

AutoMate/PRO Help Index

The following lists Help Topics available for AutoMate/PRO. Point to and click on any underlined text, or any icon to display the desired information.



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The **AutoMate/PRO** Tool Box

In addition to offering superior AutoCAD drawing performance, the AutoMate/PRO environment includes a toolbox of permanently resident on-screen icons for use in invoking the most powerful functions in the AutoMate/PRO feature set. This Tool Box is designed to give quick access to the AutoCAD command set, as well as AutoMate/PRO productivity enhancing tools.

When AutoMate/PRO is installed, the Tool Box will automatically appear in the lower right hand corner of the AutoCAD display window. As with all Windows applications, it can be relocated, or minimized.

AutoMate/PRO's various drawing and editing tools are activated by pointing to and clicking on one of the icons available in the Tool Box. Activating the Bird's-Eye icon, for example, will result in the appearance of the Bird's-Eye View window. The functions of the various AutoMate/PRO tools are described in the [AutoMate/PRO Help Index](#).

If a user desires to run AutoMate/PRO without the benefit of the advanced tool features, the Tool Box can be rendered inactive such that it will not appear on the display screen. This is accomplished by editing the Configure Menu in the [AutoMate/PRO Status Panel](#) .

VMI_TBOX_OFF" can be entered at the AutoCAD command line to disable the Toolbox. Once it has been disabled, typing "VMI_TBOX_ON" at the AutoCAD command line will enable it. "



The Bird's-Eye View

The Bird's-Eye View allows you to view the entire AutoCAD work area when you are editing in zoomed mode. The Bird's-Eye is dynamically updated, incorporating on-going changes to your drawing. Zooming and panning within your AutoCAD drawing are simplified by using the Bird's-Eye's function buttons.

The Bird's-Eye View is activated by pointing to and clicking on the Bird's-Eye icon in the AutoMate/PRO Tool Box, or by entering "VMI_BIRD" at the AutoCAD command line. Once activated, the Bird's-Eye will appear as a window on your display screen. This window can be moved or resized. To close the Bird's-Eye, use the Windows System Menu in the upper left corner of the Bird's-Eye window.

The following function buttons are useful for affecting pans and zooms within AutoCAD, and controlling the variable settings associated with the Bird's-Eye View:

ZMENU (A menu of commonly-used zoom functions)

OPTIONS (Bird's-Eye View variable settings)

ZOOM

PAN

VMAX (16 Bit Display List Mode Only)

FIT (32 Bit Display List Mode Only)

A double-click on the ZOOM activity button will result in an immediate zoom such that the boundaries of the drawing are proportionally fit within the AutoCAD view area

The Bird's-Eye View operates on the drawing in the currently active AutoCAD viewport, in the currently active AutoCAD session. If you are operating multiple AutoCAD sessions, only one Bird's-Eye instance is required. The Bird's-Eye View is not operable in AutoCAD's paper space.



The Magnifying Glass

The AutoMate/PRO Magnifying Glass is useful for interactively examining the details of a drawing, in real-time. Without requiring a pan or zoom, the Magnifying Glass offers a precise method of zeroing in on a specific area of the drawing.

The Magnifying Glass is activated by pointing to and clicking on the Magnifying Glass icon in the AutoMate/PRO Tool Box, or by entering "VMI_MAGNIFY" at the AutoCAD command line. Once activated, the Magnifying Glass will appear as a window on your display screen. This window can be moved or resized. To close the Magnifying Glass, use the Windows System Menu in the upper left corner of the Magnifying Glass window.

The Magnifying Glass operates on the drawing in the currently active AutoCAD viewport, in the currently active AutoCAD session. If you are operating multiple AutoCAD sessions, only one Magnifying Glass instance is required. The Magnifying Glass is not operable in AutoCAD's paper space.

- * To pan using the Magnifying Glass, move your cursor into the active Magnifying Glass window. (If the window is not active, click within the window's boundaries.) A cross hair with bounding box will appear in the AutoCAD window.

In DYNAMIC MODE: As you move the crosshair, the portion of the AutoCAD drawing surrounded by the bounding rectangle will appear in the Magnifying Glass window. Clicking your mouse button will freeze the view currently displayed in the Magnifying Glass window. Clicking again resumes panning.

In STATIC MODE: As you move the crosshair, the Magnifying Glass window does not dynamically track. Instead, updating the Magnifying Glass window is accomplished by selectively clicking when the crosshair's bounding box surrounds an area of interest within the AutoCAD drawing.

- * To zoom using the Magnifying Glass, move your cursor to the slide bar on the right side of the Magnifying Glass window. Zooming is accomplished by either dragging the slide indicator, or by pressing the up or down buttons at the top and bottom of the slide bar.

In DYNAMIC MODE: As you move the slidebar, the portion of the AutoCAD drawing appearing in the Magnifying Glass window will correspondingly zoom in or out. Clicking your mouse button will freeze the view currently displayed in the Magnifying Glass window.

In STATIC MODE: As you move the slidebar indicator, the Magnifying Glass window does not dynamically track. Instead, updating the Magnifying Glass window only occurs when the slidebar indicator is "dropped".

- * Having clicked to freeze the Magnifying Glass after panning or zooming, the current AutoCAD view can be altered to reflect the change by pointing to and clicking on the **SET** button in the Magnifying Glass window.
- * The AutoMate/PRO Magnifying Glass has several optional controls involved with its operation. Pointing to and clicking on the **OPTIONS** button in the Magnifying Glass window displays the current state of these settings, and allows for their modification.

The option choices include:

MicroZoom

Stay Open

Save Settings

Autosize Off

Autosize Smaller

Autosize Larger



The Quick Command Menu

The AutoMate/PRO set of productivity tools is designed to provide simple, fast access to AutoCAD drawing and editing functions. There is no quicker way to activate an AutoCAD command or macro function than with AutoMate/PRO's Quick Command Menu.

The Quick Command Menu allows you to compile a set of your most frequently used AutoCAD commands, put them in an easy-to-access place, and instantly activate them when required in a particular drawing activity. In effect, you can set up a personalized command menu, with two-click command access.

The AutoMate/PRO Quick Menu is activated by pointing to and clicking on its associated icon in the AutoMate/PRO Tool Box , or by entering "VMI_QMENU" at the AutoCAD command line.

When activated, the Quick Menu window can be set up to open in the closest possible proximity to the current cursor location. This reduces the hand-eye movement required to access the menu entry you want. The window can be moved or resized. To close the Quick Menu, use the Windows System Menu in the upper left corner of the Quick Menu window.

The Quick Command Menu operates on the drawing in the currently active AutoCAD viewport, in the currently active AutoCAD session. If you are operating multiple AutoCAD sessions, only one Quick Command Menu instance is required.

Vermont Microsystems has provided a pre-configured set of frequently used AutoCAD commands, but we encourage the user to customize this list to suit your personal preferences.

- * To activate a menu entry, simply point to it and click. Depending on the state of the Quick Command Menu's STAY OPEN option setting, the window will either remain open or disappear, and the command sequence will be executed. Depending on the specific AutoCAD command string bound to the menu entry, additional drawing or editing input may be required.
- * To customize the Quick Command Menu, point to and click on the CUSTOMIZE button .
- * To display or modify the current Quick Command Menu option settings, point to and click on the OPTION button .



The **AutoMate/PRO** Icon Command Menu

The AutoMate/PRO Icon Command Menu allows you to activate various AutoCAD commands and macros, or AutoMate/PRO productivity enhancing tools from a simple-to-use, customizable, icon-based menu system.

The Icon Menu is designed to minimize the hand and eye movements required to access commonly used functions or drawing elements, and is an efficient way to customize your AutoCAD drawing and editing environment. The Icon Menu is hierarchical. Nested menu systems can be created, with icons representing sub-menus.

Icon buttons can also be bound to Windows applications, such as Excel or Word. This enables easy access to useful applications, ancillary to AutoCAD, which may be needed in other aspects of a given design task, such as maintaining a bill of materials or editing documentation.

The AutoMate/PRO Icon Menu is activated by pointing to and clicking on its associated icon in the [AutoMate/PRO Tool Box](#) , or by entering "VMI_MENU" at the AutoCAD command line.

