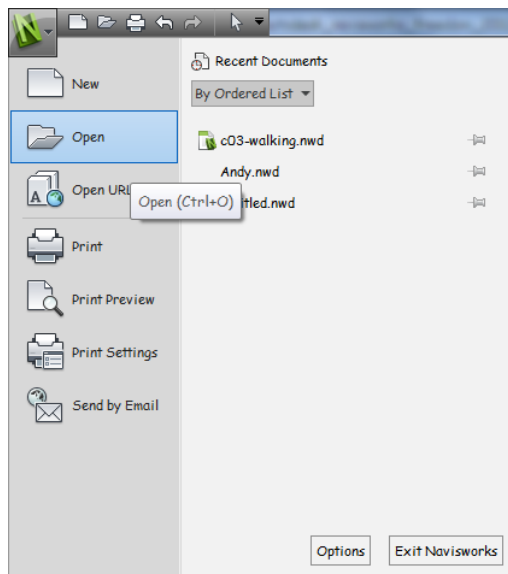


Autodesk Navisworks Freedom Quick Reference Guide

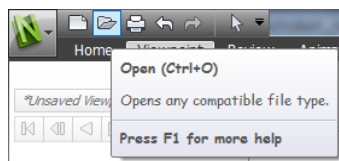
Quick Reference Guide to Autodesk Navisworks Freedom

Opening a Model

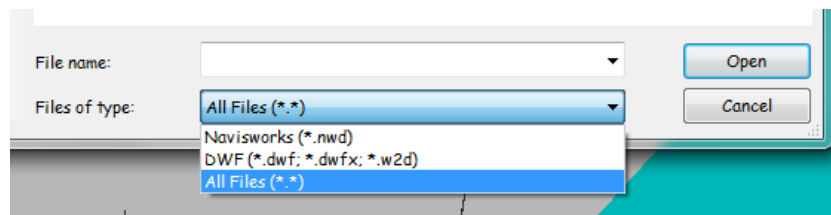
To open a model, click on the Application Button to open the Application Menu then either choose from the list of Recent Documents or click Open:



Alternatively, click on the Open icon on the Quick Access Toolbar:



Choose a file in the Open window and click the Open button.



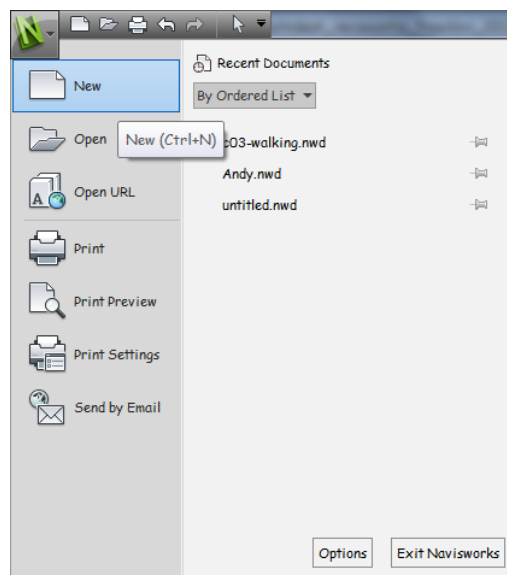
Supported File Types

Navisworks Freedom can open the following types of file:

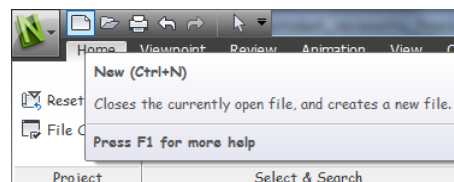
- NWD files are Navisworks model files that have been published using the Navisworks Publisher tool.
- DWF, DWFX files are free to view files produced by Autodesk software for sharing 2D and 3D information.

Starting Again

To close the current model and open a new one, choose the New option from the Application menu:



Alternatively, click on the New icon on the Quick Access toolbar:



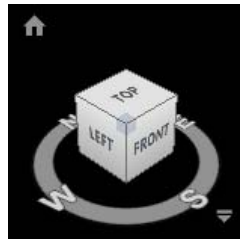
Navigating the Model

Navisworks provides three mechanisms for navigating around a model: the ViewCube, the Navigation Bar and SteeringWheels.

