Working with Enterprise CUI Files

Welcome to a New Year, and welcome to the new customizing and programming section of *AUGIWorld*. This column will mix things up from time to time, touching on various customization topics that range from creating Dynamic Blocks to using the Customize User Interface (CUI) editor and programming topics from AutoLISP to VBA for good measure. Anything that is in the realm of customization and programming is fair game for this column, so if you have thought about enhancing your workflow through customization, you have come to the right place.

Not only is this a new year, but I am making the transition from writing for *AUGI HotNews* to *AUGIWorld*. I hope to hear from many of you about what you would like to see covered in this column. Now that the stage has been set, let's kick things off. In this article I will explore one of the new concepts that CUI has brought—Enterprise CUI files.

Enterprise CUI file defined

So what exactly is an Enterprise CUI file? An Enterprise CUI file is no different than any other customization file except for how and when it is loaded. An Enterprise CUI file is the first customization file loaded into AutoCAD®, if one is specified. Typically, you will put into the Enterprise CUI file those user interface elements that you don't want users changing. This could be the ACAD.CUI file that comes with AutoCAD or it could be a menu that you used in past releases that contains your company's specific tools.

The CUI editor treats the Enterprise CUI file as read-only, but this is only while the file remains designated as an Enterprise CUI file through the Options dialog box. You still need to make sure that the file is in a read-only location to prevent a user from changing the main and enterprise CUI file designations around in order to make changes to the file.

Setting up an Enterprise CUI file

Enterprise CUI files are set up through the Options dialog box. Follow the steps below to set up an Enterprise CUI file.

1. Launch the Options dialog box by typing in the command OPTIONS at the command line or from Tools menu >> Options… .
2. In the Options dialog box, click the Files tab.
3. On the Files tab, click the plus sign next to Customization Files.
4. Click the plus sign next to Enterprise Customization File.
5. Select the value under Enterprise Customization File and click Browse. By default the value is nothing, which is represented by a period.
6. In the Select a File dialog box, browse to the location of the CUI file that you want to use as the Enterprise CUI file.
7. Select the CUI file and click Open.
8. In the Options dialog box, click OK to save the changes made. AutoCAD will reload all the customization files in the following order:

- Enterprise CUI file
- Any partial CUI files referenced by the Enterprise CUI file (the partial CUI files are loaded in the order they appear under the Partial CUI node in the CUI editor)
- Main CUI file
- Any partial CUI files referenced by the main CUI file

Using AutoLISP

There is no API or system variable that allows you to specify an Enterprise CUI file. There is, however, an environment variable that can be manipulated using AutoLISP and the Getenv function. This allows you to remotely deploy an Enterprise CUI file without the need to visit each computer and set it up through the Options dialog box. Figure 1 shows some sample code that demonstrates how to assign an Enterprise CUI file.

```
(defun LoadCUIFiles ( strMainMenu strEntMenu / strMainMenu strErrMsg)
  (setq strEntMenu (findfile strEntMenu))
  (setq strMainMenu (findfile strMainMenu))

  (if (and (/= strEntMenu nil)(/= strMainMenu nil))
    (if (and (/= (strcase (getenv "EnterpriseMenuFile"))
                 (strcase (substr strEntMenu 1 (- (strlen strEntMenu) 4)))
             )
             (/= (strcase (getvar "MenuName"))
                 (strcase (substr strMainMenu 1 (- (strlen strMainMenu) 4)))
             )
        )
      (progn
        (setenv "EnterpriseMenuFile" strEntMenu)
        (command "._menu" strMainMenu)
      )
    )
    (progn
      (cond
        ((and (= strEntMenu nil)(= strMainMenu nil))
    (setq strErrMsg (strcat "Files " strEntMenu " and " strMainMenu " are missing."))
  )
        ((= strEntMenu nil)(setq strErrMsg (strcat "File " strEntMenu " is missing.")))
        ((= strMainMenu nil)(setq strErrMsg (strcat "File " strMainMenu " is missing.")))
      )
      (prompt strErrMsg)
    )
  )
)
```

Figure 1

Here is an example of how to use the AutoLISP function above:

```
(loadCUIFiles "custom.cui" "acad.cui")
```

The example sets the file CUSTOM.CUI as the main CUI file and ACAD.CUI as the enterprise CUI file.

Modifying an Enterprise CUI file

The Enterprise CUI file is marked as read-only by the CUI editor so you have to set the Enterprise CUI file as the main CUI file. There are three common ways to approach this.

- To change the values under the Customization Files node of the Files tab in the Options dialog box and then change them back after you have made the necessary edits.

- To create two different profiles and switch between the two when you want to edit the Enterprise CUI file. One will have the main and enterprise CUI files setup like your users have and the other one will have the two values inverted.

- To use an AutoLISP program that is similar in concept to creating two different profiles and switching between them. The program that I use is shown in Figure 2.

Load the program into AutoCAD through a file such as Acaddoc.lsp or some other method familiar to you. Once the program is loaded, type in FC at the command line. Then when you start the CUI editor, the enterprise and main CUI files should be switched around. Just type FC at the command line again to flip the two CUI file designations.

Benefits

The Enterprise CUI file can take a bit of time and effort to understand, but using it will save time when rolling out updates and during migration to new releases. I hope this article has helped to show how to modify and deploy an Enterprise CUI file with AutoCAD 2006.

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```
;; Flip CUI files
(defun c:FC ( / strEntMenu strMainMenu)
    ;; Get the current Enterprise CUI filename
    (setq strEntMenu (getenv "EnterpriseMenuFile"))

    ;; Get the current main CUI filename
    (setq strMainMenu (getvar "MENUNAME"))

    ;; Set the main CUI as the Enterprise CUI
    (setenv "EnterpriseMenuFile" strMainMenu)

    ;; Load the Enterprise menu as the main CUI file
    (command ".menu" strEntMenu)
)
```
Figure 2

An Enterprise CUI file is no different than any other customization file except for how and when it is loaded.