

## Deep Exploration CAD and Standard Editions Supported File Formats (current at 24 September 2009 for versions 6.0.0.5908 32 bit and 6.0.0.5909 64 bit)

These lists are organized alphabetically by the file format.

### Formats supported by Deep Exploration CAD Edition only

#### CAD File Formats

File Format	Type	Extension	Import	Export	Version/Notes
Autodesk Inventor Assembly	3D Assembly	IAM	Yes		Two reading methods: 1. 2009 Reader: V10 to V2009. 2. Legacy: up to 2010 (requires free Autodesk 2010 viewer installed on machine).
Autodesk Inventor Part	3D Part	IPT	Yes		Two reading methods: 1. 2009 Reader: V10 to V2009. 2. Legacy: up to 2010 (requires free Autodesk 2010 viewer installed on machine).
CADD5 Part and Assembly	3D Scene	_PD	Yes		4x _pd.
CADKEY Advanced Design Language	2D CAD Drawing	CDL	Yes		Cadkey CADL versions 4 to 20.
CATIA4	3D Part	DLV, MODEL, SESSION, EXP	Yes		Up to 4.24
CATIA5	3D Assembly/Part	CATPART, CATPRODUCT, CATSHAPE	Yes		Up to R19 SP3.
CATIA5	3D Assembly/Part	CGR	Yes		R10 to R19 SP3.
IGES Files	3D Part/Assembly/2D	IGES, IGS	Yes		Two reading methods: 1. 2009 Reader: Up to Version 5.2. 2. Legacy: Up to version 5.3.
JT File	3D Assembly/Part	JT	Yes	*Yes	Versions 9.0 and earlier. Supports PMI data through JTPMI.
MicroStation CAD Graphic	3D /2D	DGN	Yes		Versions 95, SE, J, 7, and 8.
Parasolid CAD File	3D Part	X_B, X_T, XMT, XMT_TXT	Yes		Two reading methods: 1. 2009 Reader: Up to version 19. 2. Legacy: Up to version 19.
Pro/ENGINEER Assembly	3D Assembly	ASM, XAS	Yes		2001 to Wildfire 4. Note: No assembly level features or family tables support.
Pro/ENGINEER Part	3D Part	PRT, XPR	Yes		2001 to Wildfire 4. Note: No assembly level features or family tables support.
Pro/ENGINEER Neutral Assembly and Part Files	3D Assembly/Part	NEU	Yes		Versions 14 - Wildfire 4.
SolidEdge 3D CAD Model Part	3D Part	PAR, ASM	Yes		Versions 10 - 20.
SolidWorks Files	3D Assembly (SLDASM) 3D Part ( SLDPRT)	SLDASM, SLDLFP, SLDPRT	Yes		Two reading methods: 1. 2009 Reader: 2000 to 2009. 2. Legacy: Versions 97-2009.
Standard ACIS Text File	3D Part	SAT	Yes		Two reading methods: 1. 2009 Reader: ACIS release 16 and earlier. 2. Legacy: Release 16 and earlier.
STEP Files	3D Assembly/Part	STEP, STP	Yes		Two reading methods: 1. 2009 Reader: AP203 and AP214. 2. Legacy: AP204 and AP214.
Unigraphics Parts and Assemblies	3D Assembly/3D Part	PRT	Yes		15 to NX6.
VDA File	3D Scene	VDA	Yes		All versions supported.

#### 2D CAD Drawing File Formats

File Format	Type	Extension	Import	Export	Version/Notes
CATIA4 and 5 Drawings	2D CAD Drawing	MODEL, CATDRAWING	Yes		R10 to R19 SP3
Pro/ENGINEER Drawing	2D CAD Drawing	DRW	Yes		2001 to Wildfire 4.
SolidWorks Drawings	2D CAD Drawing	SLDDRW	Yes		Versions 97-2009.
Unigraphics Drawing	2D CAD Drawing	PRT	Yes		NX to NX6.