ViewCube

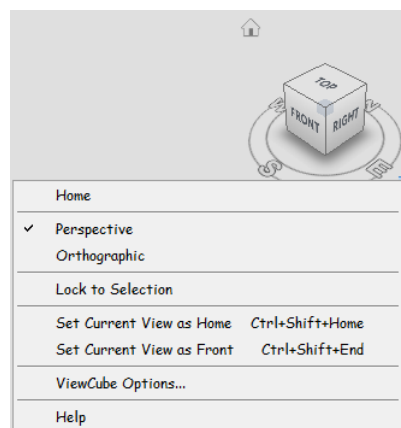
The ViewCube tool provides visual feedback about the current viewpoint of the model as view changes occur. When the cursor is positioned over the ViewCube tool, it becomes active.

Drag or click the ViewCube, switch to one of the available pre-set views, roll the current view, or change to the Home view of the model.



Right-click on the ViewCube or click on the down-arrow glyph at the bottom right of the ViewCube to access the ViewCube context menu.

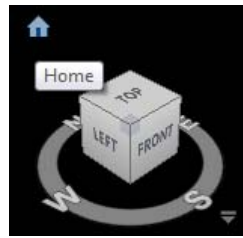
When items are selected in the model, clicking the Lock to Selection option re-defines the centre of the current view and the distance from centre for the view based on the selection of item effectively setting the pivot point for the view.



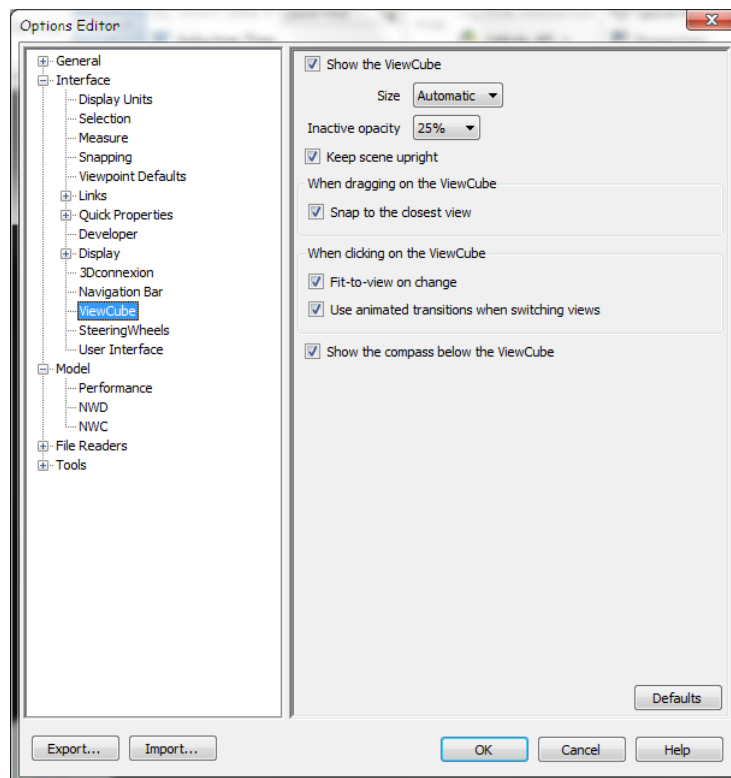
Tip: Set the Home View

The Home View is a special view stored with a model that makes it easy to return to a known or familiar view. Any view of the model can be defined as the Home view.

Click on the house glyph at the top left of the ViewCube to return to the Home View:



The behaviour of the ViewCube is controlled by several configuration options set through the Navisworks Options Editor. They are accessed by choosing the ViewCube Options... option from the ViewCube Context menu:

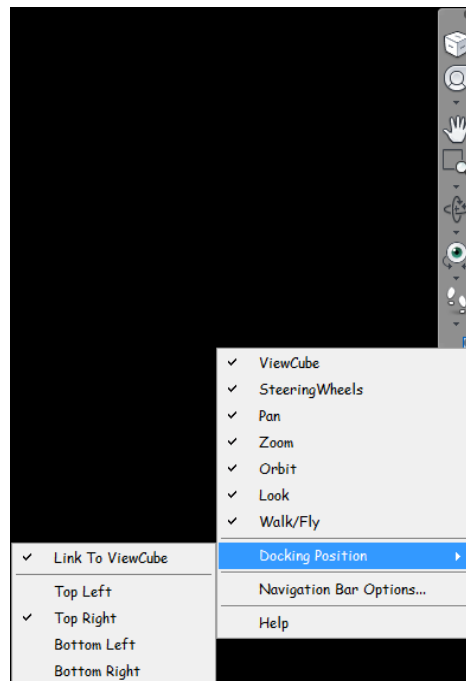


Note: if Fit-to-view on change is selected above, clicking on the ViewCube will cause the model to be rotated around the current centre of the scene and zoomed out to fit the whole scene into the Scene View. If this check box is clear, clicking or dragging the ViewCube rotates the model around the current pivot point and does not zoom in or out.

