Download the Program

Download the Program to the PLC Now that your PC and PLC are properly linked, the program can now be downloaded, or written, to the PLC. Return to the example program (Example1) which was previously edited. If the program is no longer open, displaying on your computer screen, it can be opened by pointing the mouse arrow to the name of the program, Example1, and double-clicking on it.

Now, refering to the example below, click on **PLC** on the menu toolbar. A drop down window will appear. Find and click on **Connect**.

Direct50FT32 Programming - example1	
jile Edit Search View Iools Pla Debug Window Help	
Rest Witte New Open Badap Vor Accept Opt Copy Paste Find Next Brocce	
👖 Ladder Yiew	
1(OUT)	
2 (END)	
3(NOP)	
4 (NOP)	
5(NOP)	
6 (NOP)	
7 (NOP)	
(NOP) 🔽	
or Help, press F1 00003/02048 05 00	03:001:001 //.

The **Select Link** window will appear, like the example below. Select the link which we made earlier, then click on **Select**.

Select Link	X
Links Address 55 : ECOM protocol on Ethernet 250enet : 250K :	<u>S</u> elect <u>C</u> ancel
Example1 : DL05 Test Stand	<u>A</u> dd
	<u>E</u> dit
	<u>D</u> elete
🔲 Link Enabled	<u>H</u> elp

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DirectSOFT32 automatically compares the program stored on disk with the program stored in the PLC. The following dialog box will appear. There are four buttons on the bottom of the window. Since we are dealing with a new program, select the **Use Disk** button. The **Use PLC** button is used whenever you have edited a change to a program and you are going online to load the changed program. The other two buttons are self-explained.

0	nline/Offline Differences	X
	There are differences between the online and offline programs.	
	Select source of program to view.	
	NOTE: This operation only loads the selected program into memory. It does NOT overwrite the program not selected. To write the	
	program, select Write Program or Save Project and specify the desired destination.	
Γ	Use PLC Use Disk Details Cancel	

After clicking on the **Use Disk** button, the programming window will look a bit different, it has acquired another toolbar. This toolbar can be referred to as the online toolbar. Also, there are indicators under the online toolbar indicating that the PLC is okay, the PC is online with the PLC and the PC is in Program Mode. *At this point the program has not been written to the PLC*.

🛱 DirectSOFT32 Programming - example1
<u>File E</u> dit <u>S</u> earch <u>Vi</u> ew <u>T</u> ools <u>P</u> LC <u>D</u> ebug <u>W</u> indow <u>H</u> elp
Read Winte New Open Backup Set Corr Copy Paste Find Next Brooks Opts ZoomOut Help
ReadD WriteD Status Data Value Mode Info Syntax
OK Online Program
🔢 Ladder View
2(END)
3(NOP)
4(NOP)
5(NOP)
6(NOP)
7 (NOP)
For Help, press F1 00003/02048 05 0003:001:001

Whether you are writing to a new PLC or to a PLC that is being re-programmed, it is good practice to clear the PLC memory before writing the new program to it. To do this, click on **PLC** on the menu toolbar, then click on **Clear PLC Memory** in the drop-down menu.

The **Clear PLC Memory** dialog window will appear. There are several options listed in the window that will show unchecked boxes for each option. For our download example, click the <u>ALL</u> box to place a check (\checkmark) in it. All of the options will "gray out" and the boxes will have check marks in them. Click **OK** to begin the clear memory process.

Clear PLC Memory	×
Erogram Memory	
System Variable Memory	
✓ariable Memory	
Imr/Ctr Accumulator Memory	
Pause <u>B</u> its	
OK Cancel]

The following indicator will appear showing the beginning and end of the memory clearing process. When the window vanishes, the clear memory process will be complete. Notice that the program in the Ladder View is no longer there. Since your program is already saved to disk, you will need to read your program from disk to restore it to view. The program can now be written to the PLC.

Processing I/O Config Memory	

Notice the two left-most buttons on the online toolbar. These buttons are symbols of a PLC. They are highlighted to indicate that the PLC is ready to have a program written to it or to have a program read from it. We will write the program to the PLC. Click the mouse on the **WriteP** button. An indicator similar to the one above will appear. The red bar will flash to indicate the program is in the download process. It will be in view for the amount of time corresponding to the length of the program.



The program has now been written to the PLC. All that needs to be done now is to put the PLC in the RUN mode. Click on the **Mode** button on the online toolbar. This will bring the **PLC Modes** dialog window into view. Click on **Run** then **OK** and the PLC will be in the **RUN Mode**.

PLC Modes	×
Current PLC Mode: PROGRAM	
New PLC Mode: Buri C Program C Iest	
OK Cancel <u>H</u> elp	

Now that the example program is in the **RUN Mode**, you will want to monitor the program online while the PLC is running.

🙀 Direct50FT32 Programming - example1		
<u>File E</u> dit <u>S</u> earch <u>View T</u> ools <u>P</u> LC <u>D</u> ebug <u>W</u> indow <u>H</u> elp		
Read Write New Open Backup Corr Copy Paste Find Next Browse	* Providence Providence Optis Zoorm Out Help	
Resid Witter Status did V2- Mode Info Syntax	OK Online Run	
🗄 Ladder View		_
1		de
2	_(END)	
3	-(NOP)	
4	-(NOP)	
6	-(NOP)	
6	-(NOP)	
7	-(NOP)	
, For Help, press F1	00003/02048 250(-1) 0003:001:002	