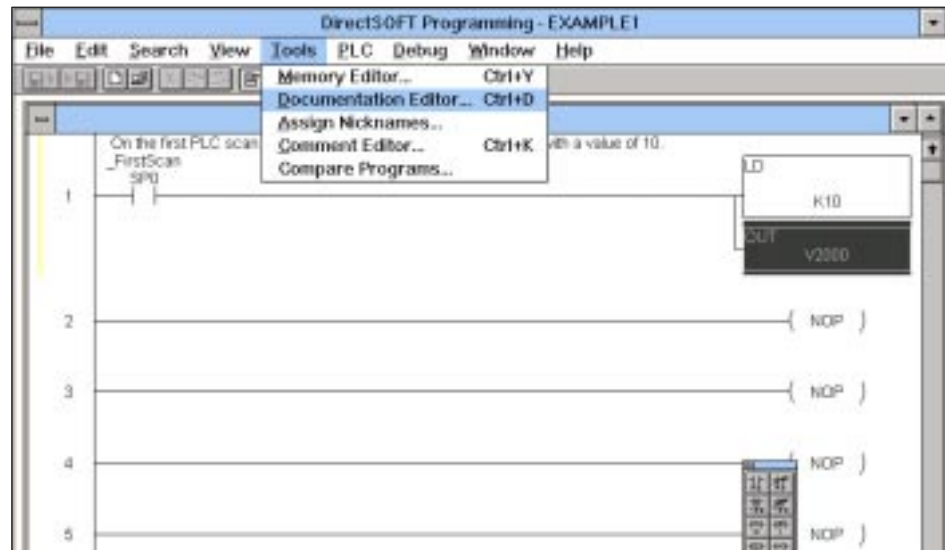
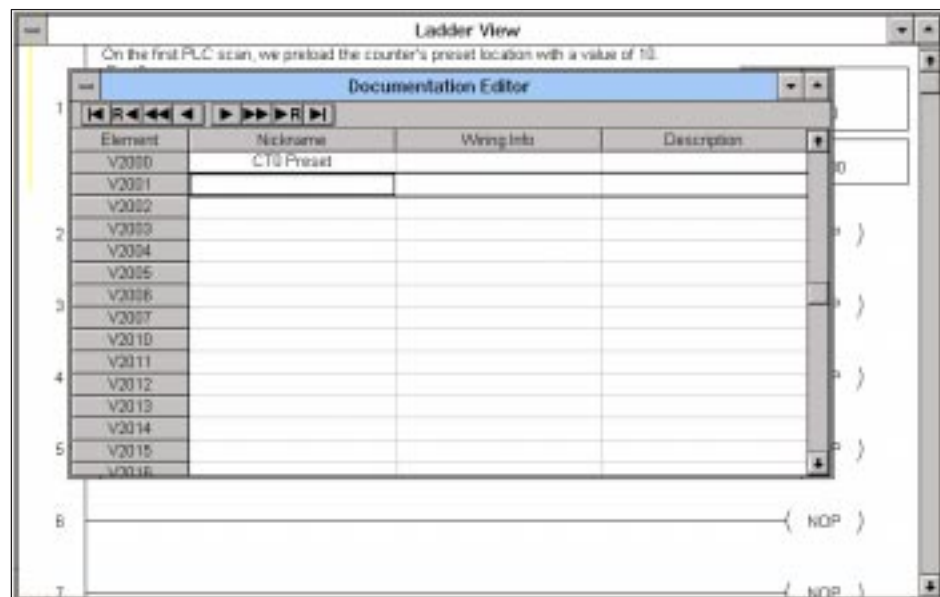


