

Section 4.0 – Toolbars and Profiles

Command Exercise

Exercise 4-1 – Creating Custom Toolbars

Drawing Name: **new drawing**

Estimated Time to Completion: 15 Minutes

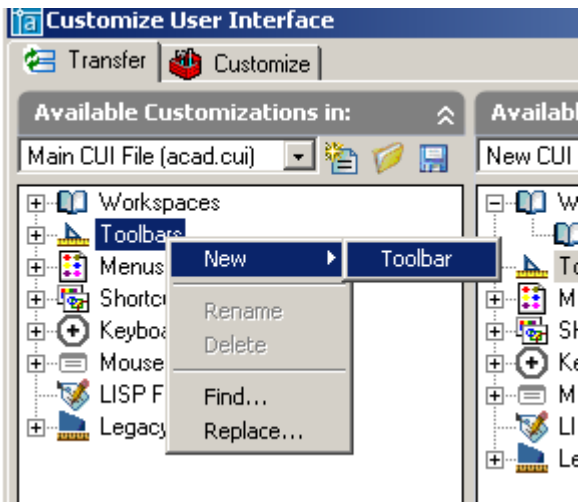
Scope

Using the Toolbar dialog box, create a New toolbar named Custom. Drag and drop some commands onto the custom toolbar. Test the tools on the custom toolbar.

Solution

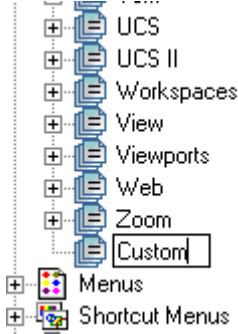
1.  Right-click on any toolbar and select **Customize...**

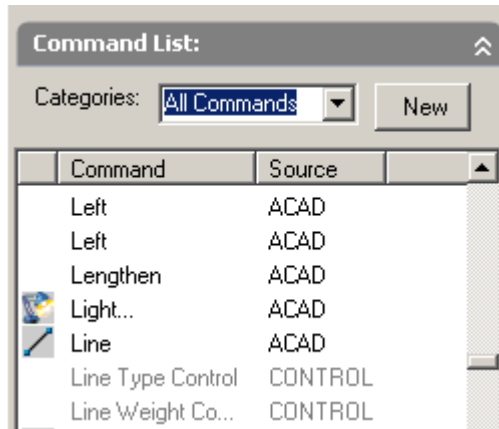
2.  Select the **Customize** tab.


3.  Set the *Main CUI File (acad.cui)* in the drop-down list.


Highlight the *Toolbar* category.
Right click and select **New→Toolbar**.

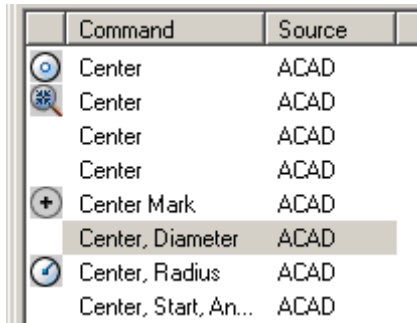
Section 4.0 – Toolbars and Profiles

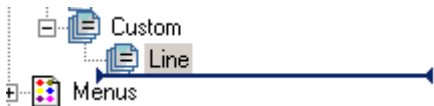
4.  The new toolbar will appear at the bottom of the toolbar list.
Rename the toolbar *Custom*.
- To rename, you can right click and select **Rename**.

5.  In the lower left panel, you see a Command List. You can scroll through the list to see all the commands.
- | Command | Source |
|-------------------|---------|
| Left | ACAD |
| Left | ACAD |
| Lengthen | ACAD |
| Light... | ACAD |
| Line | ACAD |
| Line Type Control | CONTROL |
| Line Weight Co... | CONTROL |
- Locate the Line command.

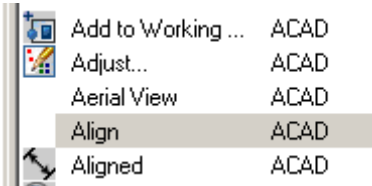
6.  Drag and drop the Line command from the lower left pane to the upper left pane.

