Autodesk NavisWorks 2009 Solutions

This document details support provided by the current release of Autodesk NavisWorks 2009 solutions (including Autodesk NavisWorks Review, Autodesk NavisWorks Simulate and Autodesk NavisWorks Manage) for:

- CAD file formats.
- Laser scan formats.
- CAD applications.
- Scheduling software.

NOTE: When referring to NavisWorks or Autodesk NavisWorks 2009 solutions in this document this does NOT include Autodesk NavisWorks Freedom 2009, which only reads NWD or 3D DWF files.

Product release version: 2009.1

Document version: 1.2
July 2008
Supported CAD File Formats

Supported Laser Scan Formats

Supported Applications

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ADT 3.3 to 2007, AutoCAD Architecture 2008-2009
Building Systems, AutoCAD MEP 2008-2009
Autodesk Inventor 5 to 11, 2009
AutoCAD Civil 3D 2008
MDT 6 to 2008
Revit 4 to 7
Revit Building 8.1 to 9.1, Revit Architecture 2008-2009
Revit Structure 2 to 4, 2008-2009
Revit Systems, MEP 2008-2009
Autodesk 3ds Max 3 to 2009
Autodesk VIZ 3 to 2008
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Supported CAD File Formats
NavisWorks has its own native file formats (.nwd, .nwf, .nwc), however Autodesk NavisWorks solutions can additionally read a combination of many popular 3D CAD formats. The following table lists the CAD file formats currently supported by Autodesk NavisWorks 2009 solutions.

<table>
<thead>
<tr>
<th>Format</th>
<th>Extension</th>
<th>Format</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>NavisWorks</td>
<td>.nwd .nwf .nwc</td>
<td>IGES</td>
<td>.igs .iges</td>
</tr>
<tr>
<td>AutoCAD</td>
<td>.dwg .dx</td>
<td>Inventor</td>
<td>.ipt .iam .ipj</td>
</tr>
<tr>
<td>MicroStation (SE, J, V8 &amp; XM)</td>
<td>.dgn .prp .prw</td>
<td>Informatix MicroGDS</td>
<td>.man .cv7</td>
</tr>
<tr>
<td>3D Studio</td>
<td>.3ds .prj</td>
<td>RVM</td>
<td>.rvm</td>
</tr>
<tr>
<td>ACIS SAT</td>
<td>.sat</td>
<td>SketchUp</td>
<td>.skp</td>
</tr>
<tr>
<td>DWF</td>
<td>.dwf</td>
<td>STEP</td>
<td>.stp .step</td>
</tr>
<tr>
<td>PDS Design Review</td>
<td>.dri</td>
<td>STL</td>
<td>.stl</td>
</tr>
<tr>
<td>IFC</td>
<td>.ifc</td>
<td>VRML</td>
<td>.wrl .wrz</td>
</tr>
</tbody>
</table>
Supported Laser Scan Formats
The following table lists the laser scan formats currently supported by Autodesk NavisWorks 2009 solutions.

<table>
<thead>
<tr>
<th>Format</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASCII Laser File</td>
<td>.asc .txt</td>
</tr>
<tr>
<td>Faro</td>
<td>.fls .fws .iQscan .iQmod .iQwsp</td>
</tr>
<tr>
<td>Leica</td>
<td>.pts .ptx</td>
</tr>
<tr>
<td>Riegl</td>
<td>.3dd</td>
</tr>
<tr>
<td>Trimble</td>
<td>Native file NOT supported. Convert to ASCII laser file</td>
</tr>
<tr>
<td>Z+F</td>
<td>.zfc .zfs</td>
</tr>
</tbody>
</table>
Supported Applications

The following table is a non-exhaustive list of CAD applications and properties currently supported by Autodesk NavisWorks 2009 solutions, along with any additional information that may be necessary to review your project files in NavisWorks software.

<table>
<thead>
<tr>
<th>Autodesk</th>
<th>Exporter</th>
<th>Native Format</th>
<th>Other Format</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>AutoCAD R14 to 2009</td>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
</tr>
<tr>
<td>AutoCAD Details</td>
<td>Other Formats</td>
<td>DXF, 3DS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Models can be exported from AutoCAD software as either .nwc or .nwd format.
- NavisWorks also supports the native AutoCAD .dwg file format, which can be read directly into NavisWorks.
- 64-bit AutoCAD is supported by Exporter only.
- Object properties, (such as Material Colors and Entity Handles) are also supported by NavisWorks and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.

| ADT 3.3 to 2007, AutoCAD Architecture 2008-2009 | ![Checkmark] | ![Checkmark] | ![Checkmark] | ![Checkmark] |
| AutoCAD Architecture Details | Other Formats | DXF, 3DS |

- In order to read an ADT 2007 or later .dwg file into NavisWorks, you will need to install the corresponding Object Enabler, regardless of whether you have the application installed.

NOTE: This relates to all AutoCAD 2007/later-based products.

