

MINT WorkBench 98

Users Guide

Issue:1.0

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Mwb98i1.doc;/sb/0598



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Manual Revision History

Issue	Date	Reference	Comments
1.0	29 May 98	MN-00282-000	For v2.0.b1

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1. Introduction

The MINT WorkBench 98 has been developed to allow users to write applications under Windows NT, as the NextMove WorkBench will not run under NT.

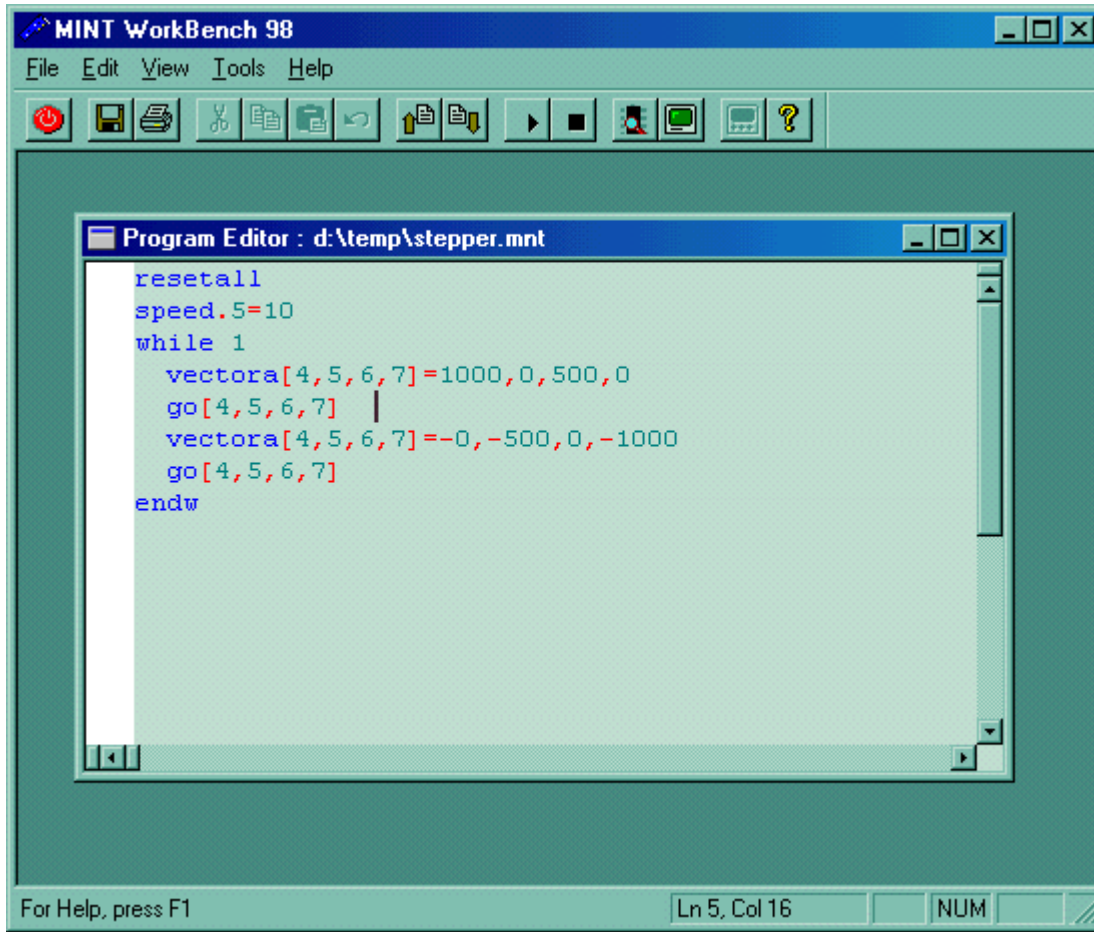
1.1 Known Bugs

These are the bugs / features we know about in this beta release. If you find any others please let us know via technical.support@baldor.co.uk