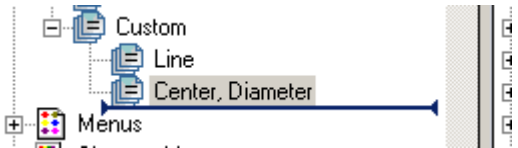
7.  To place into the Custom toolbar, you should see an arrow symbol and then release the mouse button to place the Line tool onto the toolbar.

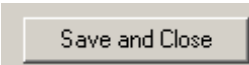
8.  Locate the **Circle, Center, Diameter** tool in the Command List.
- | Command | Source |
|----------------------|--------|
| Center | ACAD |
| Center | ACAD |
| Center | ACAD |
| Center | ACAD |
| Center Mark | ACAD |
| Center, Diameter | ACAD |
| Center, Radius | ACAD |
| Center, Start, An... | ACAD |

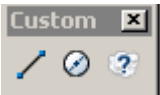
9.  Drag and drop the **Circle, Center, Diameter** tool onto the Custom toolbar.

Section 4.0 – Toolbars and Profiles

10.  Locate the **Align** tool in the Command List.

The screenshot shows a vertical list of commands. The 'Align' command is highlighted with a grey background. To the right of each command is the text 'ACAD'.
11.  Drag and drop the **Align** tool onto the Custom toolbar.

The screenshot shows a 'Custom' toolbar with several icons. A blue arrow points from the 'Align' tool in the Command List to the Custom toolbar.
12.  Press **Save and Close**.

The screenshot shows a rectangular button with the text 'Save and Close' inside.
13.  Your Custom toolbar is visible.
There is a cloud with a question mark icon for the Align tool.
You will create an image for the Align tool in another exercise.

The screenshot shows a 'Custom' toolbar with a question mark icon in a cloud.
14. Test the tools to see how they work.

Section 4.0 – Toolbars and Profiles

Command Exercise

Exercise 4-2 –Creating Toolbar Icons

Drawing Name: **new drawing**

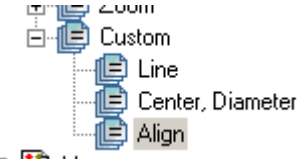
Estimated Time to Completion: 15 Minutes

Scope

Modify the Align toolbar icon.

Solution

1.  RMB on the *Custom* toolbar.
Select **Customize**.

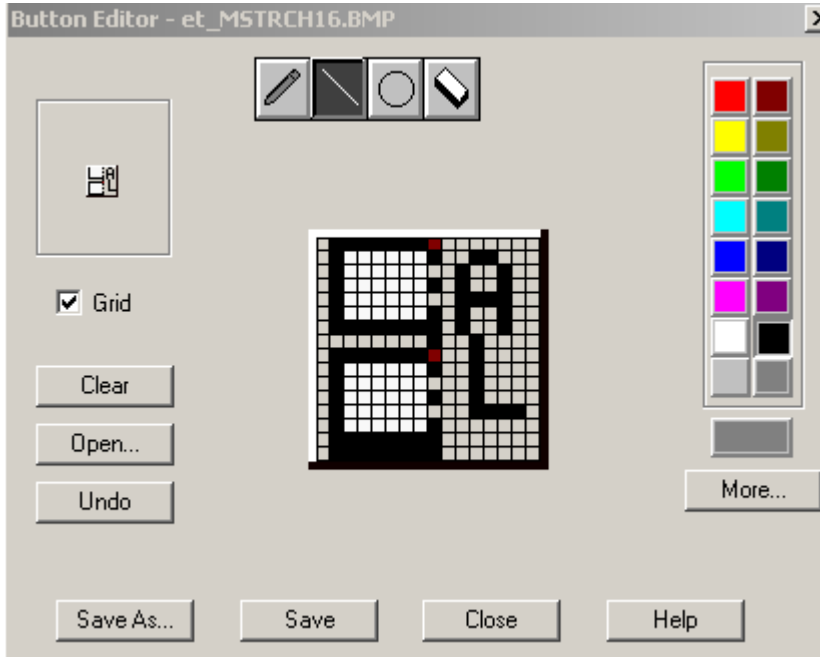
2.  Locate the *Custom* toolbar in the upper left pane.
Highlight the **Align** tool.