- * To activate a menu entry, simply point to it and click. Depending on the state of the Icon Command Menu's [STAY OPEN option setting](#), the window will either remain open or disappear, and the command sequence will be executed. If you are bound to an AutoCAD command string, additional drawing or editing input may be required.
- * To display or modify the current Icon Command Menu option settings, point to and click on the [OPTIONS button](#) .
- * The **MAIN** and **PREV** buttons are used to traverse the Icon Command Menu hierarchy. When in a sub-menu, use **MAIN** to return to the main, top-level menu. Use **PREV** to return to the menu displayed previously to the current menu, i.e. the menu from which you came. AutoMate/PRO maintains a history of the previous 5 menus.

Customizing the Icon Command Menu

In the Icon Command Menu hierarchy, individual menus are comprised of buttons placed in rows and columns. Menus can hold up to 80 buttons. The number of rows and columns is defined in the [Icon Menu Description File](#) .

Vermont Microsystems has provided a pre-configured menu consisting of frequently used AutoCAD commands, and sample sub-menus and Windows applications. We encourage the user to customize this list to suit your personal preferences. Icons can be created and bound to functions and the menu of icon buttons can be rearranged.

Select the appropriate entry from the following list for a description on how to accomplish the desired customization to the Icon Command Menu:

[Adding an Icon Button](#)

[Deleting an Icon Button](#)

[Rearranging Icon Button Locations](#)

[Creating a Sub-Menu](#)

[Editing the Command String Bound to a Specific Icon Button](#)

[A Sample Icon Menu Description File](#)

- * Space can be saved by eliminating the Icon Command Menu's Toolbar from the display window. With this capability, vertical or horizontal toolbar strips can be created for permanent display and easy access, without stealing from valuable drawing area.

Point to and click on the **Show Toolbar** option in the Icon Command Menu's Windows System

Menu to alternately display and eliminate the toolbar. A check mark indicates that the toolbar will be displayed. When the toolbar is not displayed, the **OPTIONS** menu button, and the **MAIN** and **PREV** button functions become accessible from within the Icon Command Menu's Windows System Menu.



The **AutoMate/PRO** Status Panel

The AutoMate/PRO Status Panel displays relevant information concerning the currently active AutoCAD editing session. This includes system resource usage, statistics involved with the drawing currently being edited, and the status of AutoMate/PRO profile options.

The Status Panel is activated by pointing to and clicking on its associated icon in the AutoMate/PRO Tool Box menu, or by entering "VMI_STATUS" at the AutoCAD command line. To close the Status Panel, use the Windows System Menu in the upper left corner of the Status Panel.

The following information is available in the Status Panel:

System Resources

386 Enhanced-Mode Free Memory

Windows Free System Resources

Total Display List Memory in Use

Profile Configuration Info

Pointing to and clicking on the **CONFIGURE** button on the Status Panel opens the AutoMate Configuration dialog box. This displays the current state of the optional settings associated with the AutoMate display driver. The settings include:

VGL Display Module

Windows Display Driver

Graphics Screen Repair

32 Bit Display List (R12 for Windows Only)

True Clean Display List

GDI Bypass Option

Display ToolBox

Viewport Statistics

Statistics concerned with the currently active AutoCAD viewport are displayed on the AutoMate/PRO Status Panel. The number associated with the active viewport, and a highlighted box showing its position on the AutoCAD screen are shown in the lower right corner of the panel.

The following statistical information is available:

Number of Vectors

Number of Polygons

Percentage of Entities Erased

Pointing to and clicking on the Viewport Selection button displays a menu of viewports associated with the current drawing. By selecting a viewport from this list, the statistics displayed will change to reflect those associated with the new viewport.



View Forward

The View Forward function is used to sequence forward through the most recent series of panned and zoomed AutoCAD view positions. It operates on the currently active viewport, in the currently active AutoCAD session. Use the View Forward command to return the AutoCAD display to the current view, if you have already sequenced backwards using the View Backward command. View Forward is activated by selecting its associated icon in the AutoMate/PRO Tool Box , or by entering "VMI_NEXT_VIEW" at the AutoCAD command line.

Pointing to and clicking on this icon will change the AutoCAD display screen to reflect the next view in the stored sequence. Attempting to sequence beyond the most current view will have no effect.



View Backward

The View Backward function is used to sequence backward through the most recent series of panned and zoomed AutoCAD view positions up to the most recent occurrence of an AutoCAD REGEN. It operates on the currently active viewport, in the currently active AutoCAD session. View Backward is activated by selecting its associated icon in the AutoMate/PRO Tool Box , or by entering "VMI_PREV_VIEW" at the AutoCAD command line.

Pointing to and clicking on this icon will change the AutoCAD display screen to reflect the previous view in the stored sequence. Attempting to sequence beyond the last REGEN will have no effect.

386 Enhanced Mode Free Memory

This specifies the amount of physical main memory available, i.e. not currently allocated to any active Windows processes, including AutoCAD and AutoMate/PRO. If this begins to get low, your system may begin to exhibit performance slowdowns, as disk paging activity increases. To remedy this situation, you may wish to close any unnecessary Windows applications.

Windows Free System Resources

This statistic expresses the percentage of system resources currently available to the Windows environment, and therefore to AutoCAD and AutoMate/PRO. If this percentage begins to get low, your system may begin to exhibit performance slowdowns, as disk paging activity increases. To remedy this situation, you may wish to close any unnecessary Windows applications.

Total Display List Memory in Use

AutoMate/PRO provides its outstanding level of drawing performance by creating and manipulating a display list for the current AutoCAD drawing. This display list requires a certain amount of physical memory, depending on the size and complexity of the drawing. With extremely large AutoCAD drawings, this memory utilization may cause a performance slowdown if it consumes enough to adversely effect the amount of Windows Free System Resources. The amount of display list memory consumed is minimized by engaging the TrueClean option .

By default, AutoMate/PRO employs a 32 bit display list for Release 12 AutoCAD for Windows. As an option, a 16 bit display list mode is available. Engaging this option will cut display list memory utilization in half. All of AutoMate/PRO's features will operate identically in either mode, and the drawing performance is roughly the same. The only drawback to 16 bit mode is more frequent AutoCAD regens, as was the rule prior to Release 12. Due to physical memory limitations, however, this may be an acceptable alternative when using multiple instances of AutoCAD. See the AutoMate/PRO Status Panel for information on enabling this option.

VGL Display Module

AutoMate/PRO will work with any graphics display device capable of displaying the AutoCAD for Windows. The specific capabilities of certain display devices can be taken advantage of to offer accelerated drawing performance. The VGL Display Module is used by **AutoMate/PRO** to customize it for use with specific display adapters.

The graphics display device is normally specified during installation. The currently active VGL Display Module is shown in the text box. You can change graphics display adapters by selecting from the list displayed underneath the text box.

Vermont Microsystems is continuously expanding the list of display devices supported, and extracting more performance out of those already contained in the current list. Contact Vermont Microsystems for up-to-date information on display device support.

Windows Display Driver

This specifies the Windows display driver currently in use, as specified in the Windows SYSTEM.INI file. This driver can be changed via the Windows Set-Up utility. AutoMate/PRO works best on the highest resolution driver available on, and compatible with, your specific PC, graphics display controller, and monitor. Ideally, this should be a 256 color, Windows 3.1 driver. It can not be changed through AutoMate.

Graphics Screen Repair

In a graphical environment like Windows, certain operations can "damage" AutoCAD's display window. For example, if you iconize AutoCAD, the display window is removed from the screen. When you subsequently restore AutoCAD, the display must be redrawn. This process is referred to as "Screen Repair". Screen repair is also necessary when a window is placed in front of AutoCAD and subsequently removed -- the region where the overlapping window resided must be redrawn.

AutoMate/PRO offers two modes of screen repair. There is a speed versus accuracy tradeoff associated with the option you select. BITMAP is somewhat slower but more accurate. It also has the drawback of requiring a large chunk of memory to hold the bitmap image. REDRAW is faster but may sometimes leave a stray line or two behind. You can usually fix any anomalies you observe by issuing an AutoCAD Redraw command. In either case AutoMate/PRO is maintaining an accurate copy of your drawing in its Display List, and you need not fear for your data.

Point to and click on the radio button next to the entry you wish to select. The modes are mutually exclusive.

