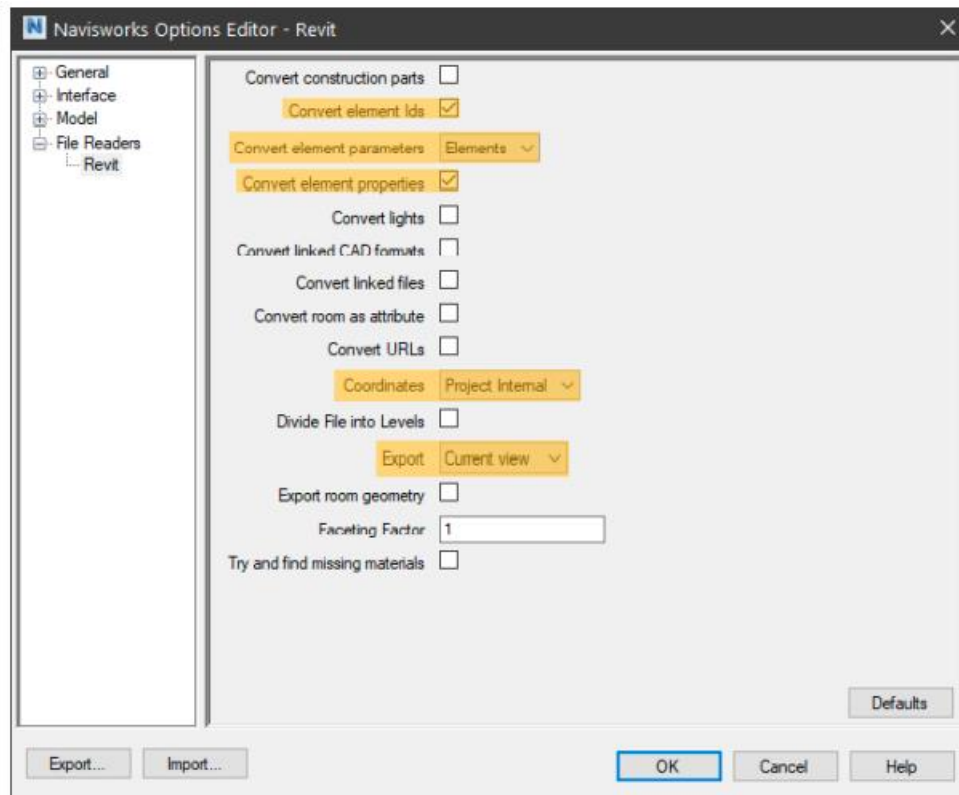
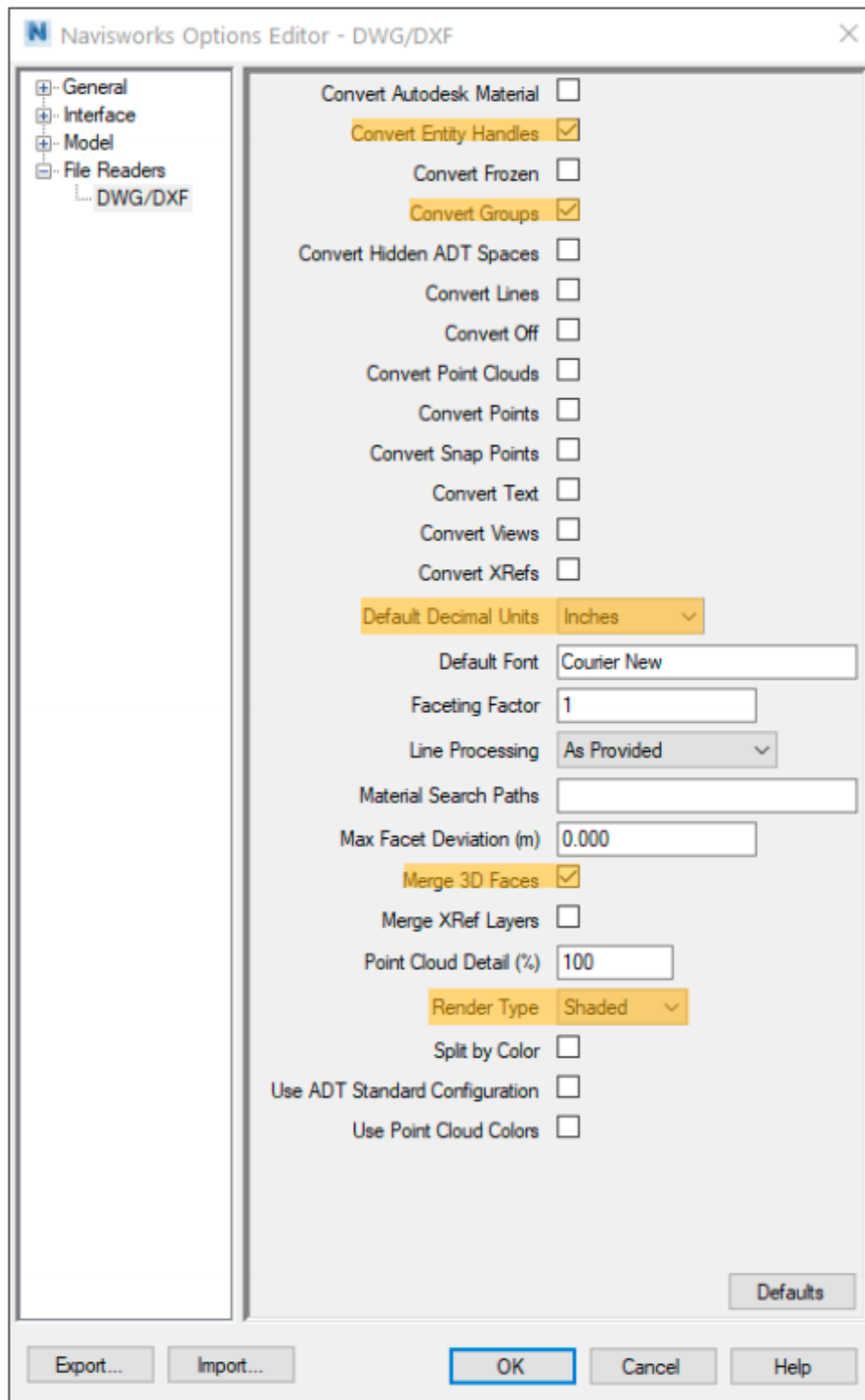


