

# Data Logger Setup on SPX Drives

## Application Summary

The data logger is only on SPX control modules. This is the equivalent of an 8 channel oscilloscope. To access the data logger you have to communicate with the drive using the 9000XDrive program. After you establish communication with the drive go to the tools tab on top (highlighted on top of figure 1). On this pull down click on data logger. This pulls up the screen for the data logger (figure 2). Most of the default settings on the data logger are what you want except how the data logger triggers. By default the data logger triggers on MC Status, this is the equivalent of a limit in the drive and not normally what you are looking for. Check the fault button and uncheck the other button. This makes it so that this will trigger on a fault. The other thing I normally change on this is signal 6 is defaulted to MC status and I normally change this to freqref although what you set the signals for can greatly depend on what you are trying to troubleshoot. Once you have everything set the way you want it click on the set button in the lower right hand corner, this will save the info to the controller.

To get the data back out of the control module you use the same program and get back to the same data logger screen. Once there you will see the five buttons on the bottom left, one is current and the other four are history. (If you do not see the 4 history buttons click on the tools pull down and click on options. Click on the data logger tab and click on the show advanced data logger then click on OK.) Starting from the left is the most recent data. Click on the one you want to look at and then click on load from target. Normally you will want to download all of the files and along with this you will want the service info file. The service info file is under the file tab. Once you click on the file tab you will see on the pull down something called service info. When you click on this it will download the service info file from the drive. The combination of these 2 files should give you a pretty good idea of what the drive thinks it is seeing.

Index	Variable Text	Value	Default	Unit	Min	Max
P.1.1.1	Min Frequency	0.00		Hz	0.00	60.00
P.1.1.2	Max Frequency	60.00		Hz	0.00	320.00
P.1.1.3	Accel Time 1	3.0		s	0.1	3000.0
P.1.1.4	Decel Time 1	3.0		s	0.1	3000.0
P.1.1.5	Current Limit	61.0		A	4.5	90.0
P.1.1.6	Motor Nom Voltg	460		V	180	690
P.1.1.7	Motor Nom Freq	60.00		Hz	8.00	320.00
P.1.1.8	Motor Nom Speed	1720		rpm	24	20000
P.1.1.9	Motor Nom Currnt	45.0		A	4.5	90.0
P.1.1.10	Power Factor	0.85			0.30	1.00
P.1.1.11	Loc. Cntl. Place	2 / Keypad Cntrl			1	3
P.1.1.12	Rem. Cntl. Place	1 / I/O Terminal			1	3
P.1.1.13	Local Reference	2 / Keypad Ref.			0	3
P.1.1.14	Remote Reference	0 / Alt			0	3

Figure 1.

Signals		
Source:	Signal:	Datatype:
1: Firmware	IU_CurrentMotor	INT
2: Firmware	IV_CurrentMotor	INT
3: Firmware	IW_CurrentMotor	INT
4: Firmware	DCVoltageUnFiltered	UINT
5: Firmware	FreqOut	INT
6: Firmware	FreqRef	INT
7: Firmware	MotorCurrentUnFiltered	UINT
8: Firmware	MotorTorqUnfiltered	INT

  

Trigger		
<input checked="" type="checkbox"/> Fault	Note! You can also select both!	
<input type="button" value="Force Trig"/>		
<input type="checkbox"/> Other		
Source:	Signal:	Datatype:
Firmware	MCSStatus	WORD
<input checked="" type="radio"/> Bit Mask <input type="radio"/> Level		
8	bits	<input checked="" type="radio"/> Rising <input type="radio"/> Falling
Pre Trigg %: <input type="text" value="70"/> Sample Period: <input type="text" value="1"/> ms <input checked="" type="radio"/> Single <input type="radio"/> Continuous		
Current: <input type="radio"/> History: <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		
<input type="button" value="Load From Target"/>		<input type="button" value="Set"/>

Figure 2.

## Additional Help

In the US or Canada: please contact the Technical Resource Center at 1-877-ETN-CARE or 1-877-326-2273 option 2, option 6.

All other supporting documentation is located on the Eaton web site at [www.eaton.com/Drives](http://www.eaton.com/Drives)

