CADTranslator™

Imported 3D Geometry Model
- IGES or Parasolid format

CADTranslator
- Supports import and export definition of blade, hub, shroud, and edges
- Creates streamwise curves from any surface patchwork

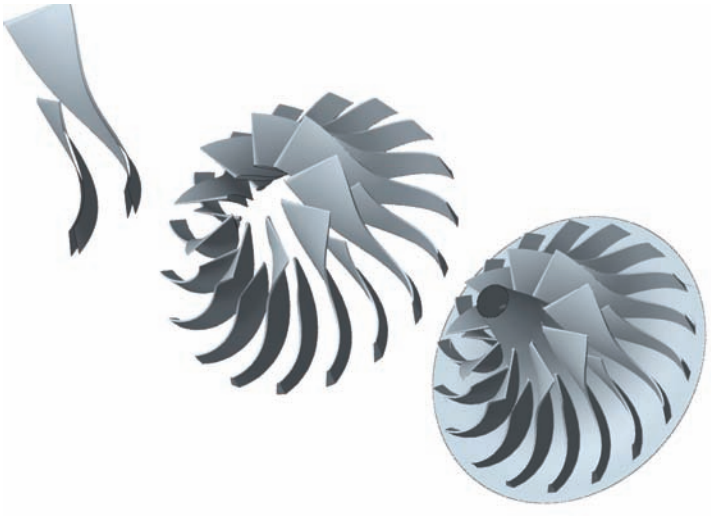
Agile Engineering Design System
- Turbomachinery-specific CAE and CAM tools that import external CAD geometries using CADTranslator

Final Manufactured Part
- CADTranslator captures complex turbomachinery geometries, such as exact leading edge definition

CADTRANSLATOR IS AN EASY-TO-USE geometry conversion tool that transforms IGES® and Parasolid® files into formats appropriate for use with AxCent® and MAX-PAC®. With this tool, CATIA®, Pro/ENGINEER®, Unigraphics®, SolidWorks®, AutoCAD®, and SolidEdge® users can smoothly integrate the Agile Engineering Design System® into their individual design approaches. The result allows users to incorporate geometry modeling, fluid and structural analysis, and manufacturing into their larger turbomachinery development processes simply, quickly, and accurately.

Benefits

- Easy-to-use off the shelf solution that quickly fits into larger turbomachinery development processes
- Works with all computer-aided design (CAD) tools that export to IGES or Parasolid formats
- Eliminates the time and cost of developing a translator tool internally
- Increases confidence in geometry conversion accuracy for use with Agile Engineering Design System, leading to additional confidence in computer-aided engineering (CAE) and machining (CAM) accuracy
- Utilizes Concepts NREC expertise in turbo-machinery design, analysis, and manufacture

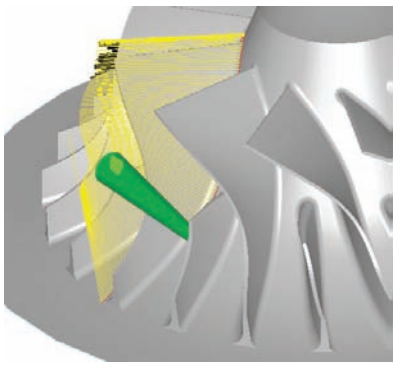


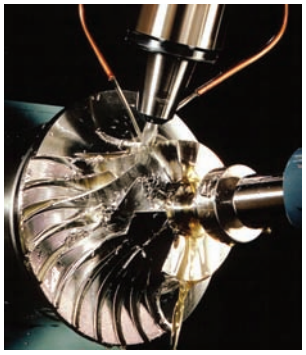
CADTranslator converts IGES and Parasolid files of turbomachinery components and assemblies into formats that can be used with the design, analysis, and manufacturing tools available in the Agile Engineering Design System

AxCent is a design and geometry modeling application, which prepares 3D turbomachinery models for further investigation within Concepts NREC's Agile Engineering Design System. These investigations may include fluid flow, structural, efficiency, and operational analyses. Within the Agile Engineering Design System, users can quickly and easily analyze designs and use AxCent to make geometry modifications that improve efficiency and operation. To prepare a CAD model that has been created outside the Agile Engineering Design System for one or more of these operations, users can convert the 3D geometry data into the AxCent format using CADTranslator.

As a turbomachinery-specific tool, the translator recognizes models of impellers, blisks, diffusers, and stationary vanes during import and export. During the conversion process, the user defines the axis of rotation; flow direction; and surface assignments such as suction surface, pressure surface, hub, and shroud. Once converted, the model is ready for use with AxCent and the other analysis applications available in the Agile Engineering Design System. Any design improvements to the geometry model that arise from AxCent and analysis iterations can be exported for further use in external CAD tools as well, quickly and easily providing users with complex spline data as well as complete 3D models.

To prepare a model for fabrication, CADTranslator converts the model's geometry data into a coordinate-based flat text file. This conversion captures complex machining geometries, such as blade leading edge profiles. The converted data is then ready to use with MAX-PAC, CAM software specifically developed for use with turbomachinery components. Having tools that increase the accuracy of CAE and CAM results is essential to optimizing turbomachinery efficiency. Combined with the Agile Engineering Design System applications, CADTranslator offers an integrated solution that provides a competitive edge to those working within time and budget constraints.





CADTranslator quickly and easily transforms 3D geometry models into data file formats for fabrication

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