

# AutoCAD Leader Toolbuttons

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It's easy to create customized toolbars in AutoCAD®. This article covers the steps necessary to build a simple toolbutton that draws a leader with an arrow inserted at the end.

AutoCAD keeps information about toolbars created in the acad menu in the acad.mns file. If you have a customized menu with a different name, AutoCAD stores the information in the menu's \*.mns file. You don't need to have any programming experience to add a toolbar to your menu, because AutoCAD does it for you. A toolbar comprises one or more buttons, each represented with an icon that, when clicked by your mouse, activates a command or LISP routine within AutoCAD.

The first step to start creating your toolbar is to bring up the Toolbar dialog box. To accomplish this, right-click on any existing toolbar button on the screen and choose Customize at the bottom of the pop-up list. Select the Toolbars tab at the top of the screen. You will see a screen similar to that shown in **Figure 1**. The Toolbar dialog box will display a list of loaded menus and their associated toolbars. You can display or hide any of these toolbars by selecting the check box. Those of you who have lost a toolbar accidentally will find that this is an easy way to redisplay them.

To create your toolbar, select the New option, which will display the New Toolbar dialog box (**Figure 2**). Enter the name of your toolbar (in this case, Leaders). Then select the menu you wish to associate with the toolbar and toolbuttons. In this case, I associate them with my PLBG menu. That way, I am able to organize all of the menus for our office (i.e., PLBG, MECH, ELECT). After selecting the OK button, you will find an empty

Figure 1. The Customize Toolbars Screen

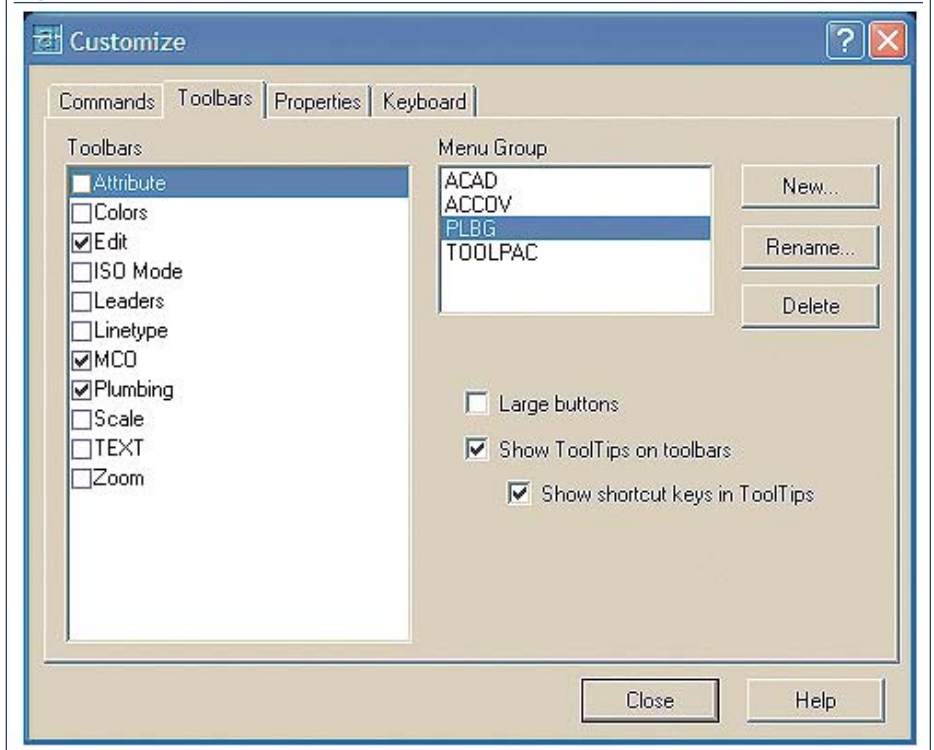


Figure 2. The New Toolbar Dialog Box



Figure 3. Empty Toolbar



toolbar positioned in the middle of your screen (**Figure 3**). The toolbar name is not shown, as it is truncated because of the empty toolbar.

**You don't need to have any programming experience to add a toolbar to your menu.**

Before you customize your toolbutton, we need to discuss toolbars and buttons. Essentially, you can mix and match toolbuttons from one category to another. Be aware that drag-

ging a button off deletes it from the toolbar, and holding the Ctrl key while dragging a button copies the button to another toolbar. You will mess up a menu if you don't watch what you are doing.

