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Technical Tip

Finding Device Registers in
GX Works 3



Controls & Drives Ltd



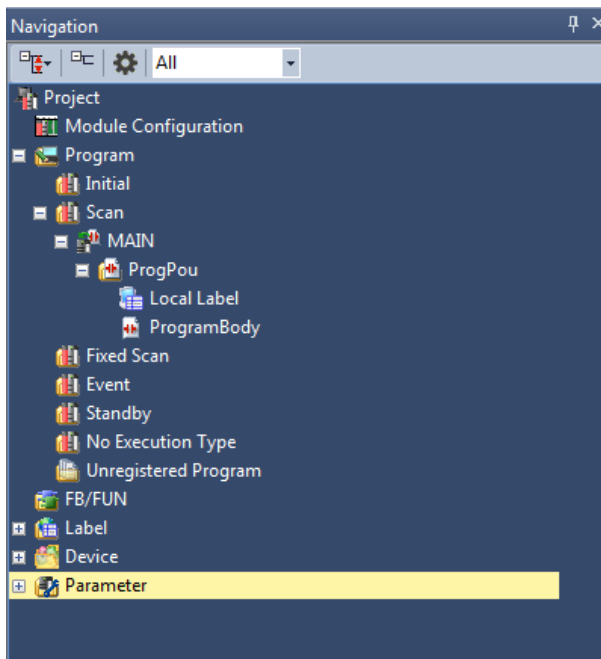
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Technical Tip

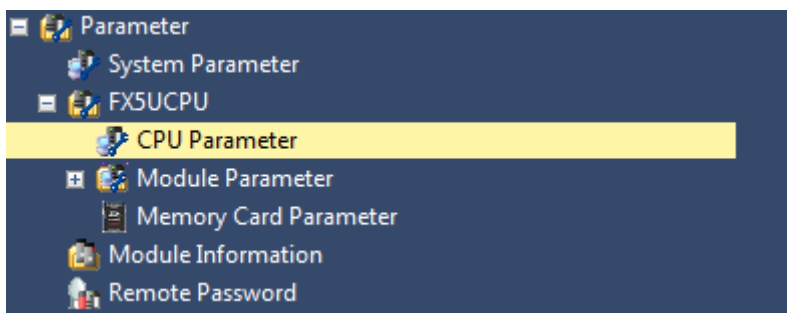
Finding Device Registers in GX Works 3 (IQ-F PLC)

This technical shows you how to find registers in parameters to change latch range in your PLC project using GX Works 3.

- 1) Please find the Navigation pane on the left hand side in GX works 3 and click on 'Parameter' to expand. (highlighted below)

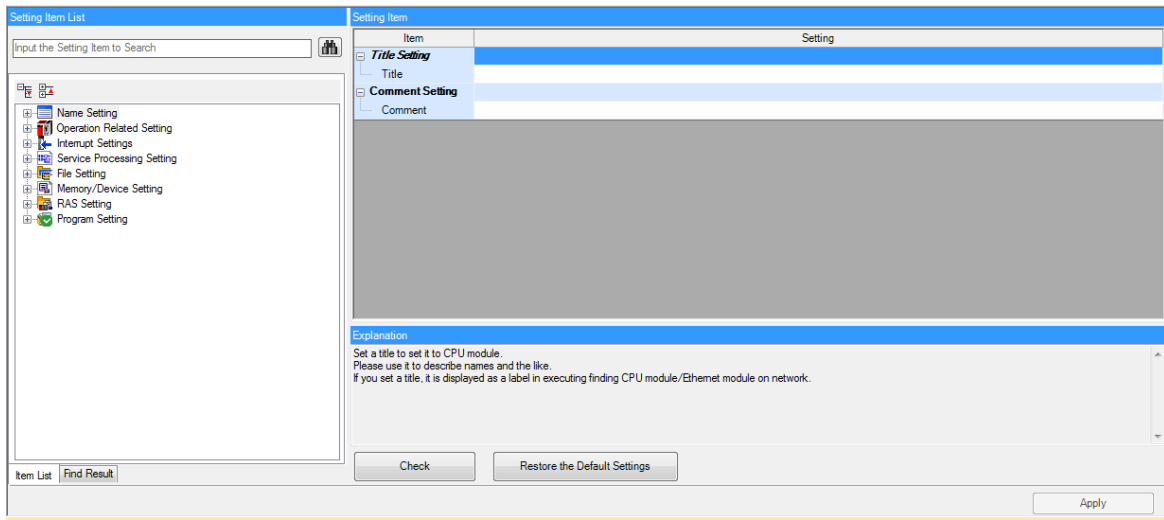


- 2) Click on 'FX5UCPU' to expand followed by 'CPU Parameter' (see below)

