

Customize AutoCAD for Easy Migration

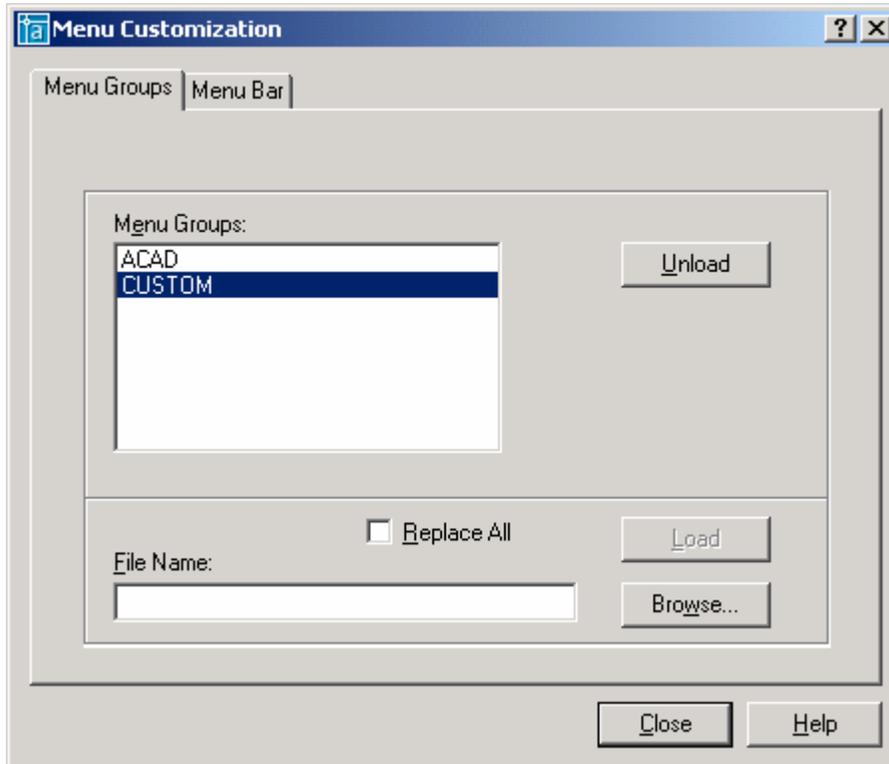
This document assumes that you are familiar with customizing AutoCAD® settings and files. If you are not familiar with customization but want to learn more about it, see the *Customization Guide* in the Help system.

Introduction

In AutoCAD® 2005, a great deal of thought has gone into making migration easier for users. Previously, one of the time-consuming tasks in moving to a new release was tracking down customizations you had made in the MNU file, LIN and PAT files, the PGP file, or PC3 files, and making sure those customizations were carried forward to the next release.

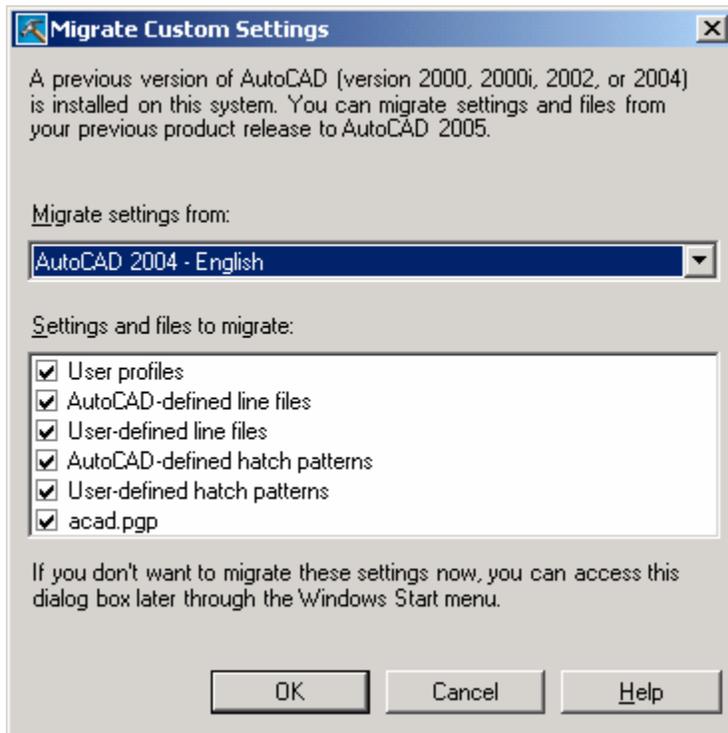
With AutoCAD 2005, you can make your customizations easy to migrate by placing them in the new locations provided, or by isolating your customizations into new files, as follows:

