Customer Case Studies

Most of our clients that we build 3D models for are all working in different software packages, different environments and even different operating systems. PolyTrans has always been a surprisingly accurate 3D model converter and produces great looking models in many different file formats. We use PolyTrans several times a day and our company couldn't function without it. It is one of the most valuable tools we have and we are very happy with the performance of this software.

- ***Terry Casper, Amazing 3D Graphics Inc***. *Custom 3D Modeling & 3D Graphics*

Beau Brown, Industrial 3D

Beau Brown of "Industrial 3D" (industrial design visualization) was provided with a large 3D dataset of an oil drilling rig created in SolidWorks and wanted to render it in 3DS MAX. Beau used Okino's SolidWorks to 3DS MAX conversion pipeline (via XGL) to perform this job quickly and with little user involvement. Beau states, "**The XGL model was well over 200 megs and it only took PolyTrans about 5 minutes to open and convert. It turned out great and worked beautifully.**"

The oil rig consisted of 5700 different parts and 1,908,464 polygons. The final rendering consisted of 75% data from SolidWorks and 25% created in 3DS MAX. The 7500x7500 pixel image took 9 hours to render in 3DS MAX. The final poster was used in "Oil and Gas Journal", a Pennwell magazine. The models and technical instructions were provided by Rowan Companies, Inc. Copyright © 2005 by Pennwell Publishing and Beau Brown.

John Crane, CraneDigital

"I specialize in 3D scientific/technical illustration and animation. A customer, on the eve of their product release, needed to transform a 3D spectrometer model created with Unigraphics into convincing marketing material. After my initial purchase of PolyTrans with the IGES module, Robert Lansdale of Okino worked closely with me developing a 'custom' solution for the specific conversion process that I needed. **After trying a direct IGES import through two other leading applications, PolyTrans produced the highest-quality results with the most control over surfacing, smoothness, and tessellation. Without PolyTrans I would not have been able to meet the tight timeline. PolyTrans was indispensable.**

Since this initial project I've used PolyTrans (with the IGES module) for countless projects, moving seamlessly between 3DS MAX and LightWave. PolyTrans handles ProE files extremely well. Why move between applications? Sometimes it's as simple as a slightly different look a client is after. Sometimes it's more complicated, like creating a motion, object or effect more easily in one application than another. Sometimes a client will already have MAX files and want that to be the starting point. With PolyTrans, moving between different worlds is a reliable, 'promisable' task. Without it my life would be far more difficult". Hach spectrometer model and image Copyright © 2005 CraneDigital, www.cranedigital.com.

Robbie Halvorson, Guidant Corporation

"I am a designer that has used Okino's translation software to translate models from ProE to Maya and Alias Studio for rendering. **I have done this for about 4 years with great results. By using the ProE SLP render file format and Okino's batch translator, I can quickly bring multiple parts into Maya (now my main animation and rendering tool)**. In fact one of these translations led to us being nominated for a ProE award in medical products.

ProE does a fine job of handling surface shading and creating basic animation for use in an engineering environment but for higher quality, hyper-realistic presentations, the parts need to be exported to a true rendering and/or animation software. It's like the difference between carpenters tools and watchmakers tools." Heart defibrillator model & image © 2005 Guidant Corporation.

http://www.okino.com/casestudies.htm - Case studies, using PolyTrans in production.
http://www.okino.com/testimon.htm - PolyTrans customer testimonials.

PolyTrans®

High Quality, Cross-Platform 3D Scene & Animation Translation, Optimization, Viewing and Browsing Software

- ✓ Accurate and fast translations of complex models
- ✓ PolyTrans SDK: Write your own plug-in modules
- ✓ Backed by excellent Okino developer support
- ✓ Batch translation + polygon processing functions
- ✓ Complete file format implementations
- ✓ Reliable, dependable and robust

Example applications of PolyTrans:

- Complex scene translations for 3D game design
- NURBS to NURBS or NURBS to polygons
- Accurate MAX, LW, Maya, Softimage translations
- CAD viewing, rendering and 3D translations
- Animation conversion & resampling.

