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## CAD Translation Software Compatibility Guide

This Guide outlines the many Read and Write formats and CAD versions that are supported in TransMagic, as well as an index of software products and the best file formats to use for successful 3D file exchange with these applications. If your application is not listed, please feel free to contact TransMagic, Inc. by phone or email for assistance.

### **TransMagic Supported File Formats for Parts and Assemblies**

#### **Supported READ Formats:**

CATIA V4	*.model, *.exp, *.dat, *.session, sequential files,
CATIA V5	*.CATpart, *.CATproduct
Inventor	*.ipt, *.iam
Pro/ENGINEER	*.prt, *.asm
SolidWorks	*.sldasm, *.sldprt
Unigraphics	*.prt
ACIS	*.sat
IGES	*.igs
Parasolid	*.x_t
STEP	*.stp
HSF	*.hsf
StereoLithography	*.stl

#### **Supported WRITE Formats:**

CATIA V4	*.model
CATIA V5	*.CATpart
ACIS	*.sat
IGES	*.igs
Parasolid	*.x_t
STEP	*.stp
HTML	*.htm
HSF	*.hsf, *.hmf
NGRAIN	*.3ko
StereoLithography	*.stl

#### **Supported 2D Image WRITE Formats:**

TIFF	*.tif
Enhanced Metafile	*.emf
Bitmap	*.bmp
Post Script	*.ps
PDF	*.pdf



## TransMagic CAD Version Support

Translator	Version Compatibility
CATIA V5 Read	R6 to R17
CATIA V5 Write	R6 to R17
CATIA V4 Read	Up to 4.2.4
CATIA V4 Write	V4.1.9 – V4.2.4
Pro/ENGINEER Read	V16 to 2001, Wildfire 3
SolidWorks Read	Version 98 to 2007
Inventor	Up to Version 2008
UG (Unigraphics) Read	V11 to 18, NX to NX5
STEP Read	AP203, AP214
STEP Write	AP203, AP214
IGES Read	up to Version 5.3
IGES Write	5.3
ACIS Read	R2 to R17
ACIS Write	R2 to R17
Parasolid Read	V10 to V19
Parasolid Write	V12 to V19
NGRAIN Write	3.2, 4.0
HSF Read	Up to 15.0
HSF Write	Up to 15.0

## Recommendations for Best Translation Results

The file formats listed below will give the best translation results for specific CAD/CAM/CAE applications. Please refer to the list below and use the suggested file format with TransMagic to achieve the best translation results.

If your software application is not listed below, we recommend the following:

- To determine the best file format to use for your application:
  - Open your CAD/CAM/CAE software and click on the “File→Open” menu. Look for a list or drop down menu of the compatible file formats and file extensions available in your application.
- If available use \*.sat or \*.x\_t as your first choice. The next best choice is STEP (\*.stp). Use IGES (\*.igs) as a last resort. For best results with IGES and CATIA V4 files use the “Lite Repair”  and “Full Repair”  functions in TransMagic to eliminate problems such as small gaps, disconnected surfaces, duplicate entities and reversed surfaces.

# Software Compatibility List

SOFTWARE NAME	TRANSMAGIC READ FORMATS	TRANSMAGIC WRITE FORMATS
ABAQUS	*.sat	*.sat
ADAMS	*.x_t	*.x_t
ALIBRE	*.sat	*.sat
AlphaCAM	*.x_t	*.x_t
AnSoft	*.sat	*.sat
ANSYS	*.sat	*.sat
Ashlar-Vellum	*.sat	*.sat
AutoCAD	*.sat	*.sat
Autodesk Inventor	*ipt, *iam	*.sat
CADKey	*.sat or *.x_t	*.sat or *.x_t
CADMAX SolidMaster	*.x_t	*.x_t
Camtek PEPS	*.x_t	*.x_t
CATIA V4	*.exp, *.dat, *session, sequential files, *.model	*.model
CATIA V5 assembly	*.CATProduct	*.CATPart
CATIA V5 part	*.CATPart	*.CATPart
CheckMate	*.sat	*.sat
CimatronE	*.sat	*.sat
DCS Products	*.hsf or *.sat	*.hsf or *.sat
Design Space	*.x_t	*.x_t
DesignSTAR	*.x_t	*.x_t
EdgeCAM Solid Machinist	*.x_t	*.x_t
Esprit	*.x_t	*.x_t
Euklid Design	*.x_t	*.x_t
Factory Mill	*.x_t	*.x_t
FeatureCAM	*.x_t	*.x_t
Femap	*.x_t	*.x_t
FEVA	*.sat	*.sat
GAMBIT	*.sat or *.x_t	*.sat or *.x_t
GibbsCAM	*.sat or *.x_t	*.sat or *.x_t
Hoops MetaFile	*.hmf	*.hmf
Hoops Stream File	*.hsf	*.hsf
I-DEAS	*.x_t, *.stp	*.x_t, *.stp