- In order to read an ADT 3.3 to 2006 .dwg file into NavisWorks, you need the ADT2007 (or later) object enabler installed on the same machine.

NOTE: When using an object enabler, ensure the corresponding loader version (year) is selected in Tools > Global Options > File Readers > DWG/DXF/SAT > DWG Loader Version.

- From ADT/AutoCAD Architecture software you can export to .nwc or .nwd.
- For versions pre-2007, the Exporter is the preferred route to NavisWorks.
- NavisWorks supports ADT object properties and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties. Automatic Properties are also supported for AutoCAD Architecture.
- Autodesk NavisWorks Simulate and Autodesk NavisWorks Manage software support ADT/AutoCAD Architecture textures.
Autodesk NavisWorks 2009 Solutions

Building Systems, AutoCAD MEP 2008-2009
   AutoCAD MEP Details
   Other Formats: DXF, 3DS

- In order to read a Building Systems 2007 or AutoCAD MEP.dwg file into NavisWorks, you will need to install the corresponding Object Enabler, regardless of whether you have the application installed.

   NOTE: This relates to all AutoCAD 2007/later-based products.

- In order to read an earlier version (pre-2007) Building Systems .dwg file into NavisWorks, you need the Building Systems 2007 (or later) object enabler installed on the same machine.

   NOTE: When using an object enabler, ensure the corresponding loader version (year) is selected in Tools > Global Options > File Readers > DWG/DXF/SAT > DWG Loader Version.

- From Building Systems/AutoCAD MEP software you can export to .nwc or .nwd.
- For versions pre-2007, the Exporter is the preferred route to NavisWorks.
- NavisWorks supports Building Systems/AutoCAD MEP object properties and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.

Autodesk Inventor 5 to 11, 2009
   Inventor Details
   Other Formats: IGES, STEP

- In order to read an Inventor software file into NavisWorks, you either need Inventor 5 (or higher), Inventor Design Tracking 5 (or higher), or Inventor View installed on the same machine as NavisWorks (you’ll need to install either the same or later version relevant to the file you wish to read). Inventor View can be downloaded from support.autodesk.com.
- If you are using an Inventor Project file, (*.ipj) you will need to set this as the Active Project in NavisWorks, prior to opening your assembly drawings (*.iam). You can set the Active Project either by opening your *.ipj file in NavisWorks, or by going to Tools > Global Options > File Formats > Inventor, then enter the full path and file name of your *.ipj file (e.g. C:\my Inventor projects\project 1.ipj). Once loaded, you can then Open the corresponding assembly drawing(s) as usual.
# Autodesk NavisWorks 2009 Solutions

## AutoCAD Civil 3D 2008

**Civil 3D Details**

**Other Formats** | DXF, 3DS

- The Civil 3D native .dwg file can be read directly into NavisWorks, however you will need to install the Civil 3D Object Enabler (available to download from the Autodesk website).
- You can export a file from Civil 3D software to .nwc or .nwd.
- Object properties, (such as Material Colors and Entity Handles) are also supported by NavisWorks and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.

## MDT 6 to 2008

**MDT Details**

**Other Formats** | DXF, 3DS, VRML

- The MDT native .dwg file can be read directly into NavisWorks, however you will need to install the MDT Object Enabler (available to download from the Autodesk website).
- You can export a file from MDT software to .nwc or .nwd.
- For versions pre-2007, the Exporter is the preferred route to NavisWorks.
- 64-bit AutoCAD Mechanical is supported by Exporter only.
- Object properties, (such as Material Colors and Entity Handles) are also supported by NavisWorks and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.

## Revit 4 to 7

**Revit Details**

**Other Formats** | DWG, DXF, DGN

- Revit platform files can be viewed in NavisWorks if they have been saved as either a .dwg, .dxf, or .dgn file format.
- If you use the .dwg Export out of Revit 6 and 7, then object properties such as Element ID, Type and Category are supported.
## Autodesk NavisWorks 2009 Solutions

