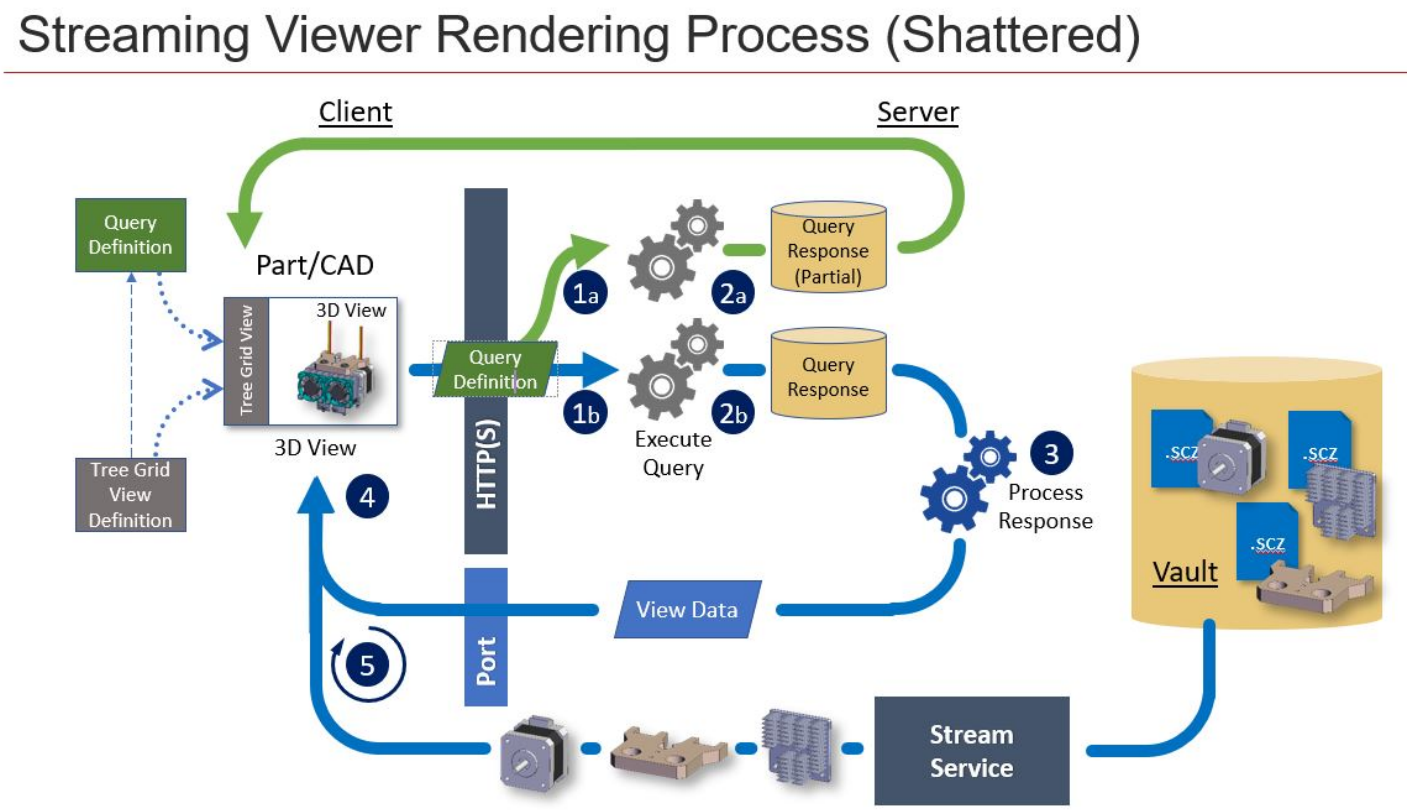
Streaming Viewer Process Overview

The Streaming Viewer is used only for assemblies and displays SCZ view files as determined by the results returned from the execution of an associated Query Definition (QD). Below figure shows the process of rendering the view file in the Streaming Viewer.



Similar to the Dynamic Viewer, the Streaming Viewer consists of two main components: Tree Grid View (TGV) and the 3D View. The TGV displays the results of the associated QD as defined by the chosen Tree Grid View Definition. The Tree Grid View is a composite of a Tree View and a Table (or Grid). The left-most column contains a hierarchical Tree View showing all the related contents starting from (rooted by) the CAD Item from which the Streaming View was opened.

Upon refreshing the View, the system executes the associated QD in two simultaneous operations. The first executes the Query to populate the TGV. The second executes the Query and processes the complete response.

The TGV uses the partial response based on the configuration of the associated TGV Definition. By default, the TGV is lazy-loaded, only a response portion is returned to a client and displayed.

The full response is processed to generate the view data using SCZ files.

While processing the Query results for the 3D View, XML data is constructed that identifies the assemblies, parts, part instances, in single response which has links to the respective view files in the Aras Innovator Vault. The Streaming Viewer is supported only with a single vault.

Streaming visualization relies on a server-side component – Stream Service, that analyzes the current camera position of the client viewer and optimizes which components of each SCZ file to ‘stream’ to the client to be subsequently rendered. The Streaming Viewer communicates with the Stream Service via a dedicated network port.