## Formats supported by Deep Exploration CAD and Standard Editions

### 2D File Formats

File Format	Type	Extension	Import	Export	Version/Notes
Adobe Encapsulated PostScript	2D Vector (Drawing)	EPS		Yes*	Version 2. *Export via Vector Illustration (CAD edition only). Standard 2D. No export options.
Adobe Illustrator Vector Graphic	2D Vector (Drawing)	AI	Yes	Yes*	Version 2. *Export via Vector Illustration (CAD edition only). Standard 2D. No export options.
Adobe Photoshop Document	2D Raster (Image)	PSD	Yes		
Autodesk Animator Graphic	2D Raster (Image)	CEL	Yes		
Digital Imaging and Communications in Medicine Image	2D Raster (Image)	DCM	Yes	Yes	Medical MRI file format.
DirectX DirectDraw Surface	2D Raster (Image)	DDS	Yes		
EA/Amiga Interchange File Format	2D Raster (Image)	IFF	Yes		
Enhanced Metafile	2D Vector (Drawing)	EMF	Yes		
Flexible Precision Buffer Map	2D Raster (Image)	FLX	Yes		
FLIC Animator Animation (flc)	2D Raster (Image)	FLC	Yes		
FLIC Animator Animation (fli)	2D Raster (Image)	FLI	Yes		
Graphics Interchange Format	2D Raster (Image)	GIF	Yes		
JPEG 2000 J2K	2D Raster (Image)	J2K	Yes		
JPEG 2000 JP2	2D Raster (Image)	JP2	Yes	Yes	
JPEG 2000 JPC	2D Raster (Image)	JPC	Yes	Yes	
JPEG Image	2D Raster (Image)	JPEG, JPG	Yes	Yes	
JPEG 2000 JPX	2D Raster (Image)	JPX	Yes		
JEDMICS C4 Compressed Image	2D Vector (Drawing)	C4	Yes		*Export via Vector Illustration (CAD edition only).
Maya Interchange File Format	2D Raster (Image)	IFF	Yes	Yes*	* Requires Maya to be installed.
OpenEXR Bitmap	2D Raster (Image)	EXR	Yes	Yes	
Portable Network Graphics	2D Raster (Image)	PNG	Yes	Yes	
Portable Pixelmap Graphic	2D Raster (Image)	PPM	Yes	Yes	
Publisher's Paintbrush Bitmap Graphic	2D Raster (Image)	PCX	Yes		
Radiance Picture	2D Raster (Image)	HDR	Yes		
Scalable Vector Graphic	2D Vector (Drawing)	SVG	Yes	Yes*	*Export via Vector Illustration (CAD edition only)
ShockWave Flash Object	2D Vector (Drawing)	SWF		Yes*	Must be viewed with Internet Explorer. *Export is also via Vector Illustration (CAD edition only).
Silicon Graphics Image	2D Raster (Image)	RGB, RGBA, INT, INTA	Yes		
SOFTIMAGE Picture	2D Raster (Image)	PIC	Yes		
Tagged Image File Format	2D Raster (Image)	TIF, TIFF	Yes	Yes*	With multipage support.
TGA File	2D Raster (Image)	TGA	Yes	Yes	
Windows Bitmap Graphic	2D Raster (Image)	BMP, DIB	Yes	Yes	No export options
Windows Cursor File	2D Raster (Image)	CUR	Yes		
Windows Icon File	2D Raster (Image)	ICO	Yes		
Windows Metafile	2D Vector (Drawing)	WMF	Yes		
Windows Run Length Encoded Bitmap	2D Raster (Image)	RLE	Yes		

