Using IGES Advanced Settings in V18

Many IGES Advanced Settings options were removed from the user interface in an effort to reduce confusion for users and to export and import the most intelligent data possible. However, access to the "Advanced Settings" options still exist via the settings files (igesimport.def and igesexport.def). You may create customized settings files to regain this functionality in V18.

Create Customized Settings Files

Open the V18 igesimport.def or igesexport.def using the text editor of your choice (Word Pad works well for Windows). Use the Save As option and give your new settings file a unique and meaningful file name.

Modify parameter values as required by replacing the default value with the optional value. For example, to export Tabulated Cylinders as B-Surfaces in the IGES file, modify the line:

TABCYL_MAP = Off
to read:
TABCYL_MAP = On

With the exception of user-defined values, the values must be entered exactly as they appear to avoid run-time errors during translation. Also take care to maintain syntax such as the equal sign and space characters.

Save your modified IGES settings file after completing your modifications.

Settings files may be specified for use in the GUI, XUI or Command Line interface. In the GUI, use the Choose Settings File feature in the IGES Import and Export dialogs within UG. In the XUI, use File -> Open. In the command line, use the d = argument.

V17 Menu Selection To Settings File Parameter List

The following Import Options and Export Options lists represent the Advanced Settings options from the V17 IGES translator using the format:

V17 IGES Menu Selection....
(SETTINGS_FILE_PARAMETER_NAME)
Default Value, Optional Value

Here are excerpts from the V17 on-line documentation to help you decide how you can best apply these options.

Import Options

Map B-surface to Analytic..... (BSURFACE_MAP)
On, Off

In certain cases B-Surfaces in IGES can be simplified into Planes, Spheres, Cones, Cylinders or Toruses when this option is toggled ON. If a B-Surface does not convert readily to a Plane, Sphere, Cone, Cylinder or Torus, then it is imported as a B-Surface.

Map Surface of Revolution to Analytic.....
(SURFOFREV_MAP)
On, Off

When toggled ON a surface of revolution will be converted to one of the analytic face entities of sphere, cone or cylinder. A surface that does not form one of the analytic faces of sphere, cone or cylinder will be converted to a revolved face. When toggled OFF the surface of revolution will be imported into the UG part as a surface of revolution.

Smooth B-Surfaces..... (SMOOTH_BSURFS)
On, Off

The IGES post-processor, by default, smoothes a B-surface with G1 discontinuities ("surface creases") using the default smoothing tolerance, (Geometry Fixup Tolerance menu item), which is .0005 inches.

Flatten Assembly..... (ASSEMBLY_MAP)
Off, On

You can flatten an assembly and/or pattern and output the component geometry as expanded grouped geometry. When this option is toggled OFF you will retain assembly structure and output the geometry as an IGES fully nested subfigure definition.

Create Attribute Identifying IGES Entity.....
(IGES_ATTRIBUTE)
Off, On

When this menu item is toggled ON, attributes with the title IGES are added to each entity created in the UG part.

Suppress Label Names.....
(SUPPRESS_LABELS)
Off, On

When this menu item is toggled to ON, Directory Entry Label Names will be suppressed for all IGES wireframe geometry entities.

Scale Text and Arrowheads.....
(SCALE_TEXT_AND_ARROWS)
Off, On

When this menu item is toggled to ON, view dependent IGES General Note and Leader entities will have both their height and width divided by the View's drawing scale if the scale does not equal one (1.0).

Also IGES Circular Arc entities physically dependent on IGES General Symbol entities will have their radius divided by the View's drawing scale if the scale does not equal one (1.0).

Ruled Surface to..... (RULED_SURFACE_MAP)
B-Surface, Cylinder

A Ruled Surface in IGES is mapped to the UG part file as either a B-surface or a Cylinder. When the B-Surface mapping is selected, an IGES Ruled Surface will be converted to a sheet whose underlying geometry is a B-surface Face. When a Cylinder mapping is selected, an IGES Ruled Surface that forms a Cylinder will be converted to a sheet whose underlying geometry is a cylindrical face. A Ruled Surface that does not form a cylinder will be converted to a sheet whose underlying geometry is a B-surface face.

Text and Dimensions..... (SUBTEXT_MAP)
Visible in Component Part Only, Visible in Component and Assembly Parts

This menu item allows IGES Subfigure text and dimensions to be mapped to the UG part file as either visible in component only or visible in component and assembly.

Export Options

Output as Reformatted..... (OUTPUT_FORMAT)
On, Off

You can output the IGES file as an unformatted file if desired.

Map Periodic Surface to Split Surface.....
(PERIODIC_SURFACE_MAP)
Off, On

A periodic surface in UG is mapped to the IGES file as either a Periodic Surface or Split Surface.

Map Trimmed Surface to Untrimmed Surf.....
(TRIMMED_SURFACE_MAP)
Off, On

A trimmed surface in UG can be mapped to an IGES untrimmed surface. Setting the toggle to ON will force trimmed surfaces to be output to the IGES file as untrimmed surfaces.

Map Tabulated Cylinder to B-Surf... (TABCYL_MAP)
Off, On

When this menu item is toggled ON a tabulated cylinder will be output as a B-surface to the IGES file. When this menu item is OFF then Tabulated Cylinder will be output to the IGES file as a tabulated Cylinder.

Map Revolved Faces to..... (SURFREV_MAP)
Surface of Revolution, B-Surface

This gives you the choice to map revolved faces (cone, cylinder, and sphere) to a surface of revolution or b-surface.

Map Black Objects to..... (IGES_BLACK)
black, red, green, blue, yellow, magenta, cyan, white, default

UG/IGES normally maps Black, Brown and Grey to IGES black. This choice allows you to control which IGES color these colors are mapped to.

Map White Objects to..... (IGES_WHITE)
white, red, green, blue, yellow, magenta, cyan, black, default

UG/IGES normally maps white to IGES white. This choice allows you to control which IGES color white is mapped to.

UG Color Definition.... (COLOR_FONT_MAP)
IGES Color Number, Color Definition

There are two methods of mapping color to an IGES file. One method uses the IGES color number, which will map the color names found in the UG file to one of the eight IGES colors. The other method is mapping colors to the IGES color definition (RGB) entity. The color definition entity is used to communicate the relationship of the primary (Red, Green, and Blue) colors to the intensity level of the respective graphics devices, as a percent of the full intensity range.

UG Line Font.... (LINE_FONT_MAP)
IGES Line Font Number, Line Font Definition

The IGES Line Font Definition choice will map the UG line font to an IGES Line Font Definition entity. There are two methods of defining line fonts. One type considers a line font as a repetition of a basic pattern of visible-blank (ON/OFF) segments superimposed on a line or a curve. The line or curve is then displayed according to the basic pattern. This is the method that Unigraphics uses. The other definition considers a line font as a repetition of a template figure that is displayed at regularly spaced locations.

Maximum Line Thickness <in mm>.....
(MAX_LINE_THICK)
0.0000000, (User Defined Value)

The Maximum Line Thickness (MLT) allows you to control the maximum display line thickness. It is recommended that if you do not know the Maximum Line Thickness of the receiving system, use the default of 0.0.

Learn More
Information on the IGES Command Line Interface is found in the HTML documentation under Translators->Data Exchange->How Do I.

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