Model Conditioning: Export and Set-up

1. Model conditioning is the process used to clean, group, and Q/C the files before being used in the ICT Tracker App.
2. Model conditioning uses native NWC exports (preferred) or NWD files that are broken out by trade, level and zone if required for cost code synchronization.
 - a. Federated NWD models are not recommended as they require the model to manually be broken out by trade using the iConstruct iView command.
 - b. NWF models cannot be used.
3. When generating a NWC from the native software use the following option settings for the Navisworks Options Editor export.
 - a. For Revit



b. For AutoCAD



4. ICT Tracker utilizes the iConstruct software add-on for Navisworks that allows for streamlining the conditioning of the files in Navisworks for use by the app.
 - a. iConstruct is Included in all purchases of ICT Tracker after 11/25/19.

5. iConstruct has an external to Navisworks application call BIMflow, which automates the workflow for the creation of an NWD models.
 - a. ICT's support team has developed a custom and automated BIMflow workflows on the software and industry standards to automate the clean-up and generation of NWD models for use in the ICT Tracker.

6. ICT' s BIMflow set-up uses the following files.
 - a. iConstruct/BIMflow Profile: !ICT iConstruct Master Profile.icp
 - b. BIMflow workflow: ICT*.xaml
 - c. Hide Files: ICT_Hide_<defined or wildcard><software>.csv: list elements to be hidden in file.
 - d. Group Files: ICT_Groups<software>.csv: element grouping category criteria.
 - e. \NWD: Temporary location that NWD files are generated to by Reconstruct tool.

7. iConstruct BIMflow needs to be the same version as the Navisworks app being used.

