I-DEAS® Data Translator, CADDS Solids to/from I-DEAS

for exchanging data between CADDS and I-DEAS®

This I-DEAS® data translator is a bi-directional direct translator between CADDS solids and I-DEAS software. It is designed to move solids and assembly data between the two systems, with 3D wireframe and trimmed surfaces as an added benefit. This translator uses the Open I-DEAS tools, which help make the translation as efficient as possible.

Practical Usage

Because the translator is bi-directional, it can be used in the following situations:
•Migration: Companies migrating from CADDS to I-DEAS as their core design system can move all their existing solid designs and CAMU assemblies into I-DEAS Master Modeler™ software. Because the translator operates without the need for CADDS, this data exchange can take place even if CADDS does not exist at the engineering site.
•Supplier Data Exchange: Companies using I-DEAS and needing to exchange data with companies using CADDS can use the translator to exchange solids data between the two systems.
•Complement: Companies desiring to complement their existing CADDS system with I-DEAS can use the bi-directional capabilities of the translator.

CADDS to I-DEAS

The translator will accept as input a CADDS native part file and create the equivalent part in I-DEAS, in the I-DEAS native geometry format.

The translator handles CADDS geometric data up to and including solids. All curves are converted to I-DEAS non-uniform rational B-splines (NURBs) as are all surface forms.

Either CADDS Explicit or Parametric parts can be translated.

The translator also provides the user with several options. These options allow entities on a certain CADDS layer to be omitted, small edges in the CADDS part to be removed, and gaps between surfaces and curves in the CADDS model to be repaired. All of these help to give the user a valid solid part in I-DEAS.

For multi-solid CADDS parts, it allows the user to convert these into I-DEAS individual parts. Drawing entities, such as dimensions and text, are not supported.

I-DEAS to CADDS

The translator will accept as input an I-DEAS part from a model file and create the equivalent CADDS part. The translator handles geometric data from I-DEAS as wireframe, trimmed surfaces, or solids.

CADDS has basic limitations about how solids can be constructed, and the translator takes these into consideration. As an example, consider that CADDS does not allow a solid cylinder to be described as a whole cylindrical face with only one seam. The surface must be split into halves so that there are two seams. If the translator encounters situations such as this, it automatically performs the necessary splitting of faces for CADDS.

Entity Mapping

CADDS		I-DEAS
Type	Entity Name	Entity Name
3	Line	Nspline
5	Arc	Nspline
6	Conic	Nspline
8	Bspline	Nspline
12	Nspline	Nspline
14	Nsurface	Nsurface
16	Tcyl	Nsurface
17	Srev	Nsurface
18	Rsurf	surface
19	Bsurf	Nsurface
88	Plane	Nsurface
91	Solid	Solid
92	Face	Face
93	Edge	Edge
94	Vertex	Vertex

The translator also outputs information to the screen, and records a log file for each translation.

Prerequisite

Core Master Modeler
-or-
I-DEAS Product Design Package
-or-
I-DEAS Artisan™ Package

For More Information

For more information, contact your local SDRC representative or call 1-800-848-7372.