

SEMINARINO



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INTRODUCTION TO NAVISWORKS FREEDOM

BASIC TOOLS DEMO

WHAT?



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- ▶ Navisworks Freedom software (by Autodesk) is a (light) visualiser of 3D models, widely used in construction industry globally
- ▶ Design Office prepares a new version of the 3D-model every week, that combines the conventional facilities' updated buildings and the contributions from all AD designers. Keep a note that what you see in the model might not be the latest version of what the designers are working on
- ▶ NWD files viewed with Navisworks Freedom (free software) give everybody equal access to explore and experience the whole project.

WHY USE FREEDOM?



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- ▶ Navigate through the 3D model
- ▶ Viewing of model hierarchy structure, object properties, and embedded review data, including viewpoints and comments
- ▶ Take measurements
- ▶ Look for specific items
- ▶ Check integration level and view clashes
- ▶ Really helpful tool given how hard it is to find valid updated information...

WHO CAN USE IT?



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- ▶ All windows users

System Requirements:

- Microsoft Windows 8.1, 8 (64-bit) or Windows 7 (64-bit) (Service Pack 1) Home Basic, Home Premium, Professional, Enterprise, or Ultimate (recommended)
- Intel® Pentium® 4 or AMD Athlon™ 3.0 GHz (or higher) with SSE2 technology
- 2 GB RAM (minimum), 15 GB free disk space for installation
- Direct3D® and OpenGL® capable graphics card with Shader Model 2 (minimum)
- 1.280 x 800 VGA display with true color (1.920 x 1.080 monitor, 32-bit video display adapter recommended)

- ▶ It doesn't run on the mac (unless you partition it and install windows)!!
- ▶ It doesn't run on virtual machine



HOW?



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► You download
Navisworks Freedom
2015 (746MB) from
Autodesk website:
[http://www.autodesk.com/
products/navisworks/
autodesk-navisworks-
freedom](http://www.autodesk.com/products/navisworks/autodesk-navisworks-freedom)



NAVISWORKS

Overview

Features

Compare

Free trial

Case studies

Buy

System requirements

Support & learning

File formats

Autodesk Navisworks Freedom

Download free Navisworks 3D viewer

Get the whole-project view using Navisworks solutions. Combine design data created in AutoCAD and Revit software-based products and other applications with models created by other design tools. Then, view these files with Navisworks® Freedom software. NWD files viewed with Navisworks Freedom give stakeholders equal access to explore and experience whole projects.

The Navisworks Freedom free* download creates compressed, secure, NWD format files. A practical solution to streaming large CAD models, NWD files require no model preparation, third-party server hosting, setup time, nor ongoing costs.

Features

- Eases opening of .NWD and 3D DWF files
- Enables viewing of model hierarchy, object properties, and embedded review data, including viewpoints, animations, redlines, and comments
- Includes full set of navigation tools, including Walk, Look Around, Zoom, Zoom Box, Pan, Orbit, Examine, Fly, Turntable
- Supports real-time display of materials and lighting

Download Navisworks Freedom

1. Download Autodesk Navisworks Freedom

2015: [Navisworks_Freedom_2015_dlm.sfx.exe](#)

2014: [Navisworks_Freedom_2014_dlm.sfx.exe](#)

2013: 64 bit [Navisworks_Freedom_2013_dlm.sfx.exe](#)
32 bit [Navisworks_Freedom_2013_dlm.sfx.exe](#)

2. Install

Run the downloaded executable to unpack the Freedom installer to a location of your choice and to begin the installation process. Note that Administration rights are needed to install this product.

3. Learn more

A Readme, Installation Guide, and other important documentation are accessible from within the installer. Navisworks Freedom includes a comprehensive help system.

**Free products are subject to the terms and conditions of the license and services agreement that accompanies the software.*

COMMON INSTALLATION ERROR



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AUTODESK® NAVISWORKS® FREEDOM 2015

Install > Installation Complete

Installation complete. Some products failed to install.

FAILED ✘ Autodesk® Navisworks® Freedom 2015
An error occurred while installing this product. For more information view the [installation log file](#)

Installation Help | System Requirements | Readme

Finish

The screenshot shows a Windows-style dialog box for Autodesk Navisworks Freedom 2015. The title bar reads 'AUTODESK® NAVISWORKS® FREEDOM 2015' and the Autodesk logo is in the top right. Below the title bar, it says 'Install > Installation Complete'. A prominent orange banner states 'Installation complete. Some products failed to install.' Below this, a 'FAILED' section with a red 'X' icon indicates that 'Autodesk® Navisworks® Freedom 2015' failed to install. The message explains that an error occurred and provides a link to the 'installation log file'. The background of the dialog box features a 3D architectural rendering of a building with a complex, faceted roof structure. At the bottom, there are links for 'Installation Help', 'System Requirements', and 'Readme', along with a 'Finish' button.

