## Monitoring the Program with a Data View

Creating a Data View

With the program loaded in the PLC, you can now open a **Data View** window to monitor and manipulate the status and data for the various elements of the program. If you have programmed in other languages before, you may know this type of window as a Watch Window. You can access this window by selecting **Debug**, then **Data View**, and **New**.

0	DirectS	OFT Programming - EXAMPLE1	
File	Edit Search View Tools PLC	Debug Window Help	
1619		Status Ctri+Shift+S	Andre ander ander an
April 1		All Status Ot	OK Online Program
	On the first PLC scan, we preload the cit FirstScan	Ali Status Otj	1.01
	SPO	Data View	New Chrishitter3
		Ghange ValueChri+Shift+F2 Test Mode Operations Stock Modelar	Open Close
		Trap Monitor.	lave de
		int each time Timer T0 reaches its preset. Counte e when the counters reach their preset values. Th ter	

The Data View window is useful when observed with your ladder logic screen while in the Status ON Mode. To set this up, click on **Window**, then **Tile**. If you are using a DL305 PLC, turn to Page 47 after opening the Data View Window shown below. All other PLC users should continue to the next page.

DirectSOFT	Programming-EXAMPLE1		
Ele Edit Scarch Vew Tools H.C. De server and the server of the server too may a server of the server Contact from PLC scale, we protocol the server 	Mere Window     Zokcode     Dife Lat     Arrange Icons     Close All     Dufpet Window     Close Output Window	OK Onited Program	
2 -	dil Search Yew Tools P	ICSOFF Programming - EXAMPLE1	Di Caluo Program
	a la companya di seconda di second	Dofa2	• •
	Chicke Into PLC scan, we presed to find the set provide an open provide the set of the second Tensor CO The Second Tensor	Ladider Wow e causters preset location with a value of 10	ED HUB OUT CTB Presat V2008 Their The Tex/sel Timet
Twitte	e.press F1		10 10

Below the column labeled **Element**, type in **C0** as the first element to be monitored. The software will substitute the assigned nickname, **Start Switch**.

	DirectSOFT Programming - EXAMPLE1				-
File Edit Search View Ioo	is <u>PLC</u> <u>D</u> ebug <u>Window</u> <u>H</u> elp				
	900 <b>5</b> 00				
Barry 10 2 2		OK .	Online	Progr	मा
3	Data2				
aritt 🛓					1
Element Status					٠
Start Switch III					
2					+
0	Ladder View				-
	load the counter's preset location with a value of 10.	0.50		_	
_FirstScan SP0		LD			
1 + +			K10	_	

## Adding Dynamic ON/OFF Edit Buttons

Now you can setup the Data View window to easily change the status of the observed elements. Notice in the tool bar at the top of the Data View window there is **C1?** and **C1=1 (with an hour glass)**. The C1? is active by default, however by selecting the other button ,C1=1, the ON/OFF **edit buttons** will appear beside the element.

	DirectSOFT Programming - EXAMPLE1	
Elle Edit Search View	Loois PLC Debug Window Help	
CI 1 4/4 1 11 19		KK Online Program
0	Data2	• •
1 III	± C = =	and the second
	us Edits	•
Start Switch #7	Click to Edit butt	iccess the ons.
	Ladder View	
	preload the counter's preset location with a value of 10.	
SP0		LD K10
		DUT

Now you can add the elements C1 (Output1), C2 (Output2), CTA0 (the counter current value), and TA0 (the timer current value) to the Data View window. Notice there are no ON/OFF edit buttons for the counter and timer values. This is because you are observing V-memory data for these elements as compared to observing an ON/OFF status.

	DirectSOFT Programming - EXAMPLE1	
Elle Edit Search View I	ools PLC Debug Window Help	
1000 - 100 - 201 - 10 I D		OK Online Program
-	Data2	
(ar) (a)		
	s Edits	
Start Switch #7	(mim)	
Test Output1 #*		
Test Output2 #*	(HELE)	
CTA0 0	0	
TA0 0		
	Ladder View	
On the first PLC scan, we	reload the counter's preset location with a value of 10	
_FintScan SP0		LD
1 - 1		K10
		DUT

## Entering the Run Mode

You are now ready to test the program. First, place the PLC in the **RUN** mode. Select the "traffic light icon" of the on-line tool bar. Then, click on the **Run** mode and **OK**. Alternately, you could have chosen **PLC Modes** from **PLC** of the main menu bar, and then selected **Run** mode from the pop-up dialog box.

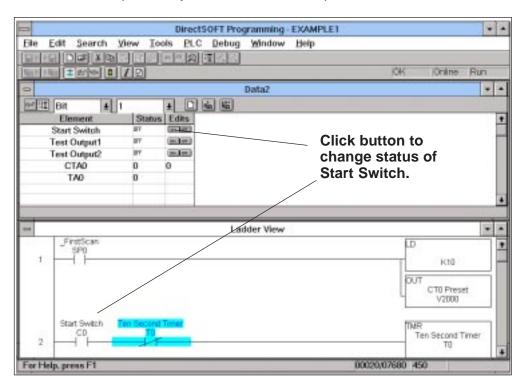
ie Edit Search						•
		[m]m/w][e+]m			OK Online	Progra
			Data2			+
- 98 J		105				
Start Switch Test Output1 Test Output2 CTA0 TA0	Statu ur ur ur 0 0	Current P	PLC Modes LC Mode: PROO LC Mode: # Bar Pro	RAM gram	Click here to change mode.	
On the first F FirstScan 	PLC scan, we p	ок	Cancel	Ноф 3	LD K10	

Observing the<br/>Status of ElementsTo monitor the status of each element, you will need to place the software in the All<br/>Status ON Mode. Select Debug, then All Status ON.

Ele Edit Search Mew Tools PLC	Debug Window Help / Status On / Status On / All Status Off Data View Onange Value Trap Monitor	OK Online Run
Test Cutput2 #* CTA0 0 TA0 0		
Fay:Scan SP0	Ladder View	

## Using the Edit Buttons to Change Status

You can start the program by first clicking the edit button labeled **ON** for the **Start Switch (C0)**. This by itself does nothing. You will need to write a new status to the PLC. The next step shows you how this is accomplished.



Writing Edits to the PLC

To write the new status to the PLC, select the icon of the Data View (one arrow pointing inward to the PLC).

			DirectSO	T Programming - EXAM	IPLET			
		ylew 1	iools ELC D	lebug Window Help	r in the second s			
10101		12 14 11	日日前日					
	a area D	17 3		12202 Character		OK	Onine.	Run
120				Data2				-
-	81							
- no	Barrent		us Edits					
	Start Switch	31	Contact.					1
1	fest Output!	97	CHARLEN CO.					
1	feat Output?	189	00000					
	CTAG	0	a					
	TAO	0	1					
			-					
		_	216					
				Ladder View				
	FirtScan					1.0		_
1	-ñ					-	611	
	1000					100		_
						(DU	CT0 Pres	e l
						4	V2800	· ·
	12732231	215.2.5	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.					_
	Start Switch	Ten Seco	ad Termer			The	H Ten Second 1	
3	-n-		T			-	TD	
-		_				-		
a Hel	p. press F1				90020.0	NEED A	048	

A confirmation dialog will appear. It will ask if you want to write the edit (or edits) to the PLC. Answer **yes**. The active elements will change color when they are in the ON state. You will see the counter start. Now the program can be observed as it runs.

The Edit Search View Tools (S.C. The Ed	Data2	Click	here to confirm
2 - CO - C		Timer starts in	DE Ontre Run
	ren Help, press. P1	Latter Vice	00000/00/00 #64