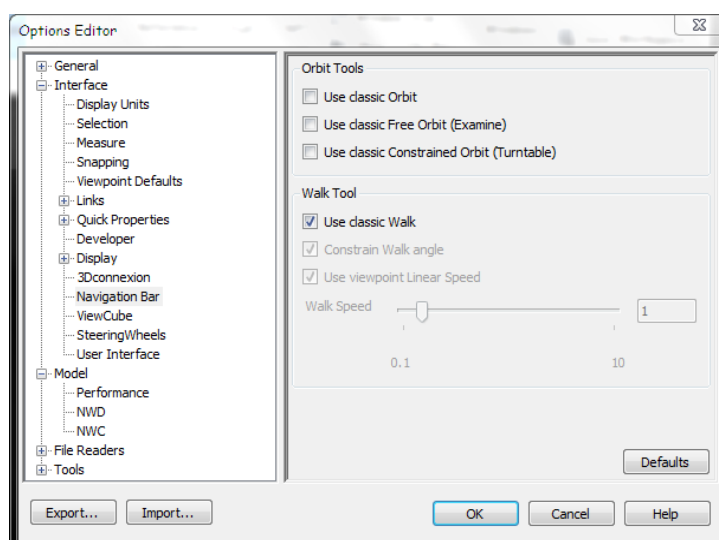
Navigation Bar

The Navigation Bar is a dockable toolbar that provides quick access to all of the navigation tools that are available in Navisworks.

Click on the down-arrow glyph at the bottom right of the toolbar to access the Customize menu. Here the various navigation tools can be turned on or removed from the Navigation Bar and the position of the toolbar itself can be set relative to the Navisworks Scene Window.

















Clicking on the Navigation Bar Options... menu item opens the Navisworks Options Editor to allow various Navigation tool options to be set:



Navigation Tools

The tools available on the Navigation Bar are shown below:

-  ViewCube. Shows the ViewCube – this tool is only displayed when the ViewCube is turned off.
-  SteeringWheels. Accesses the SteeringWheel tools.
-  Pan. Moves the view parallel to the screen.
-  Zoom Window. Allows a box to be drawn and the model to be zoomed into that area.
-  Zoom. Standard click/drag zoom.
-  Zoom Selected. Zooms in/out to show the selected geometry.
-  Zoom All. Zooms out to show the whole scene.
-  Orbit. Moves the camera around the focal point of the model. The up direction is always maintained, and no camera rolling is possible. Use CTRL + Left-Click to set the focal point.
-  Free Orbit. Rotates the model around the focal point in any direction. Use CTRL + Left-Click to set the focal point.
-  Constrained Orbit. Spins the model around the up vector as though the model is sitting on a turntable. The up direction is always maintained. Use CTRL + Left-Click to set the focal point.

-  Look Around. Looks around the scene from the current camera location.
-  Look At. Looks at a particular point in the scene. The camera moves to align with that point.
-  Focus. Looks at a particular point in the scene. The camera stays where it is.
-  Walk. Moves through a model as if walking through it.

Press and hold the Left Mouse Button while dragging the mouse to walk, release the mouse button to stop. Alternatively, use the Up, Down, Left and Right arrow keys for greater control.

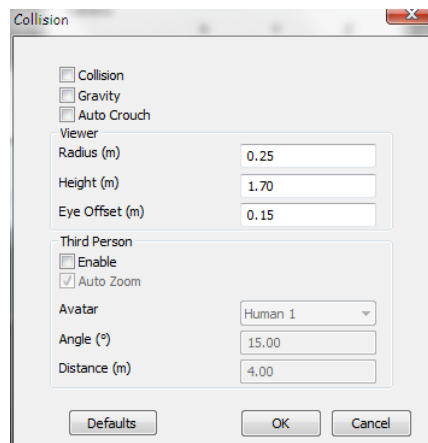
Tip: Use in conjunction with the Tilt Window to control the vertical alignment of the camera.

