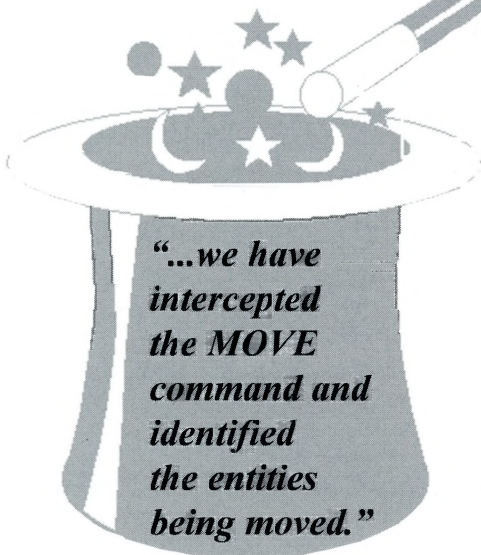


MSCAD PRO

On a daily basis, while doing technical support for the MSCAD PRO program by MicroSurvey Software Inc., I get questions similar to the following;



How do I get the degree symbol, the plus/minus symbol and the diameter symbol that I used to have in my old CAD package?

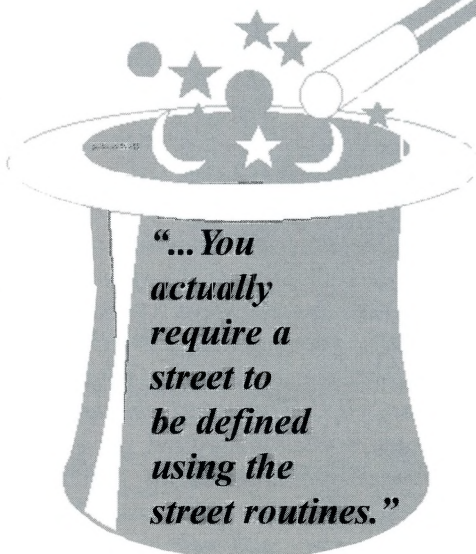
The degree symbol can be entered in two different ways. If you are using the LEROY fonts then by typing the “~” symbol, it will appear as the degree symbol. If you are used to typing %D, then you can use this method while entering if you use the COMPLEX fonts available in MSCAD. The plus/minus symbol can be entered by typing %%P and the diameter symbol by typing %%C. Both of which must be using the same COMPLEX font.

What is the difference between LAYERS and SURFACES?

Layers are found in the CAD program and are used to assist you in controlling the various types of information in the drawing. It allows you to control the colour of the objects, the line type of the objects and, most importantly, the visibility of the objects. Example: Layer TREE might be set to the colour GREEN and line type CONTINUOUS. We could FREEZE that layer and the trees drawn

on this layer would be temporarily made invisible in the drawing. THAWING the layer would reinstate the Layer TREE. Thus you have full control of the visibility, colour, and line type of that layer.

Surfaces on the other hand are used in QuickSurf and do not control the colour, line type or visibility of objects as do layers. Surfaces are created from a group of three-dimensional point data where for each (X,Y) there is only one possible Z value. The Surface is a mathematical description of this group of points, where every point is joined to its adjacent points by a continuous, flexible model. This surface can be used to depict many different things: existing topography, proposed topography, geologic structures, chemical concentrations, pressure gradient maps, slope maps and much more. Surfaces can also have more complicated information associated with it known as break lines. Break lines assist in the definition of the surface by controlling whether the space between adjacent points are valleys or hills in relation to the points around them. Surfaces can be used to generate TINS, GRIDS, CONTOURS and much more!



What happens when I pick the option “Close MicroSurvey Database?”

With MSCAD we have attempted to keep your CAD drawing and the MSCAD database in perfect synchronization. Therefore, we have re-defined some of the CAD commands to “watch” the CAD system while you are working. For example, if you use the MOVE command, and you move a point that was placed by MSCAD, then the point number, description, elevation, symbol, and any lines connected to that point, will be updated. MSCAD can only do this because we have intercepted the MOVE command and identified the entities being moved. Then we can check our database to see if any of the selected entities are referenced in the MSCAD database. When you close the database, you are disabling all of our capabilities and are editing the drawing as a normal drawing with no intelligence. Routines such as: subdivision, streets, areas etc. will all be disabled because they require the database to do their calculations.