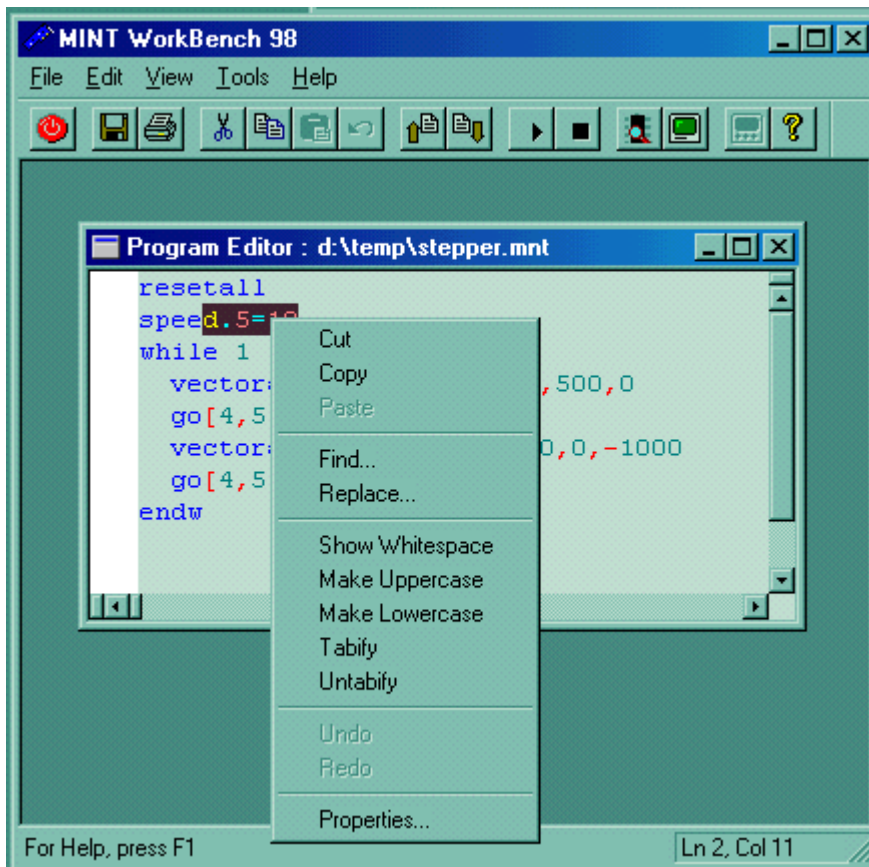
- Custom groups in the DPR WatchWindow can lose their names when the WorkBench is closed and opened again. 'Rename' can be used to restore the name.
- The graph can crash (but shouldn't too often.)

2. Editors

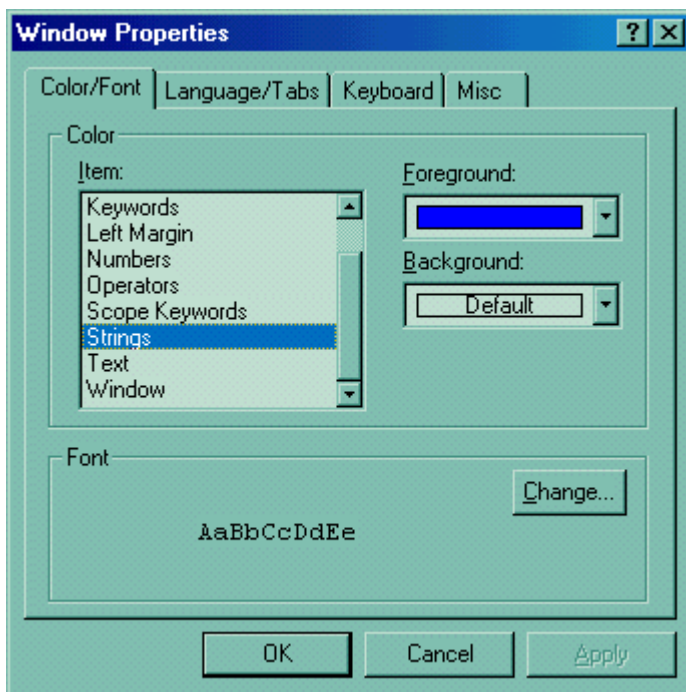
The MINT WorkBench 98 allows an editor to be opened for a program, config and array file. The editor is syntax highlighting and the syntax tables can be updated at any time by selecting 'Load Syntax' from the 'Edit' menu, while running MINT v3.9 or higher on NextMove.