Large, Professional User Base

PolyTrans, and its related elder brother NuGraf, are used world wide by thousands of professional 3D users. Several hundred of the most notable are listed here and at "http://www.okino.com/conv/users.htm":

Production Studios, Digital Effects, Animation Studios and 3D Content Developers

Adaptive Media, Aldis Animation, Amaze, Amaze-tion, Animation Science, Applied 3D Science, Argonaut 3D Graphics, Arkitek Studios, AVP Multimedia, Aardman Animations, Computer Artworks, Asia Data, BrainCell Pictures, Broadsword Interactive, CBC Canada, Caribiner, CG2, Cirring Interactive, Cinemagic, Computer Cafe, Crambambouli, Cidema AB, Compro Games, Creatures, Crush Interactive, Dawn Interactive, DigiLog Multimedia, Digital Anvil, Digital Artworks, Digital Forays, Dream Team, Disney Interactive, Digital Animations, DreamWorks Interactive, Encore Video, Enthed Animation, Entertainment Design Workshop, Evermore Entertainment, Flying Spot Entertainment, Grollier, Head Games, Hiero Graphics, HumanCode, ICON Multimedia Publishing, ILM, Infobyte SpA, Imagine Interactive, In-Media, Interactive Media, Laser Media, Lawrence Productions, Lionhearth Tech, Looped Picture Co., Marathon Comm., MindInMotion, Mirashade, NFB Canada, Paradigm Productions, Praxis Films, Quantum 3D, Rainmaker Digital Pictures, Red Lemon Studios, S2n Media, Seven Network, Sony Interactive, TOSC, Vantage Point Imaging, VFX Interactive, Viewpoint Digital, Vivid Group, Visual Approach, Walt Disney, Westwood Studios and WildTangent.

Corporate Users

Acuity, Ademco, Adler Planetarium, Alcoa Aluminum, Alfa Laval, ATI Canada, Aurora Biosciences, Baxter Health Care, Beumer Maschinenfabrik GmbH, Caterpillar, Corel Corp, Cryptologic, Daimler Benz AG, DEC, Discreet Logic, DPS, EDS, Evans and Sutherland, Flight Safety International, GTE, Guidant, HP, Honeywell, IBM, Informix, Intel, Intergraph, Johnson & Johnson, LEGO, Kimberly-Clark, Lucent Tech, Matrox, MIT Media Lab, Microsoft, Mitel, NRC Canada, National Instruments, NewTek, Nokia Mobile Phones, Nippon Systemware, OrnaMetal, Panavision, Philips, P.I.X.A.R, Play, Raychem, Real 3D Co., Rockwell, SDRC, Silicon Graphics, Spacetec, Steelcase Canada, Toshiba and TRW.

3D Game Development Companies

8th Wonder Games, Accolade, Acclaim, Atari, Avalanche, Beyond Games, Bitmap Brothers, Blizzard North, Blue Sky, Brightland, Broderbund, Cavedog, Climax, CrossWorlds, Crystal Dynamics, Dill Pixels, Dragonlore, Electronic Arts, Elpin Systems, Ensemble Studios, Epic, Fasa Interactive, Funcom, GT Interactive Software, High Voltage Software, id Software (Doom), Immersia, Intelligent Games, Interplay, Ion Storm, Kaon, Kodiak Games, Logicware, Leaping Lizard, LucasArts, Mak Technologies, Microforum, MegaMedia, Microprose, Mythic, Namco, Nintendo, Nocturnale, NuFx, Origin, Piranha Bytes, Rainbo Studios, Raven, Ronin Games, Realtime Associates, Reflections, Saffire, Secret Software, Sierra On-Line, Silver Creek, SingleTrac, Software Creations, Spacetime Arts, SPGS, Sports Simulation, Stage 22, StormFront Studios, Super Dimension Software, Universal Interactive Studios, Virgin Interactive, Virtual World Entertainment (MechWarrior 3), Williams/Bally/Midway, Z-Axis and Zombie VR Studios.

Engineering and Manufacturing

Amtec Engineering, Airbus Industries, British Aerospace, CAE Electronics, DME Corporation, Dodson & Associates, Hunter Engineering, Engineering Animation, E-OIR Measurements, Exponent Failure Analysis, Festech Software, Hunter Industries, LEGO Engineering, Progressive Engineering, SIP Info, Smith International and Under Control.

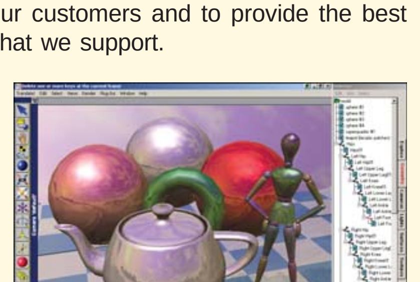
Government And/Or Defence-Related Agencies

Argonne NL, Ball Aerospace, Boeing, JPL, Hughes, GreyStone Tech, LLNL, Lockheed-Martin, LANL, NASA, Naval Air/Surface Warfare Center, Raytheon, Sandia National Labs, SPAR Aerospace, United Space Alliance and the U.S Secret Service.

