


Managing 3D CAD Files

A CAD Document can have files associated with it. To show a 3D model of a part or assembly in Aras 3DV, the **Native File** property of a CAD Document should include a native CAD file with this 3D model. One CAD Document can have only one native CAD file.



Native File

 [AR3 Main Asse...](#)

Viewable File

 [AR3 Main Asse...](#)


A CAD Document can also contain a 3D PDF viewable file with the 3D model in the **Viewable File** property. The CAD Document Item form shows a link to this 3D PDF file.



Native File

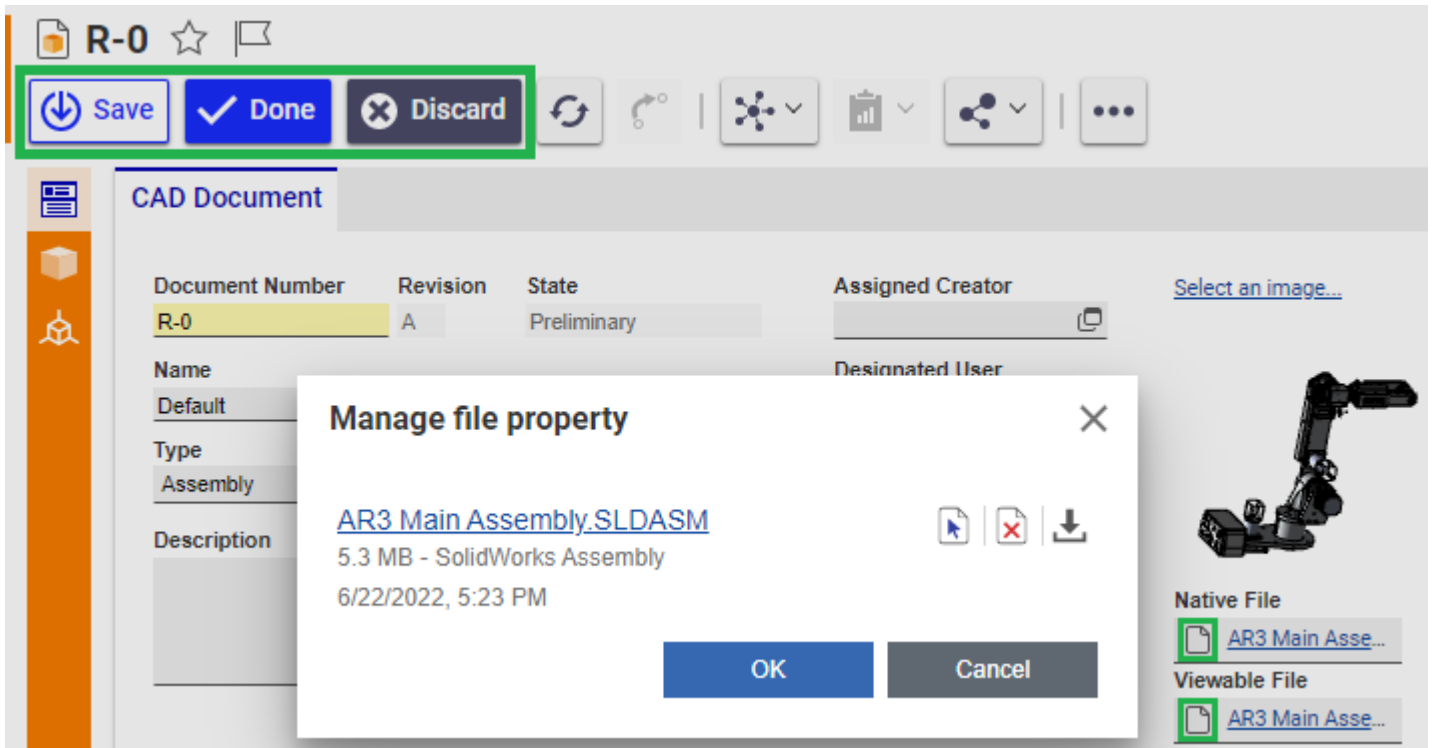
 [AR3 Main Asse...](#)

Viewable File

 [AR3 Main Asse...](#)

End users with the Permission to edit a CAD Document in a given Item State can attach, download, replace, and remove native CAD and viewable 3D PDF files with 3D models to the **Native File** and **Viewable File** CAD Document properties using the standard Aras Innovator functionality provided with the **Manage file property** dialog. For more information on file management, see the *Aras Innovator Product Engineering 14 - User Guide*.





Additionally, admins and advanced users can import multiple native CAD files with 3D models into Aras Innovator with the Aras Batch Loader tool. CAD Documents and CAD Document Structures can be automatically created during the import. This approach is efficient for uploading large CAD assemblies into Aras Innovator. For details about this tool and its requirements, see *Aras Innovator 21 - Batch Loader*.

Third-party connectors for CAD authoring tools can be an efficient way for end-users to manage adding and updating CAD Documents.

After a native CAD file is attached to a CAD Document, the Aras CAD Converter automatically schedules this file for conversion into the following three viewable files:

- SCS (Stream Cache Single)
- SCZ (Stream Cache Compressed)
- 3D PDF (Portable Document Format)

Once the conversion is successfully completed, the Aras CAD Converter attaches these files to the CAD Document. The Aras CAD Converter is a separate Aras 3DV component.

End users with the Permission to get and access CAD Documents can view 3D models from:

- SCS files using the Monolithic or Dynamic Viewer, which are separate Aras 3DV components.
- SCZ files using the Streaming Viewer.
- 3D PDF files using third-party PDF viewers and editors not included in Aras 3DV.

When a native CAD file with a 3D model is removed from a CAD Document, end users will not be able to view this 3D model because Aras 3DV automatically removes relationships between this CAD Document and a pertinent viewable SCS file.

Viewable SCS files are fully automatically managed by Aras 3DV: end users cannot access or manage them directly.