Note: In order for changes to the Graphics Screen Repair option to take affect, AutoCAD must be reinitialized.

32 Bit Display List

AutoMate/PRO employs a 32 bit display list for Release 12 AutoCAD for Windows. As an option, a 16 bit display list mode is available. Engaging this option will cut display list memory utilization in half. All of AutoMate/PRO's features will operate identically in either mode, and the drawing performance is roughly the same. The only drawback to 16 bit mode is more frequent AutoCAD regens, as was the rule prior to Release 12. Due to physical memory limitations, however, this may be an acceptable alternative when using multiple instances of AutoCAD.

To change the state of the 32 Bit Display List option, point to its associated box and click. The **X** will alternately appear and disappear. 16 Bit Display List mode is indicated by the absence of an **X**. AutoMate/PRO defaults to 32 Bit Display List mode for R12 AutoCAD for Windows, and 16 Bit Display List mode for the R11 Windows Extension.

Note: In order for changes to the 32 Bit Display List option to take affect, AutoCAD must be reinitialized.

TrueClean Display List

This indicates how objects that you erase from your drawing will be handled. When TrueClean is enabled, as designated by an **X**, erased objects are physically removed from the AutoMate/PRO display list. This is the default mode.

When disabled, a second object is added to the display list that causes the erased object to disappear. This object overlays the one that you erased, but is drawn in the color of the graphics background, effectively rendering it invisible. This method results in slightly faster erase and move operations, but may result in a perceivable flashing of erased or moved entities during redraw operations. When TrueClean is disabled, entering "VMI_CLEAN" at the AutoCAD command line will remove all deleted entities from the display list.

To change the state of the TrueClean Display List option, point to its associated box and click. The **X** will alternately appear and disappear.

Note: In order for changes to the TrueClean option to take affect, AutoCAD must be reinitialized.

GDI Bypass Option

In the Windows environment, applications such as AutoCAD normally communicate with the graphics adapter hardware by way of the Graphics Device Interface, or GDI. Since this interface is tuned to optimize critical Windows operations such as BitBLTs, it does not take optimal advantage of the CAD oriented graphics acceleration capabilities, such as fast line drawing, present in many new graphics processing chips. AutoMate/PRO's GDI Bypass option allows for direct access to the graphics adapter, and is therefore able to take advantage of any CAD-specific graphics acceleration capabilities that may be available.

For graphics devices that AutoMate/PRO "knows" about, this bypass is accomplished by utilizing a Vermont Microsystems device specific dynamic link library (DLL). For these cases, the GDI Bypass option is already implied, and therefore no user alteration is allowed. The GDI Bypass option appears "greyed out".

For those graphics devices for which VMI has not yet released a specific DLL, GDI bypass can still be realized. In this case, by default, AutoMate/PRO writes directly to the Windows Display Driver particular to the graphics adapter. The user is allowed to disable the option and revert to the GDI display method. This option is offered in case the Windows Display Driver supplied with the graphics card, and not under the development control of Vermont Microsystems, has any anomalies or shortcomings. Disabling the GDI bypass will result in an AutoCAD drawing performance degradation.

To change the state of the GDI Bypass Option, point to its associated box and click. The **X** will alternately appear and disappear. An **X** denotes that GDI Bypass is enabled.

The GDI Bypass option can be changed "on the fly"; changes will take affect without the need to reinitialize AutoCAD.

SolidScreen™

When the Windows GDI is bypassed, as is the case with any high performance display-list driver for AutoCAD for Windows, the repair of overlapping windows poses a difficult problem. Typically, during a pan zoom, or redraw operation, overlapping windows disappear while the AutoCAD screen is updated, and then reappear when the operation is completed. This results in a time-consuming, and distracting "flashing" of these windows during an editing session.

AutoMate/PRO offers a unique method for keeping ancillary windows which overlap the main AutoCAD window stable during redraws, pans, or zooms. The SolidScreen technique results in faster pan, zoom, or redraw operations, with no repainting required. Overlapping windows remain fixed.

By default, the SolidScreen option is enabled. To change its state, point to its associated box and click. The **X** will alternately appear and disappear. An **X** denotes that SolidScreen is enabled.

The SolidScreen option can be changed "on the fly"; changes will take affect without the need to reinitialize AutoCAD.

Display Toolbox

This indicates whether the AutoMate/PRO Toolbox will be enabled, as designated by an **X**. When enabled you will see the AutoMate/PRO Toolbox in the lower right corner of your AutoCAD display. If disabled, the toolbox will not appear.

To change the state of the Display Toolbox option, point to its associated box and click. The **X** will alternately appear and disappear.

If the Toolbox has been disabled, typing "VMI_TBOX_ON" at the AutoCAD command line will enable it.

Number of Vectors

This specifies the number of vectors utilized in the current viewport's image. A vector is a low-level drawing primitive used to construct more complex entities. In AutoCAD, many complex entities such as circles, ellipses, and text are comprised of vectors.

Number of Polygons

This specifies the number of polygons utilized in the current viewport's image. A polygon is a low-level drawing primitive used by AutoCAD to construct more complex entities.

Percentage of Entities Erased

This specifies the number of entities that have been erased in the current AutoCAD viewport since the last AutoCAD regen. Entities are comprised of vector and polygon drawing primitives. This statistic is relevant if AutoMate/PRO's TrueClean utility is disabled. In this case, it indicates how many entities are being overwritten with the background color in order to simulate their erasure during a pan, zoom, or redraw. If this percentage gets high, drawing performance will deteriorate, and "flashing" will occur during pans, zooms, or redraws. The TrueClean feature was designed to remedy this situation, and therefore this statistic is irrelevant if TrueClean is enabled.

The Bird's-Eye View Zoom Menu

Pointing to and clicking on the Bird's-Eye View's **ZMENU** activity button will result in the display of a menu of available zoom options. After selecting the desired option, the AutoCAD view is changed to reflect the desired option. Depending on the state of the Bird's-Eye's STAY OPEN option setting, the Bird's-Eye window will either close or remain visible.

The available pre-set zoom functions include:

ZOOM MAX (Not available in 32 Bit Display List mode)

ZOOM .1X

ZOOM .5X

ZOOM 2X

ZOOM 5X

ZOOM 10X

ZOOM FIT

The Bird's-Eye View OPTIONS Menu

The AutoMate/PRO Bird's-Eye View has several optional controls involved with its operation. Pointing to and clicking on the **OPTIONS** button in the Bird's-Eye window displays the current state of these settings, and allows for their modification.

The option choices include:

Stay Open

Center Mode

Auto-Activate Mode

Save Settings

Reset Settings

Autosize Off

Autosize Smaller

Autosize Larger

The Bird's-Eye View Zoom Activity Button

A double-click on the ZOOM activity button will result in an immediate zoom such that the boundaries of the drawing are proportionally fit within the AutoCAD view area

A single-click will activate the ZOOM button to specify the area of a drawing you wish to zoom in on. After selecting the ZOOM button:

- * Move the crosshair to the first corner of the new view's bounding box, and click.
- * Move the crosshair to the position the "rubber band" rectangle over the area you wish to zoom in on. Watch for the REGEN WARNING indicator.
- * Lock in the second corner by clicking. The area inside the rectangle will now fill your AutoCAD display screen, or active viewport. Depending on the state of the Bird's-Eye's STAY OPEN option setting, the Bird's-Eye window will either close or remain visible.

The next time the Bird's-Eye window is activated, zoom mode will be active, as indicated by the depressed appearance of the **ZOOM** button. A new zoom can be performed without reactivating the button.

The Bird's-Eye View Pan Activity Button

Activation of the PAN button enables you to change the area of the current drawing displayed at the current zoom factor. If the current view is not zoomed, a default zoom factor of 4X is used.

To relocate your view using the Bird's-Eye's PAN button:

- * Select the PAN button from the Bird's-Eye window and use the outline box and crosshair to locate the area of the drawing that you want to be displayed.
- * Click to lock the outline box in place.

The AutoCAD display immediately reflects the area panned to. Depending on the state of the Bird's-Eye's STAY OPEN option setting, the Bird's-Eye window will either close or remain visible.

