



Navisworks Quantification Workflows

Kevin Miller & Stuart Lange

Class summary

- Are you using Navisworks Quantification software and you want to talk with others about their workflows? Come to this session and discover from others what's working for them and what challenges they face.

Intro

- Kevin R. Miller is a professor at Brigham Young University, Provo, UT
- Stuart Lange is an BIM Estimator at C.W. Driver, Irvine, CA

Key learning objectives

At the end of this class, you will be able to:

- Exchange workflows with others using Navisworks Quantifications
- Learn from other users about how they are overcoming the challenges you face
- Learn how to create a network of other users using Navisworks Quantification
- Discuss what features you would like to see in Navisworks Quantification

An aerial perspective of a city skyline, likely Chicago, featuring a prominent bridge crossing a river. The bridge has a rainbow-colored line along its edge. In the foreground, there are green spaces with trees and a small landscaped area. The city skyline in the background includes several tall skyscrapers. A semi-transparent white banner is overlaid across the middle of the image, containing the title text.

Exporting the Model to an NWC



Export View Templates

- Scope Boxes for export
- Do you want the following?
 - Entourage/People
 - Model Lines
 - Structural Analytics
 - Rooms
 - Window Mullions
- Be careful with phasing

Export Navisworks settings

- Pro's and Con's
 - Convert Linked Files -- Maybe
 - Divide into Level-- Typically No
 - Export Current View – Typical, be careful

An aerial perspective of a city skyline, likely Chicago, featuring a large stadium (Soldier Field) and a bridge crossing a river. The scene is overlaid with a semi-transparent white box containing the title text. The bridge has a rainbow-colored line along its edge, and the stadium area is highlighted with green and blue. The city skyline is visible in the background under a clear blue sky.

Prepping for Takeoff



Navisworks Settings

- Options – Interface—Selection
 - Resolution-First Object
 - Highlight – Enabled; Method – Wireframe; Color - Pink
- Options – Measure
 - 3D - Checked
- Option- Display Units
 - Linear Units – Feet
- Model-Performance –
 - On Load – Close NWC/NWD files on load- Checked
- File Readers- Revit
 - Uncheck Divide into levels ; Convert Room Geometry

Short Cut Keys

- Page Down – Zooms to selected Object
- Page Up – Zoom Extents
- Mouse Shortcuts, Mouse custom buttons
- Ctrl 2 Walk
- Ctrl 1 Select

Do you want additional Data fields?

- If you are a nerd and have good backups, you can edit an XML file and create additional fields.
- Data fields we have added:
 - Height2, GrossArea, Finish, Mark, FireRating, Phase, Level, Location, Room, Riser.
- Instructions on how to do this can be found at:
- <http://cmfac.groups.et.byu.net/miller/cfm411/help/NavisTutorials.php>

Do you want to use a previous takeoff as a Template?

- Export previous catalog
- Browse to exported XML file
- To utilize custom fields you need to edit the XML.
- Instructions on how to do this can be found at:
- <http://cmfac.groups.et.byu.net/miller/cfm411/help/NavisTutorials.php>

Before Takeoff

- Decide what type of takeoff you are going to perform
 - Detailed Takeoff
 - Selective Takeoff
 - Everything at once
- Use a Catalog ??
 - Pro's: Custom formulas, visual preferences, checklist.
 - Con's: It is quicker to drag and drop the entire model and be done with it, every model/estimate is different.

■ Map Properties

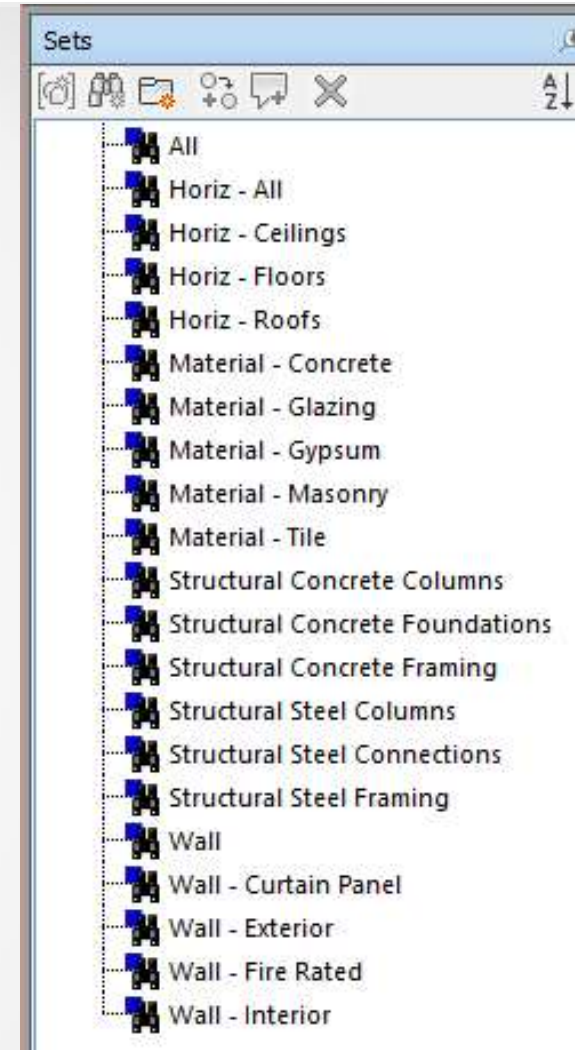
- If you forget to map...
- Typical properties that are mapped
 - FireRating: Revit Type – Fire Rating
 - Mark: Revit Type – Type Mark
 - Level: Base Constraint – Name
 - Fin: Revit Type – Type Name
 - Phase: Phase Created – Name
 - Riser: Element – Actual Number of Risers
 - Weight: Revit Type – W, WT

*Custom fields only show in “Items Raw” tab of excel report

- Visual Settings
 - Viewpoint Ribbon
 - Render style - Shaded Mode
 - Right click on Model in Selection Tree
 - Override Item- Override Color, change to white.
- Turn off Gridlines View- Show Gridlines
- Start doing takeoff.

Takeoff Styles

- Selection Tree -
- Search Sets – Limited scope takeoff or analysis



CW Driver Standards and Protocols for Quantification

- Download at this link:
- <http://1drv.ms/1TtvI8O>

Frustrations & Solutions

- Takeoff at the Geometry level
- Change Analysis
 - No one button update or audit
 - No visual comparison between versions
- Identifying objects in the workbook visually in the model

Questions

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