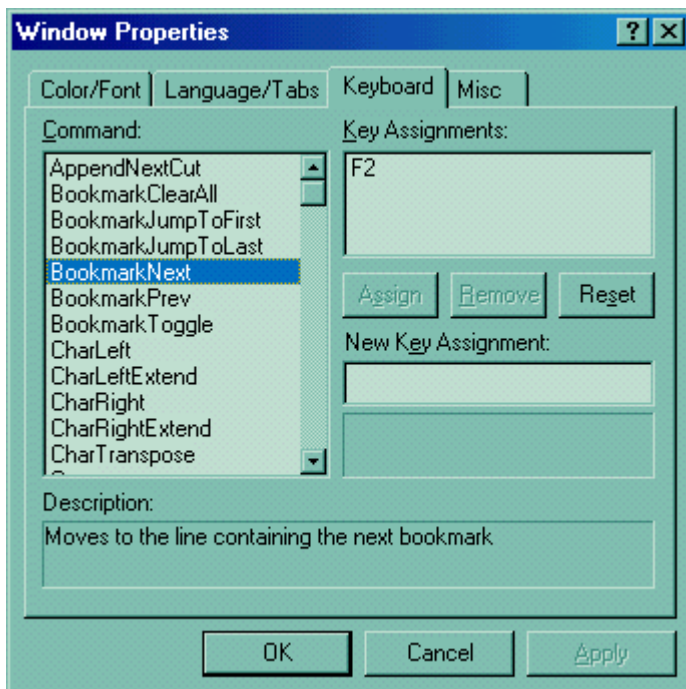
Clicking the right mouse button, while over the editor displays a context sensitive menu.



The 'Properties' option allows the editor to be configured using the 'Window Properties' dialog. The 'Color/Font' page allows color configuration