The Bird's-Eye View VMAX Activity Button

Pointing to and clicking on the Bird's-Eye View's **VMAX** button is a convenient way of performing an AutoCAD ZOOM VMAX on the currently active viewport. Depending on the state of the Bird's-Eye's STAY OPEN option setting, the Bird's-Eye window will either close or remain visible after activating the **VMAX** button.

The Bird's-Eye View FIT Activity Button

Depending on the actual drawing area used (relative to the total available drawing area at the time of the last AutoCAD REGEN), the image in the Bird's-Eye View window may not occupy the entire window space. This most commonly occurs in 32 Bit Display List mode.

Use the FIT activity button to expand the view inside the Bird's-Eye View window to occupy all available space. Subsequent activation of the Bird's-Eye View will maintain the properly "fit" view.

ZOOM MAX

Selecting this menu entry results in the zooming of the current AutoCAD view to the maximum limitations allowable under AutoCAD, without causing a REGEN. After activating **ZOOM MAX**, specify a new center point by locating the crosshair and clicking.

ZOOM FIT

Selecting this menu entry will cause the boundaries of the drawing to be proportionally fit within the AutoCAD view area (to maintain the proper aspect ratio), without causing a REGEN.

Entering "ZOOM_FIT" at the AutoCAD command line will have the same effect as selecting this menu entry.

ZOOM .1X

Selecting this menu entry will result in a zoom factor of .1X. The center point for the new view depends on the state of the Center Mode toggle switch, as specified in the Bird's-Eye View Options Menu.

ZOOM .5X

Selecting this menu entry will result in a zoom factor of .5X. The center point for the new view depends on the state of the Center Mode toggle switch, as specified in the Bird's-Eye View Options Menu.

ZOOM 2X

Selecting this menu entry will result in a zoom factor of 2X. The center point for the new view depends on the state of the Center Mode toggle switch, as specified in the Bird's-Eye View Options Menu.

ZOOM 5X

Selecting this menu entry will result in a zoom factor of 5X. The center point for the new view depends on the state of the Center Mode toggle switch, as specified in the Bird's-Eye View Options Menu.

ZOOM 10X

Selecting this menu entry will result in a zoom factor of 10X. The center point for the new view depends on the state of the Center Mode toggle switch, as specified in the Bird's-Eye View Options Menu.

The REGEN WARNING Indicator

An invaluable time saver, the **REGEN WARNING** feature is used in conjunction with the Bird's-Eye's **ZOOM** function, allowing you to avoid AutoCAD regenerations. The interactive REGEN alert appears in the **ZOOM** button whenever the second point of the "rubber band" rectangle is positioned outside of the current display list boundary. When the warning appears, reposition the area designated for the zoom, thereby avoiding the REGEN.

The STAY OPEN Option Setting

Some users may wish to have some or all the AutoMate/PRO function windows permanently resident on their display screen, and some may wish to preserve as much drawing and editing space as possible, and therefore wish they would go away when not being used. All of the windows can be set to close after executing an operation, or alternatively to stay open.

A check mark next to the **STAY OPEN** entry in the **OPTIONS** menu in each of the AutoMate/PRO windows indicates that particular window will stay open upon completing an operation. To alter the setting, point to and click on the **STAY OPEN** menu entry. The check mark will alternately appear and disappear.

The Bird's-Eye CENTER MODE Option Setting

When executing a zoom operation using the Bird's-Eye View's ZOOM MENU, the specification of the center point of the new view differs depending on the setting of the **CENTER MODE** option.

With **CENTER MODE ON**, as designated by a check mark next to its entry in the Bird's-Eye's **OPTIONS** menu, after activating a zoom function, the new center point remains as it is in the current AutoCAD view.

With **CENTER MODE OFF** as designated by the absence of a check mark, the new center point must be specified by locating the crosshair at the desired new center, and clicking.

To alter the setting, point to and click on the **CENTER MODE** menu entry. The check mark will alternately appear and disappear.

Auto-Activate Mode

The state of the Auto-Activate mode determines what actions are required to activate the Bird's-Eye window and perform a **PAN** or **ZOOM** operation. (It has no effect on operations invoked from within the ZMENU.)

When Auto-Activate mode is disabled, as indicated by the absence of a check mark next to its entry in the **OPTIONS** menu, a button click is required within the Bird's-Eye window in order to activate it prior to performing a **PAN** or **ZOOM**. Auto-Activate mode is disabled by default.

When Auto-Activate mode is enabled, Bird's-Eye window activation is implied with the first button click of a **PAN** or **ZOOM** operation.

The SAVE SETTINGS Option Setting

All AutoMate/PRO function windows have default size, position, and option settings associated with them. Typically, users will position and size the windows according to their personal tastes, and specify the other option settings in the respective function window's **OPTIONS** menu.

If the user desires to have these customizations preserved, the **SAVE SETTINGS** option should be **ON**, as designated by a check mark next to its entry in the window's **OPTIONS** menu. If **SAVE SETTINGS** is **OFF**, as designated by the absence of a check mark, subsequent activation of the particular function will resort to the default, or most recently saved size, position and option settings.

To alter the setting, point to and click on the **SAVE SETTINGS** menu entry. The check mark will alternately appear and disappear.

The **RESET SETTINGS** Option Setting

All AutoMate/PRO function windows have default size, position, and option settings associated with them. Typically, users will position and size the windows according to their personal tastes, and specify the other option settings in the respective function window's **OPTIONS** menu.

After having customized a particular AutoMate/PRO function window, the user may wish to return to the original default settings. Pointing to and clicking on the **RESET SETTINGS** in the window's **OPTIONS** menu will perform this action.

Customizing the Quick Menu

Pointing to and clicking on the Quick Menu's **CUSTOMIZE** button results in an extension of the Quick Menu window displaying the controls necessary for customizing its command list. Commands can be added, deleted, and their order of appearance rearranged. The command strings bound to existing menu entries can be edited.

Select the appropriate entry from the following list for a description on how to accomplish the desired customization:

[Adding a new command entry](#)

[Deleting an existing command entry](#)

[Moving a menu entry to a new location in the list](#)

[Swapping the locations in the menu of two command entries](#)

[Editing the command string associated with a menu entry](#)

[Specifying a new Quick Menu Description File](#)

The Quick Menu OPTIONS Menu

The AutoMate/PRO Quick Menu has several optional controls involved with its operation. Pointing to and clicking on the **OPTIONS** button in the Quick Menu window displays the current state of these settings, and allows for their modification.

The option choices include:

Stay Open

Save Settings

Reset Settings

Deleting an Entry from the Quick Command Menu

After selecting the Quick Command Menu's **CUSTOMIZE** button, entries can be deleted from the Quick Command Menu.

- * Point to and click on the **DELETE** button in the window extension.
- * Point to and click on the command targeted for deletion.

The menu entry is removed, and the delete operation is terminated. To complete the Quick Command Menu modification, point to and click on the **OK** button. The window's customization extension will disappear.

*In order to preserve modifications to the Quick Command Menu, it must be saved when the Quick Command Menu window is closed. Be sure to answer **YES** when prompted to save changes while closing the window.*

Moving an Entry within the Quick Command Menu

After selecting the Quick Command Menu's **CUSTOMIZE** button, entries can be moved within the Quick Command Menu.

- * Point to and click on the **MOVE** button in the window extension.
- * Point to and click on the command targeted for moving.
- * Point to and click on the menu entry before which you wish to move the command.

The menu entry is moved, and the operation is terminated. Note that the resulting menu is compressed so that no gaps are left in the menu. To complete the Quick Command Menu modification, point to and click on the **OK** button. The window's customization extension will disappear.

*In order to preserve modifications to the Quick Command Menu, it must be saved when the Quick Command Menu window is closed. Be sure to answer **YES** when prompted to save changes while closing the window.*

Adding an Entry to the Quick Command Menu

After selecting the Quick Command Menu's **CUSTOMIZE** button, new entries can be added to the Quick Menu.

- * Point to and click on the **ADD** button in the window extension. An ADD ENTRY dialog box will appear.
- * Type the command name to appear in the Quick Menu, followed by <TAB>.
- * Type the string of commands to which the new entry will be bound. Pay careful attention to AutoCAD syntax, and separate each individual command string with a space.
- * Point to and click on the **ADD** box in the Add Menu Entry dialog box.
- * You can either add more entries by repeating the above steps, or complete the process by clicking on the **CLOSE** button in the Add Menu Entry dialog box.