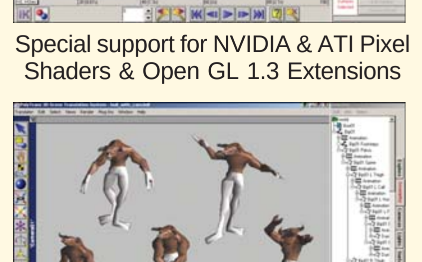
PolyTrans v4 Major Features

Okino has one of the most dedicated teams of programmers working in the field of 3D data translation, rendering and animation software. We are always investigating and implementing new core technology for the benefit of our customers and to provide the best emulation of the source/destination 3D packages that we support.

- Years of new work in 3D CAD, DCC & VisSim converters.
- Photo-real rendering with material editing.
- Major OpenGL functionality. Now with realtime bump & environment mapping. Full scene and object-level transparency. Vertex color shading. Easily accessible options. Textures on by default. NVIDIA & ATI pixel-level shaders. OpenGL support for specular colors, anisotropic filtering, multi-layer texturing, cubical maps. A dozen options added to the 3D grid display.
- Complete skeleton & skinning conversion system between 3ds max, Maya, XSI, LW and DirectX. Excels above all others.
- Hierarchy optimization system: compresses hierarchy & object count. Excellent for moving complex CAD files into 3ds max, Lightwave, Maya, XSI, C4D and others.
- OpenGL .cpp exporter with optimized tri-strip or vertex array output, display list usage and more.
- PolyTrans-for-XSI & PolyTrans-for-Director native plug-in systems.
- Integrated multi-media editor & viewer with extensive support for dozens of 2D formats, image processing, filtering operations and pixel effects.
- Okino Plug-in SDK: write custom plug-ins.
- "COM" Interface for external integrations.
- VBScript & JScript scripting interface.
- Fully integrated "File & WEB Search" system.
- Polygon reduction system. Reduces most datasets by 80% or more.
- **PTC Granite** for ACIS, IGES, native ProE, Parasolids, STEP, VDA. Top notch!
- Optional **AIR** plug-in commercial hybrid renderer from SiTex Graphics.



Special support for NVIDIA & ATI Pixel Shaders & Open GL 1.3 Extensions



Rigid & Smooth Skinning Import, Playback, Conversion & Export (Bull From 3DS MAX 7 C.S. CDROM)

Okino Plug-Ins SDK
WRITE YOUR OWN PLUG-INS

Built on PTC® GRANITE

W

Okino Computer Graphics — 3D Rendering, Visualization & Model Translation Software

Available from:

3397 American Drive, Unit # 1. Mississauga, Ontario, L4V 1T8
Toll Free: 1-888-3D-OKINO, Tel: (905) 672-9328, Fax: 905-672-2706
WEB: http://www.okino.com, Email: sales@okino.com

PolyTrans v4

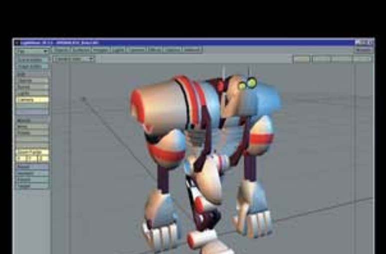
PolyTrans™
By Okino Computer Graphics


MultiGen® Creator®


MAXON Computer® Cinema-4D®


Autodesk® Mechanical Desktop®

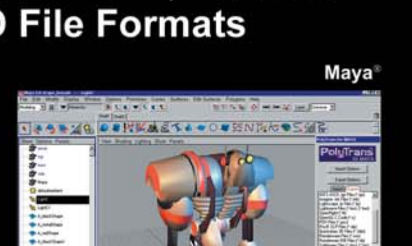

Viewpoint® VET® Streaming


Lightwave® (original model)


3DS MAX®

Browse, View, Translate, Render
All Major 3D File Formats


SoftImage®IXSI & Softimage®I3D


Maya®

"ApeBot" Model Copyright © 2005 by Newtek, Inc. and Matt McDonald, Vision Scape Imaging.

New: Write your own plug-ins using PolyTrans SDK!


PIXAR® Renderman®


Caligari® trueSpace®


Robert McNeel's Rhino®


Macromedia® Director® and Shockwave-3D® Streaming

3D Scene, Animation, CAD, NURBS & WEB Streaming Translation Software For Microsoft® Windows® and SGI IRIX®

(Runs on Apple Macintosh using a Windows Emulator)

Your One Stop Solution for Digital Asset Management: Supports all Major 3D Scene & 2D Bitmap File Formats (and viewing AVI/MOV Video Files), Drag & Drop Browsing, COM Interface Integration into Third Party Applications, Custom Plug-in SDK and 17 + years of development!