3.  Select an icon on the left to be used as the starting point for the new icon. You can scroll to review all the icons available.

In the Button Image window, select **Edit**.

Section 4.0 – Toolbars and Profiles

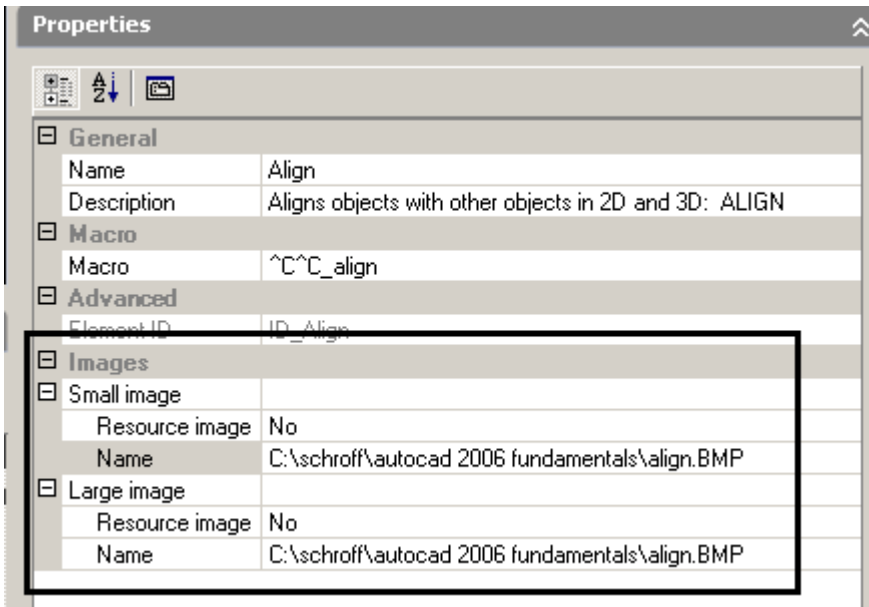
4.



Enable the Grid (on the left) to guide you in modifying the button.

Once you have made the modifications, press **Save**.

5. Select the **SaveAs** button and save the image file as *align.bmp* in the folder of your choice.



6. In the Properties window under Images, you can set the icon image to the file you saved.

7. Press **Save** and **Close**.

8.



The Custom toolbar now displays the custom icon you created.

Section 4.0 – Toolbars and Profiles

Command Exercise

Exercise 4-3 – Creating a Custom Command Tool

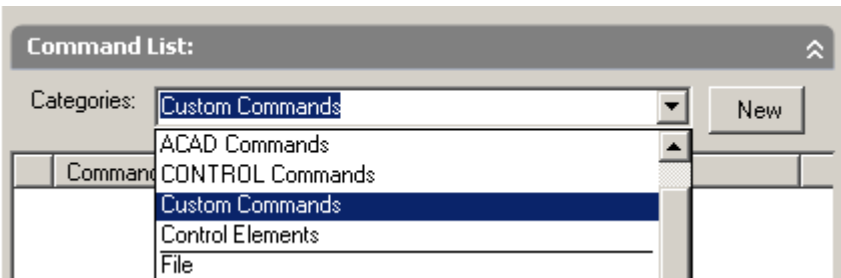
Drawing Name: **new drawing**
Estimated Time to Completion: 15 Minutes


Scope

Create a custom command. Assign the custom command to a tool icon.
Download the 'thaw.bmp' file from the publisher's website to use as the tool icon's image. Add the custom tool to a toolbar.

