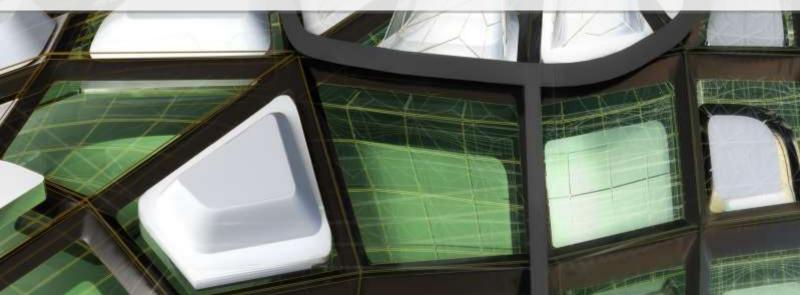


AUTODESK. Navisworks® 2016 Supported File Formats



This document details support provided by the current release of Autodesk Navisworks 2016 solutions (including 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 2016 solutions in this document this does NOT include Autodesk Navisworks Freedom 2016, which only reads NWD or DWF files.

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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 2016 solutions.

Note: Unless stated below backward compatibility for previous versions cannot always be guaranteed.

Format	Extension	File Format Version
Navisworks	.nwd .nwf .nwc	All versions
AutoCAD	.dwg, .dxf	Up to AutoCAD 2016
MicroStation (SE, J, V8 & XM)	.dgn .prp .prw	v7, v8
3D Studio	.3ds .prj	Up to Autodesk 3ds Max 2016
ACIS SAT	.sat .sab	All ASM SAT. Up to ACIS SAT v7
Catia	.model .session .exp .dlv3 .CATPart .CATProduct .cgr	V4, v5
CIS/2	.stp	STRUCTURAL_FRAME_SCHEMA
DWF/DWFx	.dwf .dwfx	All previous versions
FBX	.fbx	FBX SDK 2016.0
IFC	.ifc	IFC2X_PLATFORM, IFC2X_FINAL, IFC2X2_FINAL, IFC2X3, IFC4
IGES	.igs .iges	All versions

Format	Extension	File Format Version
Inventor	.ipt .iam .ipj	Up to Inventor 2016
Informatix MicroGDS	.man .cv7	v10
JT Open	.jt	Up to 10.0
NX	.prt	Up to 9.0
PDS Design Review	.dri	Legacy file format. Support up to 2007.
Parasolids	.x_b	Up to schema 26
Pro/ENGINEER	.prt .asm .g .neu	Wildfire 5.0, Creo Parametric 1.0-3.0
RVM	.rvm	Up to 12.0 SP5
Revit	.rvt	2011 - 2016
SketchUp	.skp	v5 up to 2015
Solidworks	.prt .sldprt .asm .sldasm	2001 Plus-2015
STEP	.stp .step	AP214, AP203E3, AP242
STL	.stl	Binary only
VRML	.wrl .wrz	VRML1, VRML2
PDF	.pdf	All versions

Rhino .3dm Up to 5.0	
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### Supported Exporters

The following table is a summary of 32 bit / 64 bit support for the Exporters included in Autodesk Navisworks 2016.

Product \ Exporter	32 bit Support	64 bit Support
Autodesk AutoCAD 2010 – 2016	Yes	Yes
Autodesk 3ds Max 2010 - 2016	Yes	Yes
Autodesk 3ds Max Design 2010 – 2015	Yes	Yes
Autodesk Revit Architecture / Structure / MEP 2010 – 2016	Yes	Yes
Microstation J	Yes	
Microstation 8	Yes	
Microstion 8.9	Yes	
Microstion V8i	Yes	
ArchiCAD 15	Yes	Yes
ArchiCAD 16	Yes	Yes
ArchiCAD 17		Yes
ArchiCAD 18		Yes

### Supported Laser Scan Formats

The following table lists the laser scan formats currently supported by Autodesk Navisworks 2016 solutions.

Format		File Format Version
Autodesk ReCap	*.rcs *.rcp	
ASCII Laser File	.asc .txt	n/a
Faro	.fls .fws .iQscan .iQmod .iQwsp	FARO SDK 5.1
Leica	.pts .ptx	n/a
Riegl	.3dd	Version 3.5 or high
Trimble	Native file NOT supported. Convert to ASCII laser file	Same as ASCII laser file
Z+F	.zfc .zfs	SDK version 2.2.1.0

### Supported Scheduling Software

The following table contains a list of the project scheduling software and formats supported by Autodesk Navisworks Simulate 2016 and Autodesk Navisworks Manage 2016.

