PLC210 Lab Exercise 10: Periodic Tasks

Upon completion of this lab, the student should be able to:

1. Explain various tasks found in the controller organizer window
2. Explain how to change the parameters for a continuous task
3. Explain how to create a new periodic task
4. Explain how to change the parameters for a periodic task

Download the project Compact_Module_5_Ex1_Periodic_Task.ACD, go Online and put the CompactLogix into the Run mode to do the following lab.

The I/O tag names in this lab may need to be changed to match the addresses on your hardware trainer.

Figure 1. The ladder logic program in a periodic task.

1.   Monitor the MainRoutine

Does SS7 start the time1 Timer?_____

Is the logic running in the MainRoutine?_____

2.   What type of Task is the MainTask? _____.

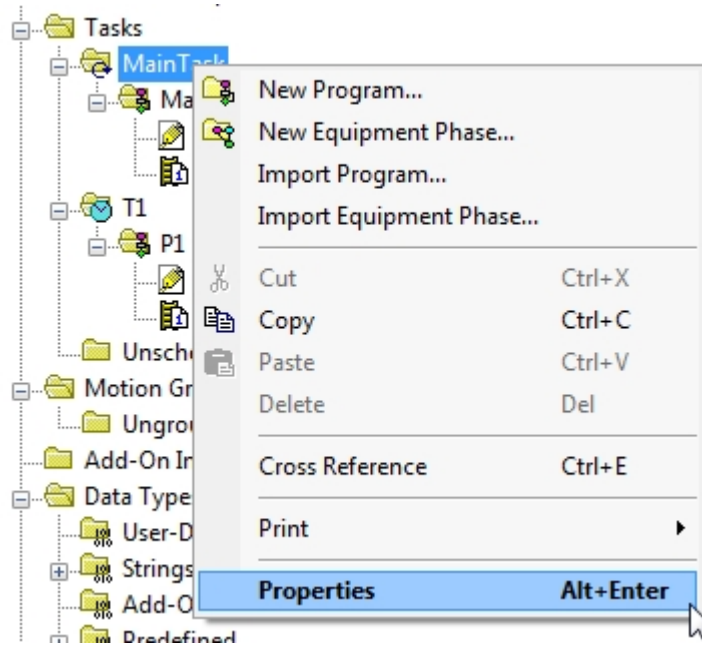Hint: Right Mouse Click on the Properties selection for MainTask.

Figure 2. Choosing the properties on the main task.

Note: Icon for MainTask

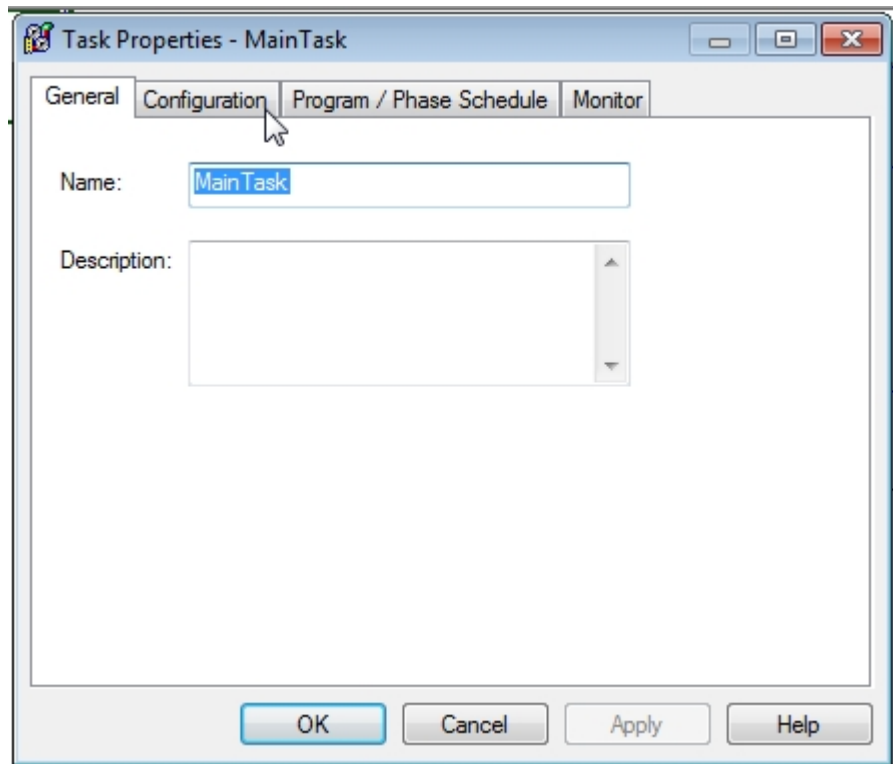Left Mouse Click on the Configuration tab

