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Connecting Online to a PLC & Downloading the Program

Starting the Linking Process

To connect with your PLC, select **PLC** from the menu bar, and move the cursor to **<u>Connect</u>**.

Edit Search View Iools	<u>PLC</u> <u>Debug</u> <u>Window</u> <u>Help</u> <u>Connect</u> Link Setup Offline Setup	
	Memory Map PLC Modes. Ctrl+Shift+R Configure I/O Password. Diagnostics Setup	TestOutput1 C1 (OUT)
5 CTA0 K8	Clgar PLC Memory Copy config data from PLC to Disk Copy config data from Disk to ELC	Test Output2 C2 (OUT)
8		-(eno)

Adding a New Link After completing the above actions, a window will appear asking to select a link. If you had already built a communications link, there would be links shown inside the window to select. Since this is presumably the first time you have worked with *Direct*SOFT, the window is will be empty. Select the task button titled <u>Add to create a link</u>.

-	DirectSOFT Programming - EXAMPLE1	
Eile Ei	dit Search View Tools PLC Debug Window Help	
	Ladder View	
	The Counter CT0 will increment one count each time Timer T0 reaches its preset also have associated bits which energize when the counters reach their preset va bit is used to make a self-resetting counter Ten Second Timer	Courters Les. This
3	Select Link	FmeOut Counter
	TimeOut Links	Soloce CT0 Preset
		Quecul
	Fits	Add.
	Click here.	Edd
	сти	Dalama Test Output1
.4	Lint English	Help (OUT)
5		Test Output2 C2 (OUT)
6		(end)
		4

Selecting a COM port The first step in adding the link is accomplished using the "Link Wizard". The window below shows the wizard. Move the cursor to the COM port to which you have connected your communications cable. If you have not connected a communications cable, do so at this time. Consult the chart on Page 56 to determine the CPU port and type of cable to be used.

Which serial port of the computer you connect to will depend on your computer configuration. In most cases, this will be COM1 or COM2. After you move the cursor to the correct COM port selection in the software window shown below, click on the button labeled <u>Next</u> >. In this Quick Start version, the situations where you are establishing a connection involving a modem are not discussed. A link for a modem configuration has to be performed manually (without using the Wizard) and is discussed in the main users manual.

- LinkWiza	rd
Select the communications port that the PLC is connected to. Modem support cannot be configured from the Link Wizard. To select modem support, you must use the manual configuration dialog by selecting "Link. Editor" below.	Eoris: COM1 COM2 COM3 COM4
Link Editor	Next > Cancel

Selecting a PLC family

The LinkWizard will ask to select the PLC product family you are using. Move your cursor to the correct choice and click on the button labeled <u>**Next**</u> >. In this example, the connection is for a DL105, DL205 or DL405 PLC.

	fizard
Select the PLC product family of the PLC you wish to connect to. If you are unsure, but know the communications protocol it uses, sulact "Not Sare" from the list	PLC Eamilies: Mot Sure ** 105/205/405 Family Direct Logic 305 Direct Logic 305S
Link Editor Kan	k Next> Cancel

Selecting a Communications Protocol You now will select the protocol with the wizard. In this example, assume you have a DL450 CPU using K-sequence. (Consult your CPU operating manual for your PLC if you need more information about *Direct*NET and K-sequence.) When the cursor is positioned on K-sequence, click on <u>Next</u> > again. Leave the PLC address number set to the default 1.

ca Lin	kWizard
Select fee protocol to use in the communications link. If you unlected a PLC tamily, a valid positical has been selected to you. If the selected pretocol supports sede addressing, order the stokes address. Fyou are users, leave	Ensteams Devected: T (28% 39%/49%) E Sequence (105/295/495)
the default.	Address 1 🗐
Link Editor. cl	Back Mont > Cancel

Enabling the Auto-Link Feature and Naming your Link At this point, the wizard will automatically check-out your computer and CPU, determining the parity, number of stop bits and the correct baud rate for communication. *If you have trouble establishing a communication link, see the Troubleshooting Guide starting on Page 52 of this manual.*

The next screen will allow you to enter a name and description for your link. The name is required, but the description is optional. In this example use the name **MyLink**. Click on **Finish**.



The software then returns to the original link window and shows the name of the new link. With the cursor on the link name created, select the button labeled **Select**.



Comparing Disk to PLC Memory

The above action will cause the software to compare the program stored in your PLCs memory to the one in the program editor. It will report back to you with the window shown below if *it detects a difference between the two areas*. In this case, there is no program stored, therefore, it will state that what is stored in the PLC is different from what is stored in the programming memory. Select the button **Use Disk** to inform the software to use what is stored on your computer and not what is stored in your PLC memory.

233333 2333333 Note: If you were to click on Use PLC, it would display the empty information stored in your PLC memory and you would see nothing but empty rungs. Make sure you click on "Use Disk".



Writing your Program to the PLC

Now that your PC and PLC are properly linked, you can write the program to the PLC. You will note a second tool bar (online tool bar) has appeared below the offline toolbar. The second icon from the left is used to write your program from your hard drive to the PLC. Click on the icon now.



At this point, the program will be saved to your PLC. A window will be temporarily superimposed on your program area. A series of small red indicators will flash in succession to indicate the progress as *Direct*Soft writes the program to the PLC.