- Store all of your changes and additions to the MNU file in *custom.mnu*, a new file that ships with AutoCAD 2005 and is loaded automatically when AutoCAD starts. When you use the Customize dialog box in AutoCAD, select the CUSTOM menu group (the new default) to store your customizations. Following is an example of the new CUSTOM menu group in the Menu Customization dialog box:



Note: For more information about the CUSTOM menu group and the *custom.mnu* file, see The Menu File (MNU) on page 3.

- Place all of your changes and additions to the LIN, PAT, and PGP files that ship with AutoCAD in new sections at the end of the files. When you install a new release, you can migrate those settings using the Migrate Custom Settings dialog box, which is available when you launch AutoCAD for the first time (and from the Start menu thereafter). Following is the Migrate Custom Settings dialog box:



Note: For more information about the Migrate Custom Settings dialog box, see “Migrate Custom Settings” in the *Stand-Alone Installation Guide*.

- Create your own custom AutoLISP files (*acad.lsp* and *acadDoc.lsp*) to avoid losing your customizations when you move to a new release of AutoCAD.

Isolate Your Customization Settings

Isolate your custom settings by placing them into separate files or separate sections within default AutoCAD files. By isolating your customizations now, you avoid the need to keep track of or manually separate your custom content each time you move to a new release.

The following chart illustrates how you can separate your customizations.

In previous versions of AutoCAD, if you used:	In AutoCAD 2005, use:	Find out more by going to this section in the document:
<i>acad.mnu</i>	<i>custom.mnu</i>	"The Menu File (MNU)" on page 3
<i>acad.mns</i>	<i>custom.mns</i>	"The Menu File (MNU)" on page 3 "Toolbars and Keyboard Shortcuts" on page 7
Customize dialog box, ACAD menu group	Customize dialog box, CUSTOM menu group	"The Menu File (MNU)" on page 3 "Toolbars and Keyboard Shortcuts" on page 7
<i>acad.mnl</i>	<i>custom.mnl</i>	"AutoLISP Routines" on page 9
<i>acad.lin</i> or <i>acadiso.lin</i>	A LIN file that you create. You can also use the new User Defined section at the end of the LIN files that ship with AutoCAD	"Linetype (LIN) and Hatch Pattern (PAT) Files" on page 8
<i>acad.pat</i> or <i>acadiso.pat</i>	A PAT file that you create. You can also use the new User Defined section at the end of the PAT files that ship with AutoCAD	"Linetype (LIN) and Hatch Pattern (PAT) Files" on page 8
<i>acad.pgp</i>	A new User Defined section at the end of this file whose entries override the command alias definitions earlier in the file	"Command Aliases (PGP Files)" on page 9

The Menu File (MNU)

The *main* MNU file is an ASCII text file that defines most of the user interface elements that you see in AutoCAD (the standard menus, toolbars, keyboard accelerators, and so on). The *acad.mnu* file (the default main menu) is automatically loaded when you start AutoCAD.

A *partial* menu is any MNU file that is loaded after the main MNU file. You can load and unload partial MNU files as you need them during an AutoCAD session.

In AutoCAD 2005, a new partial MNU file is loaded automatically when AutoCAD starts. This MNU file is *custom.mnu*. It was created specifically to isolate your customizations and migrate them effortlessly to the next release.