**Formats supported by Deep Exploration CAD and Standard Editions**
**3D File Formats**

File Format	Type	Extension	Import	Export	Version/Notes
AutoCAD Design Web Format	3D /2D	DWF	Yes	Yes	Versions 7.3 and earlier, 2007-2010.
AutoCAD Drawing Interchange	3D /2D	DXF	Yes	Yes	Versions 12, 13, 14, 2000-2010. *Export is also via Vector Illustration.
AutoCAD Drawing Object	3D /2D	DWG	Yes		Versions 12, 13, 14, 2000-2010 (including Autodesk Architectural Desktop support).
AutoCAD Sheet Set File	3D /2D	DST	Yes		Versions 7 and earlier.
Autodesk 3D Studio	3D Scene	3DS	Yes	Yes	
Autodesk 3D Studio ASCII	3D Scene	ASC	Yes	Yes	
Autodesk 3D Studio Max ASCII	3D Scene	ASE	Yes		
Autodesk 3D Studio Project	3D Scene	PRJ	Yes		
AOFF File Format	3D Scene	GEO	Yes	Yes	
Caligari trueSpace Object	3D Scene	COB	Yes	Yes	
Caligari trueSpace Scene	3D Scene	SCN	Yes		
CINEMA 4D	3D Scene	C4D	Yes		Version 5.0.
Collada	3D Scene	DAE	Yes	Yes	
Computer Graphics Metafile	2D Vector (Drawing)	CGM	Yes	Yes*	*Export: Version 3.0. Export via Vector Illustration. Supported by Illustration (ASCII and Binary).
Deep Vision Scene	3D Scene	DVS, IDS	Yes		
DirectX Model	3D Scene	X	Yes	Yes	
FILMBOX	3D Scene	FBX	Yes	Yes	No export options.
Gerber File	3D Scene	GBR, GBP, GPT, GTL, GTO,	Yes		All versions supported.
Hewlett-Packard Graphics Library	2D Vector (Drawing)	PLT, HPGL	Yes		HPGL1 and HPGL2
Imagine Geometry	3D Scene	IOB	Yes		
ISO G Code	3D Scene	ISO, NC	Yes		
LightWave 3D and Binary Object	3D Scene	LWO, LW	Yes*	Yes**	*Import: LightWave 5.6, 6.0, 7.0, 7.5., 9.0 **Export: LightWave version 6.0 (which is compatible with Lightwave 9.x).
LightWave Scene	3D Scene	LWS	Yes	Yes	
Max File	3D Scene	MAX	Yes	Yes	Versions 4.0 - 9.0., 2008-2010. Requires 3ds Max and the DCOM plugin to be installed.
Maya ASCII Scene	3D Scene	MA	Yes	Yes	Versions 3.0, 4.0, 4.5, 5.0, 6.0, 7.0, 8.0, 8.5, 2008-2010 Requires Maya to be installed.
Maya Binary Scene	3D Scene	MB	Yes	Yes	Versions 3.0, 4.0, 4.5, 5.0, 6.0, 7.0, 8.0,8.5, 2008-2010. Requires Maya to be installed.
Mental Images Scene	3D Scene	MI		Yes	
Nendo	3D Scene	NDO	Yes		Versions 1.0 and 1.1.
Object File Format Vector Graphics	3D Scene	OFF	Yes	Yes	
Open Inventor File	3D Scene	IV	Yes	Yes	
OpenFlight Scene Description Database	3D Scene	FLT	Yes*	Yes	Version 13.0. *Import: Multigen API DLLs not required.
OpenGL CPP Code	3D Scene	CPP		Yes	
Points File	3D Scene	PTS	Yes		
Polygon Model Format	3D Scene	PLY	Yes		
Portable Graymap Graphics File	3D Scene	PGM	Yes		16-bit
POV-Ray RAW Triangle Format	3D Scene	RAW	Yes	Yes	
Power Render Object	3D Scene	PRO	Yes		Version 2.5.
Protein Data Bank	3D Scene	PDB	Yes		Version 2.5. Medical file format.
Quicktime 3D Metafile	3D Scene	3DM, 3DMF	Yes		No Chem3D 3DM support.
RAX Extended RAW Triangles	3D Scene	RAX	Yes		

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### 3D File Formats (continued)