Vendor			
Asta	Powerproject 11 (11.x) 12 (12.0.03-042)	.pp	Requires Asta Powerproject to be installed on same machine, to make link.
Microsoft	Project 2007 (SP1) to 2013	.mpp	Requires Microsoft Project to be installed on same machine, to make link.
Oracle	Oracle Primavera Engineering and Construction 6.2.1 (SP4 Hot Fix 1) 7.0 (SP4) 8.2	n/a	Requires Primavera v6, 7 or 8 Engineering and Construction to be installed locally or remotely, along with the corresponding version of the Primavera SDK. TimeLiner connects to the Primavera database via an ODBC data source link.
Oracle	Primavera P6 Web Services 6.2.1 (SP1 Hot Fix 1) 7.0 (SP1 Hot Fix 1) 8.2 8.3	n/a	Requires Primavera P6 v6, 7 or 8 Web Services installed within a suitable Web Application Server such as Oracle Web Logic or JBoss on the same machine as your P6 database.
Microsoft	Microsoft Project Exchange Format	.mpx	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.
N/A	CSV Exchange Format	.CSV	Does not require any project software to be installed. This is a common exchange format which can be exported from a number of applications including, Microsoft Excel. Navisworks Simulate and Manage can additionally export TimeLiner task information to this format.

### Supported Applications

The following table is a non-exhaustive list of CAD applications and properties currently supported by Autodesk Navisworks 2016 solutions, along with any additional information that may be necessary to review your project files in Navisworks software.

		Exporter	Native Format	Other Format	Properties
Autodesk					
AutoCAD 2010 to 2016		×	×	×	×
AutoCAD Detai	ls				
Other Formats	DWF, DWFx, DXF, 3DS, FBX				

- Navisworks reads the native AutoCAD .dwg file format.
- Navisworks supports AutoCAD Point Cloud.
- Models can be exported from AutoCAD software as either .nwc or .nwd format. Export to .nwc file format is only support from AutoCAD 2011 onwards.
- 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.

AutoCAD Architecture 2010-2016		~	~	$\checkmark$	~
AutoCAD Architecture Details					
Other Formats	DWF, DWFx, DXF, 3DS, FBX				

- Navisworks can read AutoCAD Architecture .dwg files, without the necessity to install an Object Enabler.
- Models can be exported from ADT/AutoCAD Architecture software as either .nwc or .nwd format. Export to .nwc file format is only support from AutoCAD Architecture 2011 onwards.
- Navisworks supports AutoCAD Architecture 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.

	Exporter	Native Format	Other Format	Properties	
AutoCAD MEP 2010-2016 AutoCAD MEP Details	~	~	~	~	
Other Formats DWF, DWFx, DXF, 3DS, FBX					
<ul> <li>Navisworks can read AutoCAD MEP 2010-2015 .dwg files, without the necessity to install an Object Enabler.</li> <li>Models can be exported from Building Systems/AutoCAD MEP software as either .nwc or .nwd format. Export to .nwc file format is only support from AutoCAD MEP 2011 onwards.</li> <li>NOTE: When using an object enabler, ensure the corresponding loader version (year) is selected in Tools &gt; Global Options &gt; File Readers &gt; DWG/DXF &gt; DWG Loader Version.</li> <li>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 &gt; Control Bars &gt; Properties.</li> <li>Autodesk Navisworks Simulate and Autodesk Navisworks Manage software support Building Systems/AutoCAD MEP textures.</li> </ul>					
Autodesk Plant 3D 2010-2016 Autodesk Plant 3D Details	~	~	~	~	
Other Formats DWF, DWFx, DXF, 3DS					

- Models can be exported from Plant 3D software as either .nwc or .nwd format. Export to .nwc file format is only support from Autodesk Plant 3D 2011 onwards.
- In order to read an Autodesk Plant 3D 2010-2016 .dwg file into Navisworks, you will need to install the corresponding Object Enabler.

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

		Exporter	Native Format	Other Format	Properties
Autodesk CAD-[ CAD-Duct Det		~	~	~	×
Other Formats	DWG, DXF, 3DS				

• 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 > DWG Loader Version.

- If CAD-Duct is installed, the Object Enabler is not necessary. Simply export to .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.

Autodesk Inventor 5 to 11, 2009-2016		$\checkmark$	$\checkmark$
Inventor Deta	ls		
Other Formats	IGES, STEP, JT, FBX		

- Navisworks 2016 supports Inventor properties and these can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.
- 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 assemblies as usual.

	Exporter	Native Format	Other Format	Properties
AutoCAD Civil 3D 2010-2016 Civil 3D Details	~	~	~	~
Other Formats DWF, DWFx, DXF, 3DS, FBX				

- Navisworks supports AutoCAD Point Cloud.
- 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).