The following options are available in walk mode:

✓	Walk	
	Fly	
	Collision	Ctrl+D
	Gravity	Ctrl+G
	Crouch	
	Third Person	Ctrl+T

- Collision. Adds 'mass' and a 'collision volume' to the camera to prevent navigation through other objects, points or lines in the scene.
- Gravity. In conjunction with collision, adds the pull of gravity to the camera – walking over empty space will pull the camera down to infinity.
- Crouch. In conjunction with collision, the camera will crouch under any objects that it cannot walk under at its specified height
- Third Person. Adds an avatar to the screen to show navigation from the perspective of a third person.

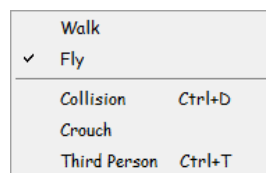
Tip: Collision settings are modified in the Collision Window which is accessed by clicking the Settings button in the Edit Current Viewpoint Window:



- Fly. Moves through a model like in a flight simulator.

Press the Left Mouse Button to fly forwards. With the Left Mouse Button pressed: drag forward to climb, drag back to descend, drag left or right to bank. Use the Left and Right arrow keys to roll left and right. Use the Up and Down arrow keys to zoom in and zoom out.

- Gravity, Crouch and Third Person options are available as in Walk mode:



Navigating with the Wheel Mouse or Three Button Mouse

The Wheel Button or Middle Button of a three button mouse can be used in conjunction with other navigation tools to navigate the Navisworks model. The following actions may be performed:

Mouse Control	Navigation Action
Scroll Wheel Forward	Zoom In
Scroll Wheel Backwards	Zoom Out
Press Wheel / Middle Button and drag	Pan
Press SHIFT key and Wheel / Middle Button and drag	Orbit
Press CTRL + SHIFT keys and Wheel / Middle Button and drag	Locate Pivot Point

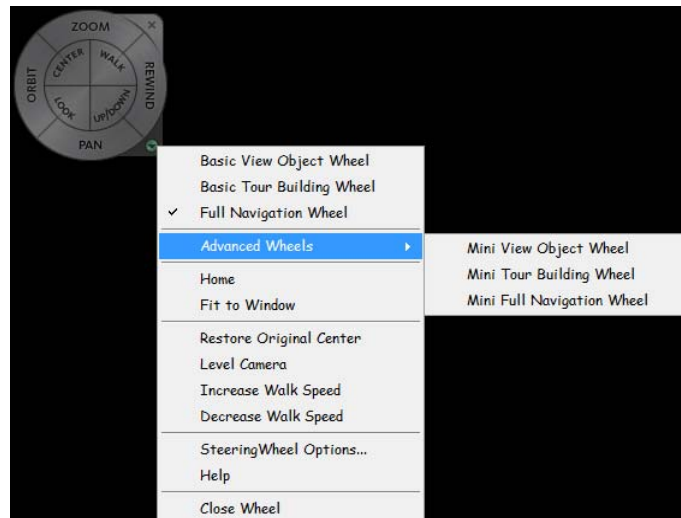
SteeringWheels

SteeringWheels are tracking menus that follow the cursor. They combine many of the common navigation tools into a single interface and are specific to the context in which a model is being viewed.

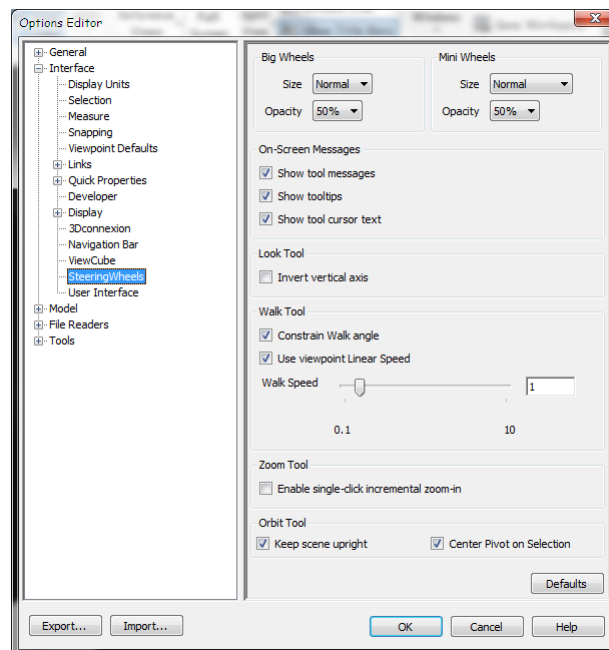
Using the mouse, press down and drag on a wedge of the wheel to interact with it; release the mouse button to return to the wheel.

