

Performance Assessments for EET 2440 Programmable Controller I

These would be tasks that each student must demonstrate to the faculty to pass the hands-on portion of the course.

Assessment #1: (Students should take this after completing **Module 2 KAA**)

1. Identify and explain the diagnostic indicators on the ML1000 training unit
2. Explain the hardware on the SLC-500 system including I/O addressing and communication port identification
3. Determine the IP address of a computer in the Terra PLC lab
4. Create an RS-232, Ethernet and Ethernet IP drivers in RSLinx
5. Use the PING command to verify computer to PLC processor communications
6. Create an SLC-500 project using RSLogix500
7. Use RSLogix500 to go online, offline and perform a download and upload
8. Configure Channel 1 of an SLC-5/05 for a specific IP address
9. Reset an SLC-500 processor back to factory default

Assessment #2: (Students should take this after completing **Module 4 KAA**)

1. Create an RSLogix500 project with timers and counters
2. Explain the operation of an AB timer instruction and status bits
3. Explain the operation of an AB counter instruction and status bits
4. Print an RSLogix 500 project to a PDF and view with a browser
5. Explain the hardware on a PLC-5 system
6. Explain the I/O addressing on a PLC-5 system
7. Interpret the processor and I/O module diagnostic indicators
8. Use RSLogix5 to create a program and download it to a PLC-5
9. Use RSLogix5 to go online to a PLC-5 processor through the ControlLogix Gateway
10. Determine the data file address for an external device based on a Block Transfer instruction
11. Change the method of addressing on a PLC-5 chassis
12. Change the DH+ address of Channel 1A on a PLC-5

Assessment #3: (Students should take this after completing **Module 6 KAA**)

1. Identify and explain all hardware components on a ControlLogix system
2. Identify and explain all Hardware on a CompactLogix 5370 unit
3. Create and download a program in the CompactLogix
4. Backup PLC program to SD and restore manually or from power on
5. Change IP address on CompactLogix with RSLinx
6. Create multiple types of tags in CompactLogix
7. Use ControlFLASH to upgrade/downgrade the firmware of a CompactLogix controller
8. Transfer a program from RAM to/from SD module on CompactLogix,
9. Replace an IO module on a ControlLogix system

10. Clear a recoverable processor fault
11. Go online with a Logix 5000 processor with or without an .ACD file
12. Find a tag and an instruction within the Logix Designer project using search commands

Assessment #4: (Students should take this after completing **Module 8 KAA**)

1. Identify what caused a fault and clear a fault on an SLC-500
2. Search to find an output in a large program in RSLogix 500
3. Force an input or output on SLC-500 and CompactLogix
4. Identify what caused a fault, and clear the fault on a CompactLogix unit
5. Reset an SLC-500, PLC-5 and CompactLogix back to factory settings
6. Replace a module and a processor on a functioning SLC-500 system
7. Replace a CompactLogix unit in a functioning system
8. Interpret the diagnostic indicators on an I5000 processor