The new entries are added to the menu, and the operation is terminated. The new entries can be now moved to different locations within the Quick Menu. To complete the Quick Command Menu modification, point to and click on the **OK** button. The window's customization extension will disappear.

*In order to preserve modifications to the Quick Command Menu, it must be saved when the Quick Menu window is closed. Be sure to answer **YES** when prompted to save changes while closing the window.*

Swapping Entries within the Quick Command Menu

After selecting the Quick Command Menu's **CUSTOMIZE** button, entries can be swapped within the Quick Command Menu.

- * Point to and click on the **SWAP** button in the window extension.
- * Point to and click on the first command targeted for swapping.
- * Point to and click on the menu entry with which you wish to swap the first command.

The menu entries are swapped, and the operation is terminated. Note that the resulting menu is compressed so that no gaps are left in the menu. To complete the Quick Command Menu modification, point to and click on the **OK** button. The window's customization extension will disappear.

*In order to preserve modifications to the Quick Command Menu, it must be saved when the Quick Menu window is closed. Be sure to answer **YES** when prompted to save changes while closing the window.*

Editing Quick Command Menu Entries

After selecting the Quick Command Menu's **CUSTOMIZE** button, the command strings bound to menu entries can be edited.

- * Point to and click on the menu entry whose commands you wish to edit. The command string to which this menu entry is bound will appear in the text box in the lower right corner of the **CUSTOMIZE** window extension.
- * Move your cursor into the text box, and click to specify an appropriate insertion point.
- * Use your keyboard to edit the string of commands, paying careful attention to proper AutoCAD syntax. Separate individual command strings with spaces.
- * When editing is complete, point to and click on the **REPLACE** button above the text box.

The menu entry is now bound to the new string of commands, and the editing operation is completed. To complete the Quick Command Menu modification, point to and click on the **OK** button. The window's customization extension will disappear.

*In order to preserve modifications to the Quick Command Menu, it must be saved when the Quick Menu window is closed. Be sure to answer **YES** when prompted to save changes while closing the window.*

Changing the Quick Menu Description File

After selecting the Quick Command Menu's **CUSTOMIZE** button, the Quick Menu Description File, used to store all of the information associated with the Quick Command Menu, can be changed. This allows multiple Quick Command Menu lists associated with different drawing and editing session needs, to be created and maintained, and allows for their easy access from within the AutoCAD environment.

- * Point to and click on the **FILE** button in the window extension. A "Menu File Configuration" dialog box will appear.
- * Move your cursor into the text box, and click to specify an appropriate insertion point.
- * Use your keyboard to edit the filename and its directory path.
- * When editing is complete, point to and click on the **OK** button in the dialog box.

The newly specified description menu file is now active, and reflected in the Quick Command Menu. To complete the Quick Command Menu modification, point to and click on the **OK** button. The window's customization extension will disappear.

*In order to preserve modifications to the Quick Command Menu, it must be saved when the Quick Menu window is closed. Be sure to answer **YES** when prompted to save changes while closing the window.*

The Icon Command Menu OPTIONS Menu

The AutoMate/PRO Icon Command Menu has several optional controls involved with its operation. Pointing to and clicking on the **OPTIONS** button in the Icon Menu window displays the current state of these settings, and allows for their modification.

The option choices include:

Stay Open

Save Settings

Display

Icon Capture

Add/Edit

Delete

Move

Changing Icon Command Menu Display Options

Selecting the **DISPLAY** entry from the Icon Command Menu's **OPTIONS** menu results in the display of the "Configure Icon Menu Display" dialog box from which settings can be altered to customize the Icon Menu display window.

Changeable settings include:

Button size: width
 height
 spacing
 border

Button cropping: LeftBottom
 RightBottom
 LeftTop
 RightTop
 Center (default)
 Fit

Changing the Icon Menu Description File

Information relating to the Icon Command Menu is stored in the Icon Menu Description File. This information includes specification of the actual pictures used as icons, AutoCAD function bindings, etc. AutoMate/PRO allows the user to specify the desired name and path for this file. Thus, Multiple Icon Menu Description Files can be kept and maintained.

To alter the file currently in use as the Icon Menu Description file, point to and click in the text box. Edit the filename. Note that the file specified must be of the proper format. A warning message will appear if this is not the case. If the path is not fully qualified, it is assumed to reside in the AEW directory. When the new filename has been entered, point to and click on the dialog box's **OK** button.

The default Icon Menu Description File is named *dsmenu.mnu*.

Display of Icon Labels

By default, when an icon button is pointed to, its associated label appears in a text box at the top of the Icon Command Menu. Some users may wish to have individual labels appear with each button. The **Show Button Text** switch indicates whether or not the labels are displayed. Point to and click on the **Show Button Text** switch to turn on or off the labels. An X in the box indicates that the labels will be displayed.

RGB Value Mapping

The icons used in the Icon Command Menu are based on the standard BMP format. The colors of the BMP images can be realized in two ways. They can either have their 256 colors translated to palette indexes, or they can be mapped to the Windows system colors. The first method results in better image quality, but requires a minor performance penalty.

Point to and click on the **Show Button Text** switch to alternate between methods. An X in the box indicates that the palette index translation method is in use. This is the default setting.

The Icon Menu Description File

The AutoMate/PRO Icon Command Menu is defined by the description file designated in the Configure Icon Menu Display dialog box. Changes to the Icon Command Menu are instituted by editing this file. The file is of standard ASCII format, and any available text editor will suffice.

File Format

The file begins with a header line that identifies it as a valid Icon Menu Description File:

```
[Icon Menu]
```

Following the header line are one or more "MenuSequences". Each MenuSequence describes the appearance and function of a single menu or sub-menu. The following defines a menu named "Shapes" consisting of 4 buttons arranged as 2 rows of 2 buttons:

```
Menu=Shapes  
Row=1;Col=1;Bmp=line.bmp;Text="line";Cmd="line"  
Row=1;Col=2;Bmp=pline.bmp;Text="pline";Cmd="pline"  
Row=2;Col=1;Bmp=arc.bmp;Text="arc";Cmd="arc"  
Row=2;Col=2;Bmp=circle.bmp;Text="circle";Cmd="circle"
```

The example indicates that a MenuSequence consists of a "MenuLine" that names the menu, followed by one or more "ButtonLines" that define the appearance and function of each button in the menu.

One such MenuSequence must be named "Main". It does not have to appear first in the file. This menu describes the main, or top-level menu, and the one that will be displayed when the Icon Command Menu is first activated.

Note that the ButtonLines consist of a series of clauses (like "Row=2") separated by semicolons. Each clause has the general format of Identifiers=Value. Clauses can be listed in any order on the line. You can mix upper and lower case in either the identifier or the value. Only the first occurrence of a specific clause on a ButtonLine will be recognized.

Normally, an identifier or value can't have an embedded blank character, semicolon, or equal character. If you need to embed any of these, you can use double quotes:

```
Cmd="zoom max"
```

You may have a ButtonLine that is too big to fit conveniently on a single line in the file. You can continue the line by placing a "+" character on the line. For example, the first button in the above menu description could appear as:

```
Text="line"; +;  
Row=1; Col=1; +;  
Bmp=line.bmp; +;  
Cmd="line"
```

If you locate the "+" somewhere other than at the end of the line, be sure to isolate it between semicolons:

```
Row=1; +; Col=1 (this is OK)  
+; Row=1; Col=1 (so is this)  
+ Row=1; Col=1 (but this is not)  
Row=1; + Col=1 (nor this)
```

You can put a blank space either before or after a clause to make a group of ButtonLines more readable. Also, you can put comment lines anywhere following the header line in the description file. A comment line is either a line consisting of all blank characters, or a line beginning with a "#":

```
# and so is this...      (this is a comment line)
                        (so is this)
```

Formal Semantics of Menu Description File

Individual lines in the menu sequences are in the format of an "extended token list", where:

```
ExtendedTokenList:
    ExtendedToken
    ExtendedToken; ExtendedTokenList
```

Since the second option is recursive (it refers to itself), you can grow the length of an ExtendedTokenList arbitrarily.