<table>
<thead>
<tr>
<th>Application</th>
<th>Exporter</th>
<th>Native Format</th>
<th>Other Format</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revit Building 8.1 to 9.1, Revit Architecture 2008-2009</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Revit Building Details</strong></td>
<td></td>
<td></td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td><strong>Other Formats</strong></td>
<td>DWG, DXF, DGN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- NavisWorks can export .nwc files directly from Revit Building/Revit Architecture software. You will need to install NavisWorks on the same machine as Revit Building/Revit Architecture.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Revit properties are supported. These can be viewed in the 'Properties' window. To open the Properties window, go to View &gt; Control Bars &gt; Properties.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revit Structure 2 to 4, 2008-2009</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Revit Structure Details</strong></td>
<td></td>
<td></td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td><strong>Other Formats</strong></td>
<td>DWG, DXF, DGN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- NavisWorks can export .nwc files directly from Revit Structure software. You will need to install NavisWorks on the same machine as Revit Structure.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Revit properties are supported. These can be viewed in the 'Properties' window. To open the Properties window, go to View &gt; Control Bars &gt; Properties.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revit Systems, MEP 2008-2009</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Revit MEP Details</strong></td>
<td></td>
<td></td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td><strong>Other Formats</strong></td>
<td>DWG, DXF, DGN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- NavisWorks can export .nwc files directly from Revit Systems/Revit MEP software. You will need to install NavisWorks on the same machine as Revit Systems/Revit MEP.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Revit properties are supported. These can be viewed in the 'Properties' window. To open the Properties window, go to View &gt; Control Bars &gt; Properties.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autodesk 3ds Max 3 to 2009</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>3ds Max Details</strong></td>
<td></td>
<td></td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td><strong>Other Formats</strong></td>
<td>DWG, DXF, 3DS, IGES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- To view your 3ds Max model in NavisWorks, you will need to have 3ds Max software installed on the same machine. Then, simply export to .nwc for use in NavisWorks.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 64-bit 3ds Max is also supported via an Exporter.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- NavisWorks does not support .max files, so you cannot read the native file format directly into NavisWorks.</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** NavisWorks Simulate and Manage both support the export of textures and materials from 3ds Max.
### Autodesk VIZ 3 to 2008

**Viz Details**

**Other Formats** DWG, DXF, 3DS

- To view your VIZ model in NavisWorks, you will need to have VIZ software installed on the same machine. Then, simply export to .nwc for use in NavisWorks.
- NavisWorks does not support .max files, so you cannot read the native file format directly into NavisWorks.

**NOTE:** Autodesk NavisWorks Simulate and Autodesk NavisWorks Manage both support the export of textures and materials from Autodesk 3ds Max.

### Autodesk Maya

**Maya Details**

**Other Formats** DXF, IGES, VRML

- NavisWorks has file readers for .dxf, .igs .iges and .wrl .wrz.
In order to read an AutoPLANT DWG file into NavisWorks, you will first need to install the AutoPLANT Object Enabler.

NOTE: When using an object enabler, choose one of the same or later version as the authoring application, and then ensure the corresponding (NavisWorks) loader version (year) is selected in Tools > Global Options > File Readers > DWG/DXF/SAT > DWG Loader Version.

- You can also export to .nwc or .nwd if you have NavisWorks installed on the same machine as AutoPLANT.

NOTE: To ensure geometry is rendered correctly when reading a DWG file into NavisWorks, or exporting from AutoPLANT, ensure the render type is set to Shaded in Tools > Global Options > File Readers > DWG/DXF/SAT > Render Type.

- Currently, object property information is unavailable. This is due to changes in AutoPLANT that prevent the Component ID from being obtained, which is required to address the AutoPLANT MDB file.

- Models can be exported as NWC or NWD files from MicroStation SE if you have NavisWorks installed on the same machine.
- NavisWorks supports the native MicroStation .dgn file format, which can be read directly into NavisWorks.
- Object properties, such as colors and ambient, diffuse and shininess properties of materials from .pal and .mat palette and material files are supported.
- Autodesk NavisWorks Simulate and Autodesk NavisWorks Manage support MicroStation materials and textures.

NOTE: For optimum file fidelity we recommend the NWC (or NWD) Exporter from within MicroStation whenever possible.
Autodesk NavisWorks 2009 Solutions

MicroStation J

MicroStation J Details

Other Formats | DWG, DXF, DGN, IGES, STEP, VRML

- Models can be exported as NWC or NWD files from MicroStation J if you have NavisWorks installed on the same machine.
- NavisWorks supports the native MicroStation .dgn file format, which can be read directly into NavisWorks.
- Object properties, such as colors and ambient, diffuse and shininess properties of materials from .pal and .mat palette and material files are supported.
- Intergraph PDS object information can be read from .drv files and DMRS and database linkage and association ID's are also supported. These can be viewed in the Properties window. To open the Properties window, go to View > Control Bars > Properties.
- Autodesk NavisWorks Simulate and Autodesk NavisWorks Manage support MicroStation materials and textures.

NOTE: For optimum file fidelity we recommend the NWC (or NWD) Exporter from within MicroStation whenever possible.

NOTE: For exporting numerous files from MicroStation we recommend using the Perl script installed with NavisWorks (by default in, C:\Program Files\Autodesk\NavisWorks [Review/Simulate/Manage] 2009\Tools).

MicroStation v8 to 8.5, XM (8.9)

MicroStation v8 Details

Other Formats | DWG, DXF, DGN, IGES, STEP, VRML

- Models can be exported as NWC or NWD files from MicroStation V8 if you have NavisWorks installed on the same machine.
- NavisWorks supports the native MicroStation V8 dgn file format, which can be read directly into NavisWorks.
- Object properties, such as colors and ambient, diffuse and shininess properties of materials from .pal and .mat palette and material files are supported.
- Autodesk NavisWorks Simulate and Autodesk NavisWorks Manage support MicroStation materials and textures.