COMMON INSTALLATION ERROR



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```
geOpen  
geOpen  
geOpen  
geOpen  
geOpen  
LicenseDialog  
ProductInfoDialog  
ProductSelectionDialog2  
FullProgressDialog  
Installing Microsoft Visual C++ 2012 Redistributable (x86): "C:\Autodesk\Navisworks_Freedom_2015_R2_d1m\3rdParty\x86\VCredist\2012\vcredist_x86.exe"  
Installing Microsoft Visual C++ 2012 Redistributable (x64): "C:\Autodesk\Navisworks_Freedom_2015_R2_d1m\3rdParty\x64\VCredist\2012\vcredist_x64.exe"  
Installing DirectX® Runtime: "C:\Autodesk\Navisworks_Freedom_2015_R2_d1m\3rdParty\DirectX\DXSETUP.exe" /silent2015/3/11:10:39:53 Administrator  
Installing Autodesk® Navisworks® Freedom 2015: TRANSFORMS="C:\Autodesk\Navisworks_Freedom_2015_R2_d1m\x64\en-us\NAVFREE\freedom.mst;C:\Users\ADMINI-  
Install Autodesk® Navisworks® Freedom 2015 Failed Installation aborted, Result=1618  
Rollback DirectX® Runtime Failed Failure is ignored, Result=1618  
Rollback Microsoft Visual C++ 2012 Redistributable (x64) Failed Failure is ignored, Result=1618  
Rollback Microsoft Visual C++ 2012 Redistributable (x86) Failed Failure is ignored, Result=1618
```

- ▶ you need to uninstall the latest Microsoft Visual C++ version you have in your PC

WHERE TO FIND THE MODEL



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- ▶ You download the file (170MB), 'nwd' format, from CHESS (ESS-0012419-Accelerator Buildings, machine included):

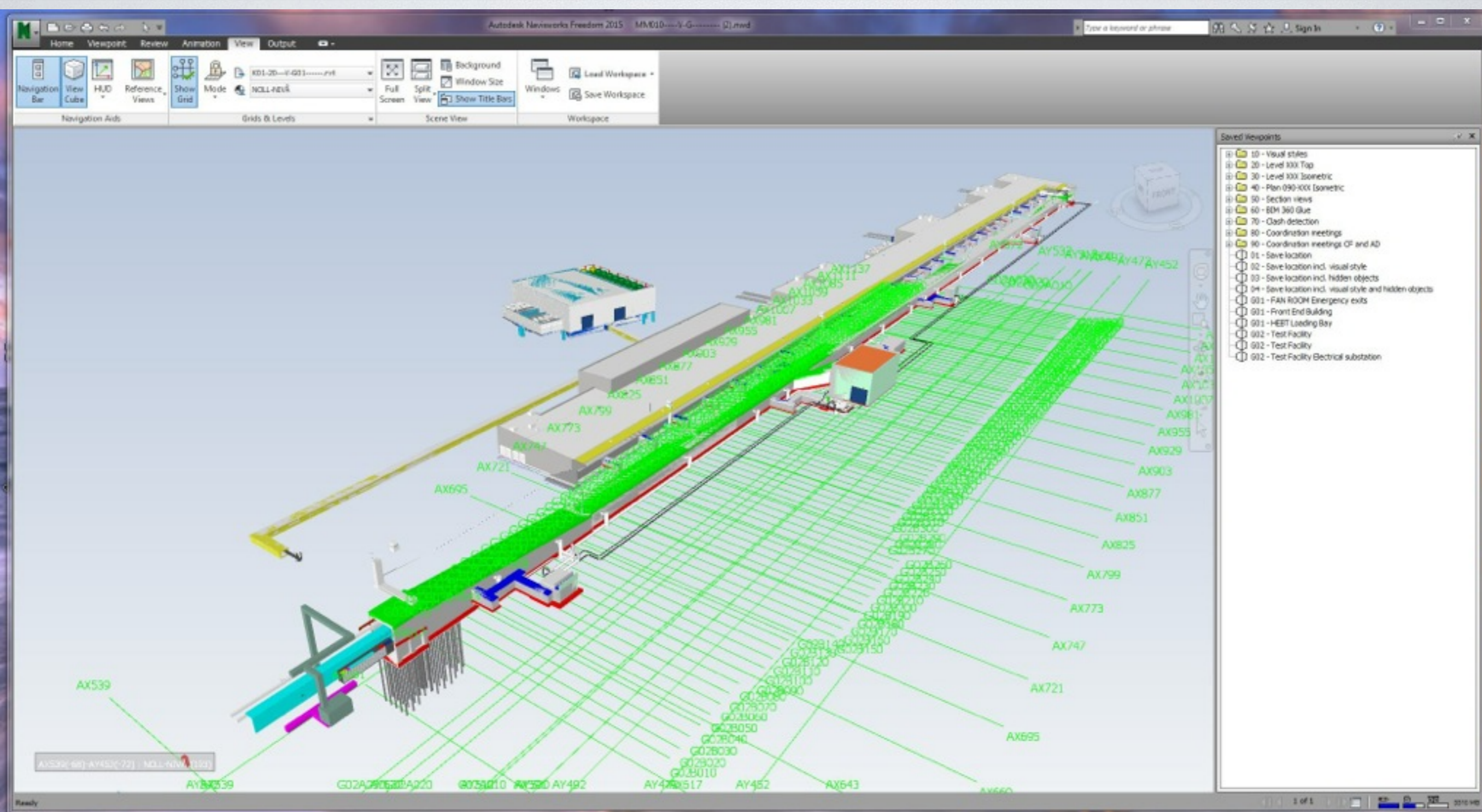
Name	Type	Rev	Description	Title	State	Publication	Actions	CAD	Owner	Reference	Last checkin
ESS-0012419	Model file	1	Phase, Detailed Design - 3D coordination model of Accelerator buildings	MM010---V-G-----,nwd	Preliminary		MM010---V-G-----,nwd 216.6 MB		abinnisson		Mar 5, 2015 (5 days ago)