Figure 3. Configuring the main task.
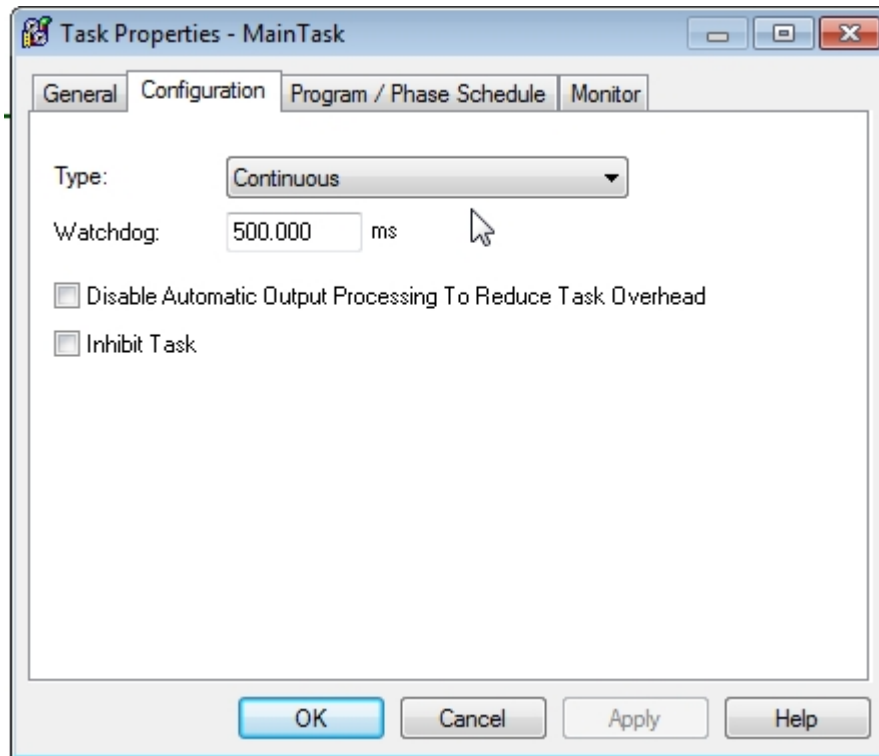
View Type information

Figure 4. Verifying the main task is a continuous task.
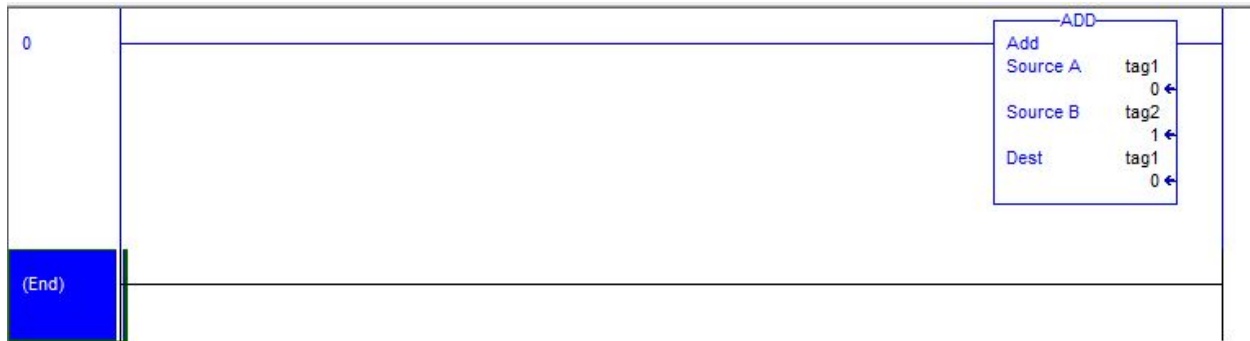
3. Monitor the R1 routine.

Figure 5. Monitoring the R1 routine.

Is the logic running?_____

4. What type of Task is T1

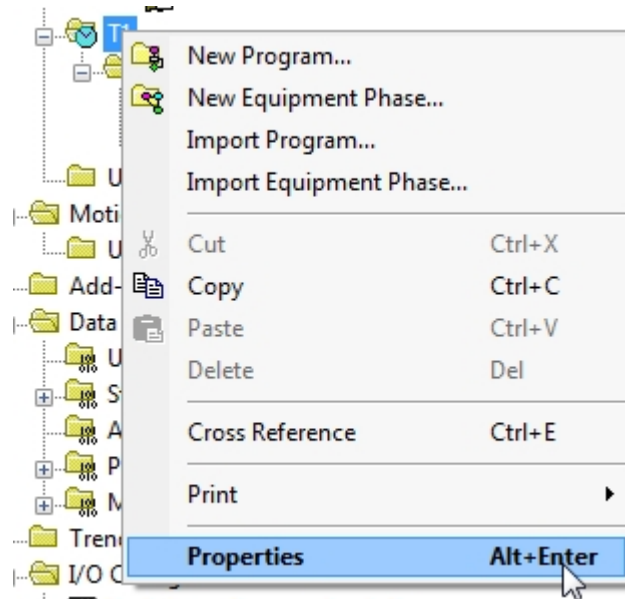Hint: Right Mouse Click on the Properties selection for T1 task.

Figure 6. Viewing the properties of the R1 routine.

