EXPERIMENT 9

ON AND OFF DELAY TIMER OPERATION USING PLC

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AIM:

To study the on delay and Off delay Timer operation using PLC.

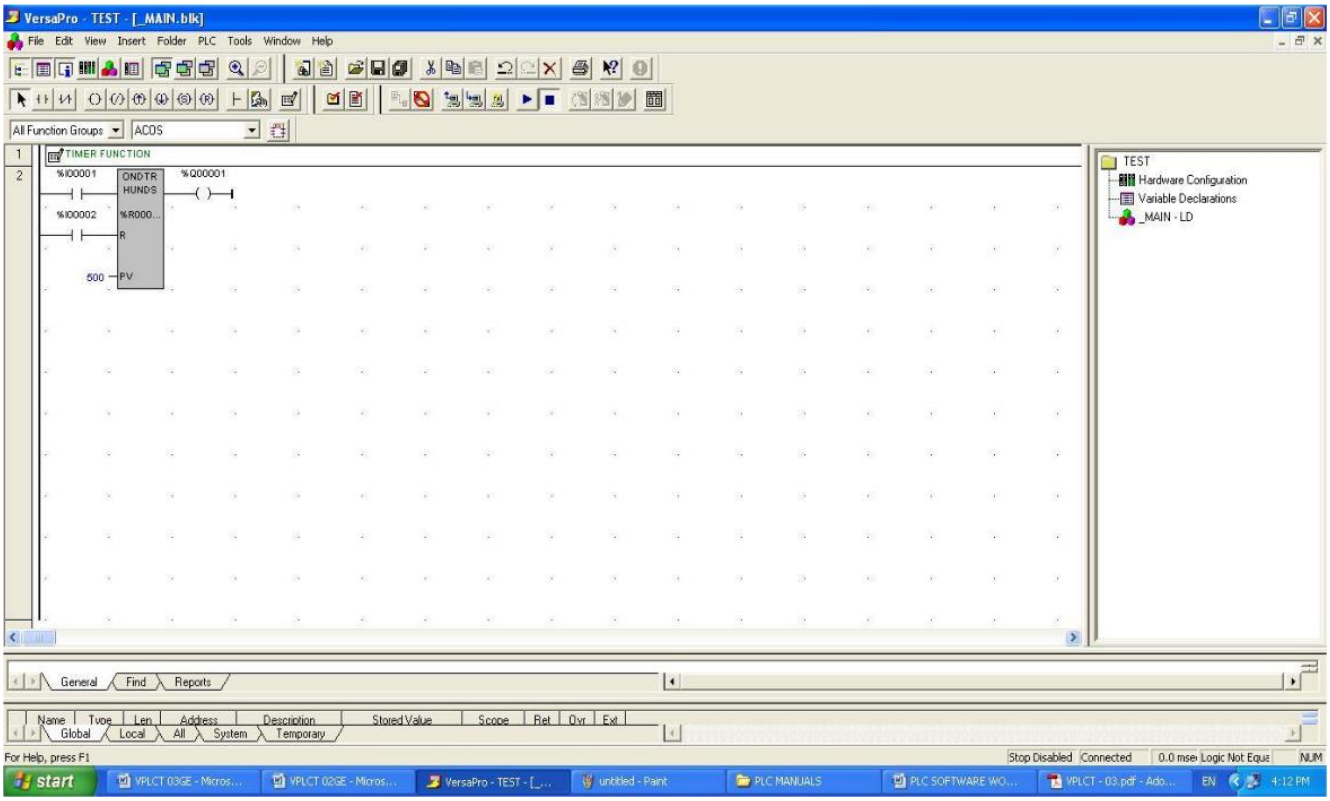
APPARATUS REQUIRED

1. PLC Kit.
2. PC with PLC software.
3. RS 232 Cable.
4. Patch Chords.
5. Power Chord.

PROCEDURE

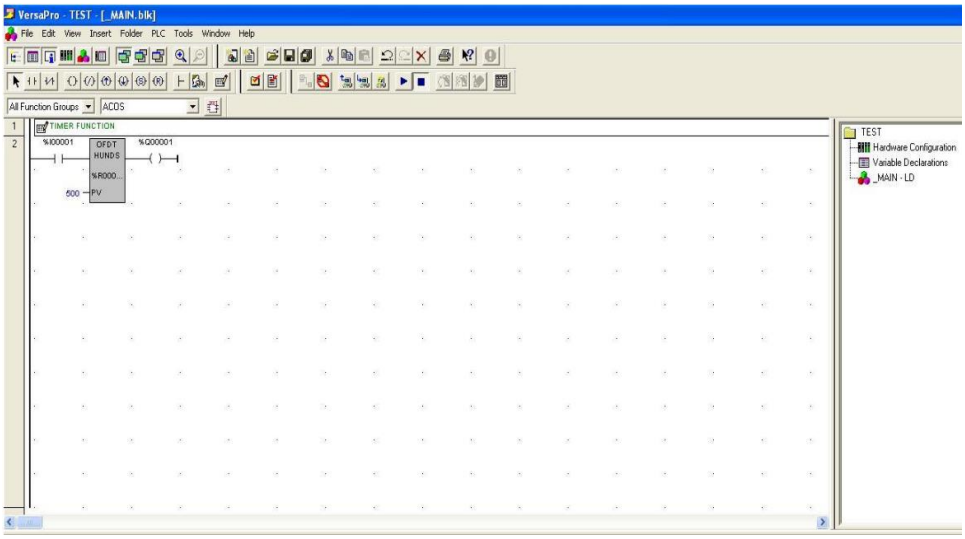
FOR ON DELAY TIMER

1. For creating this program follow the procedure mentioned in "PLC Software Working Procedure" chapter.
2. Create the program is shown below in the fig.
3. In all function block select ONDTR HUNDS and give the address as %I00001 at Input and %Q00001 at Output, %I00002 at Reset (R), Time delay is given at PV.
4. Click the timer block in programming window and give address as %R0010.
5. After storing the program into PLC run the program.
6. Switch on the first input after the completion of time delay the output will be ON.