Click on the x glyph at the top right of the wheel to close it.

Click on the down-arrow glyph at the bottom right of the wheel to access the wheel menu:

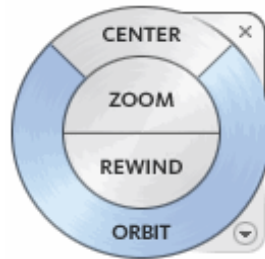


Click on the SteeringWheels Options... menu option to open the Navisworks Options Editor and access the SteeringWheel configuration options:



View Object Wheel

The View Object Wheel is used to view individual objects or features in a model.

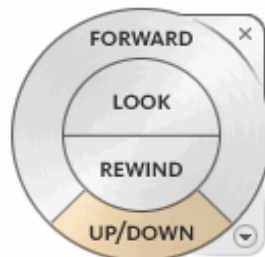


The wheel provides the following options:

- Center. Specifies a point on a model to adjust the centre of the current view or change the target point used for some of the navigation tools.
- Zoom. Adjusts the magnification of the current view.
- Rewind. Restores the most recent view orientation. Move backward or forward by clicking and dragging left or right.
- Orbit.

Tour building Wheel

The Tour Building Wheel is used to navigate a building or a full model.



The wheel provides the following options:

- Forward. Adjusts the distance between the current point of view and the defined pivot point of the model. Clicking once moves forward half the distance as far as the object that was clicked.
- Look. Swivels the current view.
- Rewind. Restores the most recent view. Move backward or forward by clicking and dragging left or right.
- Up/Down Tool. Slides the current view of a model along the Z axis of the model.

Full Navigation Wheel

The Full Navigation Wheel contains tools used for both viewing an object and navigating a full model.



The wheel provides the following options:

- Zoom. Adjusts the magnification of the current view.
- Rewind. Restores the most recent view. Move backward or forward by clicking and dragging left or right.
- Pan. Repositions the current view by panning.
- Orbit. Rotates the current view around a fixed pivot point.
- Center. Specifies a point on a model to adjust the centre of the current view or change the target point used for some of the navigation tools.
- Walk. Simulates walking through a model.
- Look. Swivels the current view.

2D Navigation Wheel


The 2D Navigation Wheel provides to access basic 2D navigation tools.

