

The Industry Standard for 3D CAD/Animation/NURBS/Skinning/Skeleton Translations, Viewing and Scene Composition.

The **PolyTrans|CAD+DCC Pro Translation System** is the most extensive and accurate 3D CAD, animation and scene translation/viewing/rendering/publishing system. Used world wide by tens of thousands of 3D industry professionals, PolyTrans is an indispensable production pipeline tool; it performs clean, robust and reliable translations between the most popular 3D file formats in addition to a host of other extensive features. See for yourself by downloading the demo version today.

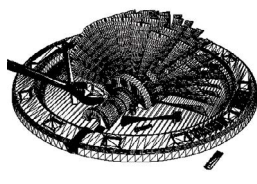
PolyTrans|CAD+DCC converts entire scene files, including meshes with holes, trimmed NURBS, hierarchy, animation (format specific), pivot points, vertex normals, U/V tangent vectors, vertex colors, (u,v) texture coordinates, texture projection methods (planar, spherical, cylindrical and cubical), texture 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, never again will you have to spend hours hand-tweaking a 3D model or re-creating it from scratch.

Okino Computer Graphics can best be understood as two distinct sub-companies: one which specializes in the CAD market and CAD-related users, and one which specializes in the animation/DCC (Design-Content-Creation) markets and users. **We excel at providing the industry standard converters** for these distinct, yet often overlapping, markets. Okino is particularly well known in the DCC market as the major provider of data conversion pipelines that tightly connect all major 3D animation packages and file formats. We know 3D graphics and provide some of the most direct, hands-on support!

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. NuGraf includes all of the PolyTrans functionality.

Over the last two decades **Okino Computer Graphics has pioneered the processes for repurposing all major CAD file formats into all major downstream 3D file formats and animation systems**. Most importantly, Okino does not use reverse engineered CAD modules as is done by others, but rather licenses, utilizes and/or accesses the industry standard CAD engines from Autodesk, Dassault Systemes (CATIA), PTC (ProE & Creo), Solid Edge, SolidWorks, Spatial (ACIS), Siemens (JT Open) and others.

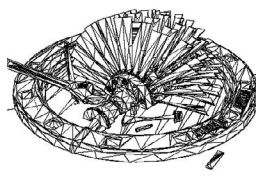
There are thousands of animation companies who regularly receive CAD data from large Fortune 1000 companies but often cannot find a reliable method to import the data; moreover, once the data is imported the dataset is often too cumbersome and memory intensive. PolyTrans|CAD allows all disparate departments of enterprise companies (such as engineering, design, marketing, sales and support), and animation companies alike, to **easily exchange and re-use product data without the need to re-build their CAD datasets**. Such BREP solids CAD models import in minutes with no clean-up or manual intervention required. It is now commonplace, via the widespread use of PolyTrans|CAD, to easily create product brochures, technical documentation and presentation materials of CAD data using 3D authoring programs such as 3ds Max, Adobe Acrobat, Cinema-4D, Lightwave, Maya, NGRain, Softimage and many others supported by Okino software.



No reduction



123326 polygons



95% reduction



6692 polygons

Robust CAD+Mesh Tools: Poly Reduction, Hidden & Small Parts Removal, Normals Unification, Welding + Many More



Original Ape Scene in Lightwave



Autodesk's 3ds Max



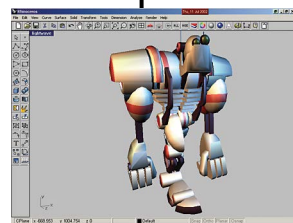
Autodesk's Maya



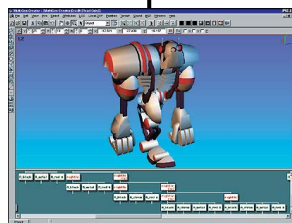
Autodesk's Softimage



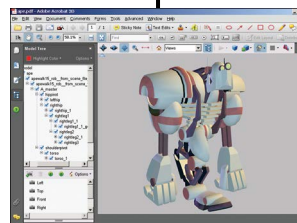
MAXON's Cinema-4D



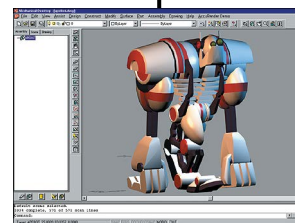
Robert McNeel's Rhino



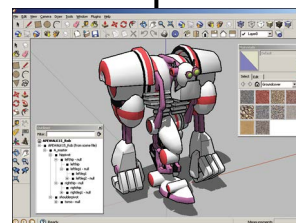
Presagis' Creator



Adobe's Acrobat 3D & Photoshop



Autodesk's AutoCAD, NavisWorks, etc.

