



ISO 23301 edition 2

STEP Geometry Services



- ISO 23301 STEP Geometry Services defines metadata and web services related to geometry and based on STEP. These metadata and services allow to:
 - keep track of changes applied to geometry,
 - find and retrieve a Part or assembly with a specified Level of Detail and format
 - retrieve attributes or properties linked to a Part or assembly,
 - etc...
- Edition 2 aims at supporting new use cases related to very large assemblies like airplanes, power plants, ...
- **DATES** : started January 2022, project duration: 12 months
- **STATE** : work in progress
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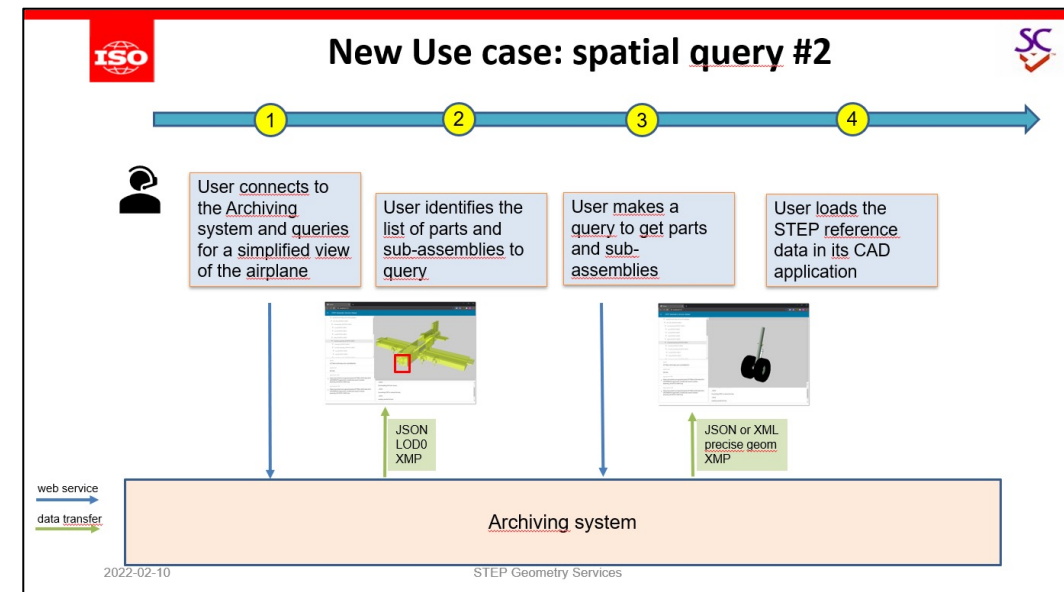
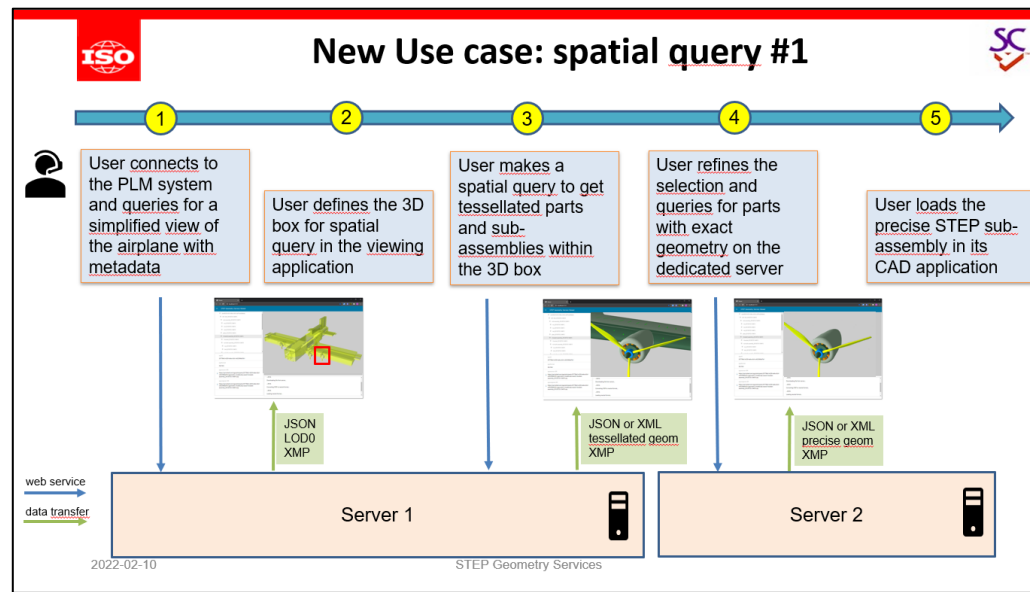


- Objectives for edition 2
 - Updates for:
 - Meta data for Level of Details
 - Meta data for Modification Type
 - New web services definitions
 - Meta data implementations specifications for STEP AP242 XML
 - Meta data related to Quality
 - Extensions for:
 - JSON specifications for the web services payloads
 - Scene graphs and Bounding Box structure web-services for geometry dataset, in liaison with X3D specifications
- Note: specifications for JSON, Scene Graph and Bounding Box will be integrated in AP242 ed4 for 2023 publication.





- ISO 23301 is a Technical Specification developed by ISO TC 184/SC 4/ JWG16, workgroup in charge of Visualization.
- ISO 23301 edition 1 specifies a first set of metadata and geometry services,
- Edition 2 aims at supporting new use cases related to very large assemblies like airplanes, power plants, ...





The ISO 23301 team gathers experts from France, Japan, Korea, Russia, US

The main activities of the group are to:

- Define use cases.
- Update meta data specifications
- Specify integration of meta data into several formats
- Update RESTFUL services specifications to query a database using geometry as a starting point
- Specify a JSON implementation for the response of the services
- Develop a prototype to illustrate the benefits of the services, metadata and JSON for the new use cases.





- ISO 23301 edition 2 will provide specifications for using STEP geometry in a web-based and distributed environment.
- The JSON implementation will allow light web applications to access, visualize and work on very large assemblies by providing the minimum subset of information necessary to navigate on huge and distributed data sets.
- This will allow the development of efficient STEP viewers and applications using STEP 3D geometry as entry point.