The *custom.mnu* file contains section headers that represent the sections most commonly customized. Like other partial MNU files, *custom.mnu* has the same structure as the main MNU file but contains only the content that you customize.

When you want to make changes to an MNU file, use the *custom.mnu* file. You can find this file in the same location as your default AutoCAD MNU file:

C:\Documents and Settings\<user profile>\Application Data\Autodesk\AutoCAD 2005\16.1\enu\Support

Use *custom.mnu* to:

- Add or change Pop menus (pull-down menus or shortcut menus), keyboard shortcuts, toolbars, and tooltips.
- Assign commands to buttons on your pointing device.
- Provide Help text on the status line.

Following are the section headers that are included in *custom.mnu* (you can add other section headers as needed):

```
***MENUGROUP=CUSTOM
***TOOLBARS
***ACCELERATORS
***HELPSTRINGS
```

The Menu File—Pop Menus

Pop menus define the pull-down menus and shortcut (right-click) menus in AutoCAD. A Pop menu requires a unique number, depending on what it's used for:

- For menus that are pulled down from the menu bar, use numbers between 1 and 499.
- For shortcut (right-click) menus, use numbers between 500 and 999.

The sample that follows illustrates how you can organize existing menu items into one consolidated pull-down menu of frequently used commands. A Pop menu section header is not already included in the new *custom.mnu* file because a Pop menu must have a number assigned to it, and that number must be unique within a file.

For more information about creating Pop menus, see “Create Pull-Down and Shortcut Menus” in the *Customization Guide*.

To add a Pop menu section to *custom.mnu*

1. Open *custom.mnu*, which is located in *C:\Documents and Settings\<user profile>\Application Data\Autodesk\AutoCAD 2005\R16.1\enu\Support*.
2. In *custom.mnu*, add the following section header anywhere after the `***MENUGROUP=CUSTOM` section header:

```
***POP1
```

3. On the next line, add a title for your custom menu. In the following example, you create the menu title “My Custom”:

```
ID_MyMenu      [M&y Custom]
```

4. Add menu items on the lines after the title. In the following example, you copy existing menu items from *acad.mnu* to *custom.mnu*. You add the “My Custom” menu items Clip (and Clip submenu items Image, XRef, and Viewport), Reassociate Dimensions, Area, and Attribute Extraction:

```
ID_Clip        [->&Clip]
ID_ImageClip   [&Image]^C^C_imageclip
ID_XrefClip    [&Xref]^C^C_xclip
ID_VportClip   [<-&Viewport]^C^C_vpclip
```

```

        [--]
ID_Dimreasso  [Reassociate Dime&nsions]^C^C_dimreassociate
ID_Area       [&Area]^C^C_area
ID_EAttExt    [Attribute E&xtraction...]^C^C_eatttext
    
```

5. Save your work.

6. Use the MENULOAD command to reload *custom.mnu* and add the new pull-down menu to the menu bar.

If you want to add a pull-down or shortcut menu command to an existing menu (for instance, if you want to add the ORBIT command to the default shortcut menu, Pop501), copy the Pop menu to *custom.mnu* and then make your changes.

To add a custom menu item to an existing Pop menu

1. Open *acad.mnu* and *custom.mnu*, which are located in *C:\Documents and Settings\<user profile>\Application Data\Autodesk\AutoCAD 2005\R16.1\enu\Support*.
2. In *acad.mnu*, copy the entire section for the menu you want to change, and then paste the Pop section into *custom.mnu*. In the following example, the contents of *****POP501** are copied into *custom.mnu*:

```

***POP501
**CMDEFAULT
        [Context menu for default mode]
ID_CMNonLast [&Repeat %s]^C^C;
        [--]
ID_Cutclip   [Cu&t]^C^C_cutclip
ID_Copyclip  [&Copy]^C^C_copyclip
ID_Copybase  [Copy with &Base Point]^C^C_copybase
ID_Pasteclip [&Paste]^C^C_pasteclip
ID_Pastebloc [Paste as Bloc&k]^C^C_pasteblock
ID_Pasteorig [Paste to Original Coor&dinate]^C^C_pasteorig
        [--]
ID_U         [&Undo]^C^C_u
ID_Redo      [Re&do]^C^C_mredo 1
ID_Pan       [P&an]'_pan
ID_ZoomRealt [&Zoom]'_zoom ;
        [--]
ID_Filter    [&Quick Select...]^C^C_qselect
ID_TextFind  [&Find...]^C^C_find
ID_Preferenc [&Options...]^C^C_options
    
```