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

- Models can be exported from Civil 3D software as either .nwc or .nwd format. Export to .nwc file format is only support from AutoCAD Civil 3D 2011 onwards.
- For Civil 3D 2014 and 2016 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 Architecture 2010-2016		×	×	×	×
Revit Architecture Details					
Other Formats	DWG, DWF, DWFx, DXF, DGN, FBX				

- Navisworks can read Revit 2011 2016 .rvt files
- 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.
- Revit properties are 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 software support the export of textures and materials from Revit Architecture.
- For supported entities refer to the Navisworks Help documentation.

### Revit Structure 2010-2016

### Revit Structure Details

Other Formats	DWG, DWF, DWFx, DXF, DGN, CIS/2, FBX
---------------	--------------------------------------

- Navisworks can read Revit 2011 2016 .rvt files
- Navisworks can export .nwc files directly from Revit Structure software. You will need to install Navisworks on the same machine as Revit Structure.
- Revit properties are supported. These can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.

		Exporter	Native Format	Other Format	Properties
Revit MEP 201	0-2016	~	×	~	×
Revit MEP De	etails				
Other Formats DWG, DWF, DWFx, DXF, DGN, FBX					
<ul> <li>Nav You</li> </ul>	isworks can read Revit 2011 - 2016 .rvt file isworks can export .nwc files directly from will need to install Navisworks on the san	n Revit Systems ne machine as	Revit Syster	ms/Revit ME	

• Revit properties are supported. These can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.

Autodesk 3ds M 3ds Max Deta	ax 2010 to 2016 Is	$\checkmark$	×
Other Formats	DWG, DXF, 3DS, IGES, FBX		

- To view your 3ds Max model in Navisworks, you will need to have 3ds Max software installed on the same machine and 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: Navisworks Simulate and Manage both support the export of textures and materials from 3ds Max.

## Autodesk Maya Maya Details Other Formats DXF, IGES, VRML

• Navisworks has file readers for .dxf, .igs .iges and .wrl .wrz.

### Bentley

		Exporter	Native Format	Other Format	Properties
AutoPLANT		×	×	×	×
AutoPlant Detai	ls				
Other Formats	DWG, DXF, 3DS				

• 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 > 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 > Render Type.

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] 2016\Tools).

		Exporter	Native Format	Other Format	Properties
MicroStation v8 MicroStation D	to 8.5, XM (8.9) etails	~	×	~	~
Other Formats	DWG, DXF, DGN, IGES, STEP, VRML				
<ul> <li>Model</li> </ul>	s can be exported as NWC or NWD files	from MicroSta	ation V8 if y	ou have Na	visworks

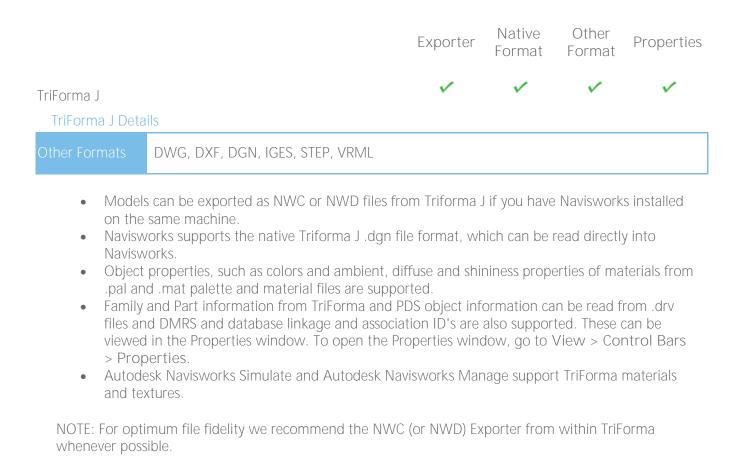
- Navisworks supports the native MicroStation V8 dgn file format, which can be read directly into
- Navisworks supports the native MicroStation V8 dgn file format, which can be read directly into Navisworks.
- Object properties, such as colors and ambient, diffuse and shininess properties of materials 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] 2016\Tools).

ProSteel 3D (formerly from Kiwi Software GmbH)		×	$\checkmark$	×	
ProSteel 3D Det	ails				
Other Formats	DWG, DXF, 3DS, CIS/2				

- 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 the relevant ProSteel 3D object enabler.
- 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.



NOTE: For exporting numerous files from TriForma we recommend using the Perl script installed with Navisworks (by default in, C:\Program Files\Autodesk\Navisworks [Simulate/Manage] 2016\Tools).