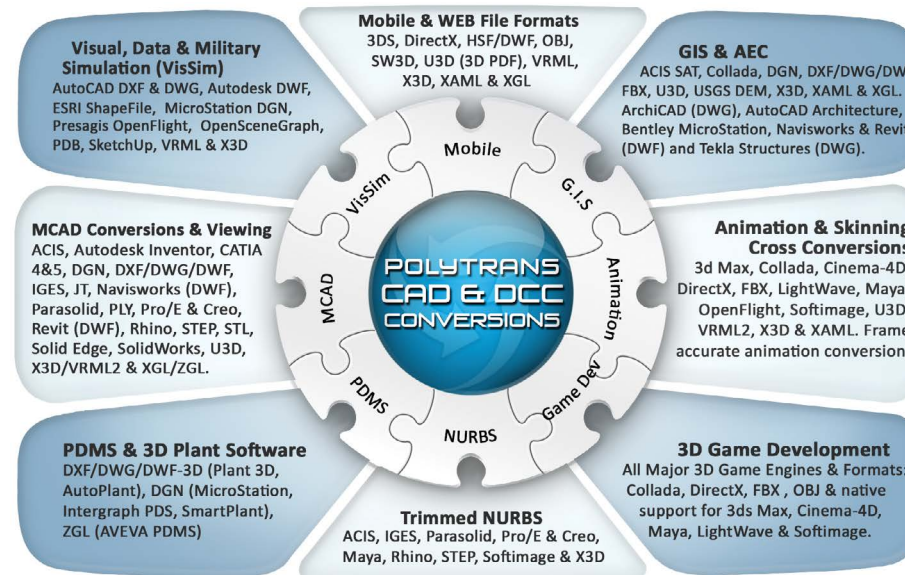


Trimble's SketchUp

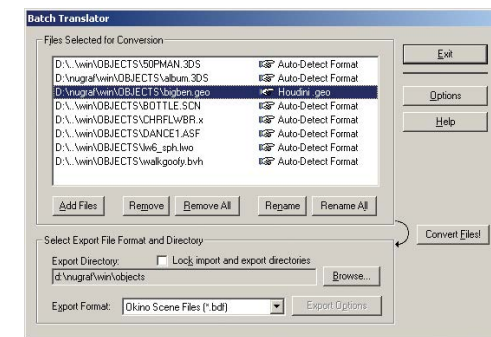


Visit <http://www.okino.com> for demos and extensive product information

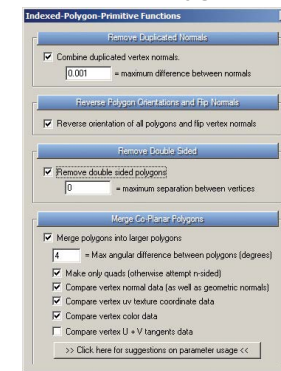
Major Application Areas for PolyTrans|CAD+DCC



Intuitive Batch Translation of 3D File Formats

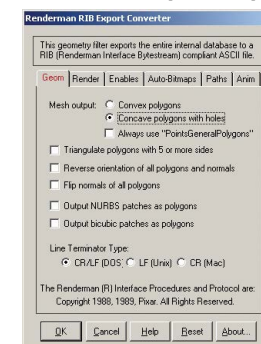


Automatic Polygon Processing Functions



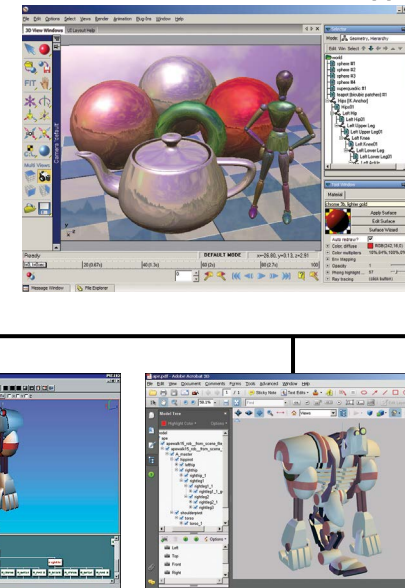
A variety of powerful polygon manipulation functions are available which weld vertices, auto-flip normals, perform auto-smoothing, merge triangles to quads, perform small & hidden parts removal, do polygon reduction and remove redundant coordinates.

Extensive Import/Export Option Functionality

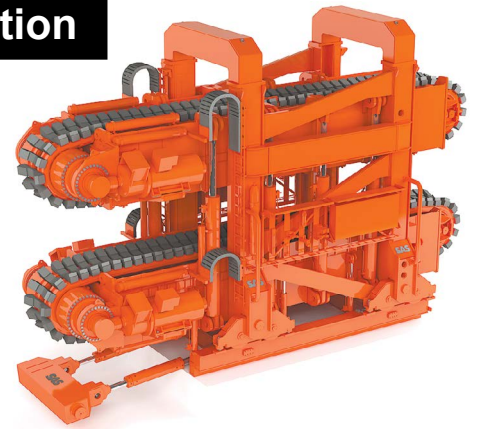


Expert users have extensive control over the numerous import/export options, including automatic bitmap conversion, selective attribute export and texture filename reference handling. All options default to ideal values for beginners.

NVIDIA & ATI Pixel Shaders Support



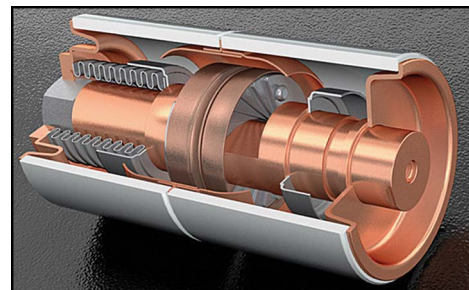
The very best of OpenGL features, implemented over a period of 20 years. Fast & interactive.



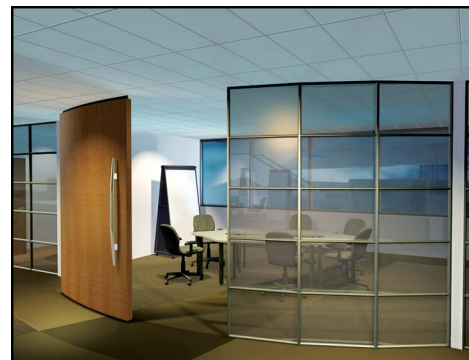
ProE to Cinema-4D conversion via PolyTrans|CAD. (c) Renderhouse BVBA and SAS Gouda.



