DATACAD LLC

TECHNICAL BULLETIN

Icon Toolbars in DataCAD Plus

The icon toolbars that appear in DataCAD Plus provide quick access to a variety of functions from anywhere in the program.

Icons

Icons are symbols that represent various DataCAD Plus options. If you move your cursor over an icon, a brief description or "tooltip" appears beneath it.

If the tooltip does not appear, select the Extras pull-down menu, choose Options, and make sure that Show Quick-Info is activated (checked).

Icons are mouse shortcuts to popular DataCAD Plus functions. In this way, they are similar to keyboard shortcuts.

Just clicking on an icon lets you bypass intermediate menus, taking you directly to the menu that controls the function you want to use. This is a great way to save time.

Icon Toolbars

For convenience, several icons are grouped together to form an icon toolbar. DataCAD Plus supports both standard and context-sensitive icon toolbars.

In DataCAD Plus, you can let icon toolbars float in your drawing window or you can dock them. When an icon toolbar is floating, you can position it vertically or horizontally within your drawing window. Also, you can resize a floating icon toolbar.

Standard Icon Toolbars

There are several standard icon toolbars:

- Edit/utility – takes you to menus that control 2D edit or utility, 3D edit or utility, Architct/ARCHTECT, etc.

- DCP_main – allows you to access basic functions such as save, copy, erase, and insert dimension strings

- View_Tools – lets you control viewing options such as zoom, clip cube, and walk through model

- Navigation – lets you control movement, zoom, and view options such as plan, perspective, and front

To activate one or more standard icon toolbars:

1. Select the Display pull-down menu.

2. Choose Icon ToolBars.

3. Click on IconBars.

4. Activate (check) the icon toolbars you want.

To deactivate one or more standard icon toolbars:

1. Repeat steps 1 through 3.

2. Click on an icon toolbar that is active (checked) to remove the checkmark. That menu will not appear any more.

Context-sensitive Icon Toolbars

Context-sensitive icon toolbars appear only when you invoke certain menu functions.

For example, the ZAC icon toolbar (shown above) appears after you activate ZAC on the switch bar and select ARCHTECT from the Edit menu. However, when you switch to another Edit or Utility menu (such as Mirror or Hatch), the ZAC icon toolbar disappears. It disappears because the functions controlled by the icons in that particular toolbar are temporarily unavailable.

To display context-sensitive icon toolbars:

1. Choose the Display pull-down menu

2. Select ToolBars.

3. Activate (check) Context IconBar.

Creating a Custom Icon Toolbar

DataCAD Plus uses text files (which you open, edit, or view with a text editor such as Notepad) with an extension of .MNU to display and activate toolbars. All MNU files are located in the DCAD_LLC\DCADplus\LOGO folder. To develop your own custom toolbar, you create an MNU file that names the bitmap associated with each icon and describes what will happen when you click on it.

To create a custom context-sensitive icon toolbar based on DCP_main.mnu:

1. Use Windows Explorer to open the DCAD_LLC\DCADplus\LOGO folder.

2. Right-click on the file DCP_main.mnu and select Open with…

3. Scroll down the list of programs and double-click on NOTEPAD. This opens the Notepad program and displays the DCP_main.mnu file.

4. Supply a new name for your menu file (for example, _MyMenu.mnu) and save it. This protects your DataCAD Plus main menu file. To do this, select the Notepad pull-down File menu, choose Save as …, enter a meaningful eight-character file name, beginning with an underscore (_) and ending with the .mnu extension (for example: _MyMenu.mnu), and click on Save or press [Enter].

The Context IconBar name is limited to eight characters. The first character must be an underscore (_); the other seven characters can be letters or numbers.

5. Use this file as a base for making changes and creating your own icon toolbar. See the Format, Action Codes, and Function Numbers sections of this bulletin for more information on the DCP_main.mnu file format, action codes, and internal menu function numbers.

