# The Professional's Choice for 3D Scene/CAD/Animation/Skinning/Skeleton Translation, Viewing and Scene Composition.

Major Application Areas for PolyTrans

IGES, Maya,

age. Renderman

3DS. ACIS.

DXF. DWG.

IGES, VRML

Lightwave, Mava, Open- Rhino/OpenNURBS, Softim-

3DMF. Electric Image

FACT, Lightwave

Strata SPro

All Major 3D Formats Sup-

ported. Used by all major 3D

game companies

DXF. DWC

OpenFlight

PDB. VRM

Export to

Lightscape, POV,

endermar

All Major 3D

Formats Supported

PolyTrans is the most extensive and accurate 3D scene, CAD and animation translation/viewing tool. Used worldwide by thousands of 3D-industry professionals, PolyTrans is an indispensable production pipeline tool that performs clean, robust and reliable translations between the most popular 3D file formats. See for yourself by downloading the demo version today.

## PolyTrans converts entire scene files

including meshes with holes, trimmed NURBS, hierarchy, animation (format specific), pivot points, vertex normals, U/V tangent vectors, vertex colors, (u,v) texture coordinates, texture

projection methods (planar, spherical, cylindrical © 2006 Daka Designs Ltd. and cubical), texture mapping parameters, lights & cameras. Just load the translated model into your favorite 3D program and press the render button - nothing could be simpler! Using PolyTrans you'll never again have to spend hours hand-tweaking a 3D model.

Okino's PolyTrans is the preferred package to purchase if your goal is to perform quick and easy 3D translations, or plug PolyTrans into 3ds Max, Macromedia Director, Maya or XSI. However, Okino's NuGraf is the preferred package to purchase (at a slightly higher price) if you would like to have access to a richer user interface, complete material parameter editing, 2D and 3D texture editing and creation, top notch scanline and multi-threaded ray tracing, polygon level manipulation tools, interactive texture projection and texture placement tools, and 3D font creation.

As an innovative and useful feature, PolyTrans includes an integrated polygon reduction algorithm.



MICROSOFT® WINDOWS=

SolidWorks to Maya.

3DMF. 3DS.

DirectX, HSF, OBJ,

SW3D. U3D. VET.

VRML, XGL

PolvTrans-For-MA

PolvTrans-for-Ma

PolyTrans-for-XSI

PolyTrans-for-Director

DXF. USGS DEM

VistaPro DEM,

VRML

3ds Max DirectX FBX

Flight SoftImage XSI

U3D VRMI 2

ACIS, Autodesk Inventor, CATIA

v4+v5, DXF/DWG, IGES, JT, Parasolid,

Pro/Engineer, STEP, STL, Solid Edge,

SolidWorks, VDA-FS, XGL



Autodesk's 3ds max

Autodesk's Mava

AVID's SoftImage|XSI & 3D

MultiGen's Creator

Robert McNeel's Rhino

MAXON's Cinema-4D (via VRML & LW)

Caligari's trueSpace

# Feature Packed, Customer Proven, Handles all Major 3D File Formats. Written & Supported With Personal Dedication by Okino Programmers.





D-1 1win\OBJECTS150PMAN 3DS

Combine vertices that are close together.

K Make polygon orientations consistent (unity normal

tion functions are available which weld vertices, auto-flip normals, perform auto-smoothing. remove double sided polygons, merge triangles to quads and remove redundant coordinates.

Extensive Import/Export Option Functionality







OpenGL features implement ed over a period of 12 years. interactive





Rendered with Brazil in 3DS MAX. © 2006 Digital Engine Studio



One Space Designer' model, Converted by PolyTrans-for-Maya & IGES. Rendered with Art VPS. © 2006 Suur Graphics & Eaton Electric BV



NuGraf software. © 2006 Genexis Design Ltd.









**'PolyTrans!ProServer''** Interface

Integrate PolyTrans into Your Own Application!

PolyTrans includes an extensive and well documented COM & GD Magazine automation interface. This allows all of the import and export Awards Winner converters to be enumerated inside a third party application program, and enables the program to automate a full import/export process complete with data optimization (such as polygon reduction). Used by such notable packages as Cinema-4D's "Engineering Bundle" by Maxon, Quest3D by Act-3D, *Transformer* by NGRAIN, NASA, and others.



Developers need only compile in the "Okino COM Client-Side Framework" library (OCCF) to their applications. When completed, the developer program will show all PolyTrans converters in its menus, and all messages, PolyTrans dialog boxes and status feedback as an integrated part of its user interface.



## Multimedia Editor & Viewer

To aid in digital file asset management and viewing, PolyTrans includes a multimedia editor, viewer and processing system. Loads & saves almost all 2D file formats. Extensive capture system. Views video formats.



NURBS & Spline Sub-System

A significant feature of the core PolyTrans software is a complete 2D/3D NURBS curve and spline

curve geometry sub-system. This sub-system can import all types of curves, curve "shapes" and surfaces, then cross-convert them to any other type of spline curve, NURBS curve, NURBS surface or polygon mesh.