The 'Keyboard' tab allows actions to be associated with keystrokes

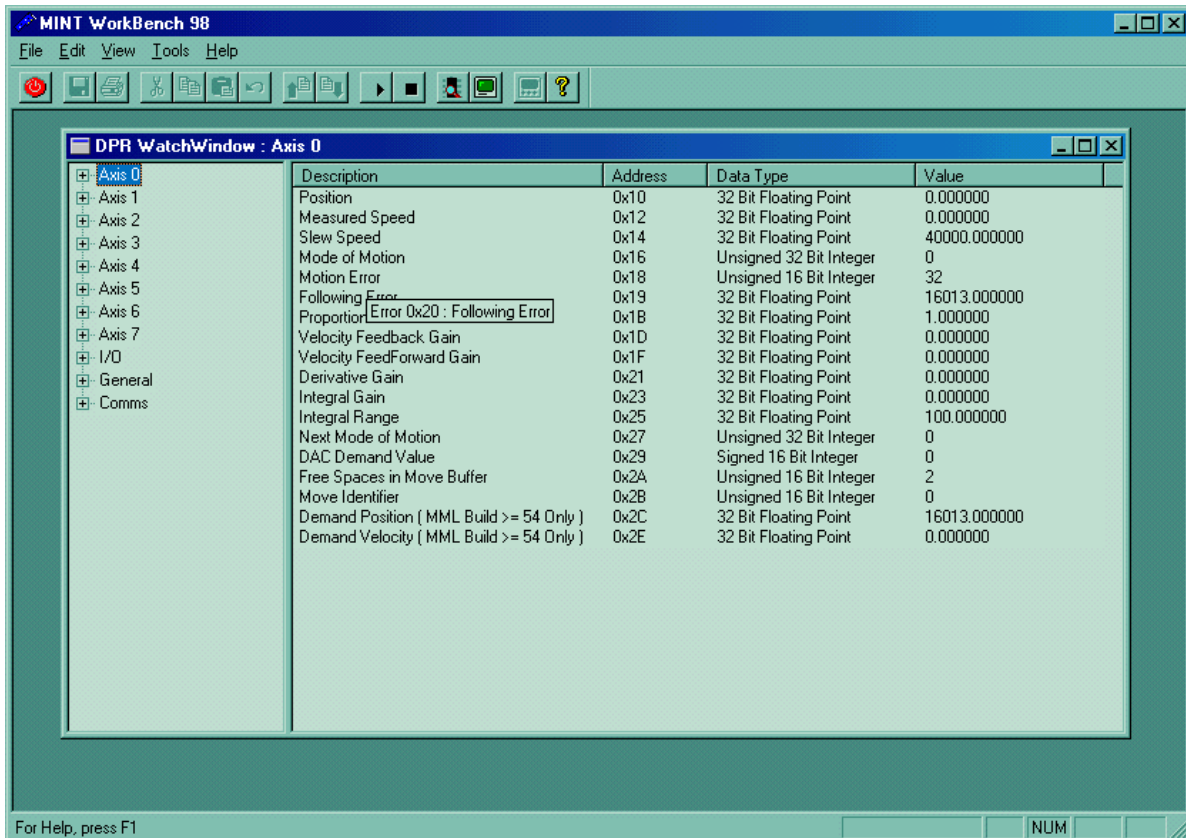


e.g. in this dialog 'Find Next BookMark' has been set to 'F2' to be compatible with Visual C. (Hint for non Visual C users : Use Ctrl-F2 to set one or more BookMarks, and F2 to jump to them.)

It is recommended that the 'Convert Tabs To Spaces' checkbox on the 'Language/Tabs' dialog is left set on, as tabs will be converted to a single space on file download.

3. DPR WatchWindow

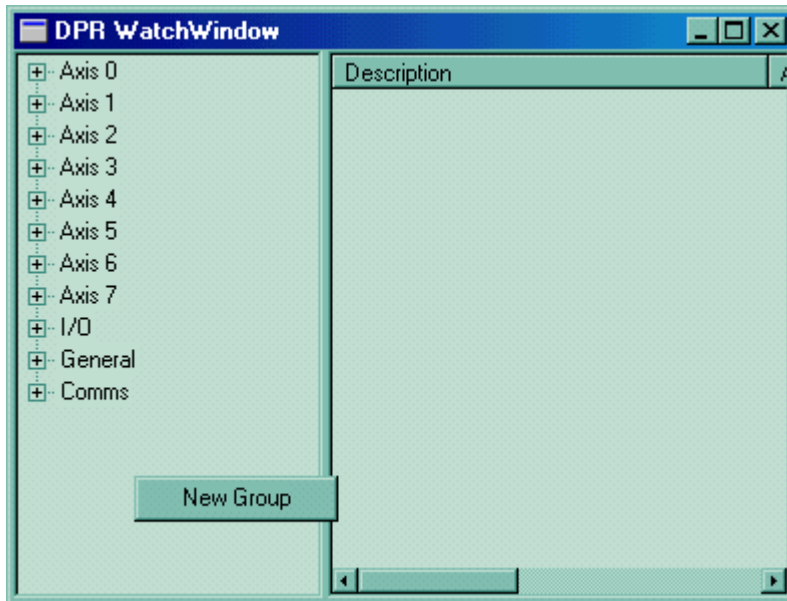
The DPR WatchWindow allows any of the information in Dual Port RAM to be viewed. Initially the DPR WatchWindow will be presented as below.



All the information in DPR has been grouped into the groups shown in the left hand side of the window. The right hand side of the window shows the values as read from DPR. When the mouse is placed over some of the values on the right hand side, more information will be displayed. E.g. in the screen shot above the mouse was placed over the 'Motion Error' line. The tooltip shows that a value of 0x20 in this location means 'Following Error'. Other items that display more information when the mouse is over them include 'MINT Status', 'MINT Error' and 'Axis Configs' in the 'General' group.