- ▶ Other buildings also available...(Target, Experimental Halls), not usually updated though

AND



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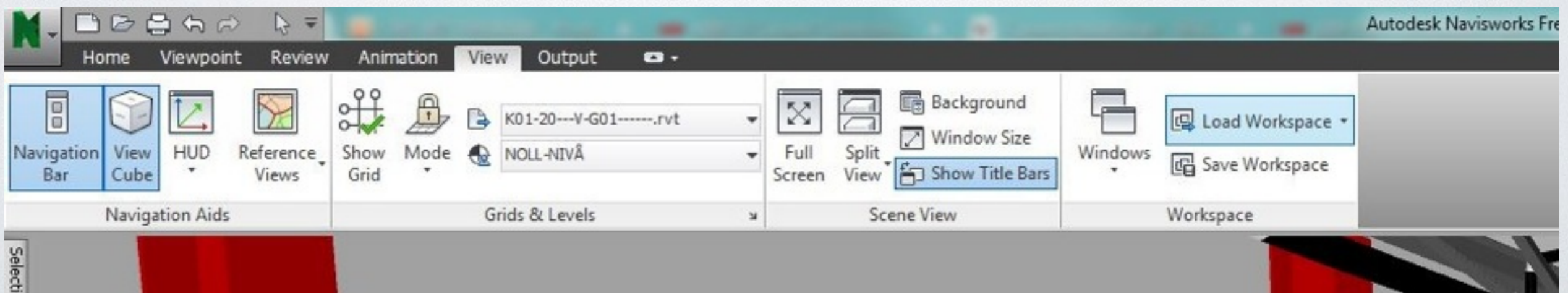


DEMO



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- ▶ Remove grid->View tab->Show grid
- ▶ Adjust workspace: Make sure that you have the tools you use the most visible on your screen, e.g. selection tree, navigation bar, measuring tool, etc.
- ▶ Preferred workspace can be saved and easily retrieved

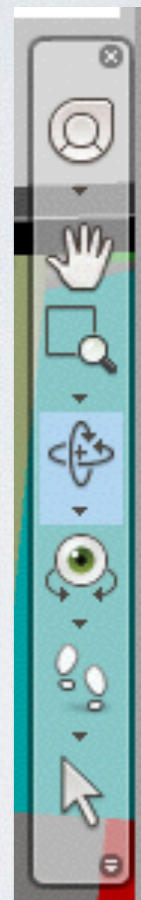
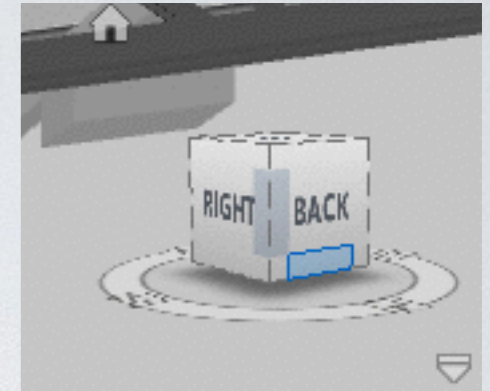


NAVIGATION TOOLS



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1. **ViewCube** Indicates the current orientation of a model, and is used to reorient the current view of a model. Clicking this button displays the ViewCube in the Scene View when it's not visible.