NOTE: For optimum file fidelity we recommend the NWC (or NWD) Exporter from within MicroStation whenever possible.

NOTE: For exporting numerous files from MicroStation we recommend using the Perl script installed with NavisWorks (by default in, C:\Program Files\Autodesk\NavisWorks [Review/Simulate/Manage] 2009\Tools).
Autodesk NavisWorks 2009 Solutions

### Triforma J

**Triforma J Details**

**Other Formats**

| DWG, DXF, DGN, IGES, STEP, VRML |

- Models can be exported as NWC or NWD files from TriForma J if you have NavisWorks installed on the same machine.
- NavisWorks supports the native TriForma J .dgn file format, which can be read directly into NavisWorks.
- Object properties, such as colors and ambient, diffuse and shininess properties of materials from .pal and .mat palette and material files are supported.
- Family and Part information from TriForma and PDS object information can be read from .drv files and DMRS and database linkage and association ID's are also supported. These can be viewed in the Properties window. To open the Properties window, go to View > Control Bars > Properties.
- Autodesk NavisWorks Simulate and Autodesk NavisWorks Manage support TriForma materials and textures.

**NOTE:** For optimum file fidelity we recommend the NWC (or NWD) Exporter from within TriForma whenever possible.

**NOTE:** For exporting numerous files from TriForma we recommend using the Perl script installed with NavisWorks (by default in, C:\Program Files\Autodesk\NavisWorks [Review/Simulate/Manage] 2009\Tools).

### Triforma v8 to 8.9

**Triforma v8 Details**

**Other Formats**

| DWG, DXF, DGN, IGES, STEP, VRML |

- Models can be exported as NWC or NWD files from TriForma V8 if you have NavisWorks installed on the same machine.
- NavisWorks supports the native TriForma V8 dgn file format, which can be read directly into NavisWorks.
- Object properties, such as colors and ambient, diffuse and shininess properties of materials from .pal and .mat palette and material files are supported.
- Autodesk NavisWorks Simulate and Autodesk NavisWorks Manage support TriForma materials and textures.

**NOTE:** For optimum file fidelity we recommend the NWC (or NWD) Exporter from within TriForma whenever possible.

**NOTE:** For exporting numerous files from TriForma we recommend using the Perl script installed with NavisWorks (by default in, C:\Program Files\Autodesk\NavisWorks [Review/Simulate/Manage] 2009\Tools).
## Autodesk NavisWorks 2009 Solutions

### Graphisoft
**ArchiCAD 6.5 to 7**

**ArchiCAD 6.5 to 7 Details**

<table>
<thead>
<tr>
<th>Other Formats</th>
<th>DWG, DXF, DGN</th>
</tr>
</thead>
</table>

- ArchiCAD can export to the NavisWorks .nwc file format. NavisWorks does NOT have a direct reader for ArchiCAD files.
- ArchiCAD can also save files as .dwg, .dxf and .dgn formats. These can be read directly by NavisWorks.
- Object properties, such as GUIDS and Library Part Parameters can optionally be exported with the NavisWorks file.

**ArchiCAD 8 to 11**

**ArchiCAD 8 to 11 Details**

<table>
<thead>
<tr>
<th>Other Formats</th>
<th>DWG, DXF, DGN, IFC</th>
</tr>
</thead>
</table>

- ArchiCAD can export to NavisWorks .nwc file format. NavisWorks does NOT have a direct reader for ArchiCAD files.
- ArchiCAD can also save files as .dwg, .dxf, .dgn and .ifc formats. These can be read directly by NavisWorks.
- Object properties, such as GUIDS and Library Part Parameters can optionally be exported with the NavisWorks file.

**Constructor 2005 to 2007**

**Constructor Details**

<table>
<thead>
<tr>
<th>Other Formats</th>
<th>DWG, DXF, DGN</th>
</tr>
</thead>
</table>

- Constructor 2005 can export to the NavisWorks .nwc file format. NavisWorks does NOT have a direct reader for Constructor 2005 files.
- Object properties, such as GUIDS and Library Part Parameters can optionally be exported with the NavisWorks file.