Step 14:
Assigning a
Nickname to the
Preset Output

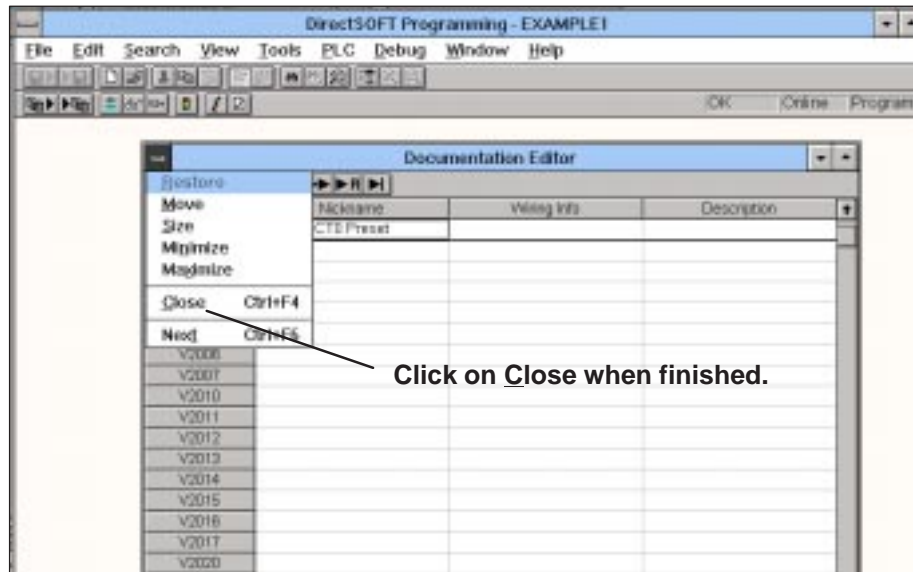
If you decide to assign a nickname to V2000, you will need to document that this address will hold the **preset** for the timeout counter **CT0**. Use a nickname that describes the function. Move the cursor to highlight the OUT box for the V2000. Select **Tools** from the upper menu bar. Next select the **Documentation Editor** or press **CTRL + D**.



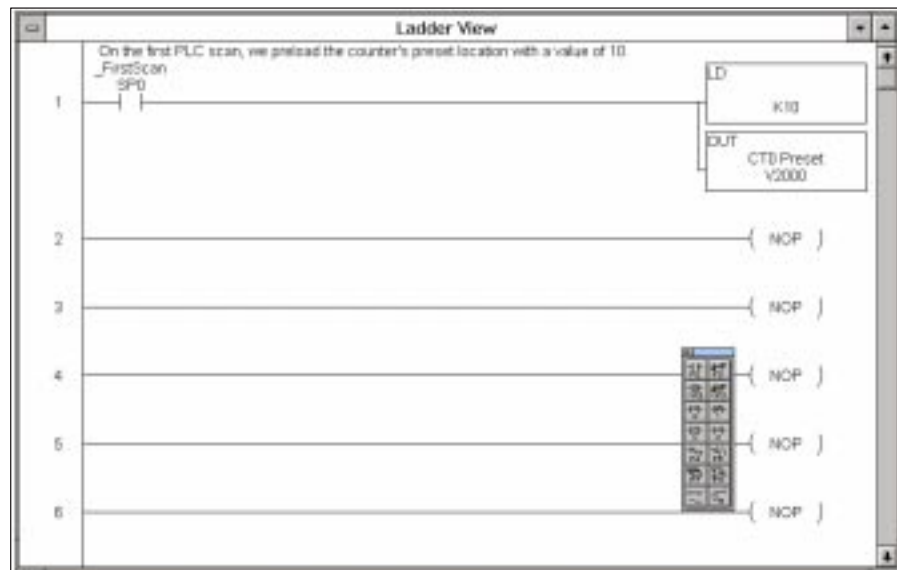
The dialog box shown below will appear. It will have **V2000** in the box labeled **Element**. Immediately to the right is the **Nickname** Box. Type in the nickname, in this case use the name **CT0 Preset**.



After typing in the nickname information, **Close** the **Documentation Editor** when you are finished.



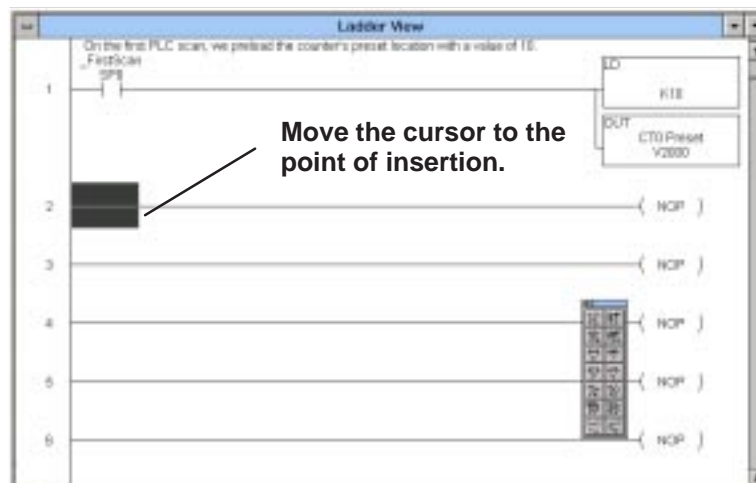
The nickname will appear inside the **OUT** box above **V2000**. You are now ready to create the second rung of ladder logic.