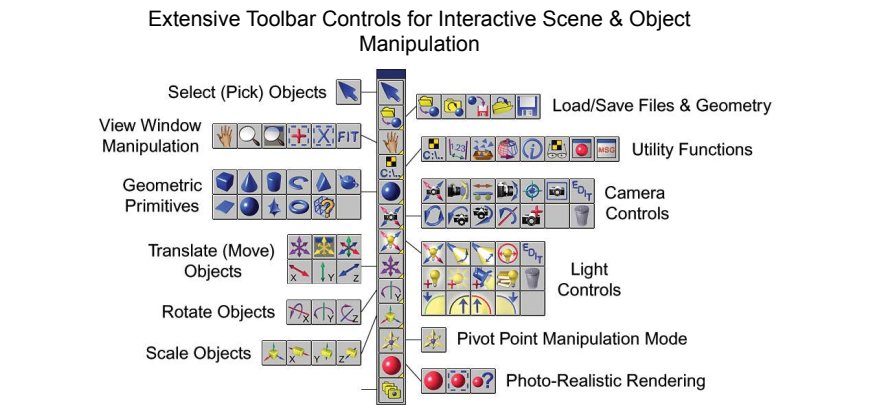
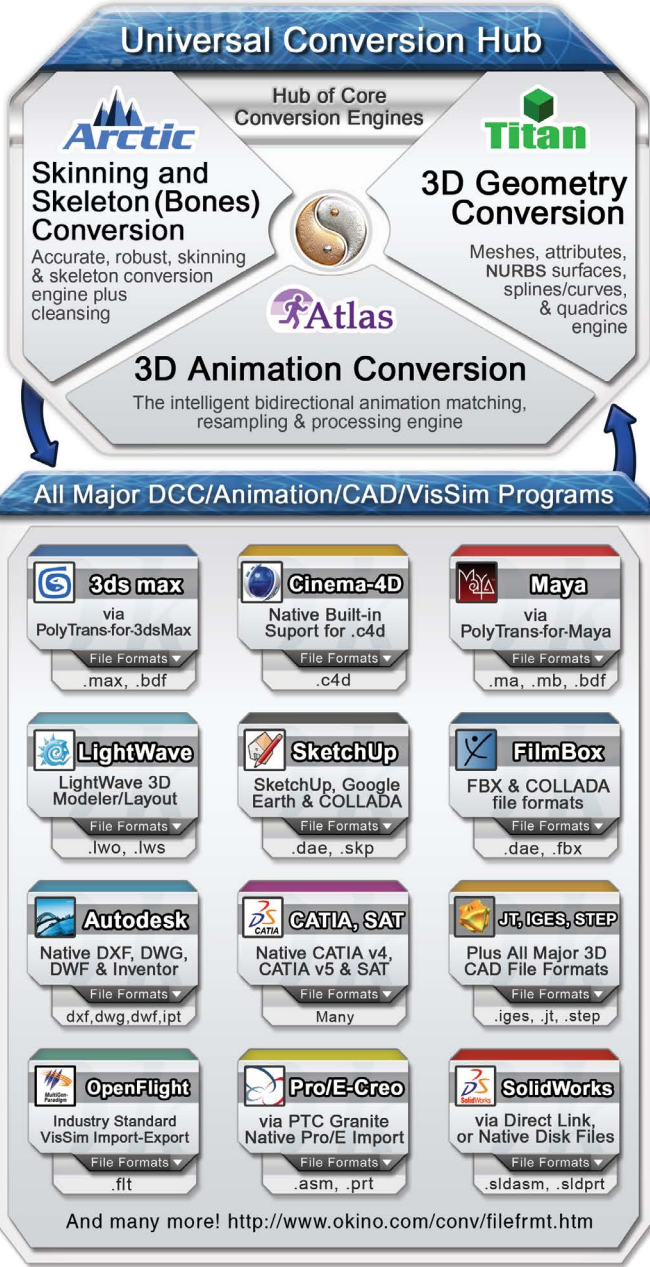
ProE model. Converted via PolyTrans-for-Max & ProE Importer. Rendered with Brazil in 3ds Max. © Digital Engine Studios.



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



Office interior. ProE model. Converted & rendered in Okino's NuGraf software. © Genexis Design Ltd.

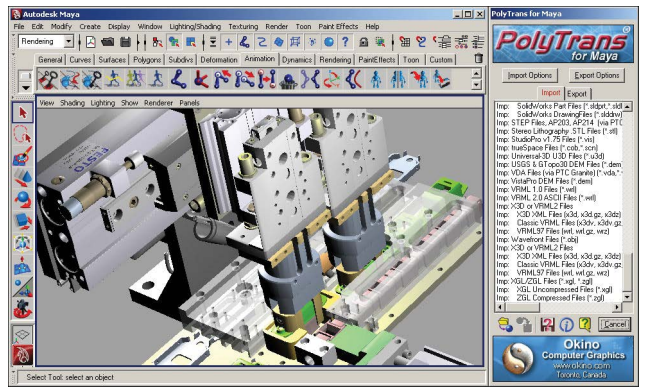
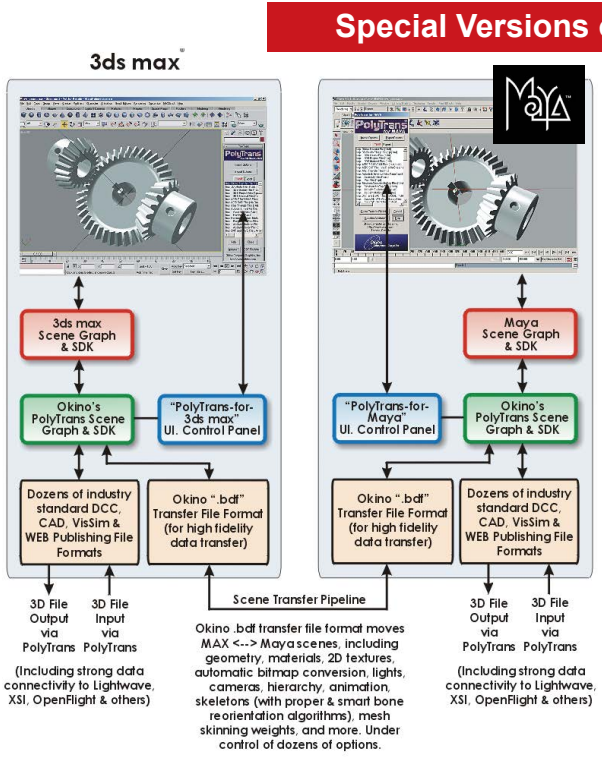
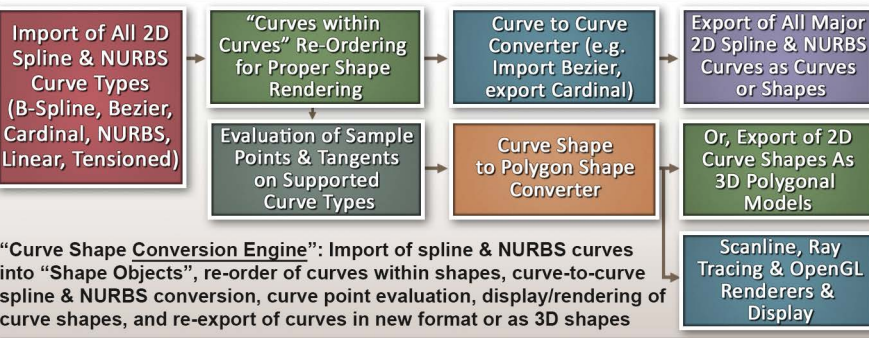