### AceCad
**StruCad**

**StruCad Details**

<table>
<thead>
<tr>
<th>Other Formats</th>
<th>DXF</th>
</tr>
</thead>
</table>

- StruCad files can be viewed in NavisWorks, if they have been saved as .dxf format.
- Object properties are not supported.
<table>
<thead>
<tr>
<th>Application</th>
<th>Supported Formats</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>auto.des.sys</td>
<td>DWG, DXF, 3DS, IGES, STL, VRML</td>
<td>NavisWorks supports all of the above file formats, which form.z can export to.</td>
</tr>
<tr>
<td>form.z</td>
<td>DWG, DXF, 3DS</td>
<td></td>
</tr>
<tr>
<td>AEC</td>
<td>DWG, DXF, 3DS</td>
<td>To view CADPIPE object properties in NavisWorks, you may need to turn on the Convert Object Properties option. To do this, go to Tools &gt; Global Options &gt; File Readers &gt; DWG/DXF/SAT then click on the Advanced button and select the CADPIPE option. Any CADPIPE properties can then be viewed in the 'Properties' window. To open the Properties window, go to View &gt; Control Bars &gt; Properties.</td>
</tr>
<tr>
<td>CADPIPE</td>
<td>DWG, DXF, 3DS</td>
<td>CADPIPE 'Industrial' and 'Commercial' cannot be used at the same time. If both are installed, then industrial is used. You can disable either or both by going to Tools &gt; (Hold down the Shift Key and click) Global Options &gt; Registry &gt; Current User &gt; CADPIPE. Change the version you require to one (1) and disable the other version by changing that value to zero (0).</td>
</tr>
<tr>
<td>AVEVA</td>
<td>RVM</td>
<td>NavisWorks can read .rvm files exported from PDMS. AVEVA Review .rvs files are also supported. These require the same filename as the .rvm file. PDMS attribute files are supported, output using either the 'Dump Attributes' or 'Datal' formats. These can be viewed in the 'Properties' window. To open the Properties window, go to View &gt; Control Bars &gt; Properties.</td>
</tr>
</tbody>
</table>
### Autodesk NavisWorks 2009 Solutions

#### Exporter | Native Format | Other Format | Properties
--- | --- | --- | ---

### CADopia

**IntelliCAD**

**IntelliCAD Details**

**Other Formats** | DWG, DXF

- NavisWorks supports the native IntelliCAD .dwg file format, which can be read directly into NavisWorks.

### CEA Technology

**Plant-4D**

**Plant-4D Details**

**Other Formats** | DWG, DGN

- NavisWorks has file readers for .dwg and .dgn files, both of which are supported by Plant-4D.

### COADE, Inc.

**CADWorx Plant**

**CADWorx Plant Details**

**Other Formats** | DWG, DXF, 3DS

- Models can be exported from CADWorx as either .nwc or .nwd format, if you have NavisWorks installed on the same machine.
- NavisWorks also provides support for .dwg files enabling native CADWorx models to be read directly into NavisWorks.
- CADWorx object properties are also supported by NavisWorks and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.
- CADWorx piping, steel, and equipment data is fully supported by NavisWorks.

### CADWorx Pipe

**CADWorx Pipe Details**

**Other Formats** | DWG, DXF, 3DS

- Models can be exported from CADWorx as either .nwc or .nwd format, if you have NavisWorks installed on the same machine.
- NavisWorks also provides support for .dwg files enabling native CADWorx models to be read directly into NavisWorks.
- CADWorx object properties are also supported by NavisWorks and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.
- The legacy product, CADWorx Pipe, is fully supported by NavisWorks.
<table>
<thead>
<tr>
<th>Application</th>
<th>Details</th>
<th>Other Formats</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CADWorx Steel</strong></td>
<td><strong>CADWorx Steel Details</strong></td>
<td>DWG, DXF, 3DS</td>
</tr>
<tr>
<td><strong>COINS</strong></td>
<td><strong>BSLink</strong></td>
<td>DWG, DXF, 3DS</td>
</tr>
<tr>
<td><strong>Framing</strong></td>
<td><strong>Framing Details</strong></td>
<td>DWG, DXF, 3DS</td>
</tr>
</tbody>
</table>

- Models can be exported from CADWorx as either .nwc or .nwd format, if you have NavisWorks installed on the same machine.
- NavisWorks also provides support for .dwg files enabling native CADWorx models to be read directly into NavisWorks.
- CADWorx object properties are also supported by NavisWorks and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.
- CADWorx Steel is fully supported by NavisWorks.

- In order to read a BSLink file into NavisWorks, you either need BSLink installed on the same machine as NavisWorks, or AutoCAD installed complete with the BSLink object enabler.
- If BSLink is installed, the object enabler is not necessary. With NavisWorks installed on the same machine, simply export to .nwc or .nwd.
- In NavisWorks, object properties can be viewed in the 'BSLink' tab in the 'Properties' window. To open the properties window, go to View > Control Bars > Properties.

- In order to read a Framing file into NavisWorks, you either need COINS Framing installed on the same machine as NavisWorks, or ADT installed complete with the Framing object enabler.
- If COINS Framing is installed, the object enabler is not necessary. If NavisWorks is installed on the same machine, simply export to .nwc or .nwd.
- In NavisWorks, object properties can be viewed in the Framing tab in the Properties window. To open the properties window, go to View > Control Bars > Properties.
### CSC

**3D+**
- **3D+ Details**
  - **Other Formats** | DWG

- 3D+ has a NavisWorks Exporter, enabling you to export a NavisWorks file out of 3D+.
- Also see the 3D+ website for information on their 3D+ NavisWorks Reader. This is a plug-in to NavisWorks, enabling you to read the native .3nwc file format in NavisWorks.
- 3D+ object properties are supported by NavisWorks via either of the above routes.

