



Release Notes

V 6.0

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Release Notes for IGES/Works V6.0

Version 6.0 (October, 2001)

This document describes the features that are new in V6.0 IGES/Works.

New Features

Python Scripts

You can execute a Python script from within IGES/Works. A new menu option "Execute Python Scripts" is provided under the "Scripts" menu. A new document has also been added to the documentation: "IGES/Works Python Scripting Reference Manual". Previously, IGES/Works programmers had to learn a special command language for writing scripts and macros. With the new release of IGES/Works, we support a standard, easy to learn, and popular scripting language known as "Python". This will also allow IGES/Works programmers to use a rich set of functionality provided by available Python libraries. For example, creating custom GUI, running the scripts from a web application, or writing and using advanced mathematics functions in the scripts.

Improved Underlying Core

We've upgraded to new versions of underlying libraries such PDE/Lib V 3.2.5, HOOPS, and XVT. This improves the underlying core of IGES/Works and provides better stability and robustness along with increased performance. It also supports some of the latest changes in the IGES standards.

Improved Decompose Functionality

Decomposing an entity now updates the pointers such that the children of the decomposed entity are not attached with its parent entities. For example, if a dimension was part of a drawing, after decomposing it, the resulting leaders, witness lines and the text are now part of in the original drawing. This results in correct positioning of the decomposed entities. This release of IGES/Works also has improved decomposing of "Angular Dimensions" while preserving its original shape.

Improved Dynamic Display

Added 3 new functionalities:

1. Zoom - zooms the geometry in or out, depending on the mouse movement.
2. Pan - moves the geometry in the direction of mouse cursor and captures the last position of cursor.
3. Rotate - rotates the geometry by the angle calculated. If the geometry is in "shading mode", it temporarily changes to "Wireframe mode" until the mouse button is pressed. It re-enters the "shading mode" when the mouse button is released.

These buttons change fonts to indicate the currently selected display mode. Click the same button to exit this display mode. The buttons act as toggle switch. Clicking the same button turns it on/off. If you click another button, the display mode may change as indicated by the changed fonts and the mouse cursor.

Modify PD Fields

The new Modify PD Fields dialog shows a list box containing all the PD fields for the entity selected for modification. If there are too many fields for the size of the list box, a vertical scroll bar appears in the list box, with which all the PD fields can be seen. Any PD field can be selected for modification by double clicking on that PD field. After double clicking, the field name and its value appear in the edit box, and can be modified. Also the next and previous show the next or previous field relative to the current field selected.

Disable Validation

A new command "Disable Validation" was added to control validation checks and fixes. This can be used from both command script and python interface. Please see the command reference manual for how to use this command.

Only disabling of fixes and/or checks is allowed. This is to prevent the user from enabling the fix that is already disabled, since it can cause a problem.

Any validation check can be disabled with the following command disable validation:

Modifier: *check_name*-indicates the *check_name* to be disabled.

Switches: *check_only* or both (Default) - If '*check_only*' switch is specified, it allows checking for the given check and disables the fixing for that check. If 'both' are specified, then both checking & fixing for the specified *check_name* is disabled.

All the checks that are to be disabled should be disabled before performing the validation. Once the validation command is executed, no other check can be disabled for that session.

Fixed Problems

DRV_FIX_MSG

There is a new derived field, 'DRV_FIX_MSG', which shows the fix_msg corresponding to the fix shown in the DRV_ISFIXED field. This derived field can be viewed in the long listing.

No Graphics Mode

When using an NT, use the IGES/Works Python interface to run IGES/Works scripts from command line in "no graphics" mode since the NT does not fully support non-graphics command line option.

402:3

You can now see a correct display of the 402:19 without having to use the Convert 402:19 To 402:4 option from the Edit menu. The segments now show up in proper colors and line fonts. An additional functionality for converting 402:19 entities into one or more 402:4 entities has been provided for better interoperability. This functionality will improve the translation of drawings from CAD systems that export 402:19 entities to the CAD systems, which do not support such IGES entities.

Copy Entity

The “Copy Entity” command now places newly created entities in the CSL (Current Selection List) such that they can be separately processed by a script or selectively identified by using the “highlight selection” button. The “Copy Entity” command is also improved to support a switch that lets the user control automatic updating of the relationships between the entities that are being copied. (For example, the parents of the entities that are being created need not be copied separately. Instead the newly created entities can add themselves to the original entities’ parents.)

The Copy Entity Command should have a switch to keep parents.

An option is now provided for copying entities to the same file. A new modified dialog box is provided. When copying is being done to the same file, it shows 2 options.

1. Create New Associated Entities
2. Keep Existing DE Entity Pointers.

For Command Script and Python Interface:

A new switch named 'copy_selected' is added to the 'Copy Entity' command. If this switch is mentioned, then no new pointers like views visible, views visible color, color definition entity etc. are formed. Instead, the new entities formed, are made to point to the existing pointer entities, i.e., views visible, views visible color, color definition etc.

