Wipeouts in Quick Posts Symbols

MicroSurvey has been working to improve the Quick Posts symbols used in MicroSurvey CAD 2008. To this end we have incorporated the Wipeout into our Quick Posts.

To understand what this will do for you, you first have to understand what a Wipeout is. Going to our help file you will find the following definition of a wipeout:

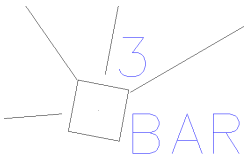
Wipeouts:

Wipeouts display with the current background color, so the details behind the wipeout do not display or print. Wipeouts are created using existing polygons, closed zero-width polylines made up of only line segments, or new polylines that you draw while using the Wipeout command.

Okay, so how does this help us? To see how this will help, you first have to understand how the symbols works now and why this is a problem for some.

At present time, if you insert a Quick Posts symbol, any lines connecting to the point (in our MicroSurvey database), where you inserted the symbol, will be trimmed so the symbol appears hollow (This is controlled via the AutoMAP library Editor). These trimmed lines are still connected to our database so we do know the true and correct lengths of the lines as well as which points they are connected to. You can always confirm this by using the CADLines command.

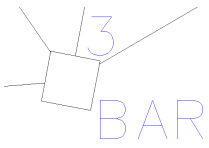
One problem that often arises from this is when you send this DWG file to another client using AutoCAD or another similar CAD program. The lines that were trimmed, are in fact not true length anymore, and because this other CAD engine can not use our MicroSurvey database file, they have no idea what is going on and display the shorter lengths.

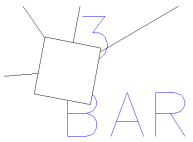


Another issue that some do not like, is the fact that the trim radius used was designed for round symbols, to trim lines cleanly when the line intersects the circular symbol. So other shaped symbols, like square posts, do not have a clean intersection for all lines being trimmed. So a space is left between the line end and the symbol.

Okay – so how do these Wipeouts solve these issues?

Simply put, by using a symbol that has a wipeout built into it, you no longer need to trim the lines. So the true length will always be represented in most current CAD programs. And the symbols will still appear hollow, so plotting of the plan looks correct.





Keep in mind that a wipeout will hide everything under it, so text may partially, or completely be covered. If this is the case, then you need to move the text to a location that allows it to be seen as desired.

Please keep in mind that some CAD programs, or older versions of newer CAD programs, will not show the wipeouts correctly, if at all. As an example, our older MicroSurvey CAD 2005 (and previous versions), do not show the wipeout and nothing is hidden. Wipeouts were not part of the older versions of many CAD programs.

Alright, now that we have your interest, how can you test our new symbols and see first hand how they will benefit you?

The current symbols that we ship are found in the following folder:

1. Windows 2000 & Windows XP: C:\Documents and Settings\All Users\Application Data\MicroSurvey\MSCAD\2008\MSCAD\Blocks\
2. Windows Vista: C:\ProgramData\MicroSurvey\MSCAD\2008\MSCAD\Blocks\

To allow you to keep the original symbols as well, we suggest you place the new symbols into a new folder (which you need to create via windows)

1. Windows 2000 & Windows XP: C:\Documents and Settings\All Users\Application Data\MicroSurvey\MSCAD\2008\mscad\blocks\Wipeouts\
2. Windows Vista: C:\ProgramData\MicroSurvey\MSCAD\2008\MSCAD\blocks\Wipeouts\

Unzip the symbols (downloaded separately) into this folder.