### Dassault Systemes

**CATIA**
- **CATIA Details**
  - **Other Formats** | DXF, IGES, STEP

- NavisWorks has file readers for .dxf, .igs and .stp files, all of which can be exported from CATIA.
- STEP is the preferred exchange format.

### Google

**SketchUp (upto v6)**
- **SketchUp Details**
  - **Other Formats** | DWG, 3DS

- SketchUp .skp files can can be read directly into NavisWorks.
- Texture materials are supported in NavisWorks Simulate and Manage.
- Grouping objects in SketchUp will make it easier to use the model in NavisWorks, for example applying Presenter materials, or attaching objects to TimeLiner tasks.
### Hannappel SOFTWARE GmbH  
**elcoCAD R4**

<table>
<thead>
<tr>
<th>Other Formats</th>
<th>DWG, DXF, 3DS</th>
</tr>
</thead>
</table>

- Models can be exported from elcoCAD as either .nwc or .nwd format.
- NavisWorks also supports the native elcoCAD .dwg file format, which can be read directly into NavisWorks.
- Object properties are also supported by NavisWorks and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.

### Intergraph  
**PDS**

<table>
<thead>
<tr>
<th>Other Formats</th>
<th>DWG, DXF, DGN, IGES, STEP</th>
</tr>
</thead>
</table>

- Intergraph PDS will save the model geometry in a .dgn file and the property information in a .drv file. Both files are required by NavisWorks to read the model with object properties.
- In NavisWorks, go to Tools > Global Options > DGN, scroll down and check the 'Convert PDS Data' option. Ensure the .dgn and .drv files reside in the same directory. NavisWorks will then import the model, along with its properties.
- PDS object properties can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.
- If NavisWorks has been installed onto the same machine as Intergraph PDS, you will be able to export from PDS as a NavisWorks .nwc or .nwd file.

### Informatix  
**MicroGDS**

<table>
<thead>
<tr>
<th>Other Formats</th>
<th>MAN</th>
</tr>
</thead>
</table>

- NavisWorks supports the native MicroGDS .man file format, which can be read directly into NavisWorks.
- Colors and Materials from the file are supported. The .man File Reader options can be found in Tools > Global Options > File Readers > MAN.
Autodesk NavisWorks 2009 Solutions

**ITandFactory**

**CADISON**

**CADISON Details**

**Other Formats**  DXF, 3DS

- NavisWorks can directly read CADISON .dwg files, utilizing the .dwg file reader.
- In order to read a CADISON file into NavisWorks, you either need CADISON installed on the same machine as NavisWorks, or you will need to install the CADISON Object Enabler.
- If CADISON is installed, the object enabler is not necessary.

**NOTE:** When using an object enabler, ensure the corresponding loader version (year) is selected in Tools > Global Options > File Readers > DWG/DXF/SAT > DWG Loader Version.

- With either CADISON or the Object Enabler installed, simply open the CADISON .dwg file in NavisWorks.
- If CADISON is installed on the same machine as NavisWorks, then you can also export to .nwc or .nwd.
- Exporting a NavisWorks file from CADISON also retains the models object properties that can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.

**TRICAD MS**

**TRICAD Details**

**Other Formats**  VRML

- If TriCAD MS is installed on the same machine as NavisWorks, then you can also export to .nwc or .nwd.
- Exporting a NavisWorks file from TRICAD MS also retains the models object properties that can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.
Autodesk NavisWorks 2009 Solutions

Kiwi Software GmbH
ProSteel 3D

- This information relates to ProSteel 3D / ProStahl 3D / AutoPLANT Structural.
- In order to read ProSteel files into NavisWorks, you either need ProSteel 3D installed on the same machine as NavisWorks, or AutoCAD/MDT/ADT installed complete with the relevant ProSteel 3D object enabler.
- If ProSteel is installed, the object enabler is not necessary. Simply export to .nwd or .nwc.
- Only basic AutoCAD properties are supported (such as Entity Handle and Material) and these can be viewed in the Properties window. This can be opened by going to View > Control Bars > Properties.

Kubotek USA
CADKEY

- NavisWorks has file readers for .dwg files and also .dxf, .igs and .stp files, all of which are supported by CADKEY.

M.A.P.
CAD-Duct

- In order to read a CAD-Duct file into NavisWorks, you either need CAD-Duct installed on the same machine as NavisWorks, or have the CAD-Duct Object Enabler installed. The CAD-Duct Object Enabler can be downloaded from the CAD-Duct website, found under Support > Additional Files.

NOTE: When using an object enabler, ensure the corresponding loader version (year) is selected in Tools > Global Options > File Readers > DWG/DXF/SAT > DWG Loader Version.