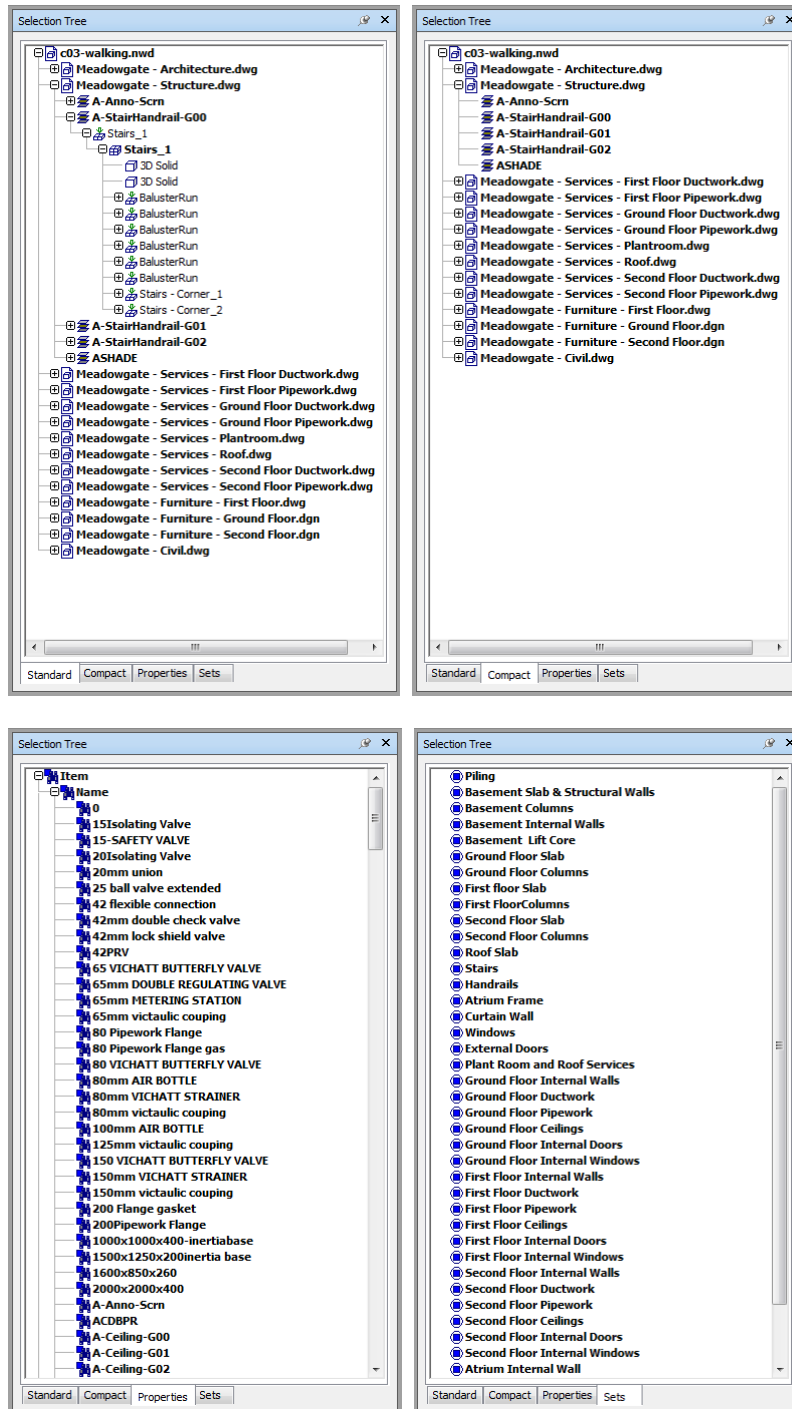


The wheel provides the following options:

- Pan. Repositions the current view by panning.
- Zoom. Adjusts the magnification of the current view.
- Rewind. Restores the most recent view orientation. Move backward or forward by clicking and dragging left or right.

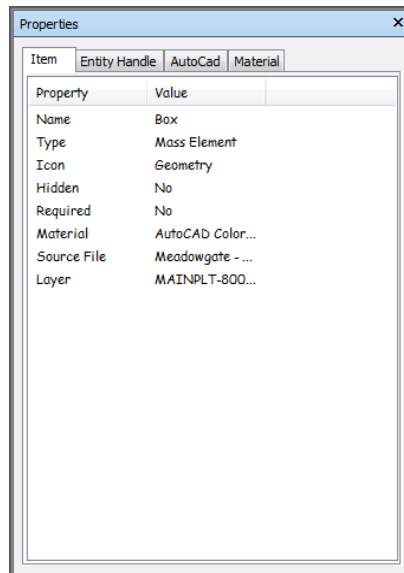
Selecting Items

Items may be selected by clicking on screen with the Select tool  from the Quick Access Toolbar or Home Ribbon > Select & Search Panel > Select button or by selecting entries in the Selection Tree window, accessed from the Home Ribbon > Select & Search Panel > Selection Tree button.



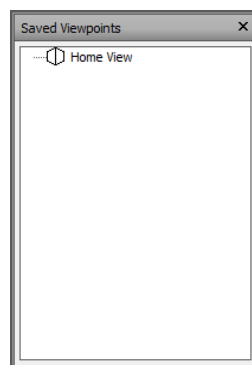
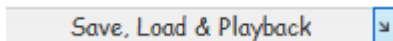
Viewing Item Properties

The properties of Selected Items are viewed in the Properties Window, accessed from Home Ribbon > Display Panel > Properties button.



Using Saved Viewpoints

Viewpoints and Viewpoint Animations that have been saved with the published Navisworks model are listed in the Saved Viewpoints Window, accessed from Viewpoint Ribbon > Save, Load & Playback Panel > Launch button



Click on a view to switch the display to that view.