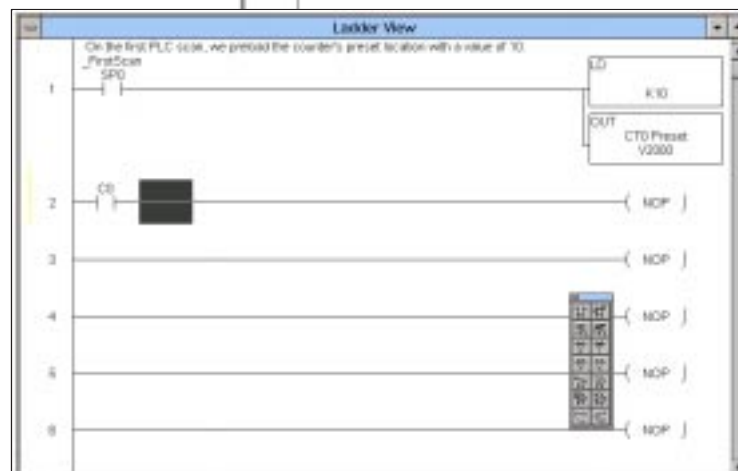
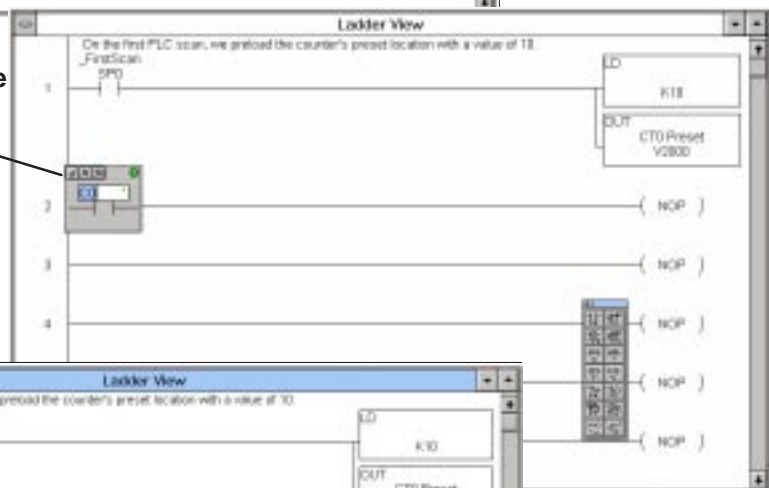
Step 15:
Adding an Internal
Relay to Start the
Timer

In this next rung you will start a timer, have it timeout at a certain preset value, and then reset itself. Choose to use **C0** as the **start relay**; and of course, **T0** is the timer “done” bit for the **TMR T0** timer.

Insert the “start relay” **C0** first. Use a shortcut this time to create the normally open contact on the rung. You may recall on the first rung, the normally open contact icon was selected on the tool palette in order to create the contact. This time, move the cursor to the point where the contact is to be placed and press the **F2** key. This opens the input box shown below and you can fill in the information as before. The shortcut keys are much faster than the icon selection method as you become more familiar with *DirectSOFT*.



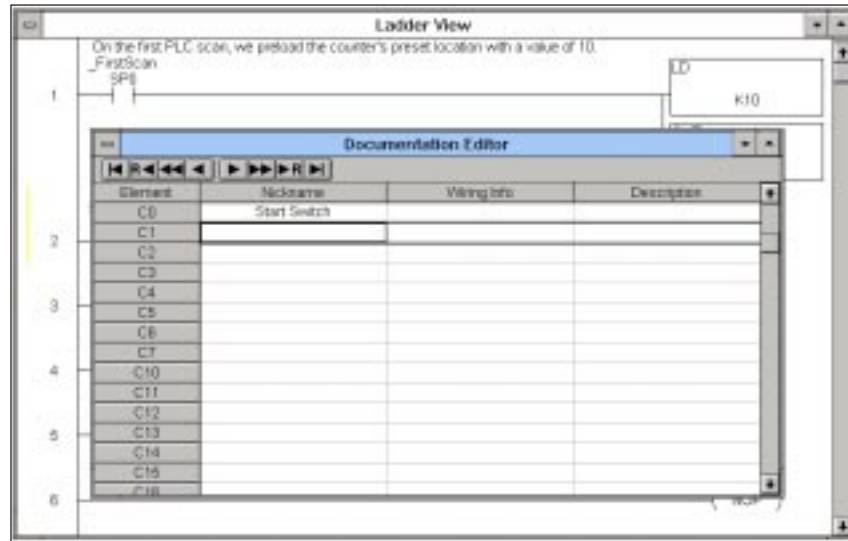
Use F2 to bring up the
 element dialog box.