Multimedia Editor & Viewer

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

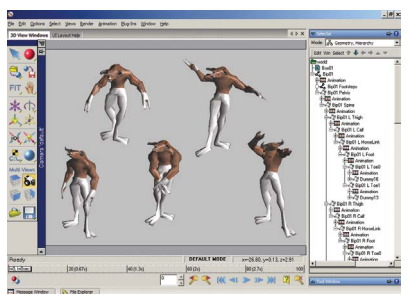
A significant feature of the core PolyTrans software is a complete 2D/3D NURBS curve and spline curve geometry sub-system. This sub-system can import all types of curves, curve "shapes" and surfaces, then cross-convert them to any other type of spline curve, NURBS curve, NURBS surface or polygon mesh.



Solid Edge CAD Model Imported via PolyTrans-for-Maya

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

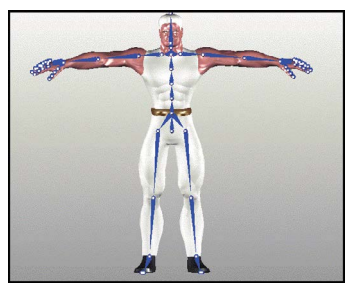
Refer to <http://www.okino.com/conv/skinning.htm>



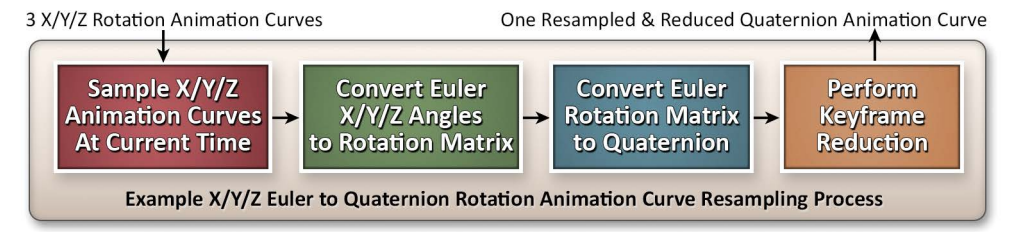
Smooth Skinning Import, Playback, Conversion & Export (Bull From 3ds Max C.S. CDROM)

Through years of research, development and refinement, 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, Cinema-4D, Lightwave, Softimage, Collada, FBX, DirectX, U3D & others.

Accurate and error free conversion of animation, skeleton/bones and skinning weights is a very difficult 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 algorithms and techniques.



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. Arctic filters out off-axis scaling problems, pivot point issues, interpolation curves inconsistencies, etc.



"PolyTrans|ProServer" Interface

Integrate Okino Technology into Your Own Application!

PolyTrans includes an extensive and well documented COM automation interface. This allows all of the import and export 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).



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.

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 3ds Max scenes. Even our most esoteric scenes converted flawlessly."

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

"We have been using PolyTrans-for-3dsMax for 15 years now. Two days before Christmas CBI Engineering contracted us to animate a gargantuan oil refinery. We could not open it, far less convert it or do animation. We contacted Okino's CTO who analyzed and worked on it for 2 days, returning it to us on Christmas Eve as a fully optimized 3ds Max scene that we could manipulate in real time! Needless to say Okino now has a customer for life. While their software is great, their customer service is unbelievable!"

-Vic Cherubini, President, EPIC Software Group, Inc.

Interesting Okino WEB Pages

- <http://www.okino.com>
- <http://www.okino.com/conv/conv.htm>
- <http://www.okino.com/nrs/nrs.htm>
- <http://www.okino.com/conv/filefrmt.htm>
- <http://www.okino.com/testimon.htm>
- <http://www.okino.com/casestudies.htm>
- <http://www.okino.com/conv/users.htm>
- <http://www.okino.com/mainpic.htm>

- Okino home page
- PolyTrans 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