Each extended token is of the form:

```
Extended Token:
    Name
    Name=Xvalue
```

where:

```
Xvalue:
    Value
    Value,Xvalue
```

The ExtendedTokens (XTokens) may be placed on the line in any order. Each individual token or separator may have spaces preceding or following it. The Name tokens are not case sensitive. Value tokens are only case sensitive to the extent that they are passed unmodified to their "consumer", i.e. they may be the arguments associated with an AutoCAD command, which may or may not be sensitive to case.

The following are examples of ExtendedTokens:

```
row=7
noUpperCASE
file=menu.txt,ascii,"hello world"
```

A line that's too long to fit conveniently onto a single line in the description file may be continued on the next line by putting the ExtendedToken "+" anywhere on the line.

Supplied by the installation program is the file *dsmenupx.dll*. This file contains various pictures that can be used on the button surfaces. The default menu description file *dsmenu.mnu* references bitmaps in *dsmenupx.dll*.

The following specification defines the format of the Icon Menu Description File. Literal text is placed between quotation marks. The quotation marks should not be included in the description file.

```
DescriptionFile:
    FileHeader MenuSequence
    CommentLine DescriptionFile
```


FileHeader:

"[IconMenu]"

MenuSequence:

MenuLine ButtonSequence
CommentLine MenuSequence
MenuSequence MenuSequence

ButtonSequence:

ButtonLine ButtonSequence
CommentLine ButtonSequence
ButtonSequence ButtonSequence

MenuLine:

"Menu=" NameToken (NameToken not case sensitive)

ButtonLine:

RowXToken "," ColXToken ";" ActionXToken
ButtonLine ";" ButtonOption

ButtonOption:

PictureXToken
TextXToken
ButtonOption ";" ButtonOption

RowXToken:

"Row=" Number (1..10)

ColXToken:

"Col=" Number (1..10)

ActionXToken:

AcadCmdXToken
SubmenuXToken
ExecXToken

AcadCmdXToken:

"Cmd=" Token (up to 64 characters)

SubMenuXToken:

"SubMenu=" Token (up to 16 characters)

ExecXToken:

"Exec=" Token (up to 64 characters)

PictureXToken:

"Bmp=" BitmapFileSpec (up to 64 characters)
"Ico=" IconFileSpec (up to 64 characters)

TextXToken:

"Text=" Token (up to 16 characters)

BitmapFileSpec:

AbsolutePath (naming BMP file)
RelativePath (naming BMP file, relative to AcadWin home directory)

IconFileSpec:

AbsolutePath (naming ICO file)
RelativePath (naming ICO file, relative to AcadWin home directory)
DllPath (naming ICO resource)

DllPath:

AbsolutePath "@" CharSequence (naming resource)
"@" CharSequence (naming resource in "dsmenupx.dll")

NOTE: It is necessary to know the names of the resources that reside in a dynamic link library. Bitmap resources have names that are Ascii strings. Icons are named ordinally.

Token:

CharSequence
QuotedCharSequence

CharSequence:

any Ascii character except " " "=" or ";" or ","
CharSequence CharSequence

QuotedCharSequence:

"FullCharSequence"

FullCharSequence:

any Ascii character
FullCharSequence FullCharSequence

CommentLine:

"#"
"#" CharSequence
BlankLine

BlankLine:

" "
Blankline Blankline

Number

Digit
Digit Number

Digit

"0" .. "9"

Button Size Width

This designates the number of pixels comprising the width of the button. The range of sizes is between 32 pixels and 128 pixels. The default size is 72 pixels. To change, point to and click on the text box, and enter a new value for the width. Note that widths less than the actual icon image's width will result in cropping of the picture.

Button Size Height

This designates the number of pixels comprising the height of the button. The range of sizes is between 32 pixels and 128 pixels. The default size is 56 pixels. To change, point to and click on the text box, and enter a new value for the height. Note that heights less than the actual icon image's height will result in cropping of the picture.

Button Border

This designates the minimum number of pixels from any edge of a button to the nearest edge of a buttons picture. The range of sizes is between 4 pixels and 16 pixels. The default size is 4 pixels. To change, point to and click on the text box, and enter a new value for the minimum border.

Button Spacing

This designates the number of pixels between adjacent buttons in a given row, or column if button text is not displayed. The range of sizes is between 2 pixels and 16 pixels. The default is 1/4 the width of the average character in the system font. To change, point to and click on the text box, and enter a new value for the minimum border.

A Sample Icon Menu Description File

The following is an sample Icon Menu Description File. This file produces a main, top-level menu containing three icon buttons. One button is bound to an AutoCAD command, one is bound to a Windows application, and one is bound to a sub-menu. The sub-menu also contains three icons, all of which are bound to AutoCAD functions. For more detailed information, see the help section on the [Icon Menu Description File](#) .

```
[IconMenu]

#####
##### Main Menu #####
#####

Menu=Main

Row=1; Col=1; Bmp=c:\acadwin\zoomwin.bmp; Text="zoomwin"; +;
      Cmd="zoom w"
Row=1; Col=2; Ico=c:\windows\mypaint.ico; Text="edit bmp" +;
      Exec="c:\windows\pbrush c:\acadwin\icon.bmp"
Row=1; Col=3; Bmp=c:\acadwin\drawfuncs.bmp; Text="draw"; +;
      Submenu="DrawFuncs"

Menu=DrawFuncs

Row=1; Col=1; Bmp=c:\acadwin\line.bmp; Text="line"; Cmd="line"
Row=2; Col=1; Bmp=c:\acadwin\pline.bmp; Text="pline"; Cmd="pline"
Row=3; Col=1; Bmp=c:\acadwin\circle.bmp; Text="circle"; Cmd="circle"
```

Adding a Button to the Icon Command Menu

In order to create a new icon button in the AutoMate/PRO Icon Command Menu, the following steps should be followed:

- * Determine what you wish to use as an icon picture. *BMP* and *ICO* image files are appropriate sources of icon pictures. AutoMate/PRO provides an Icon Capture utility which creates *BMP* format image files.
- * Be sure that the Icon Command Menu is displaying the menu in its hierarchy into which you want to add the new icon button. Note the row and column location into which you want the icon button to be placed.
- * Use the ADD/EDIT dialog box from within the Icon Command Menu's OPTIONS menu to specify the specific appearance and function of the new icon button.
- * Once all of the parameter fields have been specified in the ADD/EDIT dialog box, point to and click on the ADD button to complete the process of adding an icon button. Additional icon buttons can now be created. To do so, repeat the above steps. Select the CLOSE button in the ADD/EDIT dialog box when the process of adding icons is complete.
- * The CANCEL button can be selected anytime during the process of creating the new icon button. The ADD/EDIT dialog box will close, and no changes will be made to the Icon Command Menu.
- * If the format of the Icon Menu Description File was inadvertently violated during the process of adding a new icon, a warning message will appear at the time of the next Icon Menu activation.

Deleting a Button from the Icon Command Menu

In order to delete a button from the AutoMate/PRO Icon Command Menu, the following steps should be followed:

- * Be sure that the Icon Command Menu is displaying the menu in its hierarchy from which you want to delete the icon button. Note the row and column location of the icon button you want to remove.
- * Use the DELETE entry from within the Icon Command Menu's OPTIONS menu to perform the deletion.
- * Once the icon button or buttons have been deleted in the Delete dialog box, select the CLOSE button to terminate the deletion process.
- * The CANCEL button can be selected anytime during the process of removing the icon button. The Delete dialog box will close, and no changes will be made to the Icon Command Menu.

Rearranging Buttons within the Icon Command Menu

In order to reposition a button within the AutoMate/PRO Icon Command Menu, the following steps should be followed:

- * Be sure that the Icon Command Menu is displaying the menu in its hierarchy in which you want the changes to take place. Note the row and column location of the icon button or buttons you want to move, as well as their target new locations.
- * Use the MOVE entry from within the Icon Command Menu's OPTIONS menu to perform the repositioning.
- * Once the icon button or buttons have been rearranged in the Move dialog box, select the CLOSE button to terminate the deletion process.
- * The CANCEL button can be selected anytime during the process of moving the icon buttons. The Move dialog box will close, and no changes will be made to the Icon Command Menu.