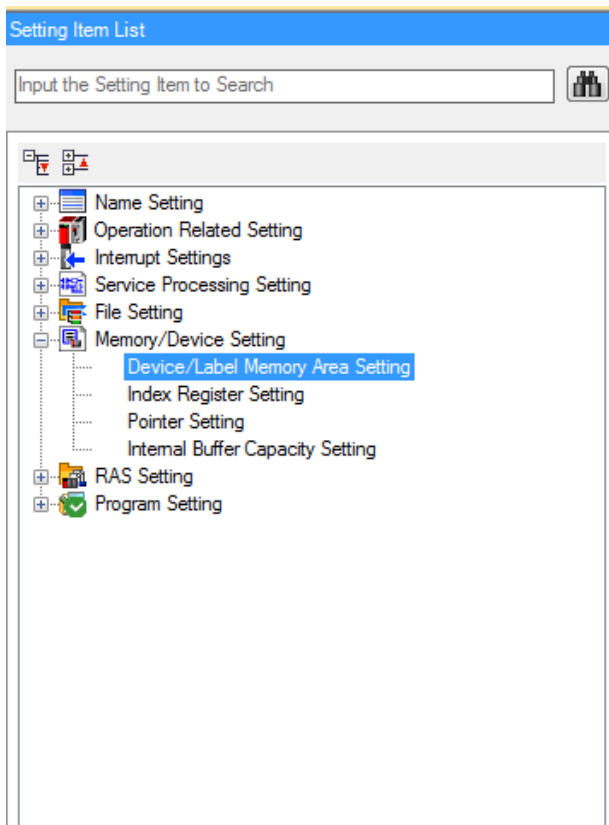


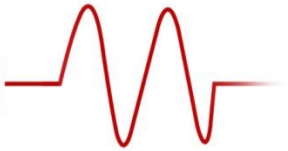


3) This screen will pop up on your main working area.

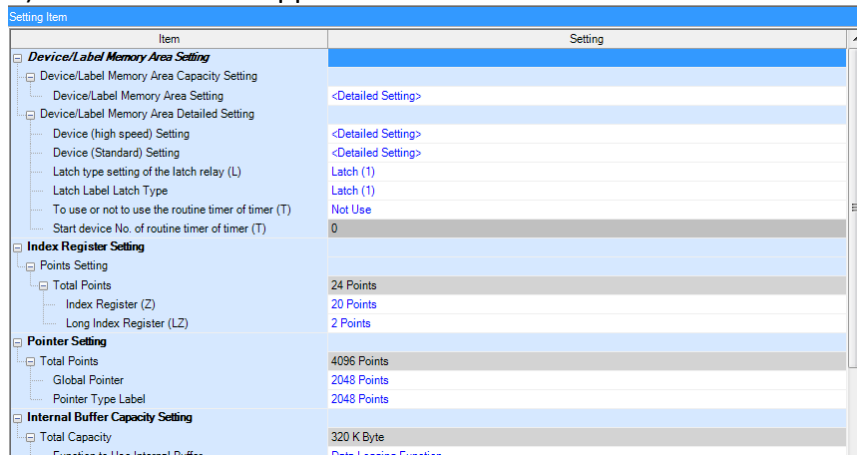


4) Click on to expand 'Memory/Device Setting' followed by 'Device/Label Memory Area Setting'