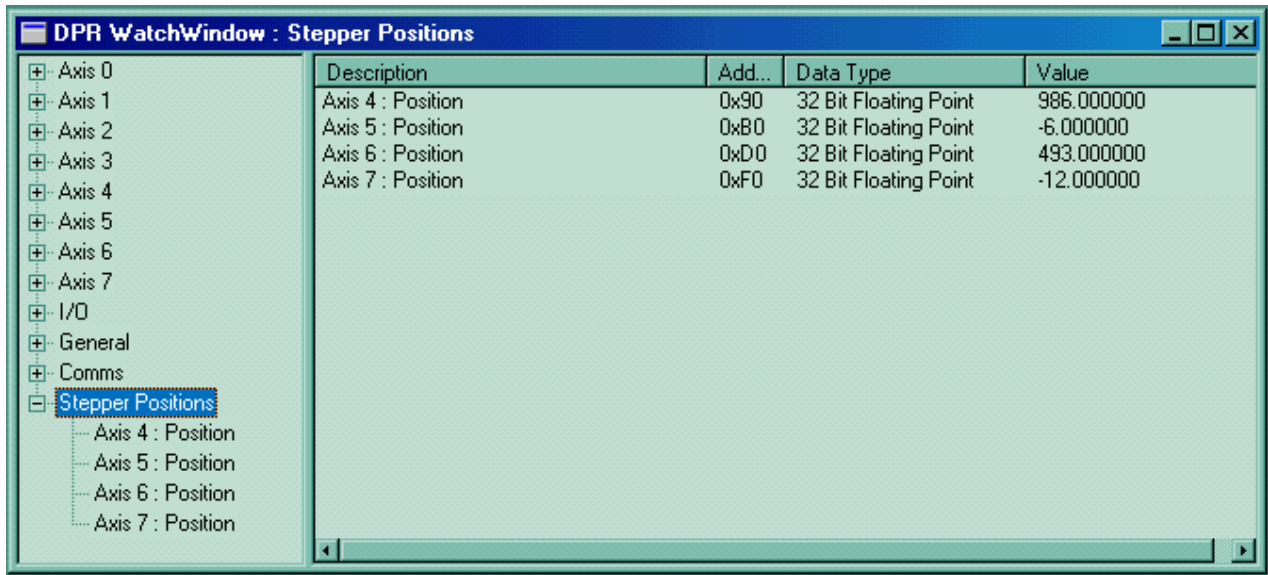
Right clicking over any element in the right hand pane allows the value to be written to. If this is an 'Auto-Update' value, (e.g. gains), the auto-update mechanism will be triggered. (See the MINT Interface Library Manual for details on auto-update variables). If the value is an integer, a menu will allow the value to be displayed in decimal, hexadecimal or binary (useful for inputs and outputs.)

Right clicking in the left hand pane, but not over an existing group allows a 'Custom Group' to be defined.

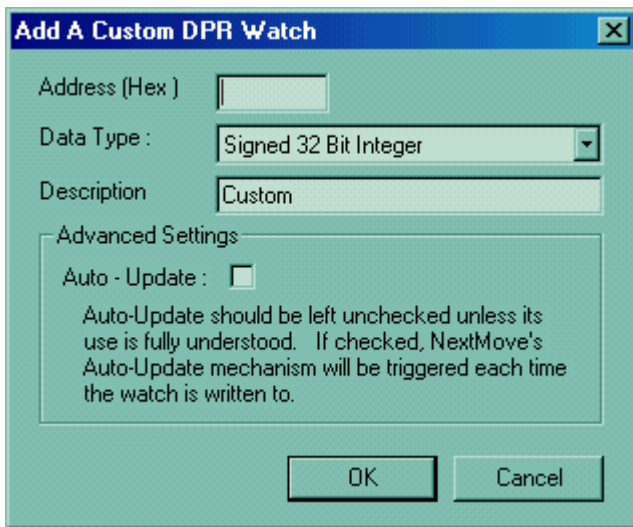


The new group will appear at the bottom of the list as 'Custom Group'. This group can then be renamed by right clicking and selecting 'Rename'. Watches from other groups can then be dragged from the right hand pane and dropped into the custom group. In the example below, the custom group has been renamed to 'Stepper Positions' and the 'Position' watch has been dragged from each of the four stepped axes and dropped into it.