2. **SteeringWheels** Collection of wheels that offer rapid switching between specialised navigation tools.
3. **Pan tool**. Activates the pan tool and moves the view parallel to the screen.
4. **Zoom tools**. Set of navigation tools for increasing or decreasing the magnification of the current view of the model.
5. **Orbit tools**. Set of navigation tools for rotating the model around a pivot point while the view remains fixed.
6. **Look tools**. Set of navigation tools for rotating the current view vertically and horizontally.
7. **Walk and Fly tools**. Set of navigation tools for moving around the model and controlling realism settings.
8. **Select tool**. Geometry selection tool.

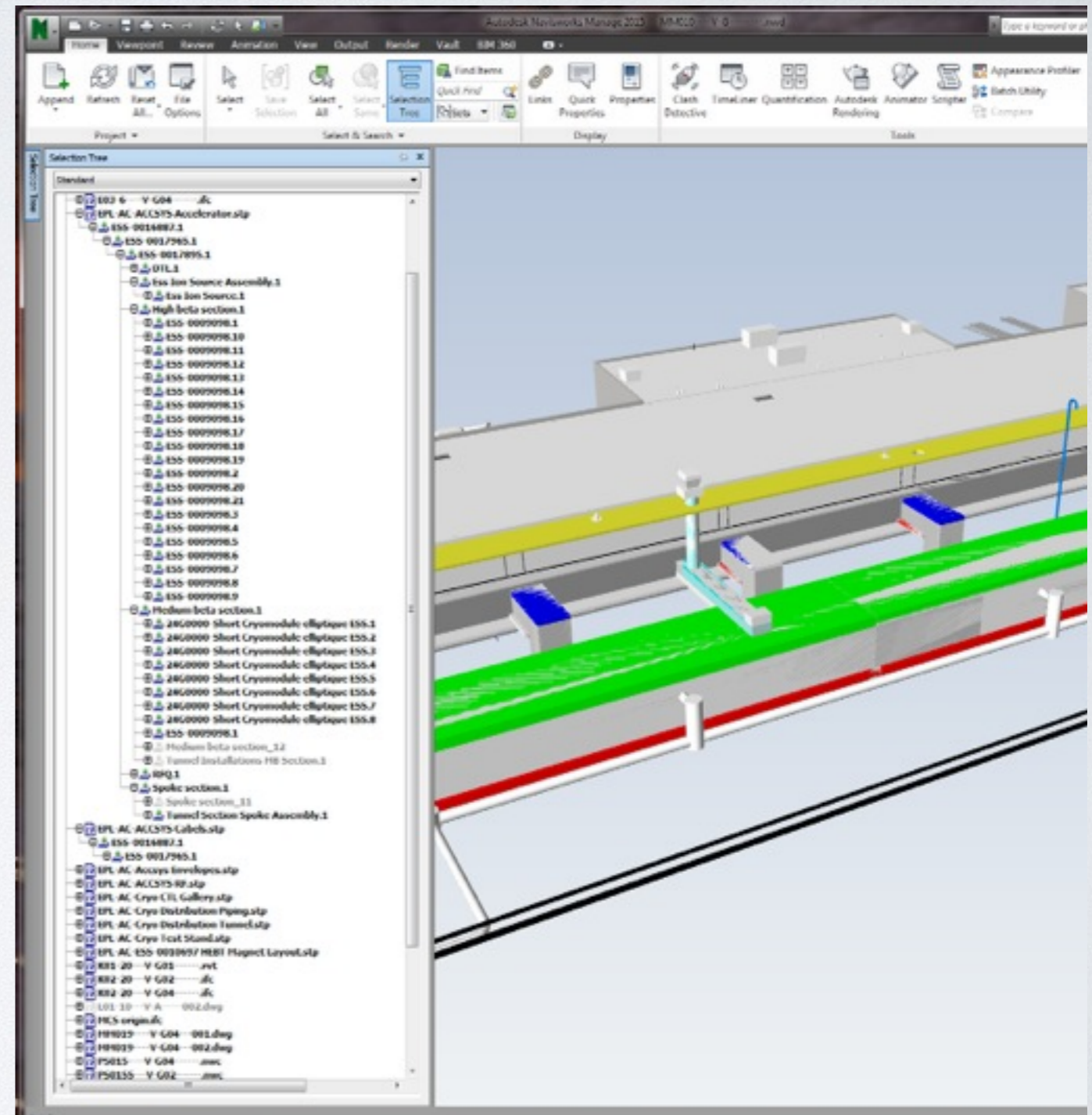


SELECTION TREE



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- ▶ Select Objects
