

Converter Instructions: IFC to XKT and JSON for Xeokit Based Viewers

Replace cursive words with the actual names!

1. Create a Converter folder in C:\Users\Username
2. .ifc to .dae
Download converter: <http://ifcopenshell.org/ifcconvert>
Move unzip and move application "IfcConvert" to Converter folder
Move .ifc file to Converter folder, remove spaces in the name
In command window:
C:\Users\Username>cd Converter
C:\Users\Username\Converter>ifcconvert --use-element-guids ProjectName.ifc ProjectName.dae --exclude=entities IfcOpeningElement
3. .dae to .glTFcd
Download converter: <https://github.com/KhronosGroup/COLLADA2GLTF/releases>
Move folder to Converter folder and rename "COLLADA2GLTF"
In command window:
C:\Users\Username\Converter>COLLADA2GLTF\COLLADA2GLTF-bin -i ProjectName.dae -o ProjectName.glTF
4. .glTF to .xkt
In command window:
C:\Users\Username>npm i @xeokit/x Toolkit-glTF-to-xkt
C:\Users\Username>cd node_modules\@xeokit\ Toolkit-glTF-to-xkt
C:\Users\Username\node_modules\@xeokit\ Toolkit-glTF-to-xkt>node glTF2xkt.js -s
C:\Users\Username\Converter\ProjectName.glTF -o C:\Users\Username\Converter\ProjectName.xkt
5. .ifc to .json
Download Converter: <https://github.com/bimspot/x Toolkit-metadata/releases>
Unpack in "Converter" folder , rename the new folder "xeokit-metadata"
Download and install .NET Core 3.1 (!): <https://dotnet.microsoft.com/download>
In command window:
C:\Users\Username\Converter>cd C:\Users\Username\Converter\xeokit-metadata
C:\Users\Username\Converter\xeokit-metadata>xeokit-metadata
C:\Users\Username\Converter\ProjectName.ifc C:\Users\Username\Converter\ProjectName.json
Now all necessary files are in C:\Users\Username\Converter.
6. Create folder to add in the data directory
New folder with the design's name: "ProjectName"
In "ProjectName" new folder "models"
In "models" new folder "design"
In "design" place the created .xkt and .json files and rename "geometry.xkt" and "metadata"
In "ProjectName" paste an index.json copied from an existing project file from the directory or create a new .json file in visual studio code and paste the content below.
Rename everything including the project name to your new project name
Move the Folder to (your repository)\app\data\projects

Index content:

```
{
  "id": "ProjectName",
  "name": "ProjectName",
  "models": [
    {
      "id": "design",
      "name": "ProjectName Design"
    }
  ],
  "viewerConfigs": {
    "cameraNear": 0.05,
    "cameraFar": 3000.0,
    "saoEnabled": true,
    "saoBias": 0.5,
    "saoIntensity": 0.7,
    "saoScale": 1200.0,
    "saoKernelRadius": 100,
    "saoBlur": true,
    "saoInteractive": true,
    "saoInteractiveDelay": 200,
    "viewFitDuration": 0.5,
    "viewFitFOV": 45,
    "perspectiveFOV": 55,
    "objectColorSource": "viewer",
    "viewerContent": {
      "modelsLoaded": [
        "design"
      ]
    },
    "viewerState": {
      "viewCubeEnabled": true,
      "threeDEnabled": true,
      "tabOpen": "models"
    }
  }
}
```