## **Customer Testimonials**

"PolyTrans is 'the' premiere 3D conversion tool available today. The most critical aspect of a data conversion program is that although many of these programs claim to handle a large subset of these formats, they often handle only 'most' of the capabilities of each format.

A final aspect of this tool is the incredible depth of the software; if you are at all familiar with the complexity of many file formats, and the odd intricacies of them, you should greatly appreciate the time required to create a tool of this capability/magnitude."

- Peter-Joseph Kovach (3D Magazine Writer)

"Kudos to Okino for a product that's worked exactly as advertised, and much more! PolyTrans has proven to be a rock-solid, full-featured, easy-to-use and extremely accurate translator for our Lightwave and 3D Studio MAX scenes. Even our most esoteric scenes converted flawlessly."

-Gord Davison, Animator/Designer. IBM Laboratory - Media Design Studio

"PolyTrans does something that's relatively rare among data translation tools: namely, animation transfers. You can literally take a Lightwave scene and render it in 3D Studio MAX or SoftImage with no tweaking. I did a test in which I took one of our in-game characters from Lightwave, converted it to 3D Studio MAX, and then back over to Lightwave. PolyTrans left all the geometry, animation, surface, lighting and camera information intact." -Christian Aubert, Game Developer Magazine

Autodesk's Mechanical Desktop

PIXAR's Renderman





## Special Plug-In Versions of PolyTrans for 3ds Max, Maya, XSI & Director

PolyTrans-for-Maya and PolyTrans-for-3DS-MAX are the premiere 3D data translation native plug-ins for Maya and 3DS MAX that create high fidelity "Render Ready" scenes - just load and render, or export! Access all the import and export converters of PolyTrans directly inside Mava or 3DS MAX without the need for intermediate file format conversions.

Since the Maya and 3DS MAX file formats are proprietary, and depend upon the special plug-in modules of their respective programs, PolyTrans has been re-engineered to work directly inside these software packages, thus bypassing the proprietary file format problem Users of these native plug-ins now have a great selection of industry standard 3D formats. See also: PolyTrans-for-Softimage|XSI & PolyTrans-for-Macromedia-Director plug-ins.

#### Popular uses of these native PolyTrans plug-in systems

- Bidirectional and seamless conversion Import parts and assemblies directly from ACIS, of entire scenes between Maya & 3ds Max via Okino's "Transfer File Format", including skinning & animation.
- Excellent bidirectional import/export of Import DXF/DWG files 10x faster via PolyTrans.
- NURBS export to Softimage|XSI, IGES, to formats such as Wavefront OBJ.
- · Over 2 man decades of development. Import/export OpenFlight 3D databases.
- A plethora of user's runtime options.
- Autodesk Inventor, IGES, Parasolid, Pro/Engineer, SolidWorks, STEP, STL, etc.
- NURBS import from Softimage|XSI, IGES, OBJ
- complete LightWave files + animation. Export quads or n-sided polygons from 3ds Max
- OpenNURBS, Renderman, and others. DirectX import/export with animation & hierarchy.

  - Cleaning of data via Okino's "Arctic" toolkit.

## Very Accurate Animation & Skeleton/Bones/Skinning Conversion via "Arctic" Toolkit



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

### Refer to http://www.okino.com/conv/skinning.htm

Through years of research, development, refinement and customer demand, PolyTrans has come to include the industry-leading major features of animation, skeleton/bones and mesh skinning conversion. These are by far our most advanced features for multi-media and animation professionals. Supported formats for bones/skinning include 3ds Max, Maya, LightWave, XSI, FBX, DirectX, U3D & Milkshape.

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Accurate and error free conversion of animation, skeleton/bones and skinning weights is a very hard problem! Experience has shown that almost every 3D file format and 3D animation program is incompatible to some degree with regards to this form of data translation. To overcome

these problems Okino's "Arctic" toolkit was developed to provide error-free, tolerance based conversion of animation, skeleton/bones and mesh skinning data. Arctic embeds a decade of conversion "knowledge" in its cache of algorithms and techniques. This type of bi-directional conversion is most requested for 3ds Max, Maya, LightWave, DirectX & XSI for which Okino staff have considerable hands-on experience.

Arctic also allows raw animation data to be imported from the most popular 3D animation programs, accurately played back in real-time, resampled to alternate forms of animation mathematical representation (as shown below-right) and exported to other 3D animation file formats.



Since 1988 Okino Computer Graphics has been aggressively developing an extensive 3D scene database system and 'C' callable API that emulates the best-of-class features from most 3D animation, modeling, VisSim and CAD packages. Okino is making this extensive API SDK freely available to third party developers as a means to write custom import, export & user interface modules. Works in tandem with the PolyTrans|Pro!Server COM interface for customized pipeline solutions.



## nteresting Okino WEB Pages

http://www.okino.com

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- Okino home page
- PolvTrans home page
- NuGraf home page
- Supported file formats
- Customer testimonials and product reviews
- Case studies, with PolyTrans in production
- A long list of our notable users
- Okino's "Pictures of the Month" gallery