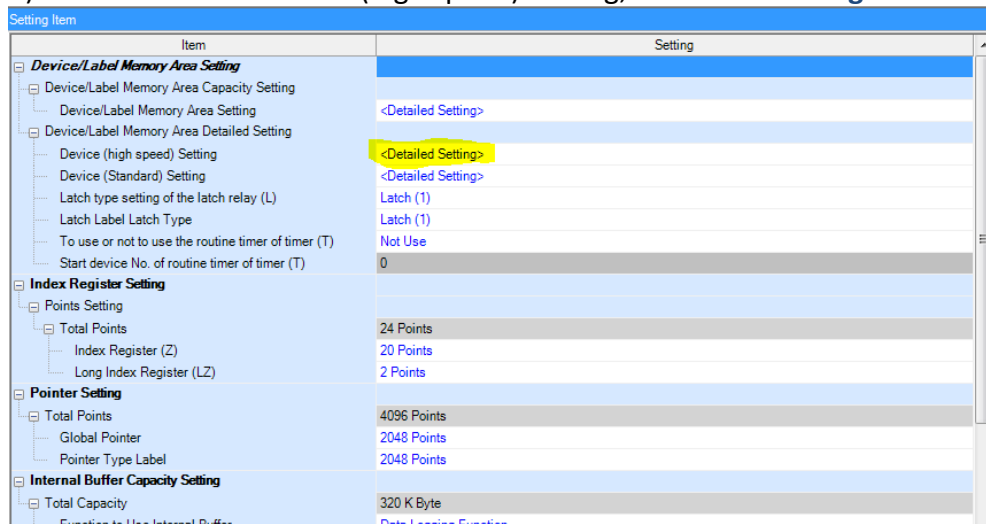




5) This screen will appear



6) Double Click on Device (high speed) Setting, <Detailed Setting>




7) You have now found your devices, where you can change and alter ranges and make them latch.

Item	Symbol	Device		Latch (1)	Latch (2)
		Points	Range		
Input	X	1024	0 to 1777		
Output	Y	1024	0 to 1777		
Internal Relay	M	7680	0 to 7679	Setting	No Setting
Link Relay	B	256	0 to FF	No Setting	No Setting
Link Special Rela SB		512	0 to 1FF		
Annunciator	F	128	0 to 127	No Setting	No Setting
Step Relay	S	4096	0 to 4095	Setting	
Timer	T	512	0 to 511	No Setting	No Setting
Retentive Timer	ST	16	0 to 15	Setting	No Setting
Counter	C	256	0 to 255	Setting	No Setting
Long Counter	LC	64	0 to 63	Setting	No Setting
Data Register	D	8000	0 to 7999	Setting	No Setting
Latch Relay	L	7680	0 to 7679		
Area Capacity			12.0K Word		
Total Device			11.2K Word		
Total Word Device			10.2K Word		
Total Bit Device			15.9K Bit		