Solution

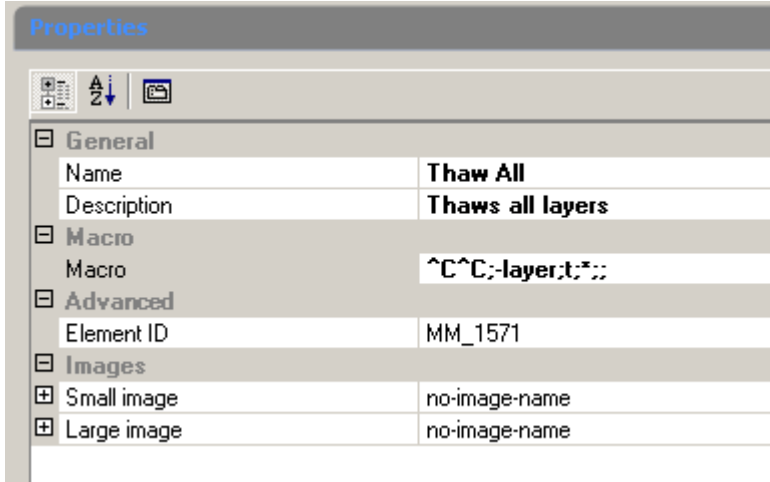
1.  RMB on the *Custom* toolbar.
Select **Customize**.

2.  In the Commands window (lower left), select **Custom Commands** from the Categories list.

3.  Press the **New** button.

Section 4.0 – Toolbars and Profiles

4.



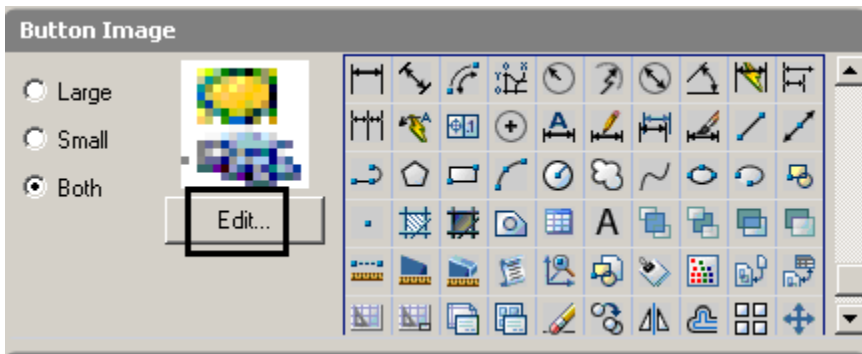
In the Properties window (lower right):

In the Name field, type, 'Thaw All'.

In the Description field, type 'Thaws all layers'.

Click in the Macro field after the '^C^C'. Type '-layer;t;*;;'

5.



In the Button Image window (top right):

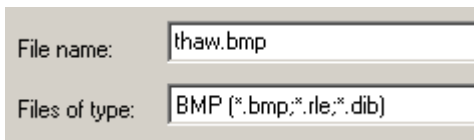
Select any icon on the left and press **Edit**.

6.



Press the **Open** button.

7.



Download and locate the *thaw.bmp* file.

This image was created using Paintshop Pro. If you plan on creating a lot of custom commands, you might want to use a graphics program to create your icons. You can also download many free icon images from the Internet.

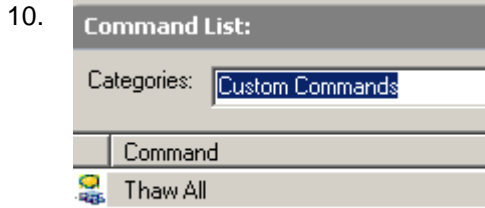
Section 4.0 – Toolbars and Profiles

8. Press **Save** and **Close**.

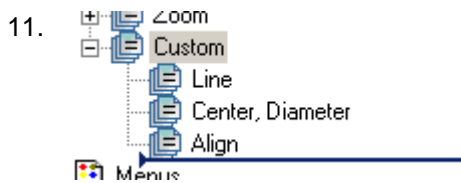
9.

PROPERTY	VALUE
Images	
Small image	no-image-name
Resource image	No
Name	C:\schroff\autocad 2006 fundamentals\thaw.bmp
Large image	no-image-name
Resource image	No
Name	C:\schroff\autocad 2006 fundamentals\thaw.bmp

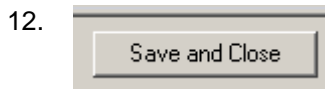
Set the image to the *thaw.bmp* file in the Properties window.



