

## Quick & Dirty Introduction to Codeview

When you are programming there may be a point where you will need to debug your program. In MASM you can do this by using Codeview. Codeview is a DOS based, "graphical," debugger that will allow you to do this. Here are so very simple commands to get you started on your way.

### Codeview:

#### *Starting:*

From PWB, go to "Run->Debug"  
Alternatively, "Project->Build->Debug"

**Note:** Be sure that you have your project loaded and your source code compiled and linked otherwise you may be looking at outdated code

#### *Exiting:*

To exit, go to "File->Exit"

### Executing instructions:

If you have compiled and linked your code and you have a project or source file open then you will see a window with the instructions of your program labeled "Source."

*Step:* To execute an instruction line you can press "F10" or choose step from the menu option "Run->Step"

*Trace:* To expand upon a function or procedure call and enter that routine, press "F8" or choose trace from the menu option "Run->Trace"

*Go:* To run the program without stepping or tracing press "F5" or choose go from the menu option "Run->Go"

*Breakpoints:* to set break points where you can force execution to halt double click on the desired line with the mouse (until it is bolded) or navigate to the desired line, press "Ctrl+B" and you will be presented with a window. Select add breakpoint.

### Examining variables:

To look at the contents of a variable during execution you can add a watch to view it change as time passes. You can also choose to remove watches if you deem it unnecessary to continue to examine them

*Add watch:* You can add a watch going to "Data->Add Watch" and then typing in the variable or register that you would like to see

*Delete watch:* You can delete a watch by going to "Data->Delete Watch" and then selecting the variable or register from a list that you would like to see removed.

*Examining memory:* You can always view the entire contents of your Data Segment by opening the memory window from the "Windows->Memory" menu

### Output:

To view the output generated by your program (assuming you actually are attempting to generate output) you can go to the "Windows->View Output" menu option. This will display a window that will show you what has been placed in the video buffer.

### Explanation of windows:

*Source:* This window displays the source code of your program

*Locals:* This window displays the local variables of the current function or procedure

*Registers:* This window will display the contents of the registers at any given point in time as your program executes

*Memory:* This window will display the entire contents of your Data Segment including memory address, hex values, and ASCII representation

If you need to change the display options of any of the windows (i.e. display decimal) you can do so by choosing the “Options->Preferences” sub menu.

There you go. This should be enough to get you started.