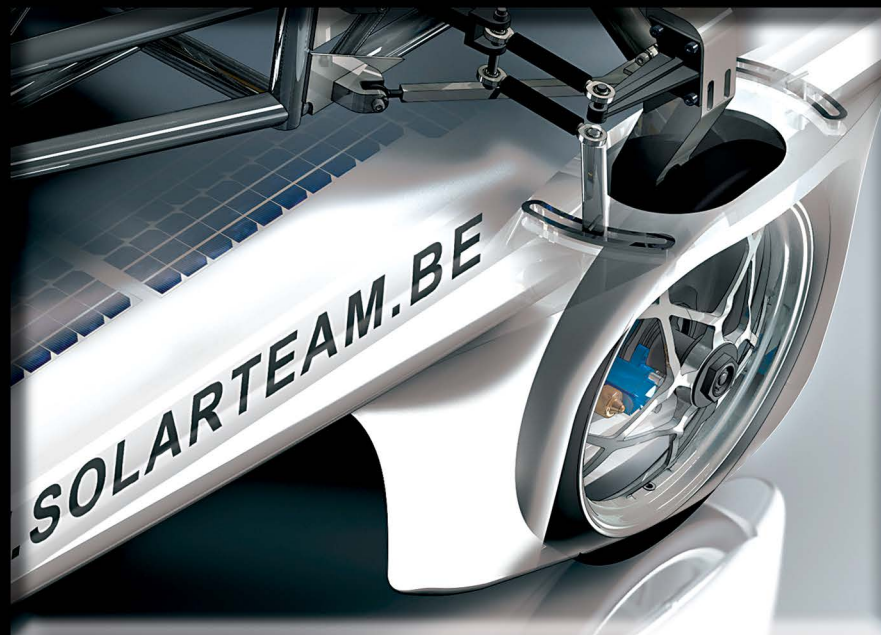
Okino Computer Graphics

PolyTrans[®] CAD+DCC

Pro 3D Translation System

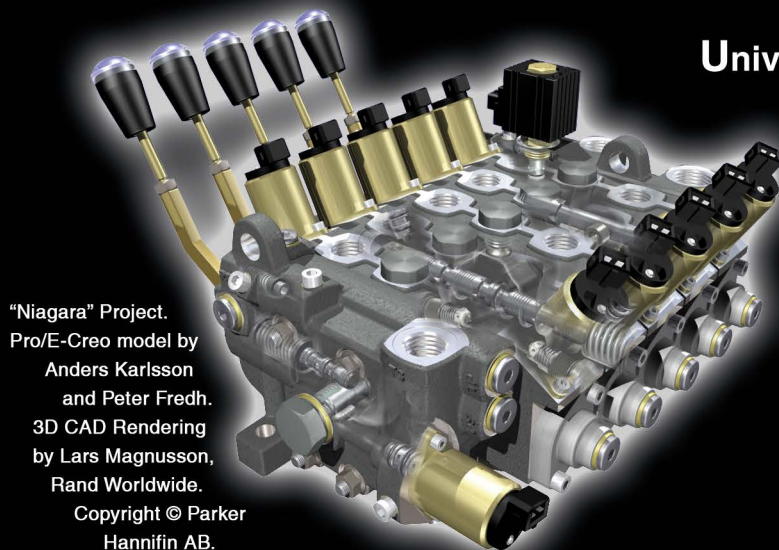
Import · Optimize · View · Edit · Render · Export

The Industry Standard for Mission and Production Critical 3D CAD/DCC & Animation/Model/NURBS/Skinning Translation, Optimization and Viewing.
A Powerful, Robust, Cost Effective, Trusted Productivity Tool For 3D Professionals.
Over 22 Years of Development, Refinement & World-Wide Customer Usage.



"PolyTrans|CAD+DCC is a great tool for converting multiple CAD and DCC file formats. The solar powered vehicle was created in Catia V5 and transferred to Okino PolyTrans|CAD+DCC where it was subsequently optimized and re-exported for immediate use in our animation system."

- Ludwig Desmet (design visualization director) © Solarteam & Renderhouse BVBA



"Niagara" Project.
Pro/E-Creo model by
Anders Karlsson
and Peter Fredh.
3D CAD Rendering
by Lars Magnusson,
Rand Worldwide.
Copyright © Parker
Hannifin AB.

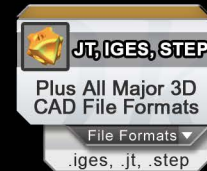
Universal Import/Export of All Major 3D Formats

Accurate, Reliable, Robust Translations

Multi-Format Animation Support

Creates "Render Ready" Models

**Plug-In & Special Versions for 3ds Max[®],
Cinema-4D[®], Maya[®] & Softimage[®]**



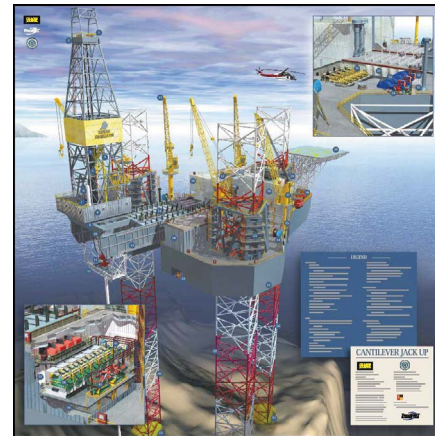
Customer Case Studies for CAD Data Repurposing

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 to perform this job quickly and with little user involvement. Beau states, "The model was well over 200 megs and it only took PolyTrans|CAD 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. © by Pennwell Publishing and Beau Brown.



John Crane, CraneDigital

"I specialize in 3D scientific/technical illustration and animation. A customer needed to transform a 3D spectrometer model created with Unigraphics into convincing marketing material. Okino's CTO, Robert Lansdale, 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|CAD 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. It was indispensable. I've since used PolyTrans for countless projects, moving seamlessly between 3ds Max, Lightwave and Softimage. PolyTrans handles ProE files extremely well. 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 © CraneDigital, www.cranedigital.com.



Carlo Alberto Dana, Segnoprogetto s.r.l.

"Segnoprogetto is a 3D multimedia company of architects, graphic artists & designers. Quality and accuracy is critical to our work. Okino's PolyTrans|CAD+DCC forms the core of our pipelines to magically and robustly move 3D data between our main modeling and animation programs, such as 3ds Max, Cinema-4D, Allplan and AutoCAD. We have always been satisfied with its results and it has saved us thousands of dollars by not having to purchase additional software." © Segnoprogetto s.r.l.



Boris Rabin, NASA/Ames Research Center, FutureFlight Central

"We purchased PolyTrans|CAD+DCC and used it for 3D data conversion and optimization of datasets created for the NASA MER space program (Mars Exploration Rover Mission). It is fantastic software. My colleagues at another NASA center spent days using three software packages on what took me 15 minutes using PolyTrans alone (polygon reduction in batch mode worked like a charm). I just wanted to thank you for creating such a great tool". Copyright © NASA/Ames Research Center.



Pieter Suur, Suur Graphics

"As a technical 3D illustrator and animator I often work with different applications. My customer presented me this 'Xiria Ring Main Unit' as 'One Space Designer' CAD files. To this data I had to add other 3D parts I made myself from Form/Z on the Mac and Rhino on the PC. I used Okino's PolyTrans-for-Maya product to effortlessly translate all this data directly into Maya where I performed my visualizations and animations. I found that the speedy data conversion process meant that I could spend much more time and attention on the final image". Copyright © Suur Graphics & Eaton Electric B.V.