Along with the symbols, there is a corresponding AutoMAP Library file that controls how the symbols are used. The original AutoMAP Library file that we ship with the original product is called MSCAD.CSV and it is found in the folder;

1. Windows 2000 & Windows XP: C:\Documents and Settings\All Users\Application Data\MicroSurvey\MSCAD\2008\MSCAD\
2. Windows Vista: C:\ProgramData\MicroSurvey\MSCAD\2008\MSCAD\

The new AutoMAP Library file, that makes use of the new symbols, is called;

1. Windows 2000 & Windows XP: MSCAD-WIPEOUT.CSV
2. Windows Vista: MSCAD-WIPEOUT-VISTA.CSV

This file needs to be moved to the same folder as the original MSCAD.CSV, listed above. (The files were unzipped with the symbols, above)

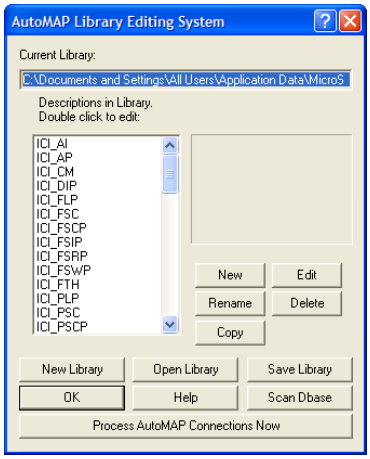
For VISTA users, you can rename the MSCAD-WIPEOUT-VISTA.CSV file to MSCAD-WIPEOUT.CSV. If you leave it unchanged, then the rest of this document will be correct, but will only reference the renamed file name.

The new AutoMAP library has been set to not trim the lines that connect to the point where the symbol is inserted. Instead, it places the symbol containing the wipeout, so the lines appear to be trimmed (hollow looking symbols).

So how do you set the MicroSurvey CAD 2008 program to use this new library and symbols?

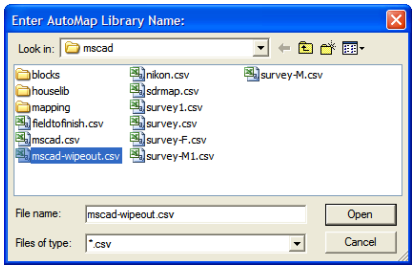
Go to the MsTraverse menu | AutoMAP System | AutoMAP Library. This brings up the following dialog box:

This dialog shows the current loaded library file under Current Library. Unless you have made changes already, it will default to the MSCAD.CSV file, as mentioned above.



To change this dialog to use the new MSCAD-WIPEOUT.CSV file, you need to follow these short steps.

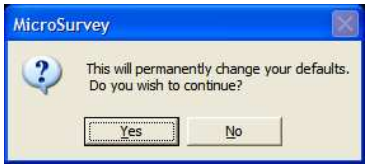
1) Pick on New Library. This clears the current library so no library is loaded.
2) Pick on Open Library. You will be shown a dialog with several CSV files listed. Pick on the MSCAD-WIPEOUT.CSV file and pick Open.
3) This takes you back to the AutoMAP Library Editing System dialog. You are done loading the library file and can now use the symbols.
4) Pick OK to exit the dialog.



This sets the current drawing so it will now use the library. This library is automatically saved with this job, so when you reopen this job at a later date, this library will still be current, no matter what library you have used in other drawings since then.

So how do we make this library the default so all new jobs will start with it as the default?

To ensure the library is the default in all new jobs, go to the MsTools menu | MicroSurvey System Defaults | Save as Default Configuration. Answer YES to make the changes permanent.

