PLC 210 Hands-On Assessments: Module 6

Student Name: __________________________   N# _______________   Date: __________

This hands-on assessment requires that each student successfully demonstrates each of these tasks to the instructor’s satisfaction. There is no grade for this assessment. Prior to taking this assessment, the student must pass (minimum of 80%) the Knowledge and Application Assessment. The student cannot proceed to the HOA for the next module without completing this HOA.

Note: Be specific in answering questions on the types of Routines. Be specific in answering questions on Property information of Routines and Programs. Be specific in answering questions on processor scanning of Routines.

Download the project file HOA_Module_6.ACD to the CompactLogix demo. Ensure all demo inputs are OFF / False – Selector Switches turned to left. Place processor in RUN mode.

_____ 1. What caused the Warning in the Error Result window when downloading?

___________________________________________________________

Does the Project File download with Warnings? __________________
Does the Project File RUN with Warnings? __________________
Navigate to routines in the Prog3 program
Is Rout1 being scanned? ____________
Is Rout2 being scanned? ____________
Is Rout3 being scanned? ____________
Explain: ____________________________________________________
___________________________________________________________

_____ 2. Go Offline

Configure the Prog3 Properties to:
1. To eliminate the Warning on downloading
2. Have the processor scan the three routines in the Prog3 without having to change any logic the Prog3 routines.
Download the Project file. Put the processor in RUN mode.
Did the Warning message show-up?_______________
Are the three routines in Prog3 being scanned? __________
Explain: ____________________________________________
________________________________________________________
________________________________________________________

3. Navigate to routines in the Prog1 program
How many routines are in Prog1? ___________
How is Routine1 configured (style)? _______________
How is Routine2 configured (style)? _______________
How is Routine3 configured (style)? _______________
How is Routine4 configured (style)? _______________
Which routine(s) is / are being scanned? _______________
Explain: ____________________________________________
________________________________________________________
________________________________________________________

What will cause the processor to scan Routine4?_____________

Start the Timer in Routine1.
Change the Preset value to -1.
What happens to the processor?_____________
What caused the Fault?_____________________
Did the designated Fault Routine run?_____________
Explain: ____________________________________________
________________________________________________________
________________________________________________________

Clear the processor fault.
Put the processor in RUN Mode.
Does the processor Run?_____________

4. Navigate to R1 routine in the Prog2 program
What type of routine is R1?_____________
Toggle the int_tag1 to start timer_prog2.
Does the timer run?_____________
Change the Preset value of timer_prog2 to -1.
What happens to the processor?_____________________
What caused the Fault?______________________________
Did the designated Fault Routine run?____________________
Explain:_________________________________________________________________________________________

Change the timer_prog2 Preset to 10000.
Clear the processor fault.
Put the processor in RUN Mode.
Does the processor Run?____________________

5. Modify the Properties of the Prog2 program so that the R3 routine is a Fault Routine.
   Navigate to the R1 routine.
   Toggle the int_tag1 to start timer_prog2.
   Does the timer run?____________________
   Change the Preset value of timer_prog2 to -1.
   What happens to the processor?_____________________
   What caused the Fault?______________________________
   Did the designated Fault Routine run?____________________
   Explain:_________________________________________________________________________________________

6. Turn all SS switches on the demo board OFF – turned to left position.
   Clear Processor Fault
   Place Processor in RUN Mode.
   Navigate to the R1 routine.
   Ensure toggle_bit at Rung 1 is false.
   Based on the above conditions, which routines are being scanned by the processor?
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
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