Arnold Gallardo, Gallardo Associates

"My client, who owned an older building in SOHO NYC wanted me to visualize how it looked in the 19th century. I modeled the building in trueSpace and in 3ds Max, then used PolyTrans|DCC to perform a seamless conversion into Lightwave. The scene consisted of 700k polygons, 46 textures, 11 lights and 5 cameras. As an AEC visualization expert I deal with many different sources, from CAD/CAM data, to Illustrator files, to DWG/DXF, as well as from several 3D applications. Thus, I have a great necessity for relying on high fidelity 3D file translation/conversions -- PolyTrans has served me well in this regard. My experience with Okino's technical support has been wonderful whenever I encountered a complex problem during production work". © Arnold Gallardo.





PolyTrans, and its related Okino NuGraf, are used world wide by tens of thousands of professional 3D users, most notable of whom are listed at "<http://www.okino.com/conv/users.htm>", and a small, select few below:

Animation, Production Studios, Digital Effects

Animal Logic, Animation Science, Applied 3D Science, Argonaut, Arkitek Studios, Aardman Animations, BBC, Blur Studios, CBC Canada, CG2, Cinemagic, Cinesite, Criterion, Crush Interactive, Digital Anvil, Digital Artworks, DNA, Dream Team, Disney Interactive, Digital Animations, DreamWorks Interactive, Encore Video, Entertainment Design Workshop, FOX Studios, Framestore, Frantic Films, Fun Key Studios, Gigawatt Studios, Granda tv, Grollier, Head Games, Hiero Graphics, HumanCode, ICON, ILM, Infobyte, Lionhearth, Looped Picture, Marathon, MindInMotion, Mirashade, National Geographic tv, NBC, NFB Canada, Pacific Title, Pixel Liberation Front, P.I.X.A.R, Praxis Films, Quantum 3D, Raimaker Digital Pictures, Riot, Sony Interactive, Tangerine Films, Tokyo Broadcasting, Toybox, Viewpoint, Visual Approach, Walt Disney, Warner Brothers, Weta Digital, Westwood Studios.

Corporate Users

3M, Acuity, Ademco, Alcoa Aluminum, ATI, BASF, Caterpillar, Coca-Cola, Corel, Daimler Benz, Discreet Logic, Dolby Labs, DPS, EDS, Kodak, Edmunds, Evans and Sutherland, FedEx, Flight Safety, Fuji, Fujitsu, GE, GE Medical, GE Lighting, Google, GTE, Guidant, Hitachi, Home Shopping Network, Honeywell, HP, Hummingbird, IBM, Informix, IKEA, IMSI, Intel, Johnson & Johnson, Knott Labs, Kubota, LEGO, Kimberly-Clark, LightWork Design, Logitech, Lucent, Mattel, Matrox, McGraw Hill, McLaren Cars, MIT Media Lab, Microsoft, Mitel, Moog, Motorola, NEC, NHN Corp, Nikon, Nippon T&T, NRC , National Instruments, Nokia, Nippon Systemware, NVIDIA, Obusforme, Panasonic, Panavision, Philips, Pitney Bowes, Proctor & Gamble, Raychem, Rockwell, Sanyo, Samsung, Seiko/Epson, Shell, Siemens, Sony, Spacetec, Steelcase, Tesco, Time Warner, Toshiba, TRW, Whirlpool, Walmart.

Aerospace, Defense, Government Agencies

Airbus, Alliant, Argonne NL, ATK Missile, Aerospace Corp, Australian DoD, Ball Aerospace, BAE Systems, Bombardier, Boeing, Cessna, Colt, CSC Defense, C.I.A, Cubic Defense, DaimlerChrysler Aerospace, DCIEM, DCN, EADS, F.A.A, General Dynamics, German Aerospace, GE, GM Defense, Goddard Space, GreyStone, Halliburton, Honeywell, Hughes Aircraft, ITT Aerospace, Japan Space Agency, JPL, Kongsberg Defence, L-3 Communications, LLNL, Lockheed-Martin, LANL, Mitsubishi, NASA, NATO, Northrop Grumman, Raytheon, Rolls-Royce, Sandia National Labs, Royal Netherlands Army, Sikorsky, SPAR Aerospace, Swedish Defense, Swales Aerospace, Tenix Defense, Thales, United Space Alliance, United Defense Industries, United Technologies, Vector Aerospace, USGS, U.S Air Force, U.S Army, U.S DoD, U.S National Guard, U.S Navy, U.S Secret Service.

Automotive, Engineering and Manufacturing

Alcon, All Points Engineering, Amtec Engineering, Audi, Brass Craft, British Aerospace, BMW, CAE Electronics, Corridor, Cumberland, DaimlerChrysler, DME, DOW Chemical, Dyson, Eastman Woodworking, E-OIR Measurements, Exponent Failure Analysis, Festech, Festo, ForeFront, Ford, GM, Graco, HDR, Honda, Hunter Engineering, Hyundai, John Deere, Lathrop Engineering, LEGO Engineering, Hyundai, John Deere, Lathrop Engineering, LEGO Engineering, Man AG, Mazda, MD Robotics, Motoman Robotics, Mitsubishi, Nicholson Manufacturing, Nissan, NK-EXA, ORCA Engineering, Peugeot, PDQ, Progressive Engineering, Queensland Manufacturing, Quartus, R Squared, Renault, Roland, SAAB, Sauder Woodworking, SKODA, Smith International, Spin Concurrent, Teledyne Brown, Tiltan Engineering, Toyota, Veridian, Volkswagon, Volvo, Watkins Manufacturing.

3D Game Development Companies

Accolade, Acclaim, Atari, Avalanche, Beyond Games, Blizzard North, Blue Sky, Climax, Crystal Dynamics, Dill Pixels, Dragonlore, Electronic Arts, Ensemble Studios, Epic, Fasa, Funcom, High Voltage Software, id Software, Immersia, Intelligent Games, Interplay, Ion Storm, Kaon, Kodiak Games, Leaping Lizard, LucasArts, Mak, Microforum, MegaMedia, Microprose, Mythic, Namco, Nintendo, Nocturnale, NuFx, Origin, Piranha Bytes, Rainbo Studios, Raven, Ronin Games, Reflections, Rockstar, Saffire, Secret, Sega, Software, Sierra On-Line, SingleTrac, Spacetime Arts, SPGS, Sports Simulation, Stage 22, StormFront Studios, Ubisoft, Universal Interactive, Virgin Interactive, Virtual World Entertainment (MechWarrior 3), Williams/Bally/Midway, Z-Axis, Zombie VR Studios.