8. ICT has created an automated BIMflow process that reads multiple software and file types based on unique dataset.
 - a. The support files include a file named localstor.xml that is located in your %users%\documents\iconstruct folder and preloads the Workflow Manager with imperial and metric conversions.
 - b. The ICT provided profile which contains customized tools utilized by iConstruct that will be loaded into Navisworks.
 - c. Other manual workflows can be loaded into the workflow manager and ICT will be glad to review this option with any user that has a specific conversion requirement

9. Grouping and Hiding model elements
 - a. The Grouping should be based on your installation phasing and cost codes to synchronize the data.
 - b. Elements in models are typically grouped based on the general categories in different software.
 - c. ICT controls these using CSV file with a list of software categories and corresponding "Group" names that are used by the ICT Tracker software and

database for updating status and reporting.

```

ICT_Groups_Autocad_Feb_All Service Types.csv - Notepad
File Edit Format View Help
Search Attribute,Search Property,Search Property Value,Append Attribute,Append Property,Append Property Value
ICT Data,Category,Access Door,ICT Data,ICT Group,Access
ICT Data,Category,Attenuator,ICT Data,ICT Group,Duct
ICT Data,Category,Coll,ICT Data,ICT Group,Duct
ICT Data,Category,Duct - Accessories,ICT Data,ICT Group,Duct
ICT Data,Category,Duct - Equipment,ICT Data,ICT Group,Duct
ICT Data,Category,Duct - GRD Cans and Collars,ICT Data,ICT Group,Duct
ICT Data,Category,Duct - Oval Fittings,ICT Data,ICT Group,Duct
ICT Data,Category,Duct - Purchased Round Fittings,ICT Data,ICT Group,Duct
ICT Data,Category,Duct - Rectangular Fittings,ICT Data,ICT Group,Duct
ICT Data,Category,Duct - Rectangular Straight,ICT Data,ICT Group,Duct
ICT Data,Category,Duct - Round Fittings,ICT Data,ICT Group,Duct
ICT Data,Category,Duct - Round Straight,ICT Data,ICT Group,Duct
ICT Data,Category,Duct Accessory,ICT Data,ICT Group,Duct
ICT Data,Category,Duct Heater,ICT Data,ICT Group,Duct
ICT Data,Category,Ductboard,ICT Data,ICT Group,Duct
ICT Data,Category,Fans In Line,ICT Data,ICT Group,Duct
ICT Data,Category,FD-F/SD-SD,ICT Data,ICT Group,Duct
ICT Data,Category,FD-F/SD-SD,ICT Data,ICT Group,Duct
ICT Data,Category,Fire Daeper,ICT Data,ICT Group,Duct
ICT Data,Category,Flex Duct,ICT Data,ICT Group,Duct
  
```

d. ICT controls hiding using CSV files to hide unwanted element based on wildcard partial test or fully defined element text.

```

ICT_Hide_wildcards_Autocad_BIMFlow.csv - Notepad
File Edit Format View Help
Search Attribute,Search Property,Search Property Value
Attributes,Description,Coupling
CADmep+,Description,Coupl
CADmep+,Description,Cplg
CADmep+,Description,CPLG
CADmep+,Description,Volume
CADmep+,Description,Weld
CADmep+,Description,Pad
CADmep+,Description,Opening
CADmep+,Description,Wall
Item,Description,TXT
Item,Layer, 2D
Item,Layer, AD
  
```

- e. Both CSV file types are located in the C:\ICT Tracker\iConstruct_BIMflow\CSV directory
 - i. Groups are based on CAD software and secondary add on software.
 - ii. Hide files are defined as “wildcards” or “defined” depending on the CAD software.
 - iii. The CSV files are set-up based on lesson learned of previous conversions and industry standards.
 - iv. The CSV files can be updated to change the processing outcome.
 - v. It is recommended that the CSV files are edited in Notepad.
 - 1. If you use Excel, you will need to go to the bottom of the list in Notepad to delete the extra return character that is added by Excel when is saves a CSV file.