3. Add commands to the new *****POP501** section in *custom.mnu*.

For example, on the line after the ZOOM command, enter the following syntax to add the ORBIT command to the shortcut menu:

```
[Orbit] '_orbit;
```

4. Using a text editor such as Notepad, if you have not already done so, create a file named *custom.mnl* and save it in *C:\Documents and Settings\<user profile>\Application Data\Autodesk\AutoCAD 2005\16.1\enu\Support*.

5. In *custom.mnl*, enter the following command on its own line:

```
(menucmd "P501=CUSTOM.POP501" )
```

This command redirects the POP501 menu to the one in *custom.mnu* instead of *acad.mnu*.

6. Save your work.

In AutoCAD, right-click anywhere in a drawing, and you'll see that the ORBIT command has been added to the shortcut menu below the ZOOM command.

AutoLISP commands that support items in *custom.mnu* should always be added to *custom.mnl* rather than another AutoLISP file, because *custom.mnl* is loaded whenever *custom.mnu* is loaded. The example in step 5, which redirects AutoCAD to the POP501 menu in *custom.mnu* from the POP501 menu in *acad.mnu*, is a common use of an AutoLISP command to support a menu file.

The Menu File—Auxiliary and Button Menus

The Microsoft® Windows® system pointing device uses the Aux section of the MNU file. Any other pointing device (for example, a puck or stylus for a digitizing tablet) uses the Buttons section. The Buttons (****BUTTONS_n*) and Aux (****AUX_n*) sections of the menu file are identical in format.

You can add auxiliary and button menus to *custom.mnu*, and you can redirect them by using a command in a *custom.mnl* file. The following example describes how to override the POP0 menu with a custom POP0 menu and set Shift+right-click to activate the new POP0. The new POP0 menu is a simplified version of the original menu with an added tracking command.

Note: If you redirect POP0, you may want to redefine AUX1 through AUX4 in *custom.mnu*. This is because in *acad.mnu*, each AUX menu calls POP0 and redefines it:

```
"$P0=SNAP $P0=*"
```

There is no menu group qualifier on SNAP, so it defaults to the *acad.mnu* definition of ***SNAP*. When you redefine AUX1 through AUX4, *\$P0=SNAP \$P0=** can be changed to *\$P0=CUSTOM.SNAP \$P0=**.

To modify the AUX1 and BUTTONS1 menus

1. Open *custom.mnu*, located in *C:\Documents and Settings\<user profile>\Application Data\Autodesk\AutoCAD 2005\16.1\enu\Support*.
2. In *custom.mnu*, add an Auxiliary section header and text anywhere after the ****MENUGROUP=CUSTOM* section header, as in the following example:

```
***AUX2  
// Shift + button  
$P0=CUSTOM.SNAP $p0=*  
$P0=CUSTOM.SNAP $p0=*
```

3. In *custom.mnu*, add a Snap menu section header and text anywhere after the `***MENUGROUP=CUSTOM` section header. In this example, you are adding a shortcut (right-click) menu that is accessible when you execute the LINE command and press Shift and then right-click.

```

***POP0
**SNAP
// Shift-right-click -- Custom menu's snap menu
        [&Object Snap Cursor Menu]
ID_Tracking [Temporary trac&k point]_tt
        [&Track]_track
ID_From      [&From]_from
ID_MidTwoPts [Mid Bet&ween 2 Points]_m2p
ID_OsnapEndp [&Endpoint]_endp
ID_OsnapMidp [&Midpoint]_mid
ID_OsnapCent [&Center]_cen
ID_OsnapInte [&Intersection]_int
ID_OsnapAppa [&Apparent Intersect]_appint
ID_OsnapPerp [&Perpendicular]_per
ID_OsnapInse [In&sert]_ins