 - ▶ By clicking on the selection tree, at the “home tab”, the user can see what is included in the model and focus on the item of his preference
 - ▶ Select Tool: By clicking on an item, the user can see what it is and check its properties
- ▶ Find box (quick search within selection tree)

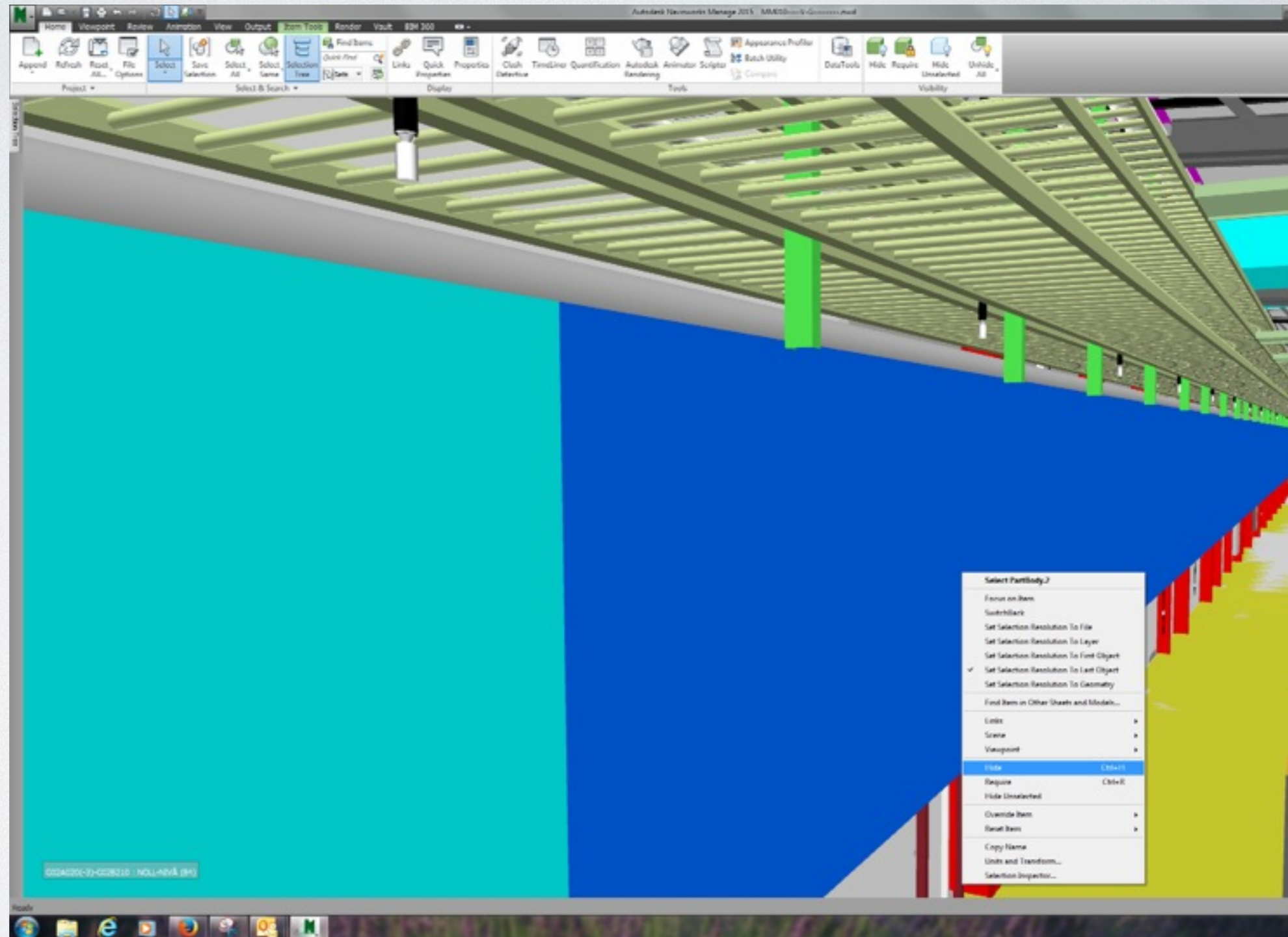


BASIC TOOLS



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- ▶ Hide/Unhide Items Tool: You can hide the objects in the current selection so that they are not drawn in the Scene View. This is useful when you want to remove specific parts of the model. For example, when you walk down the corridor of building, you may want to hide a wall that occludes your view of the next room.

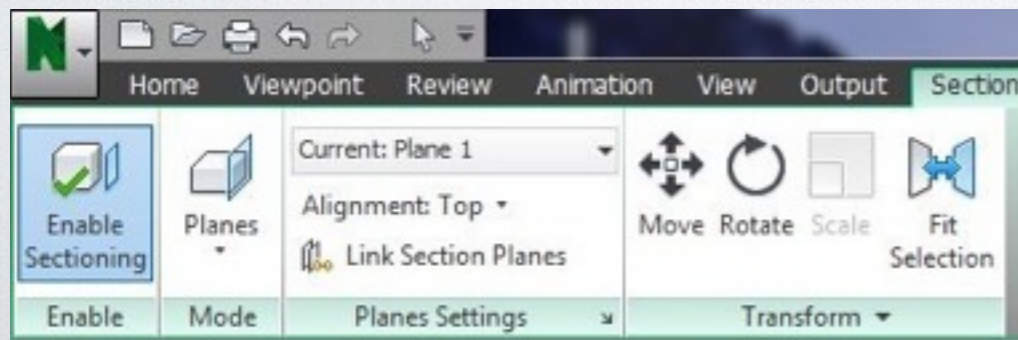
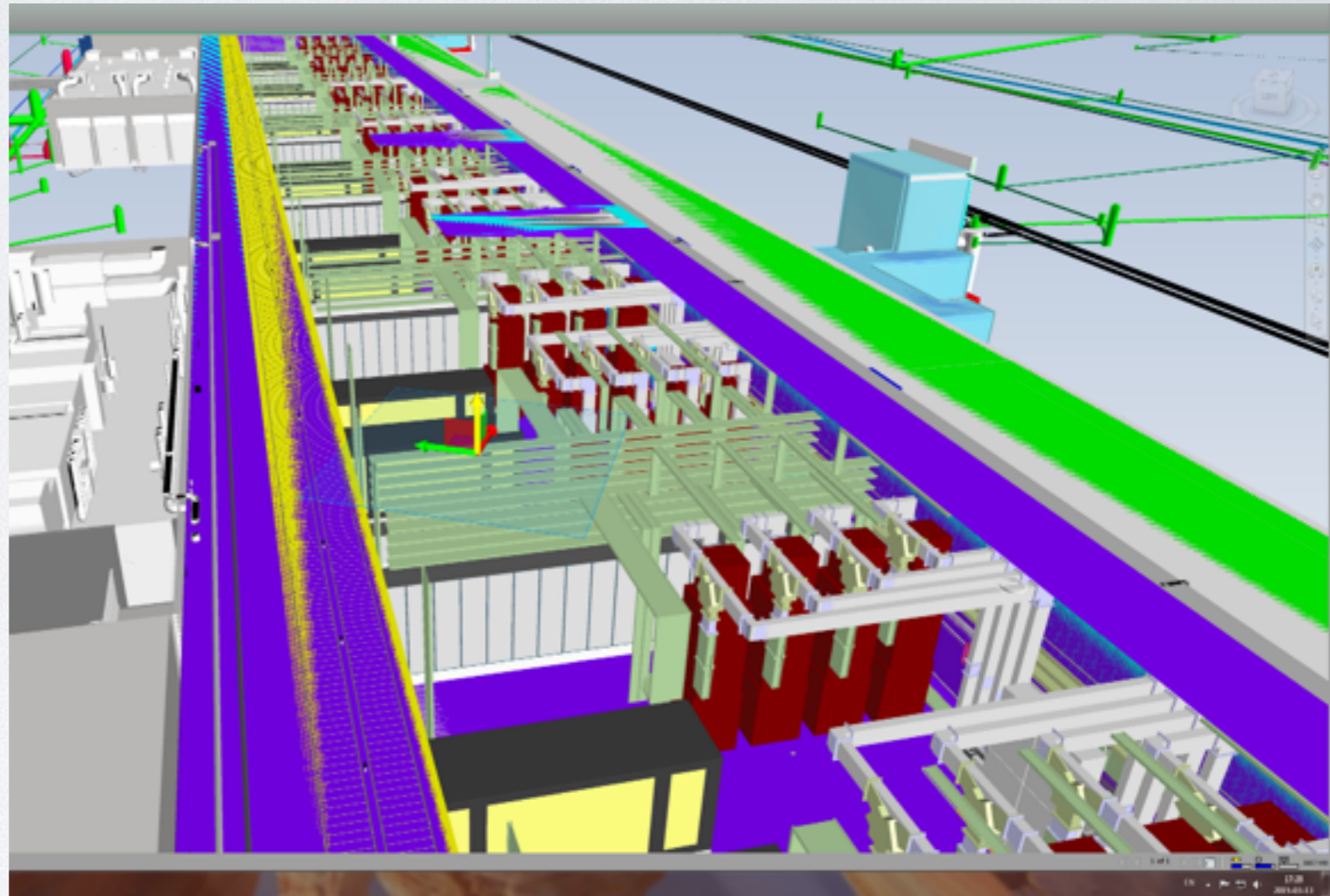


SECTIONING (COOLEST FEATURE!)