File Format	Type	Extension	Import	Export	Version/Notes
Rhinoceros 3D Model	3D Scene	3DM	Yes	Yes	Versions 1.0, 2.0, 3.0, 4.0. No Chem3D 3DM support.
Right Hemisphere Binary	3D Scene	RH	Yes	Yes*	*Export: Versions 3.5 and 4.0.
Shattered Assembly File	3D Scene	XML	Yes	Yes	
Shockwave 3D File	3D Scene	W3D		Yes	Requires the free Legacy plugin to be installed from <a href="http://www.righthemisphere.com/support/downloads/">www.righthemisphere.com/support/downloads/</a> .
Shockwave Web Page	3D Scene	HTML		Yes	Requires Shockwave Player to be installed.
Silo3D	3D Scene	SIA	Yes	Yes	Version 1.0 only. No export options.
Google SketchUp Document	3D Scene	SKP	Yes	Yes	Version 5.0.295, 6.0, 7.0
SOFTIMAGE XSI	3D Scene	XSI	Yes*	Yes**	*Import: Versions 1.0, 3.0, 3.5. **Export: Versions 3.0 and 3.5.
Stereolithography File	3D Scene	STL	Yes	Yes	
Universal 3D	3D Scene	U3D	Yes	Yes	
Viewpoint Media	3D Scene/2D Drawing	MTX	Yes	Yes	Requires the free Legacy plugin to be installed from <a href="http://www.righthemisphere.com/support/downloads/">www.righthemisphere.com/support/downloads/</a> .
Viewpoint Media (compressed)	3D Scene/2D Drawing	MTZ	Yes	Yes	Requires the free Legacy plugin to be installed from <a href="http://www.righthemisphere.com/support/downloads/">www.righthemisphere.com/support/downloads/</a> .
VRML Worlds	3D Scene	WRL, VRML	Yes*	Yes**	*Import: Versions 1.0 and 2.0 ASCII only. **Export: Version 2.0
Wavefront Object	3D Scene	OBJ	Yes	Yes	
XAML	3D Scene	XAML		Yes	

### Document File Formats

File Format	Type	Extension	Import	Export	Version/Notes
Adobe Portable Document 3D	Image/Scene	PDF		Yes*	Creates a PDF document with 3D or 2D content. Content can be created with templates or from an already existing PDF document.
Flex Web Application	Image/Scene	HTML		Yes	
HTML Document with 3D	Image/Scene	HTML		Yes	Must be viewed with Deep View.
Office Powerpoint Document	Image/Scene	PPT		Yes	
Web Archived HTML Document	Image/Scene	MHT		Yes	Must be viewed with Deep View.

### Miscellaneous File Formats

File Format	Type	Extension	Import	Export	Version/Notes
Text File	Text	TXT	Yes		
WinRAR Compressed Archive	Archive	RAR	Yes		
ZIP Archive	Archive	ZIP	Yes		

### Audio File Formats

File Format	Type	Extension	Import	Export	Version/Notes
Audio Interchange Format	Audio	AIF, AIFF	Yes		Play only.
MPEG Audio Files	Audio	MPA, MP2, MP3	Yes		Play only.
Musical Instrument Digital Interface	Audio	MID, MIDI	Yes		Play only.
RIFF MIDI File	Audio	RMI	Yes		Play only.
Sound Format	Audio	SND	Yes		Play only.
Sun/NeXT/DEC Audio	Audio	AU	Yes		Play only.
Waveform Audio	Audio	WAV	Yes		Play only.

## Formats supported by Deep Exploration CAD and Standard Editions

### Video File Formats

File Format	Type	Extension	Import	Export	Version/Notes
Advanced Streaming Format	Video	ASF	Yes		
Audio Video Interleave Animation	Video	AVI	Yes	Yes	
Moving Pictures Expert Group Video	Video	M1V, MPEG, MPG	Yes		

### Motion Capture File Formats

File Format	Type	Extension	Import	Export	Version/Notes
BioVision Hierarchical Data	Skeleton	BVH	Yes	Yes	Includes support for .bvh (cs) Character Studio Sub-Format.
Character Studio	Marker	CSM	Yes	Yes	No export options.
Character Studio - Sub-format of BioVision Hierarchical Data	Skeleton	BVH (CS)	Yes	Yes	
Coordinate 3D	Marker	C3D	Yes		
Hierarchical Translations and Rotations	Skeleton	HTR	Yes		
Tracked Row Binary	Marker	TRB	Yes		
Tracked Row Character	Marker	TRC	Yes	Yes	

### Material File Formats

File Format	Type	Extension	Import	Export	Version/Notes
Autodesk 3D Studio Material	Material	MLI	Yes		
Right Hemisphere Material	Material	RHM	Yes	Yes	
Wavefront Material	Material	MTL	Yes		

### Shader File Formats

File Format	Type	Extension	Import	Export	Version/Notes
Real-Time Shader	Shader	FX	Yes		
Right Hemisphere Shader	Shader	RHS	Yes		