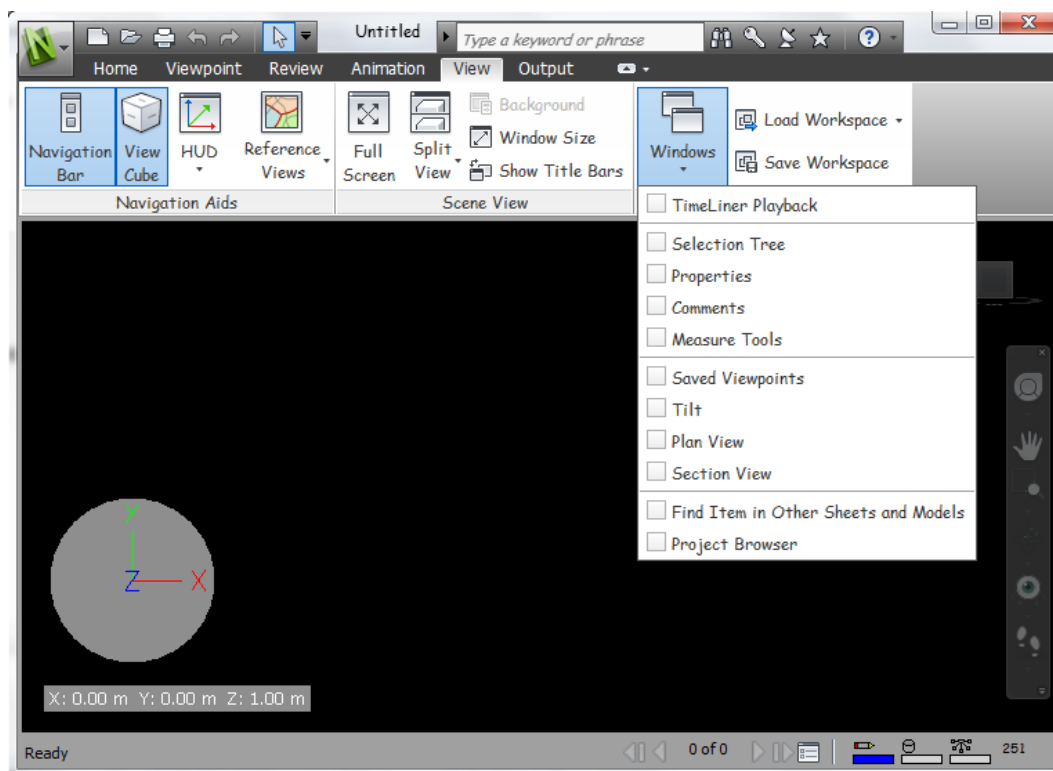
Controlling the Screen Layout

The View tab of the Navisworks ToolRibbon provides functions to control the screen layout.

The Workspace panel is shown below with the Windows button selected, listing all of the supplementary windows that may be displayed in Navisworks. These windows are displayed automatically when the corresponding Navisworks function is activated, but may be also turned on or off here.

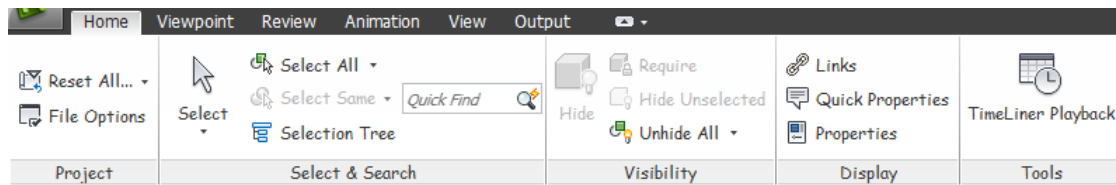
The Navigation Bar and View Cube buttons toggle the display of the Navigation Bar and ViewCube controls respectively. Similarly, the HUD button enables the XYZ axes and position readout windows to be displayed, as shown in the bottom left corner of the window, below.

Save Workspace and Load Workspace may be used to save and reload configured Workspaces (screen layouts).



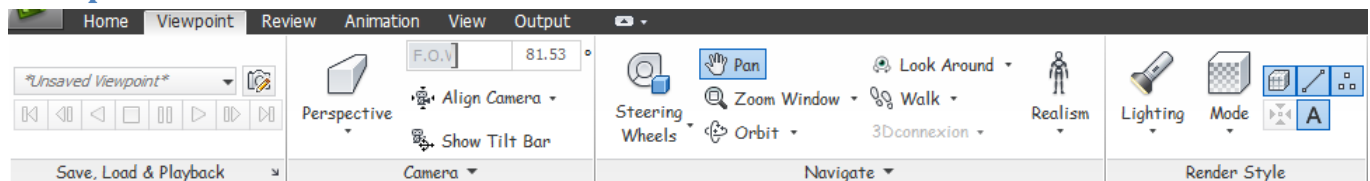
Navisworks ToolRibbons

Home Ribbon



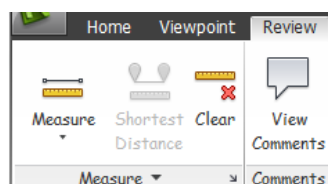
Panel	Function
Project	Control the whole scene
Select & Search	Select items and saved selections in the scene
Visibility	Show and hide items of model geometry
Display	Show and hide information including properties and links
Tools	Launch TimeLiner Playback tool