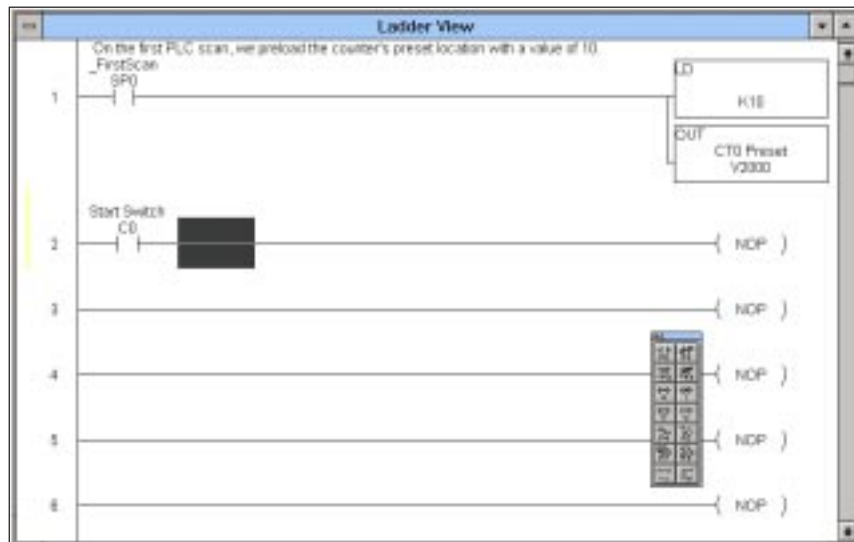
Step 16:
Assigning a
Nickname to the
Start Contact

Next, document that **C0** is the “start switch”. You could pull down the **Documentation Editor** from **Tools** on the horizontal menu bar to enter this information as a nickname. However, for learning purposes, use the hot key equivalent—**CTRL + D**. This will bring up the Documentation Editor without having to use the pull-down sub-menu of **Tools**.

If your cursor was on **C0** when you used the **CTRL + D** combination, the browser should have the **C0** in the **Element** column. Type **Start Switch** in the **Nickname** column.

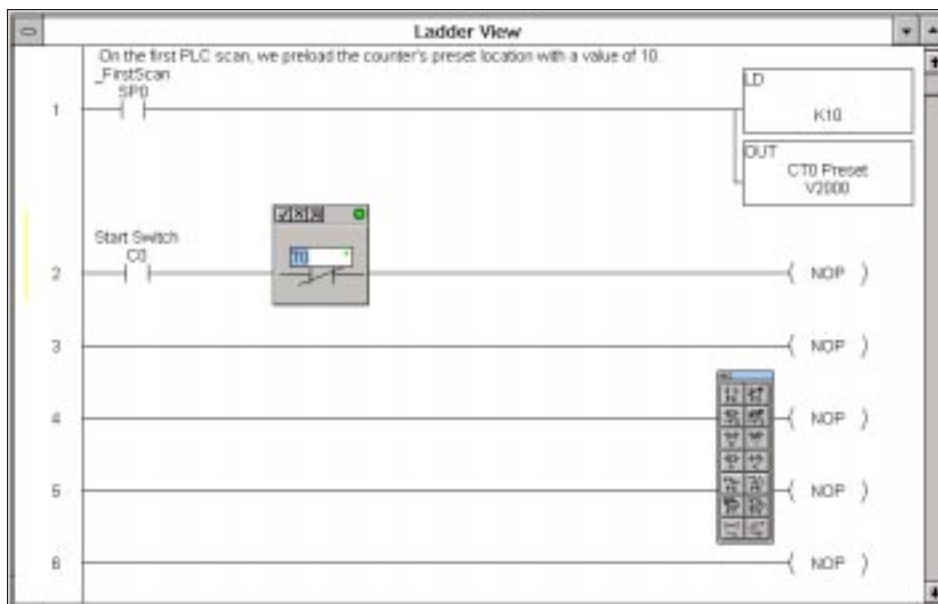


Close the Documentation Editor, returning to the rung. The nickname should be above the element **C0**.



