

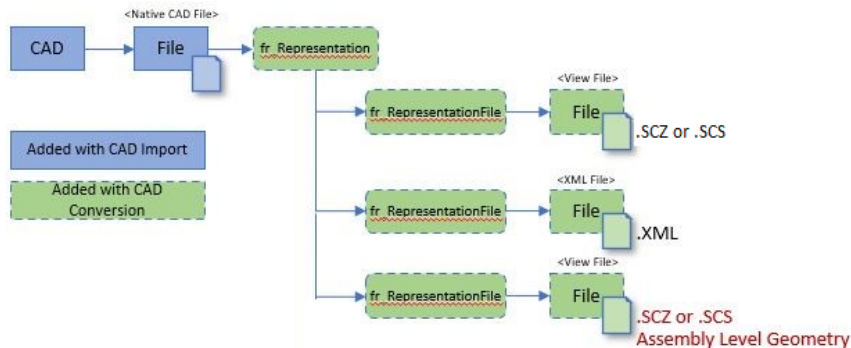
Assembly Level Geometry Support for NX Files

The Dynamic and Streaming Viewers support the ability to view **Assembly Level Geometry** for **NX** files. The **NX Assembly** view files directly contain 3D geometry at the root level (assembly level), rather than parts that are normally used to define the assembly.

The native CAD assembly files can contain 3D component geometry. To create Assembly Level Geometry **FileRepresentation** view files for **NX** files, the **ConversionServerConfig** file in the root Aras Innovator folder is updated with the command-line option. The **FileRepresentations** view file is generated during the conversion process, and the default Query Definition supports viewing this structure in the Dynamic Viewer or Streaming Viewer.

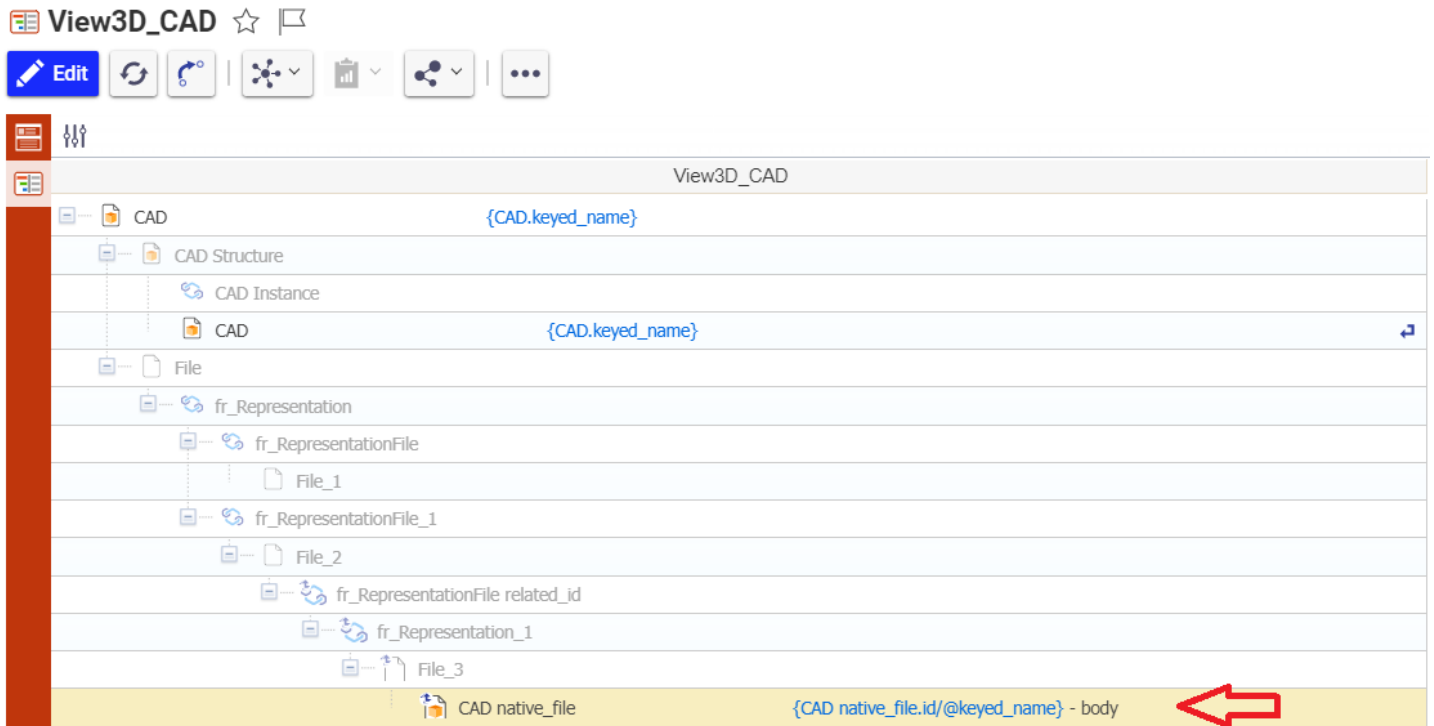
The following figure describes the process.

File Representations Assembly Level Geometry



The default Tree Grid View Definition for Dynamic and Streaming Viewers is modified with a row for **Assembly Level Geometry** view file. The new row contains a text called **body**.





The following steps outline the configuration to view the **Assembly Level Geometry** for **NX** files:

1. Install Aras 3D Visualization package. Refer to the Aras 3D Visualization 35 – Installation Guide.
2. In the root Aras Innovator folder, change the **Assembly Command** tag in the **ConversionServerConfig.xml** file to the following:

- **For Dynamic 3D Viewer:**

```
<AssemblyCommand dynamicEnabled="True" arguments="--
sc compute bounding boxes 'All' --input pdf template file
'C:\Aras\14sp10\Templates\Blank Template L.pdf' --output pdf
'%filepath%\%filename%.pdf' --output png '%filepath%\%filename%.png' -
-output png resolution '150x150' --output scs
'%filepath%\%filename%.scs' --output xml assemblytree
'%filepath%\%filename%.xml' --output prc '%filepath%\%filename%.prc' -
-background color '1.0, 1.0, 1.0' --output logfile
'%filepath%\%filename%' isolatedModelArguments="--output scs
'%filepath%\%filename%.scs' --import hidden object 'True' --import_pmi
false --output_logfile '%filepath%\%filename%_isolate.log' " />
```



- For Streaming 3D Viewer:

```
<AssemblyCommand arguments="--sc_compute_bounding_boxes 'All' --
input pdf template file
'C:\Aras\14sp10\Templates\Blank Template L.pdf' --output pdf
'%filepath%\%filename%.pdf' --output png '%filepath%\%filename%.png' -
-output png resolution '150x150' --output xml assemblytree
'%filepath%\%filename%.xml' --output prc '%filepath%\%filename%.prc' -
-background color '1.0, 1.0, 1.0' --output logfile
'%filepath%\%filename%' " isolatedModelArguments="--sc create scz
'true' --output directory '%filepath%' --import hidden object 'True' -
-output sc '%filepath%\%filename%' --import pmi false --output logfile
'%filepath%\%filename%_isolate.log' " streamingEnabled="True" />
```

The Assembly **Level Geometry FileRepresentation** view files are created. After the above configuration step, if a user converts **NX** assemblies which contains a 3D geometry at the assembly level, an SCS or SCZ file is generated which represents the newly added geometry.

In the Default Dynamic View Definition, this file is represented as an assembly with associated child components and an assembly level geometry associated with a text called **Body**.