```

4. Save your work.
5. If you have not already done so, in a text editor such as Notepad, create a file named *custom.mnl* and save it in `C:\Documents and Settings\\Application Data\Autodesk\AutoCAD 2005\16.1\enu\Support`.
6. In *custom.mnl*, enter the following command on its own line:

```
(menucmd "A2=CUSTOM.AUX2")
```

7. Save your work.
8. Use the `MENULOAD` command to reload *custom.mnu* (which also automatically reloads *custom.mnl*).

To display your custom Snap menu in AutoCAD, type the LINE command and create some lines. While still in the LINE command, press Shift and then right-click.

Toolbars and Keyboard Shortcuts

You can add to or change toolbars and keyboard shortcuts (accelerator keys) either by editing *custom.mnu* or by using the Customize dialog box, which stores the custom content in *custom.mns*.

To add custom content for toolbars or keyboard shortcuts to *custom.mnu*, add the content to either the `***TOOLBARS` or `***ACCELERATORS` sections of the file. For more information about adding toolbars and keyboard shortcuts to *custom.mnu*, see “Create Toolbars” or “Create Shortcut Keys” in the *Customization Guide*.

When you create a new toolbar or keyboard shortcut using the Customize dialog box, make sure the CUSTOM menu group (the default) is selected.

Do not drag a command from the Customize dialog box to an empty place on the drawing to create a toolbar. This method stores the information in *acad.mns*, rather than where you want it to go, in *custom.mns*. Instead, use the New Toolbar dialog box, where you can select the CUSTOM menu group.

Do not directly modify an existing AutoCAD toolbar. Instead, create a new toolbar in the CUSTOM menu group, copy the buttons from the old toolbar, and then make your changes.

To create a new keyboard shortcut using the Customize dialog box, use the Keyboard tab to assign macros for either pull-down menus or toolbars. The keyboard shortcuts you add through the Customize dialog box are loaded into AutoCAD last, and therefore override the AutoCAD keyboard settings in *acad.mns*.

Linetype (LIN) and Hatch Pattern (PAT) Files

AutoCAD provides the linetype definition files *acad.lin* and *acadiso.lin* and the hatch pattern files *acad.pat* and *acadiso.pat*. In AutoCAD 2005, it is recommended that you isolate your customizations by creating your own LIN or PAT files rather than using the LIN and PAT files that ship with AutoCAD. LIN and PAT files that you create are migrated to a new release (using the Migrate Custom Settings dialog box).

To create a LIN or PAT file

1. In a text editor such as Notepad, create a file with a LIN or PAT extension, and save it in *C:\Documents and Settings\<user profile>\Application Data\Autodesk\AutoCAD 2005\R16.1\enu\Support*.
2. In the LIN or PAT file, add your custom content. If you do not know how to add custom LIN or PAT content, see “Custom Linetypes” or “Custom Hatch Patterns” in the *Customization Guide*.
3. Save your work.

You can use the Load button in the Linetype Manager to load your custom linetype files. To use your custom hatch patterns, in the Boundary Hatch and Fill dialog box, Hatch tab, click the [...] button next to Pattern and, in the Custom tab, select the custom PAT file that you want.

Because AutoCAD can now migrate your custom LIN and PAT files, you no longer need to use the AutoCAD LIN and PAT files to store your customizations. However, if you continue to use the AutoCAD files, use the new User Defined section at the end of each file to isolate your customizations. Now, you can automatically migrate the isolated information to a new release (using the Migrate Custom Settings dialog box).