Note that the custom command has updated with the new icon.



Drag and drop the custom command onto your custom toolbar listed in the upper left window.



Press **Save** and **Close**.



The custom toolbar updates with the new command.

Note that when you mouse over the icon, the description you entered appears. The description you entered appears in the lower left corner of your screen.

Section 4.0 – Toolbars and Profiles

Using AutoLISP

AutoLISP is a programming language used with AutoCAD. Using AutoLISP, users can create scripts and automate functions to save time and be more productive in their work. LISP routines are used to replace repetitive tasks. If you find yourself performing the same task over and over using the same commands, then you have a candidate for a LISP routine. Even if you are not interested in writing LISP routines yourself, you can download millions of free routines from websites such as www.augi.com, www.cadalyst.com, and www.cadville.com for your use. Once you start using LISP routines, you may find they are somewhat addictive as they make your work less tedious and more enjoyable.

LISP programs define a custom command. This command is usually the same as the name of the file; i.e. *a2t.lsp* will be run by typing **a2t** on the command line. If you are unsure of what command is required to run a LISP routine, open the file using Notepad and search for the term *defun c:*. This command stands for “define function” and indicates the name for the custom command. Whatever characters follow the **c:** are used to run the program.

Once you have begun to rely on a few custom routines, you may decide to add some tool icons to your custom toolbar so that you can access your routines faster. This is simpler than having to type in the LISP command on the command line.

The next exercise guides you through how to add a LISP routine to the Startup Suite, create a command tool, and add the tool to the custom toolbar. A LISP routine is provided for your use from the publisher’s website, but any LISP routine will work.

In order to run a LISP routine, it must be loaded into AutoCAD first. To load any LISP routine, you can type **APPLOAD** on the command line. By adding a LISP routine to the Startup Suite, it is automatically loaded every time you open or create a new drawing. Once the LISP routine is loaded, it can be initiated by typing the custom command on the command line. By creating a custom tool for a LISP routine, you eliminate the need to type the command.

Section 4.0 – Toolbars and Profiles

Command Exercise


Exercise 4-4 –Creating Tools for LISP Routines


Drawing Name: **new drawing**
Estimated Time to Completion: 20 Minutes

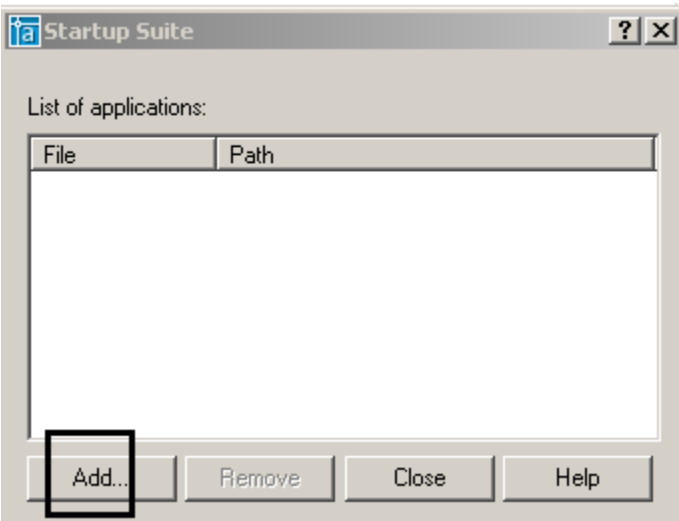
Scope

Add a LISP routine to the Startup Suite. Create a custom command button for a LISP routine. Add the button to a toolbar.

Solution

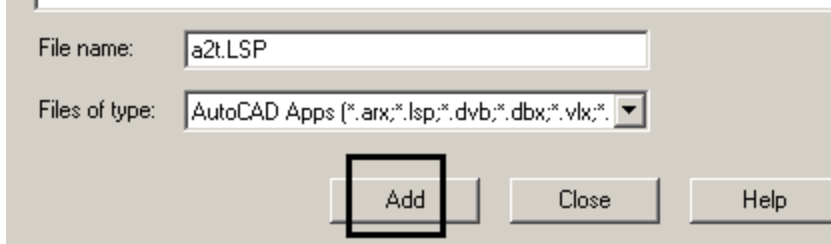
-  Go to **Tools**→**AutoLISP**→**Load Application**.