<b>SOFTWARE NAME</b>	<b>TRANSMAGIC READ FORMATS</b>	<b>TRANSMAGIC WRITE FORMATS</b>
IGES	*.igs	*.igs
ImpactXOFT	*.sat	*.sat
Inventor assembly	*.iam	*.sat
Inventor part	*.ipt	*.sat
IronCAD	*.sat or *.x_t	*.sat or *.x_t
IX SPeeD	*.sat	*.sat
MasterCAM	*.x_t	*.x_t
Mechanical Desktop	*.sat	*.sat
MegaCAD	*.sat	*.sat
MicroStation	*.sat or *.x_t	*.sat or *.x_t
Missler Goelan	*.x_t	*.x_t
Missler TopCAD	*.x_t	*.x_t
Missler TopSolid	*.x_t	*.x_t
MoldFlow	*.sat or *.x_t	*.sat or *.x_t
MSC.ADAMS	*.x_t	*.x_t
MSC.Patran	*.x_t	*.x_t
MSC.visualNastran	*.x_t	*.x_t
NASTRAN	*.sat	*.sat
NGRAIN		*.3ko
PARAMARINE	*.x_t	*.x_t
Parasolid	*.x_t, *.xmt_txt	*.x_t
PATRAN	*.sat	*.sat
PowerSHAPE	*.x_t	*.x_t
Pro/ENGINEER assembly	*.asm	*.x_t, *.stp
Pro/ENGINEER part	*.prt	*.sat, *.x_t, *.stp
SAT	*.sat, *.sab	*.sat
SheetWorks	*.x_t	*.x_t
SmartViewer	*.x_t	*.x_t
Solid Builder	*.x_t	*.x_t
SolidDesigner	*.sat	*.sat
SolidEdge	*.x_t	*.x_t
SolidWorks assembly	*.sldasm	*.x_t
SolidWorks part	*.sldprt	*.x_t
STEP	*.stp	*.stp
StereoLithography	*.stl	*.stl
SURFCAM	*.x_t	*.x_t
TopSystems t-flex CAD	*.x_t	*.x_t
TracePro	*.sat	*.sat
TurboCAD	*.sat	*.sat
Unigraphics CAM	*.x_t	*.x_t
Unigraphics	*.prt, *.x_t	*.x_t
Vellum	*.sat	*.sat
Vertex	*.sat	*.sat
Virtual Gibbs	*.x_t	*.x_t
VirtualINC	*.x_t	*.x_t
VISI-CAD	*.x_t	*.x_t
VISI-CAM	*.x_t	*.x_t
VX CAD/CAM	*.x_t	*.x_t

