Additional Class Materials -

Appendix

a. To address model health
   ■ Screen for causes and signs corruption -
     ● screen for corrupt families
     i. when any of the following constraint related errors pop up,

     The family would need to be audited, saved to the Revit version that the project is in, and then reloaded.

     ii. Convert any in-place models to Revit families
         https://knowledge.autodesk.com/support/revit-products/learn-explore/caas/screencast/Main/Details/26ad32fc-5f7f-4fea-bf5e-7056e7aecb6c.html
         ■ remove imported / exploded DWGs
         ● To see them – **Object Styles >> Imported Objects**
         ● You will see the imported / linked DWGs, but you will only be able to delete the DWG layers, not the actual DWGs.
• To get rid of them – **Manage >> Purge Unused**

![Purge Unused](image)

This will allow you to remove the errant DWGs in their entirety. But sometimes, you may not be able to catch imports – in which case, you would need to try the next step.

• **Address Symptoms of corruption -**

  • **IMPORT line patterns** are a symptom of imported DWG files. Sometimes even a directly linked DWG will bring them in.
  • How do I find them?
    * Manage>>Additional Settings>>Line Patterns*
  • **Solution** – a Dynamo script will clean them out.

![Dynamo Diagram](image)

• **SecretInternal Arrowheads and Dimensions** are also a symptom of imported DWG files. Sometimes even a directly linked DWG will bring them in.
  • How do I find them?
    * Manage>>Additional Settings>>Arrowheads*
- **Solution** – a Dynamo script will clean them out.

  a. Some helpful tools that we considered and used during our process –
    i. **PyRevit** – Family Quick Check tool
       [https://ein.sh/pyRevit/](https://ein.sh/pyRevit/)
       Family Quick Check screens all families and stops when a corrupt family is encountered - when this error is seen, you will need to reload a clean version of the family from a library

  ![Family Quick Check](image1.png)

  ii. **Family Size Reporter**
      This handy app will produce a report of the number of families, their sizes, any nested families AND any nested DWGs. You will then be able to delete them as needed.

  iii. **Imaginit Utilities DWG Check tool**
      [https://www.imaginit.com/software/imaginit-utilities-other-products/utilities-for-revit](https://www.imaginit.com/software/imaginit-utilities-other-products/utilities-for-revit)
iv. Ideate Apps

More information on Infraworks -


More information about Autodesk Cloud rendering

https://pano.autodesk.com/

Difference between types of VR

https://www.autodesk.com/solutions/virtual-reality