-  In the lower right corner, select the **Contents** button under Startup Suite.

-  Select the **Add** button located on the lower left of the dialog.

Section 4.0 – Toolbars and Profiles

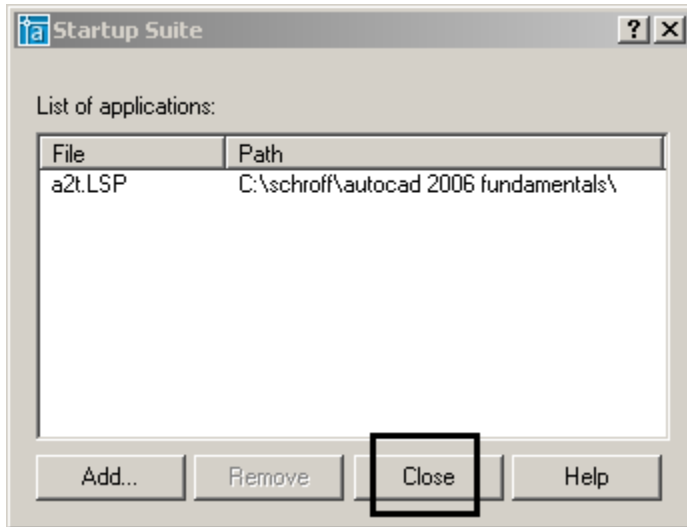
4.



Locate the *a2t.LSP* downloaded from the publisher's website.

Press **Add**.

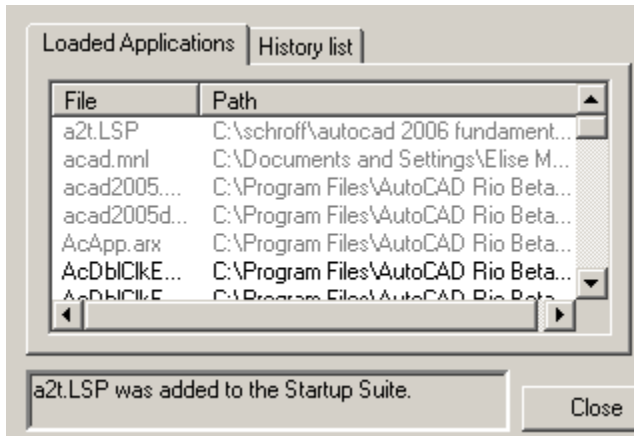
5.



The file will be listed now.

Press **Close**.

6.

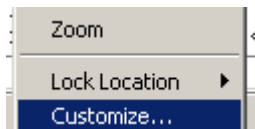


A message should appear in the lower left indicating that the LISP file has been added to the Startup Suite.

You should also see the routine listed under Loaded Applications.

Press **Close**.

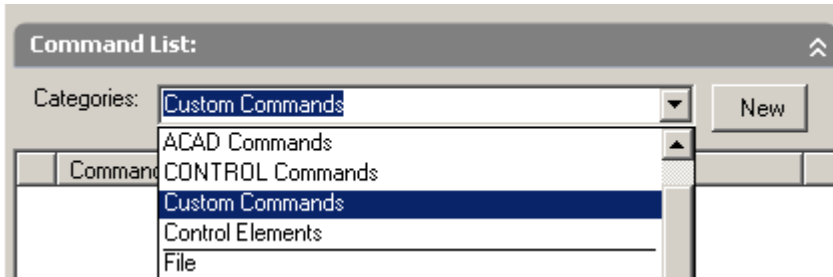
7.



RMB on the *Custom* toolbar.
Select **Customize**.

Section 4.0 – Toolbars and Profiles

8.