Note that the renaming to 'Axis X : Position' is automatic.

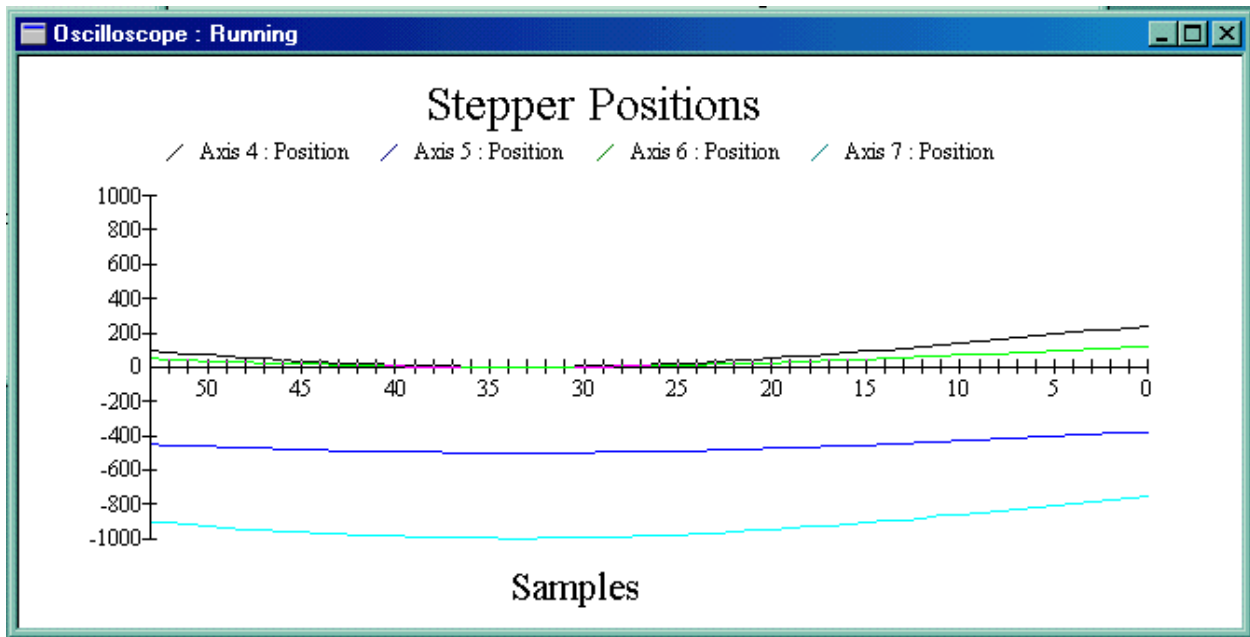



With custom groups, 'Custom Watches' can also be added by right clicking on the group name.