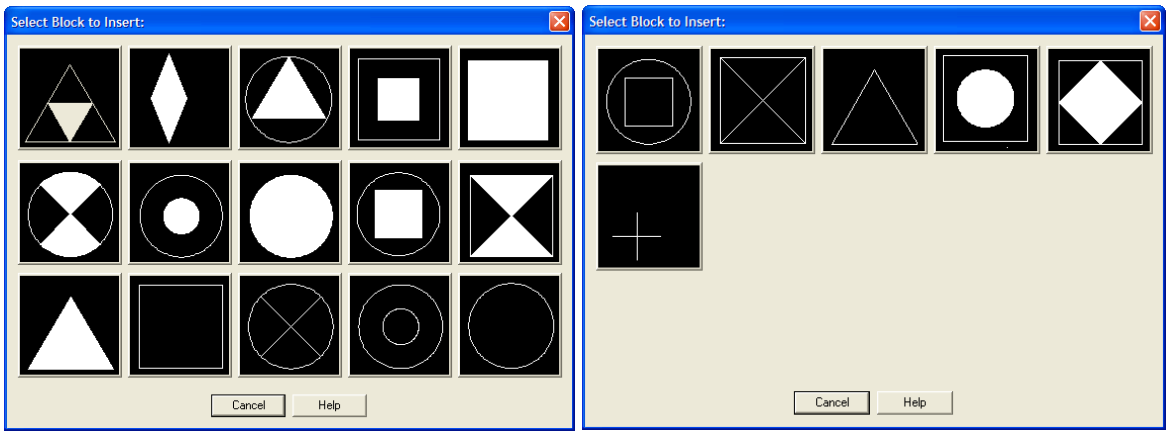


Now all new jobs will have this AutoMAP library as the starting default.

Using the new symbols is simple.

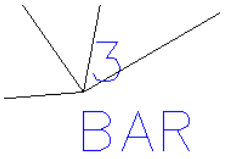
Go to the MsAnnotate menu | Add Symbols | Quick Posts –Set 1 (or) Quick Posts – Set 2.

You will see one of the following dialogs (Set 1 is on the left, Set 2 on the right)



Take the mouse and pick on the symbol you wish to try. I will use the Open Square (Set 1, second symbol on bottom row) in my example.

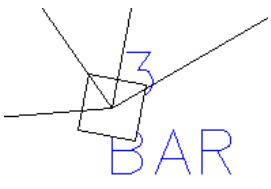
In a sample drawing, I have a point #3, with no symbol on it as yet.



So by picking the symbol from the dialog, as mentioned above, I can now place it on point #3.

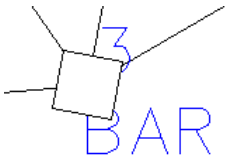
The command line displays the following information;

Pick point or type point number: Found: 3

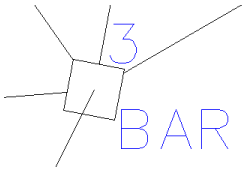


After you manually pick the point at #3, or type in the point number 3, the symbol will appear on the point.

Something may not look correct – the lines do not appear to be trimmed as yet. The text is being trimmed. So what is going on?



The wipeout is not completely shown or used until a redraw or regen command is issued, or a zoom command is run (roll the mouse wheel). Once you do one of these, the lines now appear trimmed.



The symbol will only cover the lines that are already in the drawing when the symbol was inserted. If you do any editing of the lines or add new lines, then they will not be hidden by the wipeout automatically. In this example, I used COGO to inverse to another point, after the symbol with the wipeout was inserted. As you can see, the line does not appear trimmed at all.

Draw Order:

There is a command that controls the order of things as they appear on screen. In other words, you can tell the program that 1 item is above another or under another item on screen. This command is DRAWORDER (CadTools menu | Draw Order).

In my example I need to run the command DRAWORDER to tell it to either place the symbol with the wipeout to the front, or the line that was added, to the back.

When you run the draworder command you will see the following prompts on the command line:

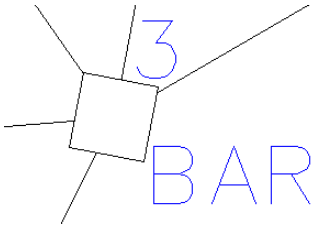
: draworder

Select entities to change draw order: ← I picked the symbol

Entities in set: 1

Select entities to change draw order: ← I pressed Enter

Enter entity ordering option [Above/Under/Front/Back] <Back>: F ← I typed in F and pressed Enter

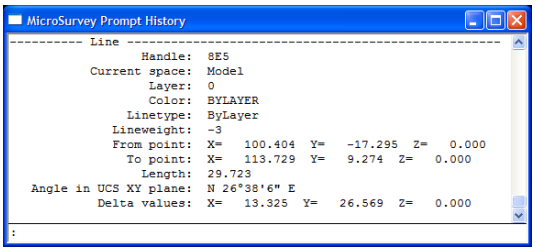


After typing in F and pressing enter, the command was completed. The symbol then automatically jumped in front of the line, so now the line appears to be trimmed.