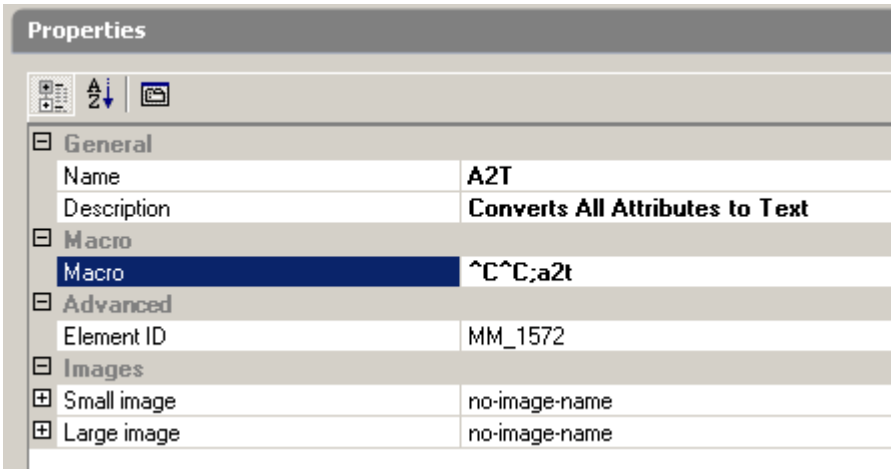
In the Commands window (lower left), select **Custom Commands** from the Categories list.

9.



Press the **New** button.

10.



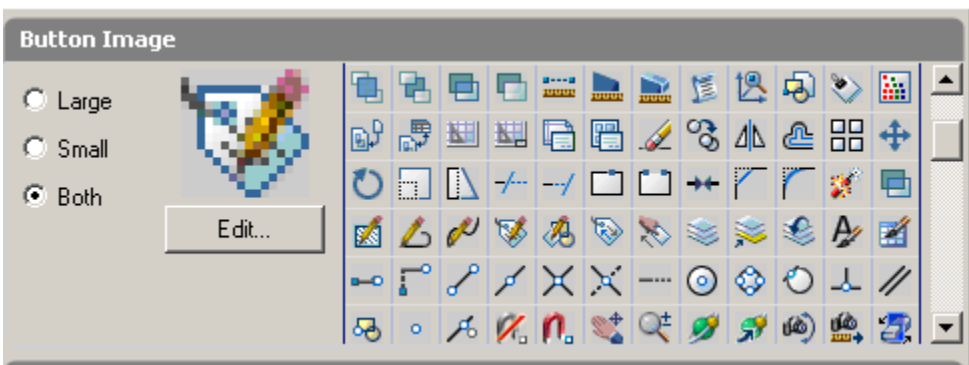
In the Properties window (lower right):

In the Name field type **A2T**.

In the Description field, type **Converts All Attributes to Text**.

Click in the Macro field after the '^C^C'. Type **a2t**.

11.



In the Button Image window (top right):

Select the Edit Attribute icon the left and press **Edit**.

Section 4.0 – Toolbars and Profiles

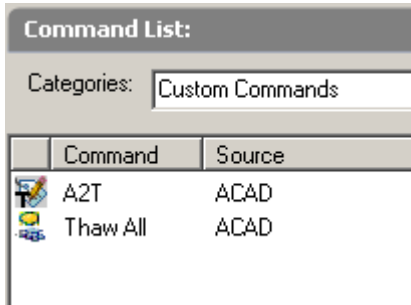
12.



Add a T to the image.

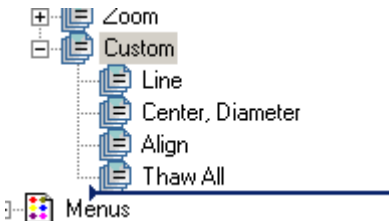
13. Press **Save** and **Close**.

14.



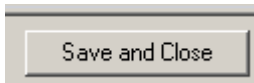
Note that the custom command has updated with the new icon.

15.



Drag and drop the custom command onto your custom toolbar listed in the upper left window.

16.



Press **Save** and **Close**.

17.



The custom toolbar updates with the new command.

Note that when you mouse over the icon, the name you entered appears. The description you entered appears in the lower left corner of your screen.