It is possible to rearrange your existing toolbar while in the customization mode. In fact, all of your toolbars may be modified. If you have a button that you never use, simply drag it off of the toolbar into oblivion, allowing screen space for more icons.

Placing the toolbutton on the toolbar

Figure 4. The Properties Button Dialog Box

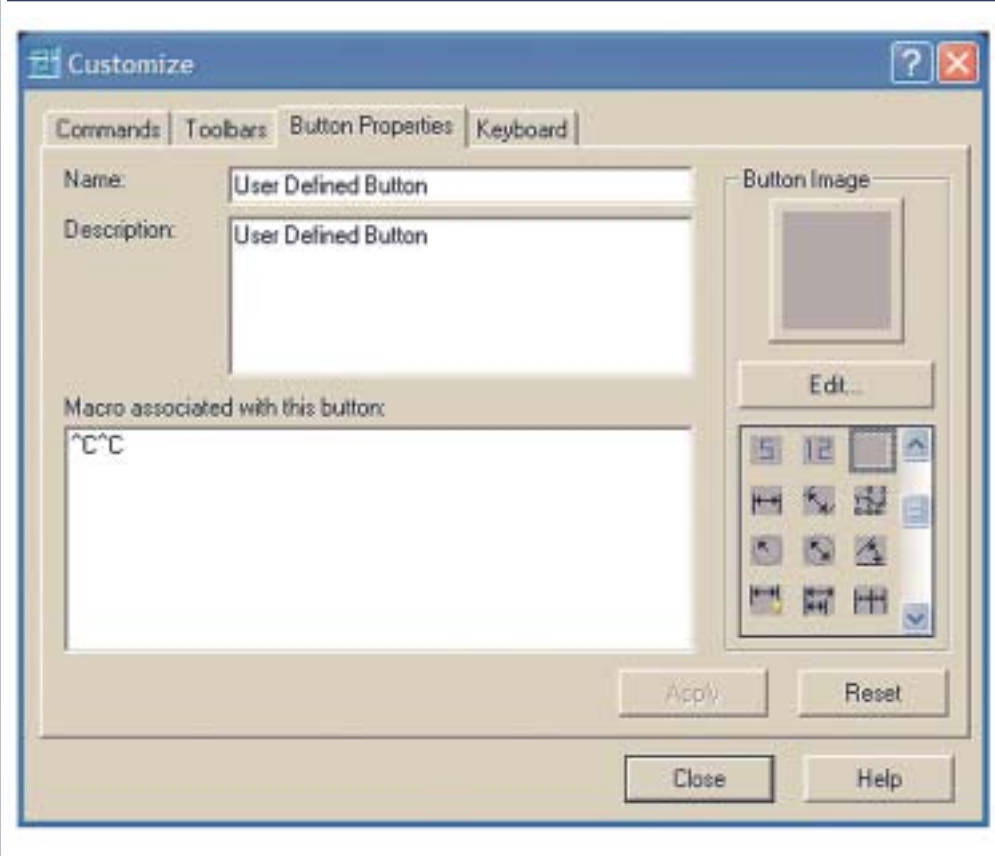
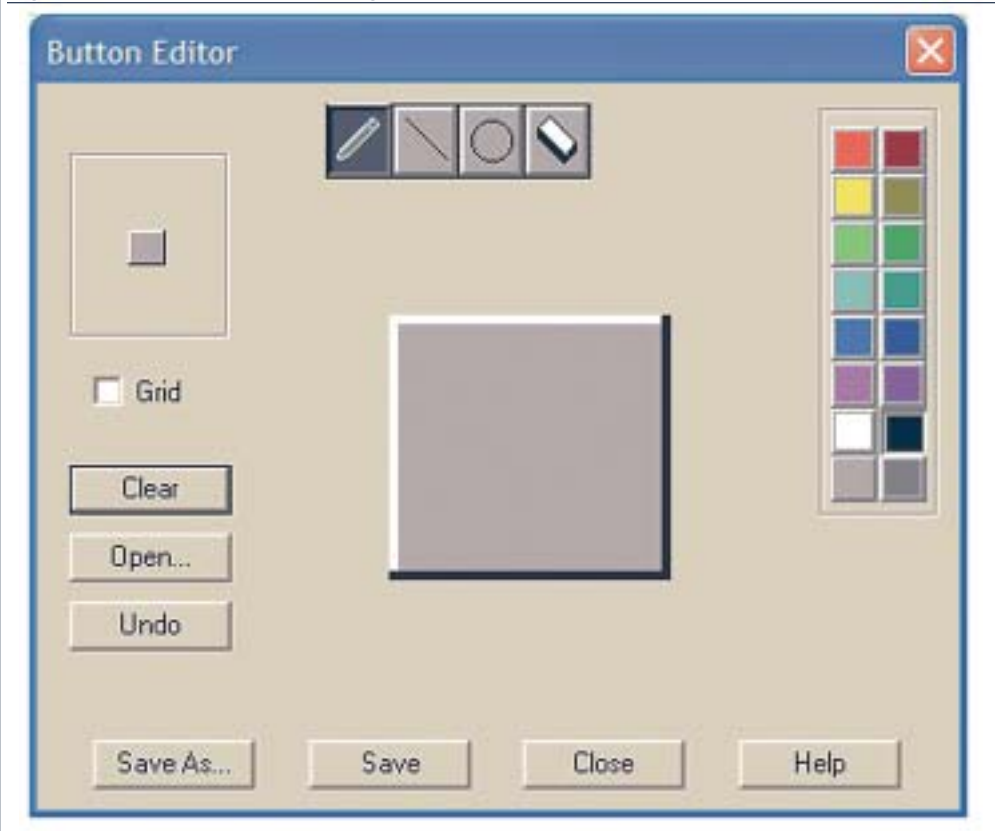