Following is an example of a custom linetype added to the new User Defined section at the end of *acad.lin*. (The new User Defined sections of *acadiso.lin*, *acad.pat*, and *acadiso.pat* are similar.) The custom linetype that is added to the file is called DASHDASHDOT:

```
;; User Defined Linetypes
;;
;; Add any linetypes that you define to this section of
;; the file to ensure that they migrate properly when
;; upgrading to a future AutoCAD version.  If duplicate
;; linetype definitions are found in this file, items
;; in the User Defined Linetypes section take precedence
;; over definitions that appear earlier in the file.
```

;;

```
*DASHDASHDOT,Dash dash dot _ _ . _ _ . _ _ . _ _ . _ _ . _ _ .
A, .5, -.25, 0, -.25
```

Command Aliases (PGP Files)

AutoCAD loads only one file for command aliases: *acad.pgp*. If you are going to create or modify command aliases, you *must* edit *acad.pgp*.

To access the PGP file, on the Tools menu, click Customize > Edit Custom Files > Program Parameters (*acad.pgp*).

For AutoCAD 2005, to help isolate your customizations within the *acad.pgp* file, a new User Defined section is added at the end. You can automatically migrate the information in this section to a new release (using the Migrate Custom Settings dialog box).

The command aliases defined in the User Defined section of *acad.pgp* *always* take precedence. Therefore, if you define an alias that is already defined earlier in the PGP file, you do not need to delete the old alias. The alias in the new User Defined section is used instead.

AutoLISP Routines

If a custom AutoLISP routine is needed to support custom menu macros, name the AutoLISP file with the same name as its corresponding menu file. The AutoLISP file is loaded at the same time as the menu file. In AutoCAD 2005, for the partial menu file *custom.mnu*, name the AutoLISP file *custom.mnl*.

If an AutoLISP routine is not used to support custom menu macros, the AutoLISP routine should be added to *acad.lsp* or *acadDoc.lsp*. Neither *acad.lsp* nor *acadDoc.lsp* is included with AutoCAD, but you can create these files and add them anywhere in the support path. The *acad.lsp* file is loaded automatically when AutoCAD starts. The *acadDoc.lsp* file is loaded each time you open a drawing file. The AutoLISP functions in *acadDoc.lsp* are reinitialized when the drawing opens.

For easier migration, you should not edit the *acad2005.lsp* or *acadDoc2005.lsp* files that come with AutoCAD.

Work in a Mixed Environment

You may be working with more than one release of AutoCAD at a time. If you do, it is important that you understand where to keep your PC3 files and menu files to prevent them from being unintentionally updated by the new release.

Plotter Configuration (PC3) Files

PC3 files are plotter configuration files. They are forward-compatible, which means that they work with future releases of AutoCAD. However, they are not guaranteed to be backward-compatible with previous releases of AutoCAD. A PC3 file saved in AutoCAD 2004 can be opened and used in AutoCAD 2005. But a PC3 file saved in AutoCAD 2005 may not open properly in prior releases of AutoCAD.

For this reason, it is recommended that you make separate copies of PC3 files if you are working in an environment where both AutoCAD 2005 and previous releases of AutoCAD are used.

Menu Files

Menu files cannot be loaded in previous releases of AutoCAD once the menu files are saved in AutoCAD 2005. Therefore, you should move menu files to a folder that is not in the AutoCAD search path. Menu files are stored with a full path, so they do not need to be found in the search path.

Protecting the menu files in this way is especially important when several users load the same menu file from a network location; otherwise, newly installed versions of AutoCAD could find the menu file in the support path and inadvertently update it to the latest version, thus making the compiled menu file unreadable in previous releases



Autodesk, Inc.
111 McInnis Parkway
San Rafael, CA 94903
USA

Autodesk [and other products] are either registered trademarks or trademarks of Autodesk, Inc., in the USA and other countries. All other brand names, product names, or trademarks belong to their respective holders.

© 2003 Autodesk, Inc. All rights reserved.