6. Use the .bmp files in the DCAD_LLC\DCADplus\LOGO folder to indicate the icons that should be included on your icon toolbar.

7. Save the .mnu file after you have made your changes.

Format for the Icon Toolbar .MNU File

The .MNU file always begins with a [MAINMENU] section. Each icon is described as a menu item under its own section heading. The first icon on the toolbar is described under [MAINMENU1], the second under [MAINMENU2], and so forth. Separator bars help you group icons with similar functions.

```
[MAINMENU]
Name=Basic Functions
Items=27
```

The first section [MAINMENU] includes the name to be displayed on the active title bar of the custom toolbar (Name=Basic Functions). This name appears in the title bar when the toolbar is floating, but it is hidden when the icons are docked. The total number (Items=27) includes both the icons to be displayed on the toolbar and the separator bars.


```
[MAINMENU1]
Name=Save
Hint=Save current drawing
Image=save2.bmp
SendSpiritKey=F
```

The [MAINMENU1] section describes the first icon on the toolbar. Each icon is given a name (Name=Save). The next line (Hint=Save current drawing) describes the tooltip to be displayed when the cursor is over the icon. The third line (Image=save2.bmp) tells DataCAD Plus which bitmap to use as the icon's graphic image. The last line (SendSpiritKey=F) refers to the action code to be sent (in this case, it is a key character). Refer to the Action Codes section of this Technical Bulletin.

All bitmaps must be 16x16 pixels; 16-color bitmaps are recommended. Each one must be saved in bitmap (.BMP) format in the DCAD_LLC\DCADplus\LOGO folder.

```
[MAINMENU2]
Name=Load
Hint=File operations
Image=load2.bmp
SendSpiritMacro=;^S0^S6
```

The next icon on the toolbar is defined under [MAINMENU2]. The last line refers to an action code (SendSpiritMacro=;^S0^S6) or key sequence. The keys refer to the function number (F1 through S0) displayed before each menu item in a DataCAD Plus menu. Refer to the Action Codes section in this Technical Bulletin.

```
[MAINMENU3]
Style = Separator
```

The third item described in [MAINMENU3] displays a vertical separator (Style = Separator). This line visually separates different icons into logical groups.

```
[MAINMENU4]
Name=Identify
Hint=Identify drawing entities
Image=ident.bmp
CallSpiritMenu=7
```

The fourth icon under the section [MAINMENU4] sends a different action code. (`CallSpiritMenu=7`) refers to a DataCAD Plus internal function number. Refer to Action Codes and Function Numbers sections of the Technical Bulletin.

Action Codes for the Icon Toolbar .MNU File

Action Codes that are acceptable include the following:

key character	`SendSpiritKey=F`
internal function number	`CallSpiritMenu=7`
path and program name	`EXEC = C:\WINDOWS\NOTEPAD.EXE`
key sequence	`SendSpiritMacro=;^S0^S6`
Virtual key	`SendSpiritVirtualKey=8`

A key sequence (such as ^:^S6^F1^F1^F5) calls function keys or keystrokes in that particular order. This allows you to create your own shortcuts to bind to icons. These sequences typically match one from the DCAD.MCR file. The DCAD.MCR file contains only 26 user-definable sequences.

See the Appendix in the *DataCAD Plus Reference Manual* and go to the section on "DataCAD Plus Keyboard Shortcuts." This will help you create keyboard shortcuts.