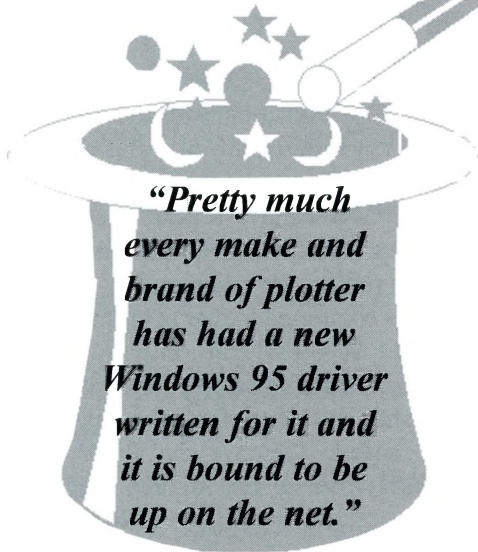
You can always use the original CAD command if you prefix the command with a dot. For example, if you want to trim a line without MSCAD assuming that it is a survey boundary, then execute the command: Command: .trim

If you are programming your own function in LISP, make sure that, if you call a built-in CAD command, you prefix it with a dot. This will not affect your programs and it will ensure that the original, unmodified command will be used. You will know when the editing command have been redefined when you see the MSCAD splash screen.

I have tried to draw a Cul-de-sac and it just does not work. It just keeps saying “NIL,” what am I doing wrong?

The biggest thing that people tend to assume incorrectly is that you can draw a Cul-de-sac just anywhere you want in a drawing as long as you have a line to base the center on. This is not the case. You actually require a street to be defined using the street routines. The

centerline of this street will then be used to reference the center of the Cul-de-sac. The other thing is to make sure that the numbers you have entered to design the size of the cul-de-sac will actually work with the street you have.



What are all of these “toolboxes” with pictures on them? They are not mentioned in the Help or in the Manual.

The toolboxes or palettes were an afterthought, to help make your job easier. Instead of having to go to the pull-down menus over and over for the more common commands, we have made it possible for you to get many of those commands from the toolboxes. This palette of little pictures, each has a command associated to it, is the same set of commands that the pull-down menus have. If you place your pointer on top of one of these little pictures, a tool tip will be shown to tell you which command this picture is attached to. Pick the button with your pointer and the command will execute the same as if you had gone to the pull-down menus. The toolbox takes up less screen space and is easy to move to other locations on the screen and saves a lot of time hunting through the pull-down menus to find the command you want. In short, they are shortcuts that you can use to make your life easier. By the way, they come in two sizes to allow you to choose which is best for your screen resolution and your eyes. Future versions of the help and manuals will have more details about the toolboxes / palettes.

I just upgraded to Windows 95 and now my old pen plotter does not work properly in MSCAD PRO. What should I do?

MSCAD PRO uses the Windows 95 plotter/printer drivers. Depending upon how old your pen plotter is, Windows 95 may not ship with a driver that is made for your plotter. The Windows 3.1 driver that you probably got with your plotter back in 1990 will not help. What you need to do is one of two things, either contact the manufacturer of the plotter (assuming they are still in business) or take advantage of one of Man’s greatest achievements - the internet. Pretty much every make and brand of plotter has had a new Windows 95 driver written for it and it is bound to be up on the net. The only thing you need to do is find it. That in itself can be a chore and when you do find the driver it may cost you a few dollars to order it. Some of the best drivers were written by companies other than the plotter manufacturers. If you do not have an internet account, you can normally go to your local computer guru and for a small charge he will seek out the information you need, but my suggestion would be to invest in your future and get an account on the net.

“Tips and Tricks” has been brought to you by Glen W. Cameron, C.E.T. Glen is pleased to announce that he has recently rejoined MicroSurvey Software Inc., after spending seven years as one of their dealers. As their Technical Support Specialist, working out of Northern Ontario, Glen is providing support nation wide for the entire MicroSurvey product line. Glen has been instructing on and supporting these products now for ten years while traveling from; Yellowknife to Bermuda, Newfoundland to Manitoba and extensively throughout Ontario. Glen graduated from St. Lawrence College - Kingston, with honours in Civil Engineering Technology in 1985, and worked in the field, surveying for several years. With his practical experience as well as the extensive, professional training and technical support he provides, his “Tips and Tricks” will undoubtedly assist even the more experienced users!



Upcoming Events

August 13

Articling Workshop
Markham

September 9

Council Meeting
AOLS Boardroom

September 11

South Central Golf Tournament

September 12

Eastern Regional
Group Meeting

September 12-13

NERG Joint Meeting
with Michigan

September 17-19

AERC Lecture Course
Markham

October 4

Geodetic Picnic

October 1-4

high on energy GIS & GPS '97
global innovative solutions
Conference and Exposition
Calgary, Alberta