7. To reset the Timer turn on the second input.



FOR OFF DELAY TIMER

1. For creating this program follow the procedure mentioned in “PLC Software Working Procedure” chapter.
2. Create the program is shown below in the fig.
3. In all function block select OFDT HUNDS and give the address as %I00001 at Input and %Q00001 at Output, Time delay is given at PV.
4. Click the timer block in programming window and give address as %R0020.
5. After storing the program into PLC run the program.
6. Switch on the First input, then the output will be in ON Condition.
7. If we switched OFF the Input at that time the Timer starts counting after reaching the time delay the Output goes to OFF condition.



RESULT:

Thus, the On Delay and Off Delay Timer operation was studied using PLC.

EXPERIMENT 9-B

AIM:

To study the UP and DOWN Counter operation using PLC.

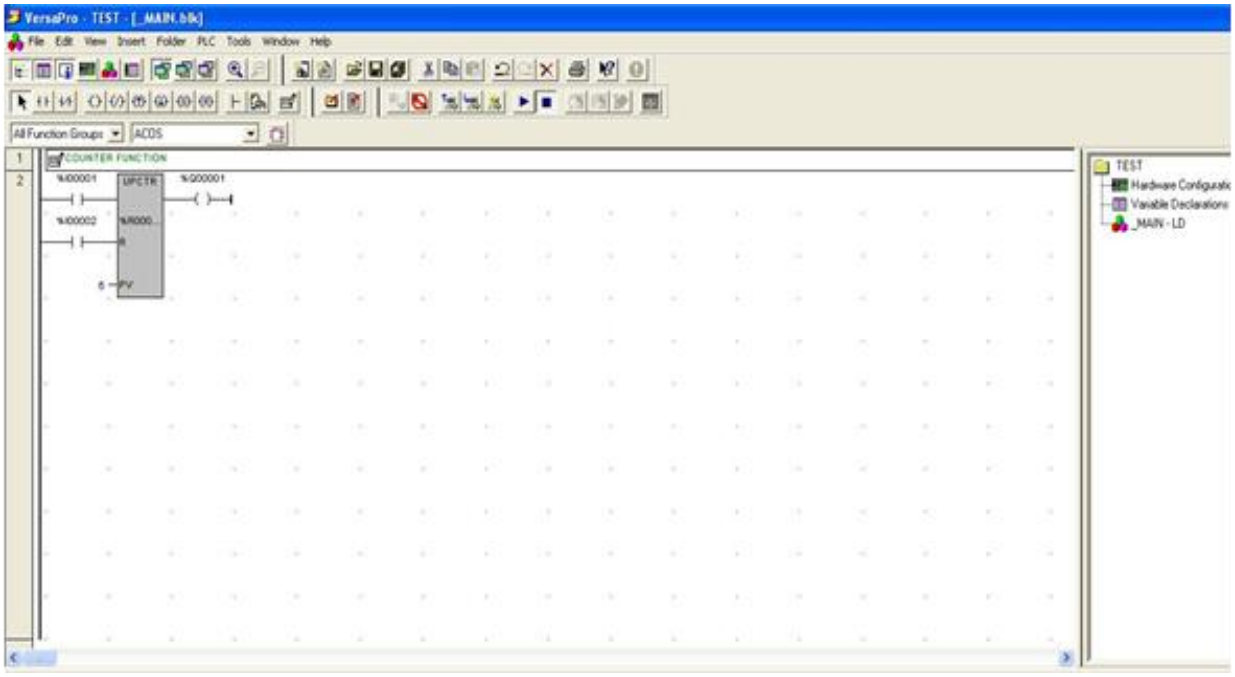
APPARATUS REQUIRED:

1. PLC Kit.
2. PC with PLC software.
3. RS 232 Cable.
4. Patch Chords.
5. Power Chord.

PROCEDURE:

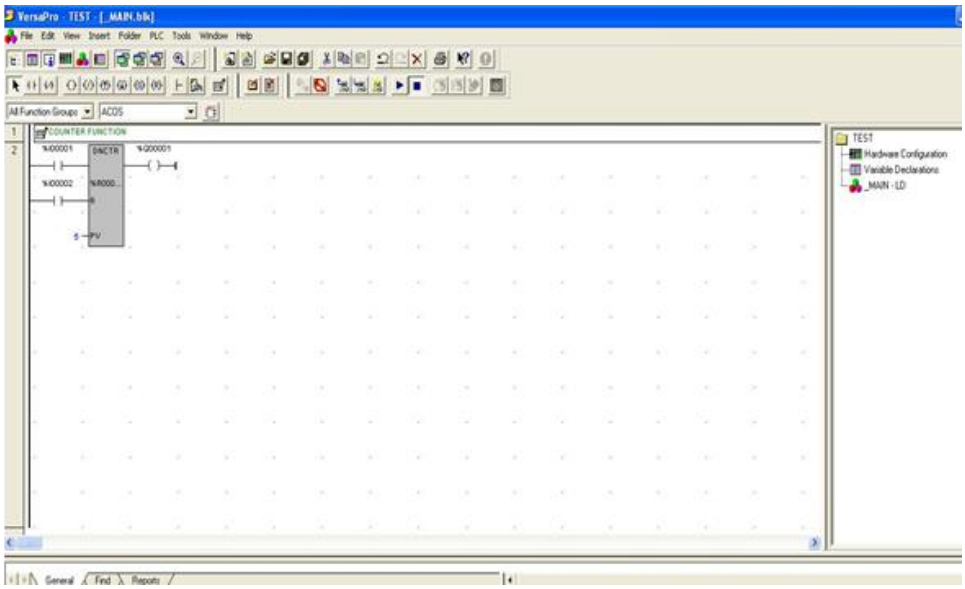
FOR UP COUNTER

1. For creating this program follow the procedure mentioned in "PLC Software Working Procedure" chapter.
2. Create the program is shown below in the fig.
3. In all function block select UPCTR and give the address as %I00001 at Input and %Q00001 at Output, %I00002 at Reset (R), Count value is given at PV.
4. Click the Counter block in programming window and give address as %R0010.
5. Switch ON and OFF the Input for five times then the Output will be ON.
6. To reset the counter turn on the second input.



FOR DOWN COUNTER

1. For creating this program follow the procedure mentioned in "PLC Software Working Procedure" chapter.
2. Create the program is shown below in the fig.
3. In all function block select DNCTR and give the address as %I00001 at Input and %Q00001 at Output, %I00002 at Reset (R), Count value is given at PV.
4. Click the Counter block in programming window and give address as %R0010.
5. Initially Switch ON the Input %I00002 and then the counter value PV assigned to the counter and then Turn OFF the Input %I00002.
6. At that time the Output get Turned ON.
7. Switch ON and OFF the Input for five times then the Output goes to OFF Condition.



RESULT:

Thus, the UP and DOWN Counter operation was studied using PLC.