Common Solutions and Benefits

- Allows all meshes, trimmed NURBS, vertex attributes, materials, shading parameters, texture map types, lights, cameras, hierarchy and animation to be imported, stored, translated and exported with high accuracy and fidelity. Creates "Render Ready" models.
- The industry's choice to convert from every major 3D CAD program and BREP based (crack free) solids modeling file format to all major downstream applications (such as 3ds Max, Maya, Adobe Acrobat, Cinema-4D, Collada, Lightwave, OpenFlight, Softimage) & many more formats.
- Popular for repurposing of Pro/Engineer & Creo, CATIA v4+v5, DWG/DWF-3D, JT, SolidWorks, Inventor, IGES, Parasolid, STEP, etc. CAD files to downstream D.C.C. programs and formats.
- Import and compose 3D scenes from a plethora of 2D/3D file formats then render out to high quality images for print media, WEB presentations, training manuals, or marketing brochures.
- A long-standing industry standard and favorite for cross-converting between all major animation packages and 3D file formats with true robustness & quality. The built-in Okino "Arctic" toolkit allows for precise, tolerance-based animation & skeleton/skinning conversions.
- Publish to WEB streaming file formats: DWF, HSF, U3D, VET, VRML1+2, X3D, XAML & XGL.
- With support for almost every major 3D & 2D bitmap file format, an integrated bitmap editor, and video file playback, PolyTrans forms the basis of an ideal digital file management tool.
- Optimized since its inception to handle very large datasets, such as 500,000 node scenes and tens of millions of polygons. Many 3D programs bog down at 10x to 100x fewer objects.
- A large and established professional user base has ensured PolyTrans remains a dependable, robust and highly featured translation system.
- Automatic 2D bitmap conversion between formats supported by each 3D file format.

Major Program Features

- The industry standard for bi-directional scene, animation, skeleton & skinned mesh conversion between 3ds Max, Maya, C4D, Collada, DirectX, FBX, LW, Softimage, U3D, and many others.
- Acts as a stepping stone to allow for massive CAD assemblies to be downsized in PolyTrans|CAD first before import into downstream animation/multimedia applications.
- Converts 3D NURBS surfaces, NURBS curves and spline shape data between compatible 3D file formats and application programs.
- Photo-realistic rendering, material editing, texture parameter editing and scene composition (ray tracer only in Okino's NuGraf). Handles very large CAD datasets.
- Excellent, built-in polygon reduction system written specifically for large CAD datasets.
- Robust polygon processing tools: auto normal unification, small & hidden parts removal, smoothing, redundant polygons removal, triangle to quad merging, polygon reduction and welding.
- Integrated multi-media editor & viewer with support for almost all major 2D file formats.
- OpenGL shaded views, with real-time lighting & object texture mapping, real-time interactive object/camera/light manipulation, textured backgrounds and multi-threaded redraws.
- Special NVIDIA & AMD accelerated video card support: real time bump & environment mapping.
- Intuitive & productive batch converter for 3D scenes or 2D images, with polygon processing.
- "PolyTrans-for-3dsMax" & "PolyTrans-for-Maya" native plug-in versions of PolyTrans.
- VBScript & JScript embedded languages for converter automation & 'NuScript' for rendering.
- Third party custom importers/exporters & system plug-ins via PolyTrans plug-in SDK. Write your own converter, or a UI plug-in such as a renderer, modeling system, uv-map editor, or anything.
- Make the PolyTrans converters appear inside your 3D application using the PolyTrans|ProServer. No cost SDK from Okino. Complex interface, simple integration.
- Export scenes to Okino's NuGraf program for fast, photo-realistic scanline or multi-threaded ray trace rendering, animation and material/texture editing. Upgrade from PolyTrans to NuGraf at a low cost. PolyTrans is a subset of the NuGraf software.
- NuGraf only: Caustics, an amazing lens flare system, sunlight calculator & polygon-level tools.
- Complete feature list, file formats, brochures, user list & demos on the Okino WEB site.

Supported 3D File Formats & Example Imagery

Please refer to "<http://www.okino.com/conv/filefrmt.htm>" for all current file support information, CAD compatibility table and the full list of supported 2D bitmap image file formats.

Converters listed in **red** are sold as part of optional add-on module packages.