Note: Icon for T1 task
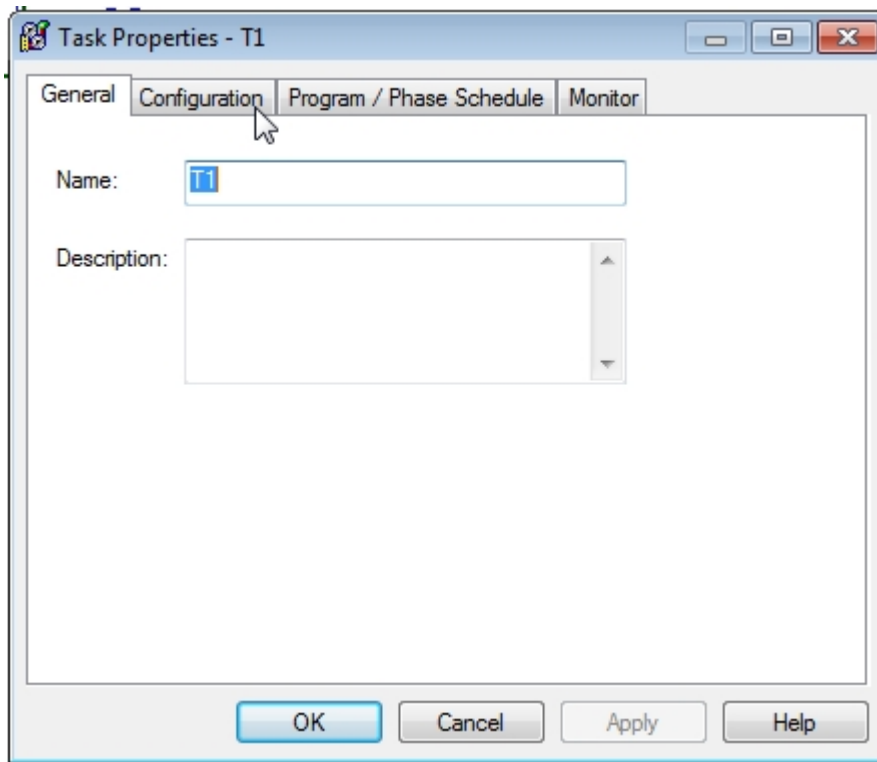

Left Mouse Click on the Configuration tab

Figure 7. Viewing the configuration of the R1 routine.
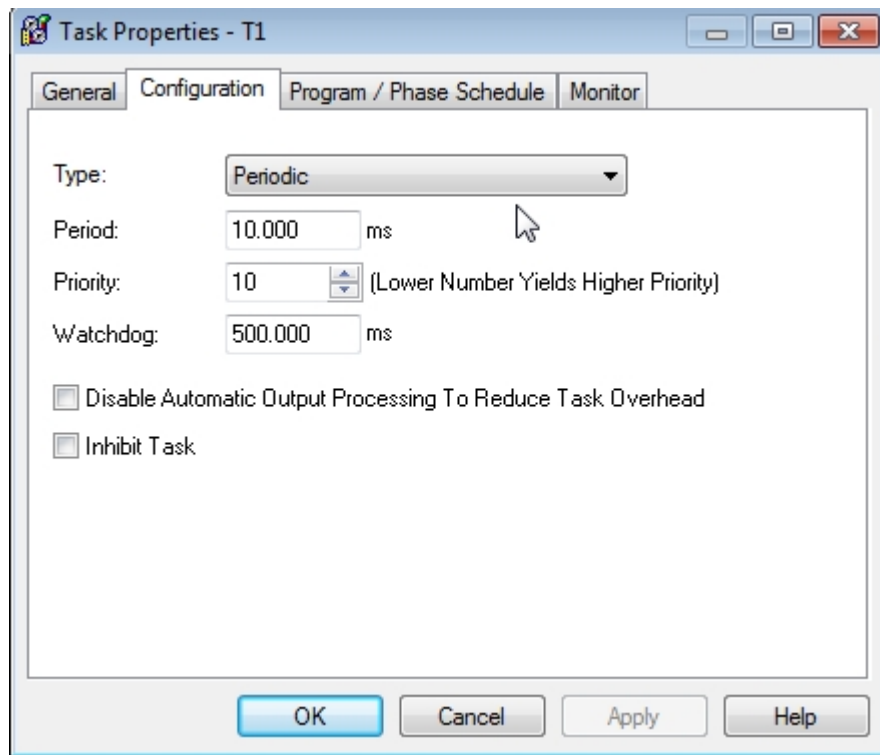
View Type information

Figure 8. Verifying the R1 routine is a periodic task type.

What is the Period setting for the T1 task? _____

What is the Priority setting for the T1 task?_____

At what rate is the Tag1 in the R1 routine changing values?

(Fast or Slow)

5. Change the Period setting on the on the T1 Configuration tab to 1000.

    At what rate is the Tag1 in the R1 routine changing values?_____

    Is the logic in the MainRoutine being scanned?

6. Change the Period setting on the on the T1 Configuration tab to 10000.

At what rate is the Tag1 in the R1 routine changing values?_____

Is the logic in the MainRoutine being scanned?

7.   Explain how often are the routines in Periodic Tasks are scanned?

DOL DISCLAIMER:

This product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.