# TransMagic R7 List of 3D CAD Data Exchange Options

1.	CATIA V5	to CATIA V4	57.	Unigraphics	to CATIA V5
2.	CATIA V5	to Inventor*	58.	Unigraphics	to CATIA V4
3.	CATIA V5	to SolidWorks**	59.	Unigraphics	to Inventor*
4.	CATIA V5	to Unigraphics**	60.	Unigraphics	to SolidWorks**
5.	CATIA V5	to ACIS (*.sat)	61.	Unigraphics	to ACIS (*.sat)
6.	CATIA V5	to IGES	62.	Unigraphics	to IGES
7.	CATIA V5	to Parasolid (*.x_t)	63.	Unigraphics	to Parasolid (*.x_t)
8.	CATIA V5	to STEP	64.	Unigraphics	to STEP
9.	CATIA V5	to NGRAIN	65.	Unigraphics	to NGRAIN
10.	CATIA V5	to HSF	66.	Unigraphics	to HSF
11.	CATIA V5	to STL	67.	Unigraphics	to STL
12.	CATIA V4	to CATIA V5	68.	ACIS (*.sat)	to CATIA V5
13.	CATIA V4	to Inventor*	69.	ACIS (*.sat)	to CATIA V4
14.	CATIA V4	to SolidWorks**	70.	ACIS (*.sat)	to Inventor*
15.	CATIA V4	to Unigraphics**	71.	ACIS (*.sat)	to SolidWorks**
16.	CATIA V4	to ACIS (*.sat)	72.	ACIS (*.sat)	to Unigraphics**
17.	CATIA V4	to IGES	73.	ACIS (*.sat)	to IGES
18.	CATIA V4	to Parasolid (*.x_t)	74.	ACIS (*.sat)	to Parasolid (*.x_t)
19.	CATIA V4	to STEP	75.	ACIS (*.sat)	to STEP
20.	CATIA V4	to NGRAIN	76.	ACIS (*.sat)	to NGRAIN
21.	CATIA V4	to HSF	77.	ACIS (*.sat)	to HSF
22.	CATIA V4	to STL	78.	ACIS (*.sat)	to STL
23.	Inventor	to CATIA V5*	79.	IGES	to CATIA V5
24.	Inventor	to CATIA V4*	80.	IGES	to CATIA V4
25.	Inventor	to SolidWorks* **	81.	IGES	to Inventor*
26.	Inventor	to Unigraphics* **	82.	IGES	to SolidWorks**
27.	Inventor	to ACIS* (*.sat)	83.	IGES	to Unigraphics**
28.	Inventor	to IGES*	84.	IGES	to ACIS (*.sat)
29.	Inventor	to Parasolid* **	85.	IGES	to Parasolid (*.x_t)
30.	Inventor	to STEP*	86.	IGES	to STEP
31.	Inventor	to NGRAIN*	87.	IGES	to NGRAIN
32.	Inventor	to HSF*	88.	IGES	to HSF
33.	Inventor	to STL*	89.	IGES	to STL
34.	Pro/ENGINEER	to CATIA V5	90.	Parasolid	to CATIA V5
35.	Pro/ENGINEER	to CATIA V4	91.	Parasolid	to CATIA V4
36.	Pro/ENGINEER	to Inventor*	92.	Parasolid	to Inventor*
37.	Pro/ENGINEER	to SolidWorks**	93.	Parasolid	to SolidWorks**
38.	Pro/ENGINEER	to Unigraphics**	94.	Parasolid	to Unigraphics**
39.	Pro/ENGINEER	to ACIS (*.sat)	95.	Parasolid	to ACIS (*.sat)
40.	Pro/ENGINEER	to IGES	96.	Parasolid	to IGES
41.	Pro/ENGINEER	to Parasolid (*.x_t)	97.	Parasolid	to STEP
42.	Pro/ENGINEER	to STEP	98.	Parasolid	to NGRAIN
43.	Pro/ENGINEER	to NGRAIN	99.	Parasolid	to HSF
44.	Pro/ENGINEER	to HSF	100.	Parasolid	to STL
45.	Pro/ENGINEER	to STL	101.	STEP	to CATIA V5
46.	SolidWorks	to CATIA V5	102.	STEP	to CATIA V4
47.	SolidWorks	to CATIA V4	103.	STEP	to Inventor*
48.	SolidWorks	to Inventor*	104.	STEP	to SolidWorks**
49.	SolidWorks	to Unigraphics**	105.	STEP	to Unigraphics**
50.	SolidWorks	to ACIS (*.sat)	106.	STEP	to ACIS (*.sat)
51.	SolidWorks	to IGES	107.	STEP	to IGES
52.	SolidWorks	to Parasolid (*.x_t)	108.	STEP	to Parasolid (*.x_t)
53.	SolidWorks	to STEP	109.	STEP	to NGRAIN
54.	SolidWorks	to NGRAIN	110.	STEP	to HSF
55.	SolidWorks	to HSF	111.	STEP	to STL
56.	SolidWorks	to STL			

\* Using TransMagic Inventor Add-in

\*\* Using \*.x\_t