		Exporter	Native Format	Other Format	Properties
TriForma v8 to 8	3.9	×		~	~
TriForma 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 [Simulate/Manage] 2016\Tools).

Graphisoft					
		Exporter	Native Format	Other Format	Properties
ArchiCAD 15 to	0 18	×		~	×
ArchiCAD Deta	ails				
Other Formats	DWG, DXF, DGN, IFC				
for Ar Archi( Navisy Objec	CAD can export to Navisworks .nw chiCAD files. CAD can also save files as .dwg, .c works. t properties, such as GUIDS and Li avisworks file.	lxf, .dgn and .ifc form	nats. These d	can be read	directly by
Constructor 200	7 to 2010	×		~	~
Constructor De	etails				
Other Formats	DWG, DXF, DGN				
<ul><li>have a</li><li>Object</li></ul>	ructor 2007 to 2010 can export to a direct reader for Constructor 20 t properties, such as GUIDS and Li avisworks file.	10 files.			
AceCad					
StruCad				~	
StruCad Detail	S				
Other Formats	DXF, CIS/2				
	ad files can be viewed in Naviswor t properties are not supported.	rks, if they have been	saved as .d	xf or .stp fc	rmat.
auto des svs					

form.z	$\checkmark$
form.z Details	
Other Formats	DWG, DXF, 3DS, IGES, STL, VRML

• Navisworks supports all of the above file formats, which form.z can export to.

### Adobe Systems Inc.

		Exporter	Native Format	Other Format	Properties
PDF			×		
PDF Details					
Other Formats	PDF				

- Navisworks supports Adobe Portable Document Format (PDF) files in the sheet browser, directly from 2016.
- Only 2D pdf is supported, this does include multiple sheet files.
- For Navisworks 2015 users, the application may be found as a free download on the Autodesk Navisworks Application Exchange.

### AEC

CADPIPE		~	~	~	~	
CADPIPE Detai	S					
Other Formats	DWG, DXF, 3DS					

- To view CADPIPE object properties in Navisworks, you may need to turn on the Convert Object Properties option. To do this, go to Tools > Global Options > File Readers > DWG/DXF > Advanced and select the CADPIPE option. Any CADPIPE properties can then be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.
- 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 > Global Options > Registry > Current User > CADPIPE. Change the version you require to one (1) and disable the other version by changing that value to zero (0).

AVEVA			
PDMS		$\checkmark$	$\checkmark$
PDMS Details			
Other Formats	RVM		

- 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 'Data' formats. These can be viewed in the 'Properties' window. To open the Properties window, go to View > Control Bars > Properties.

CADopia					
·		Exporter	Native Format	Other Format	Properties
IntelliCAD			×	~	
IntelliCAD Detai	ls				
Other Formats	DWG, DXF				
<ul> <li>Navisw</li> <li>Navisw</li> </ul>	orks supports the native IntelliCAD .dwg f orks.	ile format, v	vhich can be	e read direc	tly into
CEA Technolog	AN A				
Ň		Exporter	Native Format	Other Format	Properties
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.

		Exporter	Native Format	Other Format	Properties
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.

		Exporter	Native Format	Other Format	Properties
CADWorx Pipe		~	~	~	~
CADWorx Pipe	Details				
Other Formats	DWG, DXF, 3DS				
directly <ul> <li>CADWo</li> <li>'Proper</li> <li>Proper</li> </ul>	orks also provides support for .dwg r into Navisworks. orx object properties are also suppor rties' window. To open the Propertie rties. acy product, CADWorx Pipe, is fully	rted by Navisworks es window, go to V	and these c iew > Cont	an be view	
CADWorx Steel		~	$\checkmark$	~	×
CADWorx Steel	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 Steel is fully supported by Navisworks.

### COINS

		Exporter	Native Format	Other Format	Properties
BSLink		×	~	~	×
BSLink Details					
Other Formats	DWG, DXF, 3DS				

- 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.

Framing		×	$\checkmark$	$\checkmark$	$\checkmark$
Framing Details					
Other Formats	DWG, DXF, 3DS				

- 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+		$\checkmark$	$\checkmark$	×
3D+ Details				
Other Formats	DWG, CIS/2			

- 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** Native Other Exporter Properties Format Format CATIA v **CATIA** Details DXF, IGES, STEP, JT Navisworks has file readers for .dxf, .igs, .stp and .jt files, all of which can be exported from • CATIA. STEP is the preferred exchange format. • Google SketchUp (up to 2015) SketchUp Details DWG, 3DS

- SketchUp .skp files (v5 up to 2015 can be read directly into Navisworks.
- Grouping objects in SketchUp will make it easier to use the model in Navisworks, for example applying materials, or attaching objects to TimeLiner tasks.