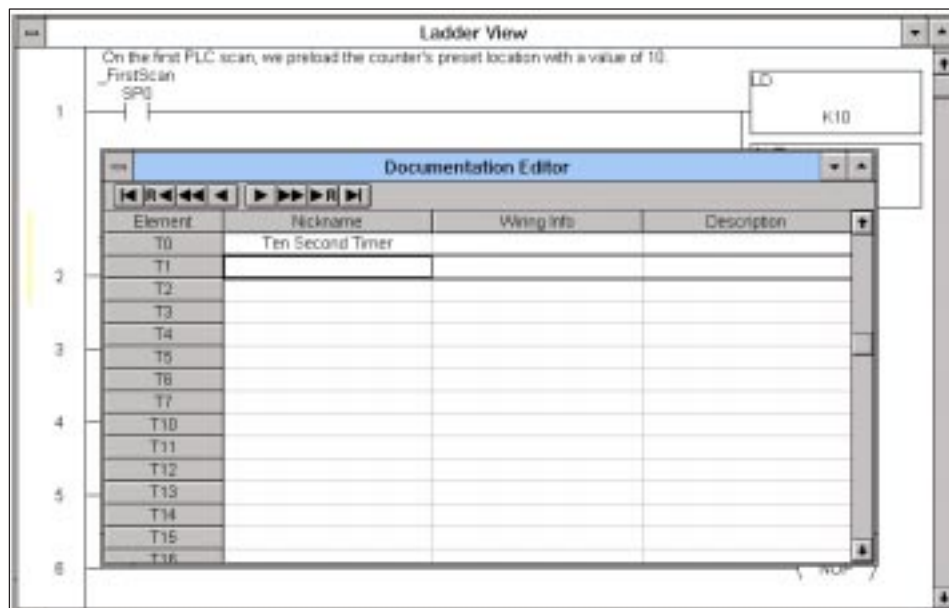
Step 17:
Adding a Normally
Closed Contact

Next, move the cursor further to the right on the rung to the point where you want to place the normally closed contact for the timer “done” bit (T0). Use shortcut key **F3** to bring up the dialog box for a normally closed contact. Type in **T0**. Finish by selecting the check mark.

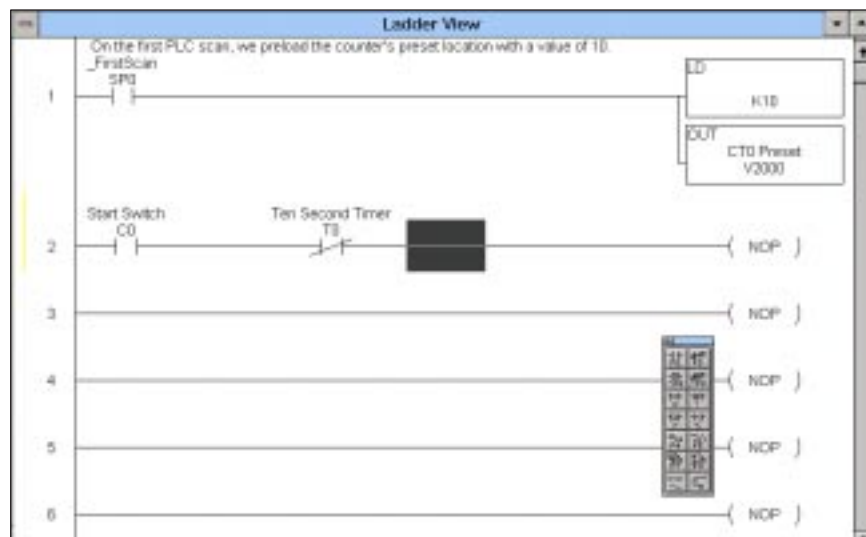


Bring up the **Documentation Editor** again by using the **CTRL + D** combination. Enter **Ten Second Timer** in the **Nickname** column. **Close** the Editor when finished.