- If CAD-Duct is installed, the Object Enabler is not necessary. Simply export to .nwd or .nwc.
- In NavisWorks, object properties can be viewed in the 'CAD-Duct' tab in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.
To view your Rhino models in NavisWorks, you will have to export to one of the supported file formats (above). These can then be read directly into NavisWorks.

Models can be exported from RoCAD as either .nwc or .nwd. NavisWorks also supports the .dwg file format, which can be read directly into NavisWorks. If you do not have RoCAD installed on the same machine as NavisWorks, you will need to have AutoCAD installed, along with the RoCAD Object Enabler.

NOTE: When using an object enabler, ensure the corresponding loader version (year) is selected in Tools > Global Options > File Readers > DWG/DXF/SAT > DWG Loader Version.

Object properties, (such as Material Colors and Entity Handles) are also supported by NavisWorks and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.

.dwg files from MultiSteel can be read directly into NavisWorks utilizing the .dwg file reader. Models can also be exported from MultiSteel as either .nwc or .nwd. MultiSteel object properties can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.
## Autodesk NavisWorks 2009 Solutions

<table>
<thead>
<tr>
<th>Nemetschek</th>
<th>Exporter</th>
<th>Native Format</th>
<th>Other Format</th>
<th>Properties</th>
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<tbody>
<tr>
<td>Allplan</td>
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<tr>
<td><strong>Allplan Details</strong></td>
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<tr>
<td>Other Formats</td>
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</tr>
<tr>
<td></td>
<td>DWG, DXF, DGN, IFC</td>
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</tbody>
</table>

- All Plan files can be viewed in NavisWorks if they have been saved in one of the above formats.
- Object properties are not supported.

<table>
<thead>
<tr>
<th>PROCAD</th>
<th>Exporter</th>
<th>Native Format</th>
<th>Other Format</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>3DSMART</td>
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<tr>
<td><strong>3DSMART Details</strong></td>
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<tr>
<td>Other Formats</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>DWG, DXF, 3DS</td>
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</tbody>
</table>

- With 3DSMART installed on the same machine as NavisWorks, you can read your DWG file directly into NavisWorks, utilizing the DWG file reader.
- You can also export an .nwc or .nwd file directly from 3DSMART.

<table>
<thead>
<tr>
<th>PTC</th>
<th>Exporter</th>
<th>Native Format</th>
<th>Other Format</th>
<th>Properties</th>
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</thead>
<tbody>
<tr>
<td>Pro/ENGINEER</td>
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<tr>
<td><strong>Pro/ENGINEER Details</strong></td>
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<tr>
<td>Other Formats</td>
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</tr>
<tr>
<td></td>
<td>IGES, STEP, VRML</td>
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</tr>
</tbody>
</table>

- You can read your Pro/ENGINEER models into NavisWorks via any of the above file formats.

<table>
<thead>
<tr>
<th>CADDS 5</th>
<th>Exporter</th>
<th>Native Format</th>
<th>Other Format</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CADDS 5 Details</strong></td>
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<tr>
<td>Other Formats</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>IGES, STEP</td>
<td></td>
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</tr>
</tbody>
</table>

- You can read CADDS 5 3D models into NavisWorks, by exporting either an IGES or STEP file from CADDS 5 and then utilize either the NavisWorks .igs, or .stp file readers.
### QuickPen

**PipeDesigner 3D**

**PipeDesigner 3D Details**

<table>
<thead>
<tr>
<th>Other Formats</th>
<th>DWG, DXF, 3DS</th>
</tr>
</thead>
</table>

- Models can be exported from PipeDesigner 3D as either .nwc or .nwd format.
- NavisWorks also supports the native .dwg file format, which can be read directly into NavisWorks.
- Object properties, (such as Material Colors and Entity Handles) are also supported by NavisWorks and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.

### DuctDesigner 3D

**DuctDesigner 3D Details**

<table>
<thead>
<tr>
<th>Other Formats</th>
<th>DWG, DXF, 3DS</th>
</tr>
</thead>
</table>

- Models can be exported from DuctDesigner 3D as either .nwc or .nwd format.
- NavisWorks also supports the native .dwg file format, which can be read directly into NavisWorks.
- Object properties, (such as Material Colors and Entity Handles) are also supported by NavisWorks and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.

### RAM International

**CADstudio**

**CADstudio Details**

<table>
<thead>
<tr>
<th>Other Formats</th>
<th>DWG, DXF, 3DS</th>
</tr>
</thead>
</table>

- Models can be exported from CADstudio as either .nwc or .nwd format.
- NavisWorks also supports the native CADstudio .dwg file format, which can be read directly into NavisWorks.
- Object properties are also supported by NavisWorks and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.
### Autodesk NavisWorks 2009 Solutions