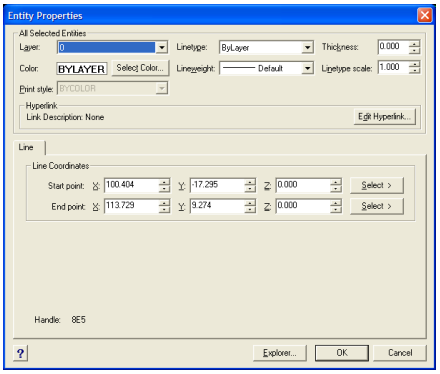
Another command that can assist you in getting all of the symbols to sit in front of the line work is the MsPoints menu | Re-Scale Complete Drawing command. Because it reprocesses all of the points, using the current labeling defaults, drawing scale and AutoMAP library, it places the symbols in front of the line work again, if they were behind originally.

Checking a line drawn to a point with a symbol that contains a wipeout.

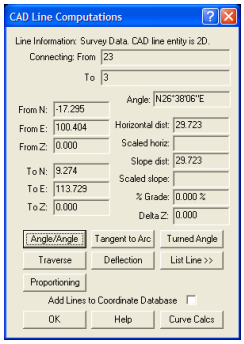
If you use the LIST command you will see the true length of the line displayed in the command line.



Use the ENTPROP command to query the line it will still be exactly the same length etc. as it was prior to the symbol being moved in front of it.



Our CADLines dialog will also show the correct length, and other valuable information, of the line. But more importantly the lines appear to be trimmed at the edge of the symbol and will still be 100% correct when queried in another CAD program.

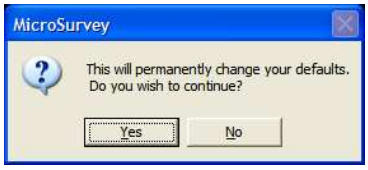


Notes:

1) When you save this drawing, the AutoMAP Library file that is currently loaded, is automatically saved with the drawing so the next time you open this drawing, this same AutoMAP library will be available automatically.

2) The MSCAD-WIPEOUT.CSV file has been setup to use the folder structure described above. If you choose to place the symbols in a different folder, then you will need to edit this AutoMAP library, to modify all the symbol locations.

3) The AutoMAP libraries listed above are for use with the Quick Post Symbols and need to be loaded to have those symbols appear, when inserted. If you have another library loaded, to place your own symbols, or control layering, etc., then the Quick Posts will not function. If you wish to use your own symbols and our Quick Posts symbols at the same time, then you need to load both libraries. To do this, with one of the libraries already loaded, simply load the second library. Use a similar method as described above but DO NOT hit the New Library button first. By not hitting the New Library button first, the second library will simply be merged with the first. You can then save this new "merged library" in the same folder as the other libraries, and use it in all new jobs. To ensure it is the default in all new jobs, when the merged library is loaded, go to the MsTools menu | MicroSurvey System Defaults | Save as Default Configuration. Answer YES to make the changes permanent.



4) Vista users can delete the original MSCAD-WIPEOUT.CSV file from the C:\ProgramData\MicroSurvey\MSCAD\2008\MSCAD\blocks\Wipeouts\ folder location.

5) Windows 2000 & Windows XP users can delete the MSCAD-WIPEOUT-VISTA.CSV file from the C:\Documents and Settings\All Users\Application Data\MicroSurvey\MSCAD\2008\mscad\blocks\Wipeouts\ folder location.

6) The use of the symbols containing the wipeouts is meant for brand new drawings. If you open an existing drawing and try to get the symbols with the wipeouts to work, then you may run into some additional issues. If the original blocks that ship with MicroSurvey are already in use in the drawing, then no matter what AutoMAP library is loaded, the wipeout symbols will not be used. The blocks that are already in the drawing will supersede the wipeout symbols from the hard drive. What you will need to do is delete all of the original symbols, via the Blocks Explorer, then re-run AutoMAP with the new library in place. Then it should place the symbols with the wipeouts for you.