Step 18:
Adding a Nickname
to the Normally
Closed Contact

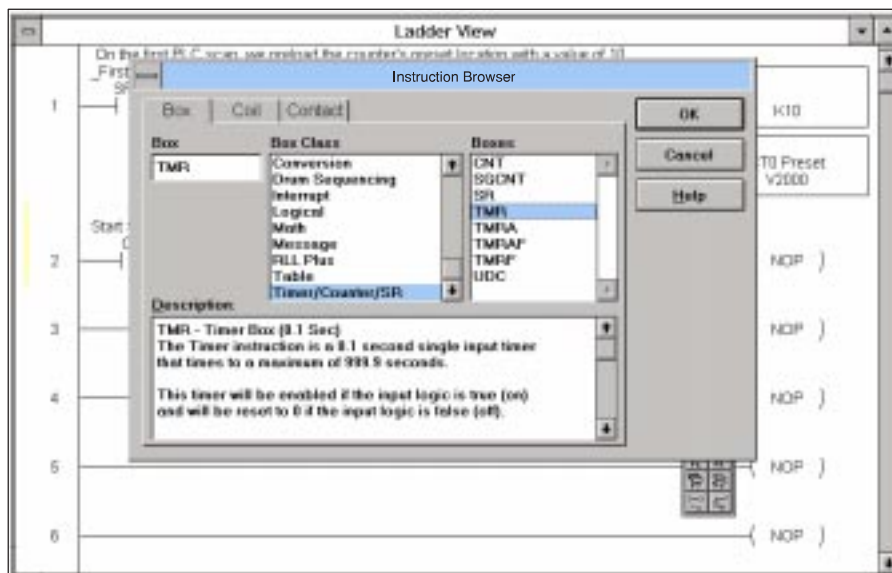


After the **Documentation Editor** closes, you will return to the rung where the words **Ten Second Timer** will be above the normally closed **T0** timeout relay.

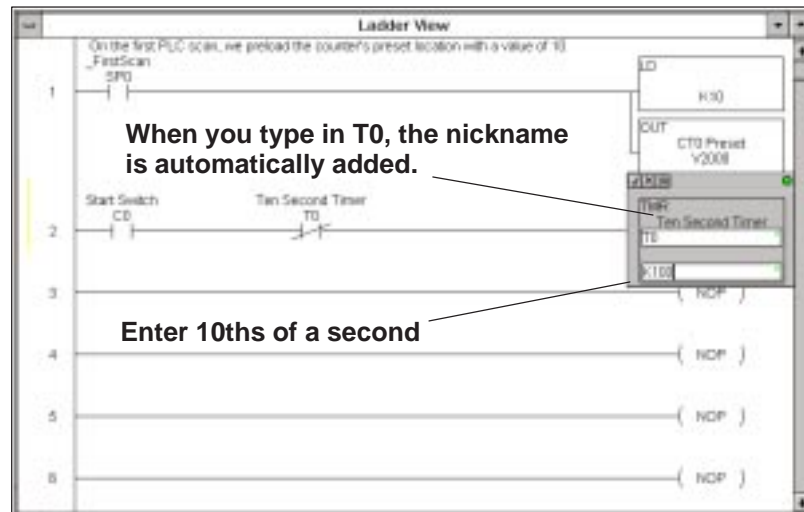


Step 19: Inserting the Timer Instruction

Move the cursor to the end of the rung to enter the timer **TMR T0**. Since a timer is a box command, you can use the shortcut key **F7** to bring up the box instruction dialog of the **Instruction Browser**. Once you have opened the dialog box shown below, move the cursor in the **Box Class** window to **Timer/Counter/SR**, move the cursor in the **Boxes** window to **TMR**, and click on **OK**.



The element box shown below will appear. This is the element input window for the timer. The first thing to do is allocate a particular timer. This example uses internal timer **TMR T0**, therefore type in **T0**. The indicator light of the box should turn green to tell you this is a valid entry. Notice also the nickname assigned earlier to the timeout relay **T0** appears above the first entry window. A second window also requires you fill in a preset value for the timer. Use the **Tab Key** or click with the mouse to move to the second field. The preset must be entered in tenths of a second. Therefore, **K100** would be one hundred tenths of a second (**100/10**), or **10 seconds**.



Click on the check mark to accept your entries. *DirectSoft* returns you to the rung of ladder logic for further programming.