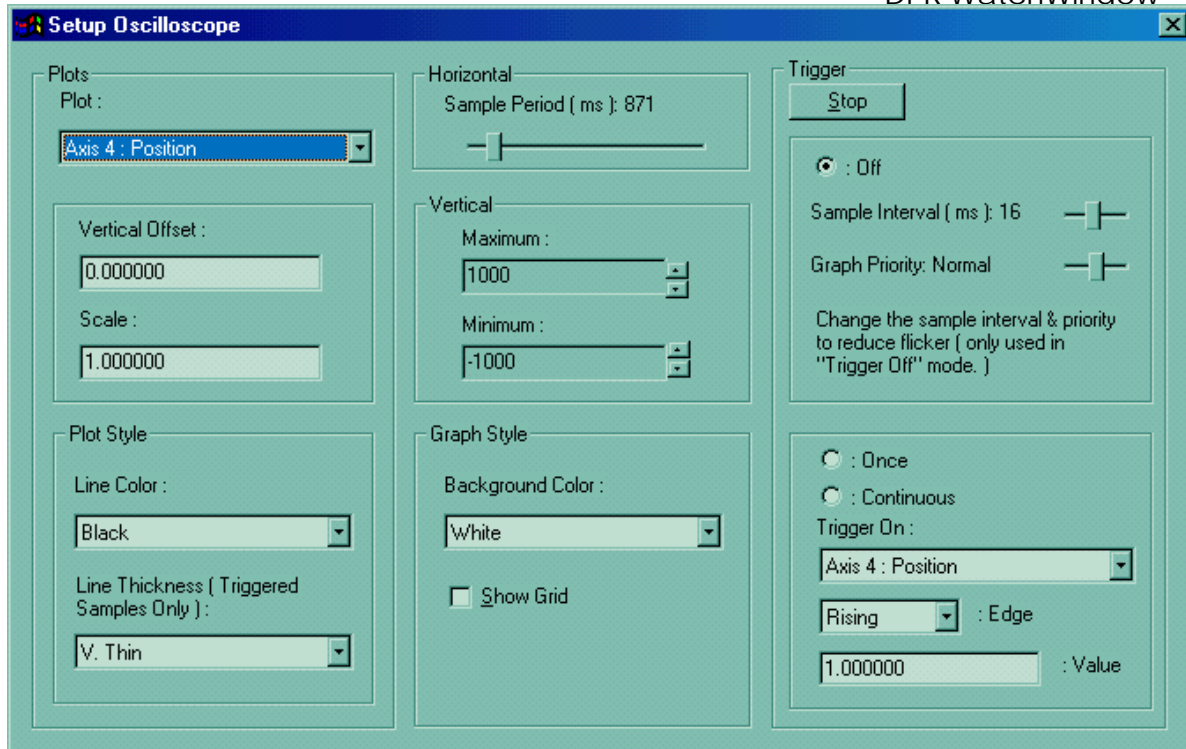


This allows any value in Dual Port RAM to be viewed as any data type. Checking the auto update checkbox causes the 'Auto-Update' mechanism to be triggered whenever the watch is written to. In most cases this should be left unchecked. Note that if the auto-update mechanism is activated for a non auto-update variable, NextMove may produce bizarre results.

Any group can be plotted in a graph. To do this, right click on the group you wish to plot and select 'Graph'. In the example below, the custom 'Stepper Positions' group has been selected.



Selecting the  button allows the graph properties to be changed.



By default, triggering is 'Off' (scrolling graph). Selecting once will trigger once, and continuous will trigger a new sample each time the trigger is hit while the graph is not sampling. Once data is held in the graph from a triggered plot it can be saved to a comma serated file by selecting 'Save As' from the file menu.

Notes :

After changing trigger modes, hit to 'run' button to re-start the graph.

The 'Setup Oscilloscope' can stay open while the graph is sampling. The status of the graph (i.e. Waiting for Trigger / Sampling) is displayed in the graph window caption.

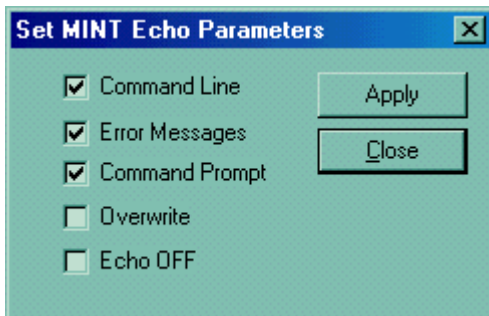
4. Also on the Tools menu

4.1 Immediate Command Mode Enabled.

This is useful for Windows NT users who are programming ICM applications. If an ICM command has hung (e.g. setMOVERA has been called on an axis which has no spaces in the move buffer) remove the check against 'Immediate Command Mode Enabled' and all ICM commands will return immediately. This is useful for stopping hung applications.

4.2 Echo

This allows the value of the ECHO keyword on NextMove to be changed without accessing the command line.



The overwrite check should usually be set for ICM applications.

4.3 Setup Squash

Squash allows MINT config and programs to be reduced in size as they are downloaded from the WorkBench.