| 3D File Format | Ext | Imp | Exp | Mat | Hier | u/v | L&C | NURBS | Anim | Skin | Notes |
|-----------------------------------|--|-----|-----|-----|------|-----|-----|--|--------|------|--------------------------------------|
| 3D Studio r4 | .3ds | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | | ♦ | | |
| 3ds Max | .max | ♦ | ♦ | ♦ | | ♦ | ♦ | | | ♦ | N1 |
| Acclaim MoCap | .amc, .asf | | ♦ | | ♦ | | | | ♦ | | |
| BioVision MoCap | .bvh | ♦ | ♦ | | ♦ | | | | ♦ | | |
| CINEMA-4D | .c4d | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | | | ♦ | |
| COLLADA | .dae | ♦ | ♦ | ♦ | | | | | ♦ | | |
| DirectX | .x | ♦ | ♦ | | ♦ | ♦ | | | ♦ | | |
| DXF (R12 only) | .dxf | ♦ | ♦ | RGB | | | | (main DXF/DWG/DWF in CAD/Pack license) | | | |
| Electric Image FACT | .fact | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | | | | |
| ESRI Shape Files | .shp | ♦ | | | | | | | | | |
| FBX | .fbx | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | | ♦ | ♦ | |
| HSF | .hsf | ♦ | ♦ | ♦ | ♦ | ♦ | | ♦ | | | |
| Illustrator (Adobe) | .ai | ♦ | | | | | | (for 2D spline shape import) | | | |
| Inventor2 (SGI),VRML1 | .wrl | ♦ | ♦ | ♦ | ♦ | | ♦ | | | | |
| Lightwave | .lwo, .lws | | ♦ | ♦ | | ♦ | | | ♦ | ♦ | |
| Maya , Autodesk | .ma, .mb | ♦ | ♦ | | | ♦ | ♦ | ♦ | | ♦ | N2 |
| NGRAIN | .3ko | | ♦ | ♦ | | ♦ | | | | | |
| Okino Text Dump | .txt | | ♦ | ♦ | ♦ | | | ♦ | | ♦ | |
| Okino <i>Transfer File Format</i> | .bdf | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | N3 |
| OpenFlight | .flt | ♦ | ♦ | ♦ | | ♦ | ♦ | | ♦ | | |
| OpenGL C Code | .c | | ♦ | ♦ | | | ♦ | | | | |
| OpenSceneGraph | .osg | | ♦ | ♦ | ♦ | | | | | | |
| PLY (Stanford) | .ply | ♦ | ♦ | ♦ | | ♦ | | | | | |
| Point Cloud 3D Files | .3pi, .asc, .csv, .npts, .npts.txt, .pm, .pts, .txt, .xyz, .xyzrgb | | | | | | | | | | imp + exp (incl. interactive wizard) |
| Protein Database | .pdb, .mol | ♦ | | | | | | (molecular database import; including ribbon & backbone support) | | | |
| Renderman RIB | .rib | | ♦ | ♦ | | ♦ | ♦ | ♦ | ♦ | | |
| Renderware | .rwx | | | | ♦ | | ♦ | | | | |
| Rhino/OpenNURBS | .3dm | ♦ | ♦ | ♦ | | ♦ | ♦ | ♦ | | | |
| Shockwave/Director | .w3d | | ♦ | ♦ | | ♦ | ♦ | | ♦ | | |
| SketchUp | .skp | ♦ | ♦ | ♦ | ♦ | | ♦ | | | | |
| Softimage (XSI) | .xsi | ♦ | ♦ | ♦ | | ♦ | ♦ | ♦ | ♦ | | N4 |
| U3D | .u3d | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | | ♦ | | ♦ |
| USGS DEM | .dem | | | | | | | | | | |
| VRML 1 & 2 | .wrl | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | | VRML2 | | |
| Wavefront OBJ | .obj | ♦ | ♦ | ♦ | | | | ♦ | Import | | |
| X3D | .x3d | ♦ | ♦ | ♦ | | ♦ | ♦ | | ♦ | | |
| XAML | .xaml | | ♦ | ♦ | ♦ | ♦ | ♦ | | ♦ | | |
| XGL | .xgl | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | | | | |

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.

N1: Requires resident copy of Autodesk 3ds Max so that PolyTrans-for-3dsMax may plug in directly to 3ds Max.

N2: Native plug-in version of PolyTrans-for-Maya. Requires resident copy of Autodesk Maya.

N3: Okino .bdf format used to move databases between PolyTrans, NuGraf, 3ds Max & Maya.

N4: Includes the PolyTrans-for-Softimage native plug-in system, and independent .xsi import/export converters.

Okino's primary business over the last 25 years has been as the main provider of highly robust, optimized, mission critical CAD to non-CAD conversion solutions to mid- and high-end 3D professionals. Okino does not use reverse engineered technologies but rather we write and personally support all of our own CAD importers, linking against the main BREP solids geometry engines from each respective CAD modeling company. Refer to "http://www.okino.com/conv/filefrmt_cad.htm" for our extended list of supported CAD programs, file formats and notes.

| CAD File Format | Ext | Imp | Exp | Kernel | BREP Solids | Okino CAD Module | Notes |
|-----------------------------------|------------------|-----|-----|------------------|-------------|-------------------|----------------------------------|
| Pro/Engineer & Creo | .asm, .par, .neu | ♦ | | PTC Corp | ♦ | Granite/Pack | Utilizes Pro/E & Creo components |
| IGES (solids) | .igs | ♦ | | PTC Corp | ♦ | Granite/Pack | |
| Parasolid (solids) | .x_t | ♦ | | PTC Corp | ♦ | Granite/Pack | Ideal for Unigraphics NX |
| STEP (solids) | .stp | ♦ | | PTC Corp | ♦ | Granite/Pack | AP203 and AP214 |
| SAT (solids) | .sat | ♦ | | PTC Corp | ♦ | Granite/Pack | |
| VDA-FS (solids) | .vda | ♦ | | PTC Corp | ♦ | Granite/Pack | |
| DGN (Microstation) | .dgn | ♦ | | OpenDesign+Okino | ♦ | Granite/Pack | |
| Autodesk Inventor | .iam, .ipt | ♦ | | Autodesk | | CAD/Pack | |
| DXF/DWG | .dxf, .dwg | ♦ | ♦ | OpenDesign | ♦ | CAD/Pack | |
| DWF-3D | .dwf | ♦ | ♦ | Autodesk | NURBS | CAD/Pack | AutoCAD, Revit, Navisworks |
| Solid Edge | .asm, .prt | ♦ | | Siemens | ♦ | CAD/Pack | |
| SolidWorks | .sldasm/sldprt | ♦ | | SolidWorks | ♦ | CAD/Pack | |
| JT Open | .jt | ♦ | ♦ | Siemens | (Import) | JT Import/Export | |
| SAT (solids) | .sat, .sab | ♦ | | Spatial Corp | ♦ | Spatial-ACIS | Main industry implementation |
| CATIA v5 (.catproduct, part, cgr) | | ♦ | | Dassault | ♦ | Spatial-CATIA5 | Utilizes CATIA v5 components |
| CATIA v4 | .model | ♦ | | Spatial Corp | ♦ | Spatial-CATIA4 | |
| Pro/E "Render File" | .slp | ♦ | ♦ | N/A | (mesh) | (in base package) | |
| StereoLithography | .stl | ♦ | ♦ | N/A | (mesh) | (in base package) | |