<table>
<thead>
<tr>
<th>Application</th>
<th>SolidWorks</th>
<th>Tekla Structures</th>
<th>Xsteel</th>
<th>think3 thoughts design</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exporter</strong></td>
<td>SolidWorks</td>
<td>Tekla Structures</td>
<td>Xsteel</td>
<td>think3 thoughts design</td>
</tr>
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<td><strong>Native Format</strong></td>
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</tr>
<tr>
<td><strong>Other Format</strong></td>
<td>Other Formats</td>
<td>Other Formats</td>
<td>Other Formats</td>
<td>Other Formats</td>
</tr>
<tr>
<td><strong>Properties</strong></td>
<td>SolidWorks Details</td>
<td>Tekla Structures Details</td>
<td>Xsteel Details</td>
<td>think3 thoughts design Details</td>
</tr>
<tr>
<td><strong>Other Formats</strong></td>
<td>DWG, DXF, IGES, STEP, VRML</td>
<td>DGN, VRML</td>
<td>DGN</td>
<td>DWG, DXF, IGES, STEP</td>
</tr>
</tbody>
</table>

- **SolidWorks**
  - SolidWorks models can be exported to DWG, DXF, IGES, STEP or VRML format which can then be read into NavisWorks.

- **Tekla Structures**
  - Tekla Structures can export to the .dgn file format, which can be read directly into NavisWorks.
  - Tekla Structures can additionally output to CIS/2. This may then be converted to VRML using the translator from the National Institute of Standards and Technology (see the NIST website for more information). The VRML file can then be read directly into NavisWorks.
  - Limited object properties are supported via the .dgn route.

- **Xsteel**
  - Xsteel can export to the .dgn file format, which can be read directly into NavisWorks.
  - Limited object properties are supported via the .dgn route.

- **think3 thoughts design**
  - NavisWorks has file readers for .dwg/.dxf files and also .igs and .stp files.
## UGS

### I-deas Details

**Other Formats**: DXF, IGES, STEP

- NavisWorks has file readers for .dfx, .igs and .stp files.

## Solid Edge

### Solid Edge Details

**Other Formats**: IGES, STEP

- Solid Edge can export to IGES and STEP files, which can be read directly into NavisWorks.

## NX (Unigraphics)

### NX Details

**Other Formats**: DXF, IGES, STEP

- NavisWorks has file readers for .dfx, .igs and .stp files.

## FactoryCAD

### FactoryCAD Details

**Other Formats**: DWG, DXF, 3DS

- In order to read a FactoryCAD file into NavisWorks, you either need FactoryCAD or the FactoryCAD object enabler installed on the same machine.

**NOTE**: When using an object enabler, ensure the corresponding loader version (year) is selected in Tools > Global Options > File Readers > DWG/DXF/SAT > DWG Loader Version.

- If FactoryCAD is installed, the object enabler is not necessary. Simply export to .nwc or .nwd.
## UHP Process Piping

**FabPro Pipe**

### FabPro-Pipe Details

<table>
<thead>
<tr>
<th>Other Formats</th>
<th>DWG, DXF, 3DS</th>
</tr>
</thead>
</table>

- Models can be exported from FabPro Pipe as either .nwc or .nwd format.
- NavisWorks also supports the native FabPro Pipe .dwg file format, which can be read directly into NavisWorks.

## x-plant

**x-plant**

### x-plant Details

<table>
<thead>
<tr>
<th>Other Formats</th>
<th>DWG, DXF, 3DS</th>
</tr>
</thead>
</table>

- Models can be exported from x-plant as either .nwc or .nwd format.
- NavisWorks also supports the native x-plant .dwg file format, which can be read directly into NavisWorks.
## Supported Scheduling Software

The following table contains a list of the project scheduling software and formats supported by Autodesk NavisWorks Simulate 2009 and Autodesk NavisWorks Manage 2009.

<table>
<thead>
<tr>
<th>Developer</th>
<th>Product</th>
<th>File Format</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asta</td>
<td>Powerproject 8 to 10</td>
<td>.pp</td>
<td>Requires Asta Powerproject to be installed on same machine, to make link.</td>
</tr>
<tr>
<td>Microsoft</td>
<td>Project 2000 to 2007</td>
<td>.mpp</td>
<td>Requires Microsoft Project to be installed on same machine, to make link.</td>
</tr>
<tr>
<td>Primavera</td>
<td>ProjectPlanner (P3)</td>
<td>n/a</td>
<td>Requires P3 to be installed on same machine. The file format is not read directly. Instead, TimeLiner logs into P3 and retrieves project information.</td>
</tr>
<tr>
<td>Primavera</td>
<td>Primavera Engineering and Construction</td>
<td>n/a</td>
<td>Requires Primavera v4.1, 5 or 6 Engineering and Construction to be installed on same machine, along with the Primavera SDK. TimeLiner connects to the Primavera database via an ODBC data source link.</td>
</tr>
<tr>
<td>Microsoft</td>
<td>Microsoft Project Exchange Format</td>
<td>.mpx</td>
<td>Does not require any project software to be installed. This is the common project exchange format which can be exported to from a number of scheduling packages.</td>
</tr>
</tbody>
</table>