Creating a Sub-Menu within the Icon Command Menu

There are two steps involved with creating a new sub-menu within the AutoMate/PRO Icon Command Menu. The first involves creating an icon button bound to the activation of the sub-menu, and the second involves creating the icon buttons which will appear in the new sub-menu.

Creating a Sub-Menu Icon Button

- * Determine what you wish to use as an icon picture to represent the sub-menu. *BMP* and *ICO* image files are appropriate sources of icon pictures. AutoMate/PRO provides an Icon Capture utility which creates *BMP* format image files.
- * Be sure that the Icon Command Menu is displaying the menu in its hierarchy from which you want the new sub-menu to be accessed. Note the row and column location into which you want the icon button representing the sub-menu to be placed.
- * Use the ADD/EDIT dialog box from within the Icon Command Menu's OPTIONS menu to specify the specific appearance and function of the new icon button.
- * Once all of the parameter fields have been specified in the ADD/EDIT dialog box, point to and click on the ADD button. Select the CLOSE button in the ADD/EDIT dialog box when the process of adding the icon representing the sub-menu is complete.
- * The CANCEL button can be selected anytime during the process of creating the new icon button. The ADD/EDIT dialog box will close, and no changes will be made to the Icon Command Menu.
- * If the format of the Icon Menu Description File was inadvertently violated during the process of adding a new icon button, a warning message will appear at the time of the next Icon Menu activation.

Filling the New Sub-Menu with Icon Buttons

- * In the Icon Command Menu, point to and click on the new icon button representing the new sub-menu.
- * The new menu will appear empty. Follow the steps in the Help section on Adding a New Icon Button to fill the new menu.

Editing Icon Button Function Bindings

In order to change the function associated with an icon button in the AutoMate/PRO Icon Command Menu, the following steps should be followed:

- * Be sure that the Icon Command Menu is currently displaying the menu in its hierarchy which contains the button you want to edit. Note the row and column location of the button.
- * Use the ADD/EDIT dialog box from within the Icon Command Menu's OPTIONS menu to alter the specific appearance and function of the new icon button.
- * Once all of the parameter fields have been specified in the ADD/EDIT dialog box, point to and click on the ADD button to complete the process of changing the icon button. Additional icon buttons can now be edited. To do so, repeat the above steps. Select the CLOSE button in the ADD/EDIT dialog box when the process of adding icons is complete.
- * The CANCEL button can be selected anytime during the process of editing the icon button. The ADD/EDIT dialog box will close, and no changes will be made to the Icon Command Menu.
- * If the format of the Icon Menu Description File was inadvertently violated during the process of adding a new icon, a warning message will appear at the time of the next Icon Menu activation.

Left Bottom Cropping

When cropping is required due to button/picture size conflicts, this mode uses the lower left corner of the image.

Right Bottom Cropping

When cropping is required due to button/picture size conflicts, this mode uses the lower right corner of the image.

Left Top Cropping

When cropping is required due to button/picture size conflicts, this mode uses the upper left corner of the image.

Right Top Cropping

When cropping is required due to button/picture size conflicts, this mode uses the upper right corner of the image.

Center Cropping

When cropping is required due to button/picture size conflicts, this mode maintains the center point of the image, and crops around the entire perimeter.

Fit BitMap to Icon Size

Rather than cropping due to button/picture size conflicts, this mode will fit the picture to the button by removing rows and columns of pixels.

Creating Icons with BMP Image Files

The BMP image file format is an industry standard, and files of this format can be created by numerous draw and paint packages, including Paintbrush which ships with Windows. This is also the format created when using AutoMate/PRO's Icon Capture utility. For best results, images should be created and saved possessing maximum dimensions, in pixels, equivalent to the limits dictated by the Icon Command Menu's Display Option settings.

For best results, images should be comprised of the colors available in the given package's *standard* palette.

BMP files should be saved with the ".BMP" suffix.

Creating Icons with ICO Image Files

The ICO image file format is a Windows standard. Files of this format can be created by numerous commercially available utilities, including the Icon Editor which ships with the Windows Software Developers Kit (SDK).

By definition, ICO images possess dimensions of 32x32 pixels. For best results, images should be comprised of the colors available in the given package's *standard* palette.

ICO files should be saved with the ".ICO" suffix.

Dynamic Mode

When in Dynamic Mode, the Magnifying Glass is dynamically updated to reflect changes in the crosshair position. This is the default operating mode, and results in smooth panning and zooming with most graphics display adapters.

The currently active update mode is indicated in the top right corner of the Magnifying Glass window. The update mode can be altered in the Magnifying Glass's **OPTIONS** menu. A check mark next to Dynamic Mode indicates it is the currently active update mode. The alternative is Static Mode. The two modes are mutually exclusive. Clicking on either mode will result in its activation.

Static Mode

For some graphics display adapters, it is impossible to provide smooth panning or zooming with the Magnifying Glass. For this reason, the Static Mode of Magnifying Glass update is provided.

When in Static Mode, the Magnifying Glass is *not* dynamically updated when the crosshair or slide bar is moved. It will instead be updated with each mouse button action.

The currently active update mode is indicated in the top right corner of the Magnifying Glass window. The update mode can be altered in the Magnifying Glass's **OPTIONS** menu. A check mark next to Static Mode indicates it is the currently active update mode. The alternative is Dynamic Mode. The two modes are mutually exclusive. Clicking on either mode will result in its activation.

MicroZoom Mode

The precision of the zoom factor applied when zooming with the arrow keys at the top and bottom of the Magnifying Glass's zoom slide-bar is controllable.

With MicroZoom on, as designated by a check mark next to its entry in the Magnifying Glass window's **OPTIONS** menu, the zoom precision is .1X. This is the "fine-adjust" mode.

With MicroZoom off, as designated by the absence of a check mark next to its entry in the Magnifying Glass window's **OPTIONS** menu, the zoom precision is 1X. This is the "coarse adjust" mode.

Pointing to and clicking on the MicroZoom menu entry will change modes.

Autosize Off

With AUTOSIZE OFF, as designated by a check mark next to its entry in the OPTIONS menu, whenever a given AutoMate/PRO function window is resized, the aspect ratio of the currently active AutoCAD viewport is *not* preserved. This may result in wasted space in the function window. Use AUTOSIZE SMALLER or AUTOSIZE LARGER to eliminate wasted space.

Autosize Smaller

With AUTOSIZE SMALLER, as designated by a check mark next to its entry in the OPTIONS menu, whenever a given AutoMate/PRO function window is resized, the aspect ratio of the currently active AutoCAD viewport is preserved. The smaller edge of the new window definition will dictate the new window's overall size. This eliminates wasted space in the function window.

Autosize Larger

With AUTOSIZE LARGER, as designated by a check mark next to its entry in the OPTIONS menu, whenever a given AutoMate/PRO function window is resized, the aspect ratio of the currently active AutoCAD viewport is preserved. The larger edge of the new window definition will dictate the new window's overall size. This eliminates wasted space in the function window.

Icon Capture

Selecting the **ICON CAPTURE** entry from the Icon Command Menu's **OPTIONS** menu results in the display of the "Icon Capture" dialog box. This provides a means for creating icon pictures by capturing images present on the display screen.

Icons created using this method are saved as .BMP files . Alternatively, they can be placed in the Windows Clipboard. (See Windows Help for a description of the Clipboard utility.)