### Hannappel SOFTWARE GmbH

elcoCAD R4		×	×	×	~
elcoCAD R4 Det	ails				
Other Formats	DWG, DXF, 3DS				

- 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 Native Other Exporter Properties Format Format PDS 1 ~ **PDS** Details DWG, DXF, DGN, IGES, STEP Intergraph PDS will save the model geometry in a .dqn 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 MicroGDS Details MAN

- 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.

llandFactory		Exporter	Native Format	Other Format	Properties
CADISON CADISON Detai	ls	~	~	~	~
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 > 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		×	$\checkmark$	<ul> <li></li> </ul>
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.

### Kubotek USA Native Other Exporter Properties Format Format CADKEY $\checkmark$ **CADKEY** Details DWG, DXF, IGES, STEP 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 **CAD-Duct Details** DWG, DXF, 3DS

 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 > 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.

### McNeel North America

Rhino Rhino Details		Exporter	Native Format	Other Format	Properties
Other Formats	DWG, DXF, 3DS, IGES, STEP				
• In Nav	isworks 2016, you can now read native	e Rhino files dire	ectly.		
Mensch und M	Maschine				
RoCAD		1	1	1	1

RoCAD Details		 -	-	
Other Formats	DWG, DXF, 3DS			

- 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 > 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.

MultiSUITE				
MultiSTEEL		×	×	×
MultiSTEEL Deta	ails			
Other Formats	DWG, DXF, 3DS			

- .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.

### Nemetschek Native Other Exporter Properties Format Format Allplan Allplan Details DWG, DXF, DGN, IFC Allplan files can be viewed in Navisworks if they have been saved in one of the above formats. • Object properties are not supported. PROCAD **3DSMART 3DSMART** Details DWG, DXF, 3DS 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 a .nwc or .nwd file directly from 3DSMART. • PTC **Pro/ENGINEER Pro/ENGINEER Details** IGES, STEP, VRML, JT Native Pro/ENGINEER format support; .PRT .ASM .G .NEU • Pro/ENGINEER models can be exported to any of the above file formats which can then be read into Navisworks.

CADDS 5		×
CADDS 5 Detai	S	
Other Formats	IGES, STEP	

• 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 Exporter Native Other Format Properties PipeDesigner 3D PipeDesigner 3D Details V V Other Formats DWG, DXF, 3DS U V

- 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 if the relevant Object Enabler is installed.
- 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 3I	) Details				
Other Formats	DWG, DXF, 3DS				

- 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 if the relevant Object Enabler is installed.
- 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 Other Formats DWG, DXF, 3DS

- 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.

### SolidWorks Native Other Exporter Properties Format Format SolidWorks SolidWorks Details DWG, DXF, IGES, STEP, VRML, JT Native SolidWorks format support; .PRT .SLDPRT .ASM .SLDASM • SolidWorks models can be exported to DWG, DXF, IGES, STEP, VRML or JT format which can • then be read into Navisworks. Tekla Tekla Structures **Tekla Structures Details** DGN, VRML, CIS/2

- 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 Details			
Other Formats	DGN		

- 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

thinkdesign Details
Other Formats
DWG, DXF, IGES, STEP

• Navisworks has file readers for .dwg/.dxf files and also .igs and .stp files.

DWG, DXF, 3DS

### UGS Native Other Exporter Properties Format Format I-deas I-deas Details DXF, IGES, STEP, JT Navisworks has file readers for .dxf, .igs .stp and .jt files. • Solid Edge Solid Edge Details IGES, STEP, JT Solid Edge can export to IGES STEP and JT files, which can be read directly into Navisworks. NX (Unigraphics) ~ ~ NX Details DXF, IGES, STEP, JT Native NX format support; .PRT. • Navisworks has file readers for .dxf, .igs .stp and .jt files. . FactoryCAD FactoryCAD Details

• 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 > DWG Loader Version.

• If FactoryCAD is installed, the object enabler is not necessary. Simply export to .nwc or .nwd.

# UHP Process Piping Exporter Native Other Format Properties FabPro Pipe FabPro-Pipe Details V V V Other Formats DWG, DXF, 3DS V V V • Models can be exported from FabPro Pipe as either .nwc or .nwd format. V V V

• Navisworks also supports the native FabPro Pipe .dwg file format, which can be read directly into Navisworks.

x-plant				
x-plant		$\checkmark$	×	$\checkmark$
x-plant Details				
Other Formats	DWG, DXF, 3DS			

- 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.