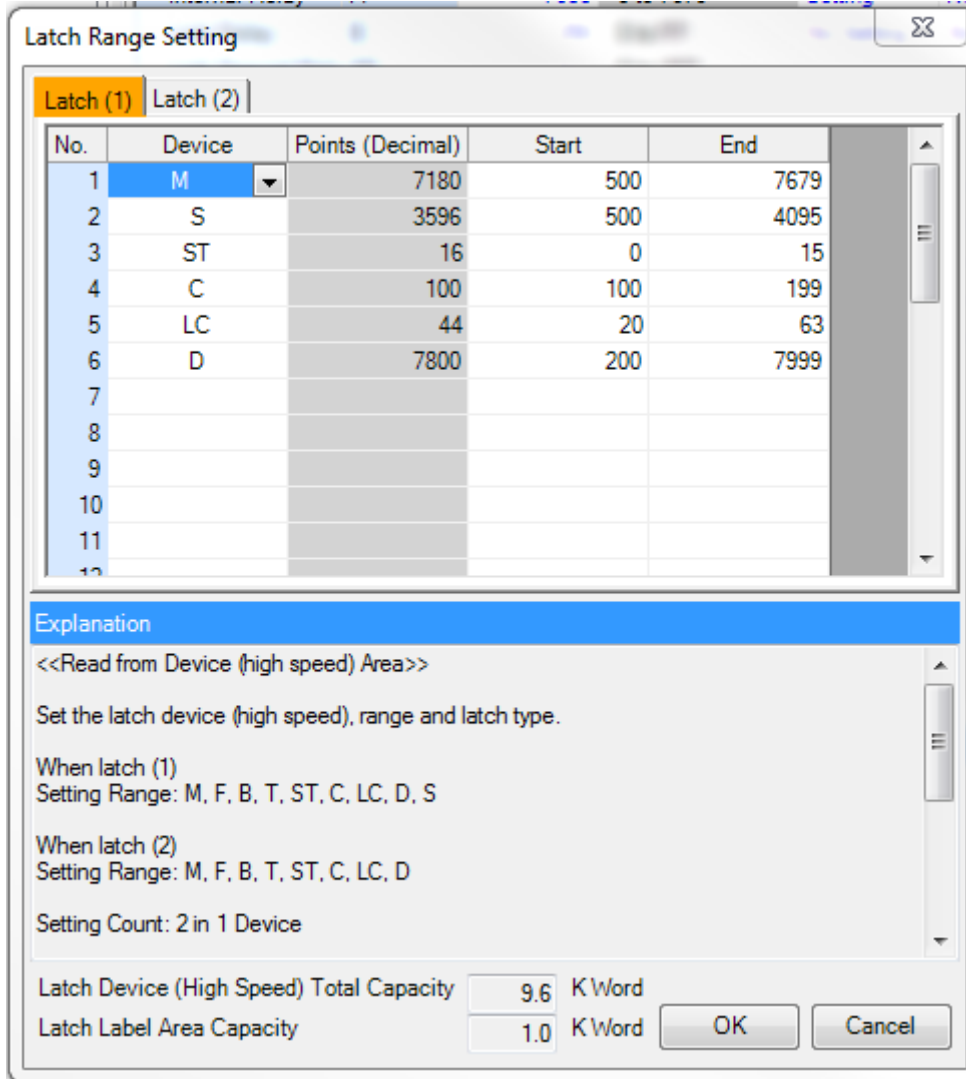




8) This example for D Registers if you click on Latch (1) 'Setting' and 3 dots button you will access the changeable area for Latch D Registers.

Data Register	D	8000	0 to 7999	Setting		No Setting
Latch Relay	L	7680	0 to 7679			
Area Capacity			12.0K Word			

'Latch Range Setting' Window will pop up.



No.	Device	Points (Decimal)	Start	End
1	M	7180	500	7679
2	S	3596	500	4095
3	ST	16	0	15
4	C	100	100	199
5	LC	44	20	63
6	D	7800	200	7999
7				
8				
9				
10				
11				
12				

Explanation

<<Read from Device (high speed) Area>>
 Set the latch device (high speed), range and latch type.

When latch (1)
 Setting Range: M, F, B, T, ST, C, LC, D, S

When latch (2)
 Setting Range: M, F, B, T, ST, C, LC, D

Setting Count: 2 in 1 Device

Latch Device (High Speed) Total Capacity: 9.6 K Word
 Latch Label Area Capacity: 1.0 K Word

OK Cancel

This Box Shows your default Latch ranges for your common Devices and where you can change them. You can clear see the Latch range for D registers is 200 to 7999. Therefore D200 to D7999 are all latched or in other words retentive.



- 9) If you change any of these setting, In this example 'Start 1000' you must click on 'ok' and write these settings to the PLC and perform a power cycle.

No.	Device	Points (Decimal)	Start	End
1	M	7180	500	7679
2	S	3596	500	4095
3	ST	16	0	15
4	C	100	100	199
5	LC	44	20	63
6	D	7800	1000	7999
7				
8				
9				
10				
11				
12				

Explanation
 <<Read from Device (high speed) Area>>
 Set the latch device (high speed), range and latch type.
 When latch (1)
 Setting Range: M, F, B, T, ST, C, LC, D, S
 When latch (2)
 Setting Range: M, F, B, T, ST, C, LC, D
 Setting Count: 2 in 1 Device

Latch Device (High Speed) Total Capacity: 9.6 K Word
 Latch Label Area Capacity: 1.0 K Word

OK Cancel

- 10) If you are using an IQ-R this is the same principle except you click on the following to access this area...

- Device/Label Memory Area Detailed Setting
 - Device Setting
 - <Detailed Setting>
 - Latch Type Setting of Latch Type Label
 - Latch (1)