Version 4 Includes Photo-Realistic Rendering and High Performance OpenGL Viewing!

Universal Import/Export of All Major 3D Formats!

Accurate, Reliable, Robust Translations!

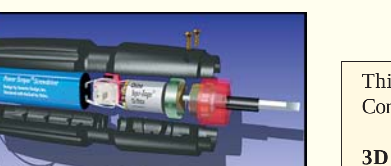
Multi-Format Animation Support!

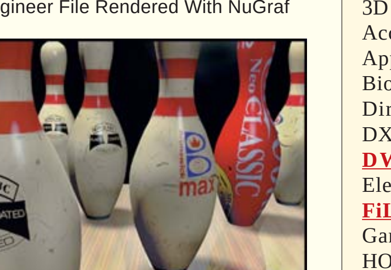
Creates "Render Ready" Models!

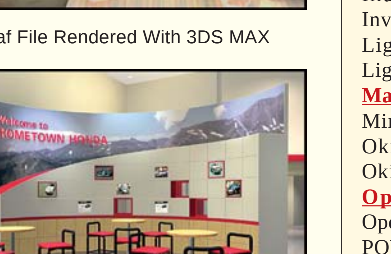
3DS MAX®, XSI® & Maya® Native Plug-Ins!

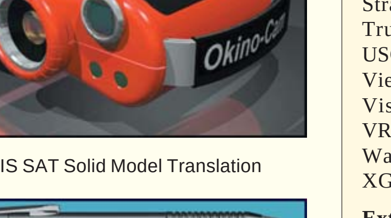
Okino Computer Graphics — 3D Rendering, Visualization & Model Translation Software

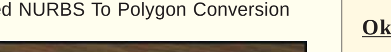
Supported 3D File Formats & Example Imagery

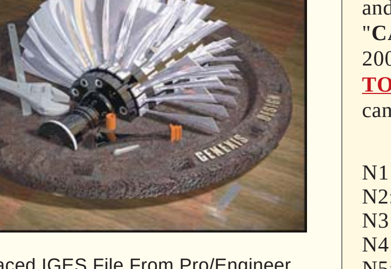

Pro/Engineer File Rendered With NuGraf


NuGraf File Rendered With 3DS MAX


Concept Design Using IGES FIles


ACIS SAT Solid Model Translation


Trimmed NURBS To Polygon Conversion


Ray Traced IGES File From Pro/Engineer


Building Model From SDRC Master Series

Please refer to "**http://www.okino.com/conv/filefrmt.htm**" for current file support information and the full list of supported 2D bitmap image & video file formats.

This list does not contain plug-in modules created by third party companies, such as CATIA-v4 from DATAKIT. Converters listed in red are sold as optional add-on modules.