Figure 5. The Button Editor Dialog Box



is our next step. Select the Commands tab at the top of the Toolbar dialog box. In the Categories box, scroll down to the bottom three lines and select User Defined category. Select the gray area next to User Defined Button from the right portion of the screen and drag the button to your toolbar. The line at the middle of the toolbar will go away and a blank toolbutton will be there. (Don't worry, it's there.)

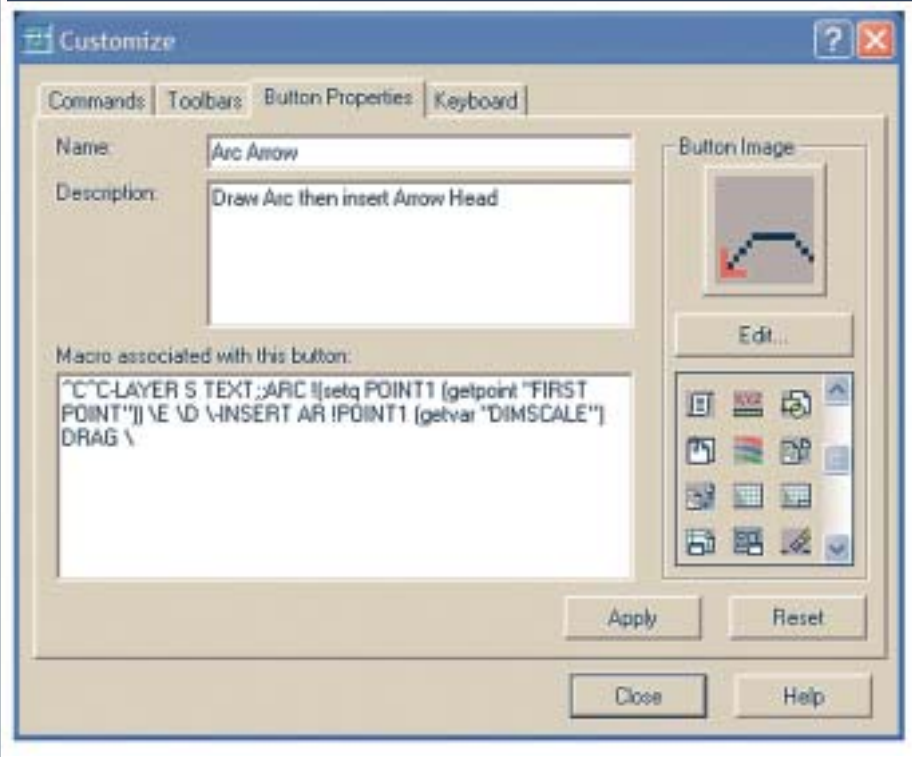
Right- or left-click on the blank button and the Properties Button dialog box will appear (Figure 4). Then name your toolbar. The name displays on the screen when the user's cursor hovers over the button, so make it short and simple to describe the function. Enter a description in the appropriate location. Then enter the macro. Our office macro of choice is one that will draw a two-point arc and then insert an arrowhead (more on the arrowhead later). Here is the macro that will accomplish this:

```
^C^C-LAYER S TEXT;;ARC !(setq POINT1 (getpoint FIRST POINT )) \E \D \-INSERT ARROW !POINT1 (getvar DIMSCALE ) DRAG \
```