Function Numbers for Internal Menus in the Icon Toolbar .MNU File

1	Move		71	SaveImage
2	Copy		72	ClipCube
3	Rotate		73	Hide
4	Mirror		74	3D Line
5	Stretch		75	Settings (3D)
6	Enlarge		76	Block
7	Identify		77	Vertical Cylinder
8	Change		78	Horizontal Cylinder
9	Erase		79	Cone
10	CleanUp		80	Truncated Cone
11	Archtect		81	Sphere
12	Polygons (2DEdit)		82	Torus
13	Curves		83	Mesh-Surf
14	Text		84	Rev-Surf
15	LineType		85	Marker
16	Hatch		86	Polygon
17	3DEdit		87	Slab
18	Zoom		88	Horizontal Polygon
19	To_Scale		89	Horizontal Slab

20	Geometry	90	Rect Polygon
21	2D GotoViews	91	Rect Slab
22	Grids	92	Vertical Polygon
23	Layers	93	Vertical Slab
24	Template	94	Inclined Polygon
25	Settings (2D)	95	Inclined Slab
26	MEasures	96	Voids
27	Plotter	97	
28	Dmension	98	Move (3D)
29	Display	99	Copy (3D)
30	ObjSnap	100	Rotate (3D)
31	Freehand	101	Enlarge (3D)
32	Link Entities	102	Erase (3D)
33	File I/O	103	Stretch (3D)
34	Properties (Directory)	104	Change (3D)
35	2PT_Arc	105	Explode 3D Objects
36	3PT_Arc	106	3DEdit
37	Cent_Ang	107	3DEntity
38	Cent_Arc	108	Identify
39	CentChrd	109	Workmode (ZAC)
40	Tangent	110	Walls (ZAC)
41	Ellipse	111	Openings (ZAC)
42	Rad_Circ	112	Columns (ZAC)
43	Dia_Circ	113	Floors (ZAC)
44	3PT_Circ	114	Rooms (ZAC)
45	Drag	115	Dmension (ZAC)
46	Copy RectArray	116	Gen_2D (ZAC)
47	Copy CircArray	117	Gen_3D (ZAC)
48	Fillets	118	Polyline
49	Chamfer	119	SetActive (layers)
50	1LnTrim	120	EditSets
51	2LnTrim	121	
52	Weldline	122	
53	T-Intsct	123	Objectviewer
54	L-Intsct	124	DCPlus Vis
55	DoorSwng	125	Scales (EditDefs)

56	Window	126	LineType
57	Cut Wall	127	Color
58	Divide	128	
59	Intsct	129	3D GotoViews
60	Tan/Para	130	3DViews
61	EditSets	131	MultiView Windows
62	2D GotoViews	132	
63	Elevation	133	
64	Controls	134	
65		135	
66	PlaneSnap	136	
67	SetPersp	137	
68	WalkThru	138	
69	Oblique	139	
70	2DGotoViews	140	

Linking a Menu Function with a Context-sensitive Icon Toolbar

To link a menu function with a specific context-sensitive icon toolbar:

1. Open the Windows Explorer program from your system's Start button (located in the lower left corner of your screen).

2. Right-click on the syskeys.dsp file (located in the DCAD_LLC\DCADplus\LOGO folder) and select Open with . . . from the pop-up menu. The Open With dialog box appears.

3. Scroll down the list of programs and double-click on NOTEPAD. This opens the Notepad program and displays the syskeys.dsp file. This file has three columns of information. The left column contains line numbers only; the center column is for the name of the context-sensitive icon toolbar; and the third includes the menu name and that of the next higher menu level in parentheses.

4. Input the context-sensitive icon toolbar name in the second column beside its associated menu function.

   ```
   108|_ARCHTCT|ARCHTECT (EDIT)                                      |
   ```

The context-sensitive icon toolbar name is limited to eight characters, including the initial underscore (_). In this example, the context-sensitive icon toolbar _ARCHTCT will be displayed whenever you select ARCHTECT from the main Edit menu.

5. Make sure that column separators (also known as pipe characters) remain in their original positions. If these pipes are not properly aligned, your icon toolbar will not appear.

6. Use the same context-sensitive icon toolbar name for several menu functions if necessary. For example:

   ```
   109|_ARCHTCT|WorkMode (ARCHTECT)                                  |
   110|_ARCHTCT|Walls    (ARCHTECT)                                  |
   ```

7. Save the file when you have completed your changes.