3D File Format	Ext	Imp	Exp	Mat	Hier	u/v	L&C	NURBS	Anim	Skin	Notes
3D Studio r4	.3ds	♦	♦	♦	♦	♦	♦		♦		N1
3D Studio MAX	.max	♦	♦	♦	♦	♦	♦		♦	♦	N2
Acclaim MoCap	.amc, .asf	♦	♦		♦				♦		
Apple 3DMF	.3dmf	♦	♦	♦	♦	♦	♦				
BioVision MoCap	.bvh	♦	♦		♦				♦		
DirectX	.x	New	♦	♦	♦	♦			♦	♦	N4
DXF	.dxf	♦	♦	RGB							
DWG	**.dwg**	♦	♦	RGB				(supports up to AutoCAD v2005)			
Electric Image FACT	.fact	♦	♦	♦	♦	♦	♦	(anim. to EIAS via Lightwave)			
FiLMBOX (Kaydara)	.fbx	♦	?	♦	♦	♦	♦		♦	♦	
GameExchange2 (Mirai)	.gof	♦	♦	♦	♦	♦	♦				
HOOPS HSF	.hsf		♦	♦		♦	♦				
Houdini, geometry	.geo					♦		♦			
Illustrator (Adobe)	.ai	♦	(for 2d spline shape import)								
Inventor2 (SGI),VRML1	.wrl	♦	♦	♦	♦	♦	♦				
Lightscape	.lp		♦	♦		♦	♦				
Lightwave 5.6 & 7+	.lwo, .lws	♦	♦	♦	♦	♦	♦		♦	♦	N5
Maya, Alias	.ma, .mb	♦	♦	♦	♦	♦	♦	♦	♦	♦	N6
Minolta Vivid 700	.cam	♦				♦					
Okino Text Dump	.txt		♦	♦	♦	♦	♦	♦	♦	♦	N16
Okino *Transfer File Format*	.bdf	♦	♦	♦	♦	♦	♦	♦	♦	♦	N7
OpenFlight	.flt	♦	♦	♦	♦	♦	♦		♦		N8
OpenGL C Code	.c		♦	♦		♦	♦				N13
POV 2.0 & 3.0	.pov		♦	♦			♦				
Pro/E "Render File"	.slp	♦	♦								
Protein Database	.pdb/.mol	♦	(molecular database import; now with ribbon & backbone support)								
Renderman RIB	.rib		♦	♦		♦	♦	♦	♦		N10
Renderware	.rwx		♦	♦	♦	♦	♦				
Rhino/OpenNURBS	.3dm	♦	♦	♦		♦	♦	♦			
Shockwave/Director	.w3d		♦	♦		♦	♦		♦		N15
Softimage-3D	.hrc	♦	♦	♦	♦	♦	♦	♦	♦		N11
Softimage-XSI	.xsi	♦	♦	♦	♦	♦	♦	♦	♦	♦	N3
StereoLithography	.stl	♦	♦								
Strata StudioPro v1.75	.vis	♦	♦	♦	♦	♦	♦				N12
TrueSpace v2-v6	.cob, .scn	♦	♦	♦	♦	♦	♦				
USGS DEM	.dem	♦									
Viewpoint VET	.mts/.mtx	♦	♦	♦	♦			♦			
VistaPro	.dem	♦									
VRML 1 & 2	.wrl	♦	♦	♦	♦	♦	♦		VRML2		
Wavefront OBJ	.obj	♦	♦	♦		♦		Import			
XGL (RealityWave)	.xgl	♦	♦	♦	♦	♦	♦				N14

Ext = File extension, **Imp** = Import, **Exp** = Export, **Mat** = Materials & texture maps, **Hier** = Hierarchy, **u/v** = Texture (u,v) coordinates, **L&C** = Lights & cameras, **Anim** = Animation, **Skin** = Rigid/Smooth Skinning.

Okino "CAD/Pack" and "Granite/Pack", Optional Add-On CAD Support

Okino has been well known for its CAD file format support since 1988 when it first began working towards IGES and DXF. Version 4 brings to PolyTrans the most complete line up of CAD file support at a very low cost. The "**CAD/Pack**" includes **DWG**, Autodesk **Inventor**, Okino's **IGES 5.3**, **Solid Edge** v6-16+, **SolidWorks** 99-2005+. The "**Granite/Pack**" includes **ACIS SAT**, **IGES** (BREP solids), **Granite** (*.g), **Parasolids**, **Pro/DESK-TOP**, **Pro/Engineer**, **STEP** AP203 & AP214 and **VDA-FS**. All are import formats except for Okino IGES which can export trimmed NURBS and polygon meshes. No resident CAD packages are absolutely required.

N1: Object & camera animation, instancing of hierarchy, animation tangent computation.
N2: Requires resident copy of 3DS MAX so that **PolyTrans-for-MAX** may plug in directly to 3DS MAX.
N3: Includes the **PolyTrans-for-XSI** native plug-in system, and independent .xsi import/export converters.
N4: Object animation support (no other animation possible in .X file format). Skinning in PolyTrans v4.
N5: Support LW 5.6 and 6.5 or newer, incl. object & camera animation. LW 6.5+ includes uv & vertex colors.
N6: Native plug-in version of **PolyTrans-for-Maya**. Requires resident copy of Alias Maya.
N7: Okino .bdf format used to move databases between PolyTrans, NuGraf, 3DS MAX & Maya.
N8: Flip-book style animation for export converter.
N10: Extensive material and texture attributes embedded in file as comments.
N11: Also directly reads/writes Softimage databases; performs automatic bitmap conversion.
N12: Import: extracts embedded images to disk. Export: embeds texture images into .vis file.
N13: Optimized tri-strips, vertex lists, display lists and much more.
N14: XGL is exported by many CAD packages. It is a good alternative to import into PolyTrans.
N15: Requires copy of Director 8.5 for publishing. Includes **PolyTrans-for-Director** native plug-in for Director.
N16: Dumps out entire PolyTrans database to text file. Provided in source code for PolyTrans SDK.