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- ▶ Navisworks enables you to turn on sectioning for the current viewpoint and to create cross sections of your model in a 3D workspace
- ▶ Viewpoint-→ Enable sectioning-→ the Sectioning Tools Tab appears

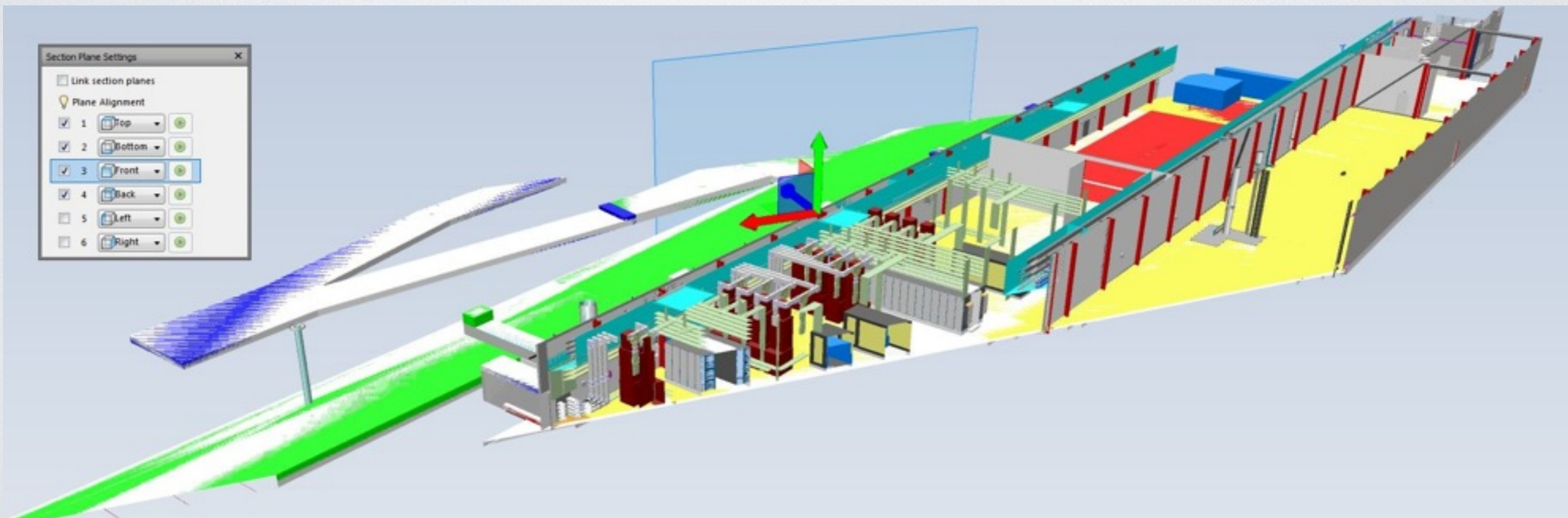


SECTIONING



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- ▶ Planes mode allows you to make up to six sectional cuts in any plane while still being able to navigate around the scene, enabling you to see inside models without hiding any item. By default section planes are created through the centre of the visible area of the model.
- ▶ Section gizmo helps you move the section plane. (to make it visible :Scene View, click Transform panel ,Move)
- ▶ You can undo the section plans anytime at the "Section Plans Settings"Window

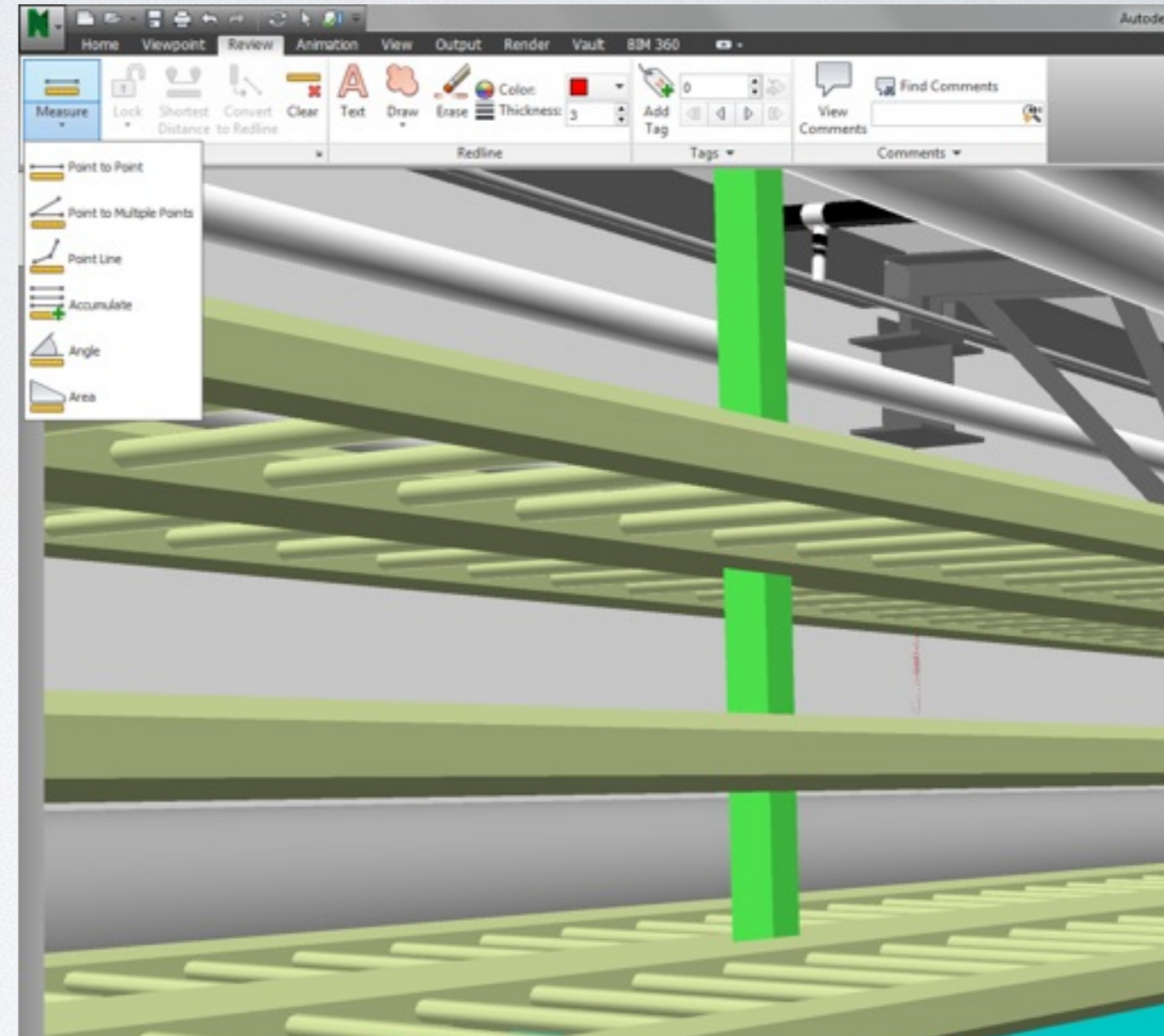