Minimize Window

When IGES/Works is opening a file, the IGES/Works window can be minimized/moved/sized after a short time. Previously, when IGES/Works was busy, you couldn’t minimize the window. Now, users can also minimize IGES/Works window when it is busy.

Halt Processes

Controlling IGES/Works When It’s Busy: - While loading and displaying very large model files, IGES/Works sometimes takes a long time for execution of scripts, during opening up a file, or while refreshing an updated display. Previous versions of IGES/Works would block the users from stopping these processes and the users would have to kill / terminate the application. Now, pressing a button “q” during these processes will halt these processes. However, the users should be careful that such a pause may result in an unstable state of the model and may result in a crash if certain operations were performed. It is recommended that the users should close the model.

Converting Splines

IGES/Works converts splines one by one instead of all at once, thereby, allowing you to convert large numbers of 126’s to 112’s without crashing. Previously, you would get an error if you tried to convert a large number of 126’s to 112’s.

314 Entities

User defined attributes for 314 entity are easily recognizable from the default pointer type font styles always appears as “-.”.

Project Functionality

Improved "Project" Functionality, for projecting 3D items to a 2D plane.

The function `iprj_project218.c` no more converts entities of type 218:1 to 218:0, while projection and hence the extra leader heads are preserved.

The nested subfigures are projected through every view in the original drawing regardless of the view in which their parent subfigure instance was referenced.

IGES/Works and Help

IGES/Works and the Help/Resource Center can be used side-by-side in Netscape. There is no need to wait to close Netscape before using IGES/Works. This was not the case previously.

Known Problems

SGI IRIX 6.5 System Fonts

IGES/Works installation on SGI IRIX 6.5 machines have been known to have truncated or faded words visible on the user interface.

To correct this problem the system fonts need to be modified.

AIX Printing

IGES/Works V 6.0 on AIX Printing Problem - When you try to print a file from within IGES/Works, you may only be able to print one file and only if you do not change the printer command and your environment variable, `PRINTER`, is set correctly. Currently, the workaround is to restart IGES/Works

Resize

IGES/Works V 6.0 on Solaris 2.6 Resize Problem -When you resize a window from within IGES/Works, it may log you out depending on the OS patches you have on your Solaris machine. To resolve this problem, our first recommendation is to upgrade to Solaris 2.7. Another solution would be to make sure you have all available patches for 2.6 the Open GL 1.2 patch #109543.07. Our third suggestion is to contact tech support with a list of patches you have installed. (To obtain a list of patches, use `CHATR -p`)

Message: could not open file

If you get the following message while starting IGES/Works:

```
Warning: 118NopenFile: Could not open file igesworks.uid -  
MrmNOT_FOUND  
fatal: Internal IGES/Works GUI Error: 153000
```

This indicates that your UID path is probably set incorrectly. (To set it correctly, go to `UIDPATH` Environment Variable in the Installation Guide.) To fix the problem, copy the following file into your home directory or into your current directory:

```
bin/plat/.igesworks (on UNIX)
```

```
bin/plat/iw.cfg (on NT)
```

Then, using a text editor, make sure the UID Path is correct, then uncomment the line. Make sure this file is in your current directory or your home directory. IGES/Works looks for the file first in the current directory, then in the home directory. If it doesn't find it in either, it uses the defaults.

If this does not fix the problem check your library path and your xrdb file.

Journal Option

If you run IGES/Works on the command line with the journal option:

```
igesworks -j filename
```

The software will crash. The simple solution to this is to append an iges file to the command line.

```
igesworks -j filename igesfilename
```

Message: Lite and Full versions

If you are installing both the Lite and Full versions of IGES/Works, you may see the following message:

```
Skipping itiohio
skipping lmgrd
skipping Imutil
```

You can ignore this. The installer installs the Lite version first. When it tries to install the license utilities for the Full version, it discovers that they are already there and skips them.

Variable Initializations

The error message may be encountered when you go select:

```
Start->Programs ->IGESWorks_v6.0 ->IGESworks on NT/Windows 2000
```

or

```
Start->Programs ->IGESWorks_v6.0 ->IGESworks Lite on NT/Windows 2000.
```

To avoid the error message, edit `VARIABLE INITIALIZATIONS` in the `iw.cfg` file:

1. Go to the installation location of IGESworks -> `..\bin\plat-win32`.
2. Open `iw.cfg` File.
3. Locate the line of `journal_file = "igesworks.jrn"` in `iw.cfg` file.
4. Change the `VARIABLE INITIALIZATIONS` of the `journal_file = "igesworks.jrn"` to a directory that you have permission in. For example, `journal_file = "c:\temp\igesworks.jrn"`.

By going through the above steps, you should be able to run the application without getting any error.