The ^C^C commands AutoCAD to issue two escapes. The next portion sets the layer to text (choose the layer on which you wish to have the arc and arrowhead placed). You draw a two-point arc, the arrowhead is inserted at the first arc pick-point, and finally you pick the rotation angle of the arrowhead.

Now you can get artistic and create the icon (the picture on the button). You can create your own by selecting Edit (right below the Button Image), which will send you to the Button Editor dialog box (Figure 5).

Figure 6. The Customize Dialog Box



The Button Editor will challenge your artistic ability.

The Button Editor will challenge your artistic ability. For those who have used PC Paint in the past, this dialog box will

be quite familiar. I like to turn on the grid so I can see which pixel will receive the color. Four tools at the top of the dialog box are used to draw individual points, lines, and curves, and there is an eraser to clean up mistakes. The colored squares to the right are used to select your colors. The top right-hand box indicates what your icon will look like as you add color to the pixels.

When you have your icon in perfect condition, hit the Save button to return to the Customize dialog box. AutoCAD asks you to select a file name. (I don't know why. It uses a icon321.bmp syntax when saving, as if you would know this.) Save it in a subdirectory that is pathed, like the Support subdirectory, or you will get one of those smiley-face icons instead of your artistic icon. The Customize dialog box should look like the one in **Figure 6**. Hit the Apply button, and the changes should take effect.

Make sure the arrow.DWG drawing is located in a subdirectory that is pathed and that the drawing contains the Text layer, or the routine will not work. Refer to **Figure 7** for the arrow (attitude is most important). The arrow-head is inserted at the dimscale. Refer to **Figure 8** for the pickpoints and final outcome of your toolbutton. ■

Figure 7. The Arrow

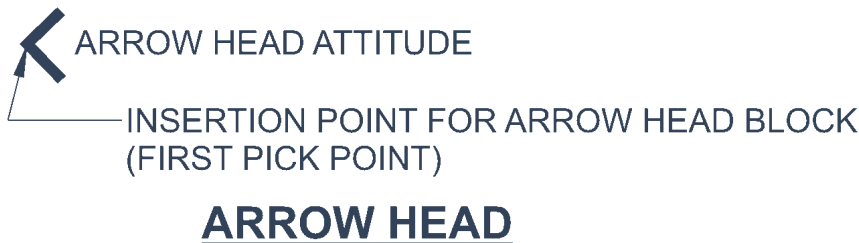
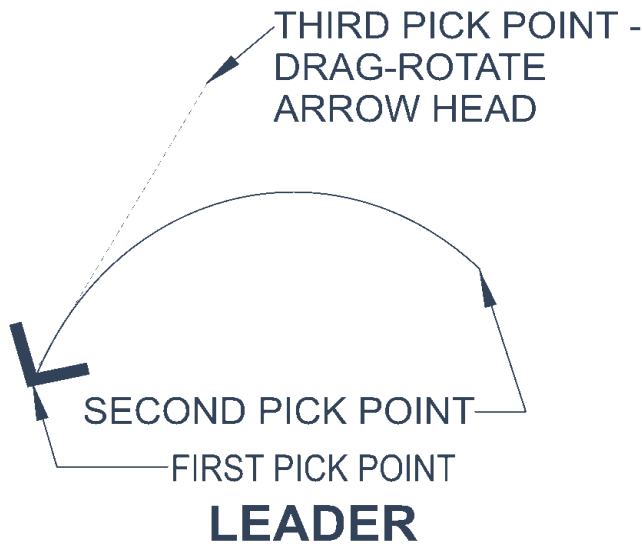


Figure 8. The Pickpoints



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