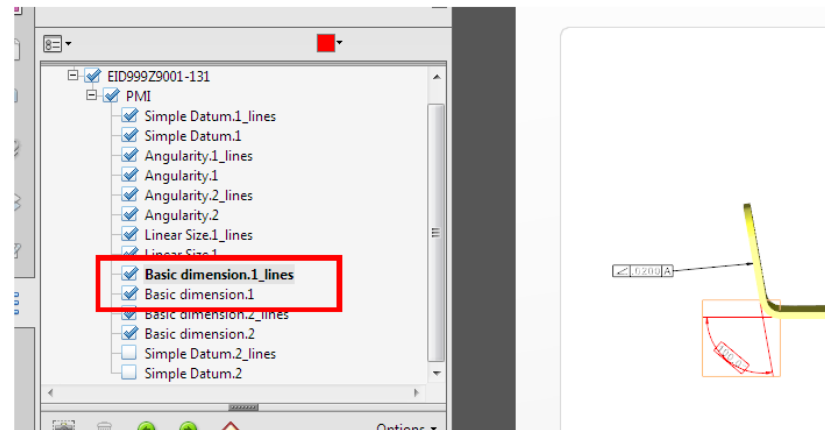


Polylines\Text and Mesh

- **Issue:** A VE node containing Polylines\text and mesh as one node, is split into two meshes containing mesh and polylines.
- **Workaround:** None.
- **Milestone:** On future Roadmap. No target release as yet.



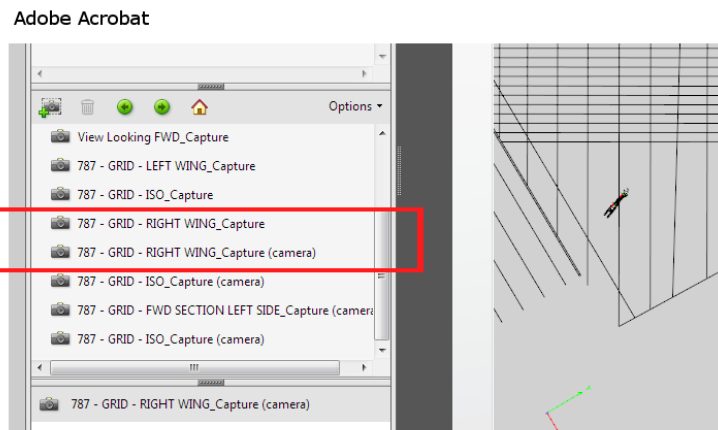
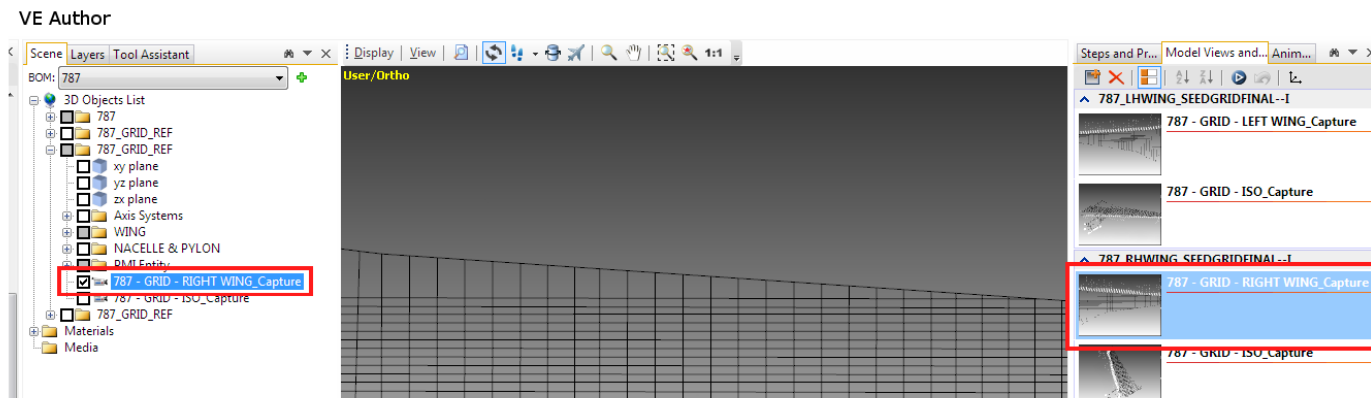
VEA and node with faces/lines



Acrobat and splitted nodes

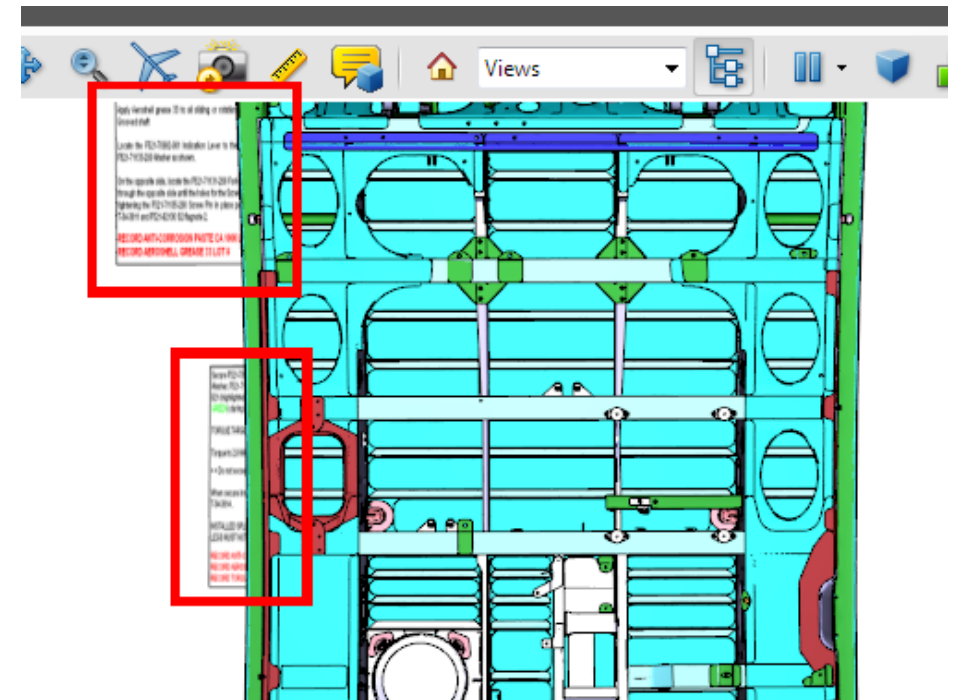
Extra Model Views

- **Issue:** Non-private camera created for model views creates extra model views in PDF.
- **Milestone:** On future Roadmap. No target release as yet.



Billboarding

- **Issue:** Billboarding for Callouts, sprites, and billboards is not supported in 3D PDF.
- **Workaround:** None.
- **Milestone:** On future Roadmap. No target release as yet.



Material Limitations

Material support in 3D PDF has limitations:

- Layered materials are not supported
- HDR materials are not supported
- Materials animation is not supported
- Only Diffuse and Bump Channel textures. Ambient Occlusion channel, for example, is not supported but could be transferred to Diffuse.

Miscellaneous Limitations

3D PDF has the following limitations:

- Point and click orbit rotation. Defaults to center of scene, requiring 'fit to view'.
- Support for both X and Y and Z up scenes. Scenes must be turned in 3D Visual Enterprise Author.
- Opacity animation not supported
- Highlight animation is not supported
- Detail Views not supported

Thank you.

Contact information:

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Product Owner, SAP 3D Visual Enterprise Author