MEASURING TOOLS



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- ▶ Measure Tools: Measure tools enable you to measure between points on items in the model. All measurements are made in display units. The measure tools are available from Review tab Measure panel.
- ▶ To Measure a distance between two points
- ▶ To Measure a total distance along a route
- ▶ To calculate an angle between two lines
- ▶ To Calculate the sum total of several Point-To-Point Measurements
- ▶ To calculate an Area on a Plane

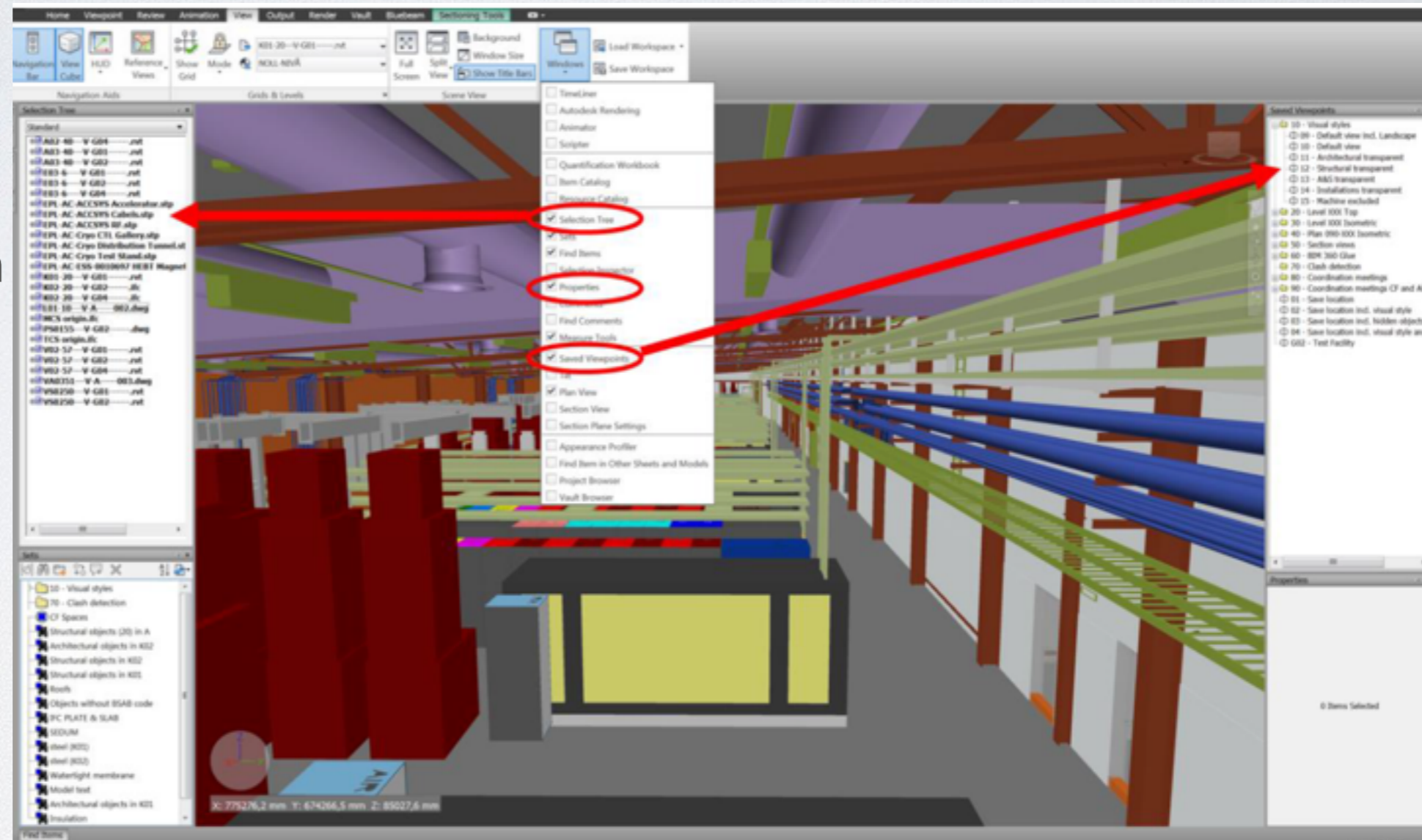


VIEWPOINTS



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- ▶ Viewpoints: You can see only the viewpoints already created in Navisworks Manage (e.g. at the 3D model coordination meetings between AD and CF)



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▶ Questions?

▶ Thank you for your attention!