There are several modes available for capturing icons, varying in the way the screen image is "cut" and saved as an icon file. The mode currently in used is indicated in the Capture Mode portion of the dialog box. The modes are:

Corner Mode

Center Mode

Fixed Size (Default)

Full Screen

To capture an icon, use the following steps:

- * Be sure that the graphics image that you wish to capture as an icon is located on your Windows display screen. If you will be using Corner, Center, or Fixed Size Capture Mode, be sure that this image appears at the proper scale for your new icon. A one to one capture will be applied. If you will be using Full Screen capture mode, be sure that your image occupies the entire active AutoCAD view. It will be scaled down to your specified target icon size.
- * Select the **ICON CAPTURE** entry from the Icon Command Menu's **OPTIONS** menu to open the "Icon Capture" dialog box.
- * Specify the desired capture mode by pointing to and clicking on the appropriate button. If you are using Fixed Size or Full Screen Capture Mode, be sure to specify the desired width and height, in pixels, of the new icon.
- * Specify whether or not you want to have the "Icon Capture" dialog box temporarily disappear during the actual capture step by pointing to and clicking on the associated check box. If the "Icon Capture" dialog box is going to stay open, insure that it is not obscuring the image you wish to capture.
- * Indicate whether or not you want the captured icon to be limited to 16 colors by toggling the associated check box. Limiting the icon to 16 colors will insure that it will look the same regardless of the color depth supported by any given Windows driver or graphics controller.
- * Specify the desired output by pointing to and clicking on the button associated with either the File or Clipboard option. If you choose the File option, specify the output directory and filename. Be sure to use a ".BMP" suffix on the filename.
- * Once you have specified all of the above options, point to and click on the **CAPTURE** button.
If you have specified Full Screen mode, the new icon will immediately appear in the Icon preview box.
If you are using Corner or Center mode, your cursor will appear as a hand. If you are using Fixed Size mode, a dotted rectangle will appear. Depending on the specific mode, you can now use your pointing device to indicate the area of the Windows display screen that you wish to capture as an icon. Upon completing the required button click sequence, the new icon will appear in the Icon preview box.
- * If the icon preview is satisfactory, point to and click on the **OK** button to complete the icon capture

process, and save the new icon to the specified output.

- * If the icon preview is unsatisfactory, redo the preceding steps.

At any point during the Icon Capture, click on the **CANCEL** button to terminate the process.

Corner Capture Mode

When capturing the icon image, Corner Mode indicates that a rubber-band rectangle will be used to specify the image to be "cut" from the Windows display screen. Two button clicks are required to designate alternate corners of the rectangle. The height, width, top and left coordinate locations, file size, and number of colors that comprise the resulting image rectangle appear in the "Icon Capture" dialog box.

Center Capture Mode

When capturing the icon image, Center Mode indicates that a rubber-band rectangle will be used to specify the image to be "cut" from the Windows display screen. Two button clicks are required to designate (in order) the center of the rectangle, and one of its vertices. The height, width, top and left coordinate locations, file size, and number of colors that comprise the resulting image rectangle appear in the "Icon Capture" dialog box.

Fixed Size Capture Mode

When capturing the icon image, Fixed Size Mode indicates that a fixed rectangle will be used to specify the image to be "cut" from the Windows display screen. The dimensions of the rectangle are specified in the Height and Width fields in the "Icon Capture" dialog box's Capture section. (The default Height and Width values will produce icons identical in size to those provided with AutoMate/PRO.) A single button click will "drop" the rectangle around the desired graphics image. The height, width, top and left coordinate locations, file size, and number of colors that comprise the resulting image rectangle appear in the "Icon Capture" dialog box.

Full Screen Capture Mode

Full Screen Capture Mode allows for the creation of icon images in AutoCAD without regard for the scale to which they will be mapped when captured as icons. When this mode is used, the drawing displayed in the currently active AutoCAD session will be scaled and mapped to an icon, the dimensions of which are specified in the Height and Width fields in the "Icon Capture" dialog box's Capture section. Note that the aspect ratio of the AutoCAD display will be preserved, and therefore manually changing the Height field will cause the Width field to automatically change in accordance with this ratio, and vice versa.

The Icon Command Menu's Add/Edit Dialog Box

Selecting the Add/Edit entry from the Icon Command Menu's OPTIONS menu opens the Add/Edit Dialog Box. From here, new icon buttons can be added to the current menu displayed in the Icon Command Menu window, or the commands, labels or icon pictures associated with existing icon buttons can be edited.

Note: Before specifying options in the Add/Edit dialog box, be sure that the Icon Command Menu is displaying the menu associated with the proper level in the hierarchy.

When adding an icon button, specify its appearance, location and function, by editing the parameter fields:

Image File Name

Button Position

Button Text Label

Button Binding

When editing an icon button, the Button Position option should be set to REPLACE mode. Specify the location of the button to be edited by entering its row and column address. All of the current parameters associated with the icon button located at this address will appear in the respective parameter fields. Alter the fields and select the ADD button to register the changes.

The Icon Command Menu's Delete Dialog Box

Selecting the DELETE entry from the Icon Command Menu's OPTIONS menu opens the Delete Dialog Box. From here, icon buttons can be removed from the current menu displayed in the Icon Command Menu window.

Note: Before opening the Delete dialog box, be sure that the Icon Command Menu is displaying the menu associated with the proper level in the hierarchy. Note the row and column location of the icon button or buttons you wish to remove from the menu.

The Compress Menu check box determines the effect on the remaining menu buttons after an icon button is deleted. With Compress Menu disabled, a deleted icon button will leave a "hole" in the menu. With Compress Menu enabled, as designated by an **X** in its associated box, the menu will be compressed, with icons buttons moving up and to the left to fill the hole created by the deletion.

When deleting an icon button, specify its location by editing the row and column fields in the Delete dialog box. The icon picture, text label, and function associated with the icon button will appear in the parameter fields. Confirm that this is the icon button that you wish to remove. Point to and click on the DELETE button in the dialog box to register the deletion. You can now specify more icon buttons for removal, or point to and click on the CLOSE button to terminate the deletion process.

The CANCEL button can be selected anytime during the process of deleting the icon buttons. The Delete dialog box will close, and no changes will be made to the Icon Command Menu.

The Icon Command Menu's Move Dialog Box

Selecting the MOVE entry from the Icon Command Menu's OPTIONS menu opens the Move Dialog Box. From here, icon buttons can be moved from one location to another within the current menu displayed in the Icon Command Menu window.

Note: Before opening the Move dialog box, be sure that the Icon Command Menu is displaying the menu associated with the proper level in the hierarchy. Note the row and column location of the icon button or buttons you wish to move, and the location you wish to move to.

To move an icon button specify its "from" location in the appropriate row and column field. The icon picture, text label, and associated function will appear in the parameter fields. Check to insure that this is the icon button you wish to move. If it is, specify the desired new row and column address for the icon button. Point to and click on the MOVE button to register the move operation. You can now specify more icon buttons for relocation, or point to and click on the CLOSE button to terminate the move process.

The CANCEL button can be selected anytime during the process of moving the icon buttons. The Move dialog box will close, and no changes will be made to the Icon Command Menu.

Image File Name

This field is used to specify the icon picture which will appear on the icon button. *BMP* and *ICO* image files are appropriate sources of icon pictures. The file list shows *BMP* and *ICO* files in your AutoCAD for Windows directory only. If you are using a *BMP image file*, specify the filename, with proper respect to its path definition, along with the ".*BMP*" suffix. AutoMate/PRO's Icon Capture utility creates *BMP* images. If you are using an *ICO image file*, use the ".*ICO*" suffix. (Note that pictures are optional; buttons can be created which have text labels only.)

Button Position

This field is used to define the button's position in the menu. Note that there can be no greater than 20 rows and 20 columns in a single menu, with a total number of icon buttons no greater than 80.

When adding a new button specify whether you wish it to REPLACE (and eliminate) an existing icon button at the specified address, or wish to INSERT it at the specified location with the remaining icons shifted accordingly in their respective rows and columns.

When editing an icon, always specify REPLACE.

Button Text Label

Use this field to specify a text label to appear under the icon picture on the new button, or in the text box in the Icon Command Menu window if the Show Button Text Option is disabled. Note that the character string can be no longer than 16 characters, and that only the first 8 characters will appear in the text box in the Icon Command Menu window. (Text labels are optional; buttons can be created which only have picture identifiers.)

Button Binding

Icon buttons can be bound to AutoCAD functions, AutoMate/PRO features such as the Bird's-Eye View or Magnifying Glass, or Windows Applications. They can also be bound to sub-menus in the Icon Command Menu hierarchy. Use the Button Binding parameter field to specify the type of function to which the new button is to be bound.

For AutoCAD and AutoMate/PRO functions, enter the command description exactly as it would appear at the AutoCAD command line in the text box.

For buttons bound to **Windows applications**, all Windows compatible executable files (*application_name.EXE*) are valid. Pay careful attention to appropriate Windows syntax, and the arguments required by the specific application.

If the new button is to be bound to a **Sub-Menu**, enter an appropriate sub-menu name. See the help section on creating sub-menus.

In all cases, note that the maximum allowable string length is 64 characters.

