
Date October 29, 2001 Memo Number STI:01/06
Subject **Sheldon's ANSYS Tips and Tricks: Customizing GUI Behavior**
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1. Introduction:

The /UIS and /MSTART commands provide the user with control over much of the GUI behavior. At 5.7 and 6.0, this has been extended to include control over the multilegend feature, background color, and mouse button assignment for dynamic rotations. Used in conjunction with the startxx.ans file, this allows the user to change GUI behavior in each ANSYS session.

2. Background Information on the startxx.ans Startup File:

The startxx.ans file¹ is a startup file located in the ANSYS installation directory or in the user's home directory², as well as the working directory. The author recommends creating copying the default startup file, located in the "docu" subdirectory of your ANSYS installation:

C:\Program Files\ANSYS Inc\ANSYS60\docu (Windows)
/ansys_inc/ansys60/docu (UNIX, Linux)

The default startxx.ans file can be copied to the user's home directory and modified accordingly. That way, if anything happens to the installation directory (reinstall, upgrade, etc.), the startup file will be saved.

The subsequent discussion related to the /UIS commands can be applied to the startup file where the user can put his/her favorite settings in the startup file to change ANSYS behavior for every session. Other commands such as defining parameters, setting up material library search paths, etc. can also be included in the startup file.

3. Information on Saving Menu Layout and /MSTART Command:

The user can position various menus such as the Command Input Window, the ANSYS Toolbar Window, or widgets such as the MeshTool or Pan-Zoom-Rotate box to any screen position he/she wants. To save the layout, use: "Utility Menu > MenuCtrls > Save Menu Layout"

On Windows, this information is stored in the users' registry (regedt32) whereas on UNIX or Linux, the window position information is stored in the ANSYSxx text file located in the user's home directory.

Note that "Save Menu Layout" controls *where* the windows will appear by default, but the /MSTART command controls *which* windows will appear when an ANSYS session starts. The default startxx.ans file noted above contains examples of the use of the /MSTART command, or the user can look up the Commands Reference for more information. Usually, the author appends

/MSTART,ZOOM,ON

in the startxx.ans file to make the Pan-Zoom-Rotate widget appear every time ANSYS starts.

4. Information on pre-5.7 /UIS Functionality:

Prior to ANSYS 5.7, the /UIS command controlled a few aspects of the GUI behavior. Most notably, /UIS,MSGPOP determined whether notes and/or warning messages were displayed in a separate dialog box. For example, if a user specifies /UIS,MSGPOP,3, only error dialog boxes will be displayed, although warnings will still be recorded in the Output Window/File as well as the error log file (jobname.err).

/UIS,REPLOT,0 specified whether replots were done after commands which *modified* a model were executed. A similar command IMMED,0 controls whether the Graphics Window updates as a model is being *generated*.

There are a few other features of /UIS in pre-5.7 versions of ANSYS which are available, although the author does not find them useful enough to warrant discussion.

¹ The startxx.ans file has a notation where "xx" is the revision number. For example, start57.ans controls ANSYS 5.7 behavior, whereas start60.ans controls ANSYS 6.0 behavior.

² On Windows, you can set the 'home directory' by specifying a user environment variable for HOMEDRIVE and HOMEPATH. For example, if you use set HOMEDRIVE=E: and set HOMEPATH=\docs\, then your home directory will be E:\docs\, and ANSYS will look for the startup file there.

5. Information on 5.7 /UIS Functionality:

At 5.7, there were a number of new GUI enhancements added, most notably:

- Dynamic prompting in Input Window as a Command is typed (/UIS,DPRO)
- Default blue gradient background added as default (/UIS,PBAK)
- Multilegend feature for contour plots (/UIS,LEGE)

The /UIS command can enable or disable any of the above features by specifying the third argument to be "OFF". The author finds dynamic prompt of input and multilegend display *extremely* useful but prefers the 'old' black background, so he adds

```
/UIS,PBAK,OFF
```

to the `startxx.ans` file. Note that when a user is already in an ANSYS user interface,

```
/COLOR,PBAK,OFF
```

can be used instead to turn off the blue background. There seems to be some confusion regarding the differences between the two commands /UIS,PBAK and /COLOR,PBAK:

- /UIS is used for startup commands to control GUI behavior (similar to an On/Off switch). This is usually specified *prior* to starting an ANSYS interactive session.
- On the other hand, /COLOR is used when the ANSYS Graphics Window is already displayed since it provides direct manipulation of color mapping, not just turning off the gradient blue background.

6. Information on 6.0 /UIS Functionality:

New to ANSYS 6.0 is the /UIS,BORD command, which enables the user to remap the dynamic rotation mouse buttons. As the user may know, dynamic rotation can be specified by one of two ways:

- Check the "Dynamic Mode" option in the Pan-Zoom-Rotate box
- Hold down the Ctrl key, then use mouse buttons to pan, zoom, or rotate

The author prefers the latter method due to its simplicity and the fact that the Pan-Zoom-Rotate widget does not have to be activated in order to use the Ctrl-key modifier.

Because of the fact that some CAD packages use different mouse buttons for pan, zoom, and rotate functionality (most notably Pro/ENGINEER), the user can use the /UIS,BORD command to remap the keys. For example, if the user would like to use the left mouse button to rotate and right mouse button to pan (invert default functionality of left and right mouse buttons), he/she could add:

```
/UIS,BORD,3,2,1
```

in the `startxx.ans` file.

7. Conclusion:

The ANSYS /UIS and /MSTART commands provide some functionality of controlling window and general GUI behavior, including mouse button reassignment at 6.0 for dynamic rotations.

There are other commands which control graphics display settings which have not been addressed in this memo. The user is encouraged to specify graphics settings the way he/she wants and store these settings (such as /COLOR, /TRIAD, or /PLOPT) in the `startxx.ans` file in order to make ANSYS behave the way the user wants.



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