Viewpoint Ribbon



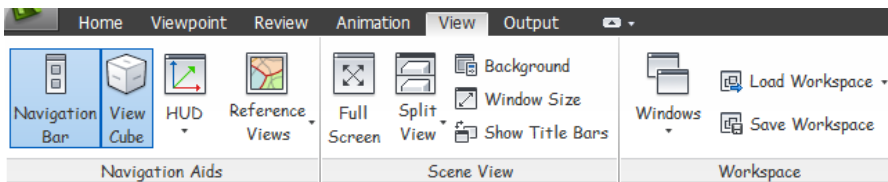
Panel	Function
Save, Load & Playback	Load and playback Saved Viewpoints and Viewpoint Animations
Camera	Apply settings to the camera
Navigate	Navigate the model
Render Style	Control lighting and real-time rendering settings

Review Ribbon



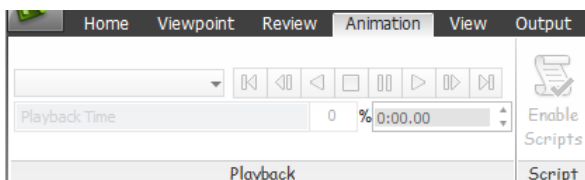
Panel	Function
Measure	Measure distances and angles
Comments	View comments

View Ribbon



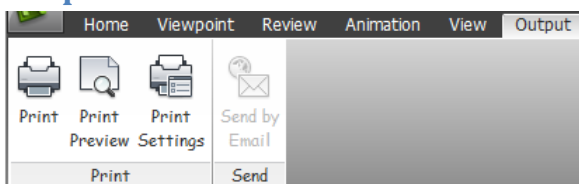
Panel	Function
Navigation Aids	Toggle navigation aids
Scene View	Control the scene view window
Workspace	Control window layout and workspace settings

Animation Ribbon



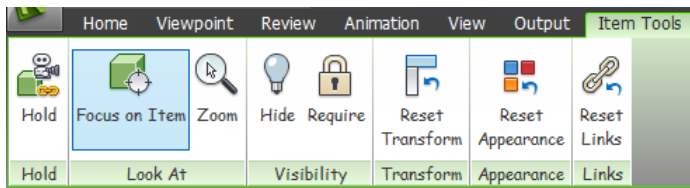
Panel	Function
Playback	Control the playback of viewpoint and object animations
Script	Enable scripts

Output Ribbon



Panel	Function
Print	Print and preview and set print settings
Send	Email the current model

Item Tools Ribbon



Note: this ribbon is only displayed when an item is selected in the model.

Panel	Function
Hold	Hold the selected Items
Look At	Focus and zoom the current view onto the selected items
Visibility	Control the visibility of the selected items
Transform	Reset the position, rotation and scale of selected items back to their original values
Appearance	Reset the colour and transparency of the selected items back to their original values
Links	Reset the links on the selected items back to their original values

Context Menus

Scene Menu

Right click on a blank area of the screen to display the Scene Menu:

Scene	
Viewpoint	▶
Undo Selection	Ctrl+Z
Reset All	▶
Select	▶
View All	Ctrl+Home
Focus	
Background	
File Options...	Shift+F11
Global Options...	F12

Select Menu

Right click on an item in the current view to display the Select Menu:

Select	
Focus on Item	
Find Item in Other Sheets and Models...	
Scene	▶
Viewpoint	▶
Hide	Ctrl+H
Require	Ctrl+R
Hide Unselected	
Reset Item	▶
Units and Transform...	

Viewpoint Menu

The Viewpoint Menu is a submenu of the Scene and Select menus:

Look From	▶
Set Viewpoint Up	▶
Rendering	▶
Lighting	▶
Display	▶
Navigation Mode	▶
Navigation Tools	▶
Full Screen	F11
Edit Current Viewpoint...	

Editing Global Options

The Options editor is activated in several ways:

- Application Button > Options button
- Scene Menu > Global Options...
- F12 key

