Module 2 Description, Outcomes & Learning Sequence Sheet

Module Description: In module 2 the students will learn the basic operation of RSLogix500 which will be used to program the MicroLogix 1000 and SLC-500 PLCs. The focus will be on uploading, downloading, going online, processor modes, and basic programming within the application. Students will also learn the basic Allen Bradley PLC instruction sets of Examine If Closed (XIC), Examine If Open (XIO), basic relay/Output Energize (OTE), Output Latch (OTL), and Output Unlatch (OTU). Students will be introduced to the Northwest State CC Virtual Machines (NSCC VMs) to provide 24/7 access to all PLC Platforms. Students will learn the memory and addressing structure of the SLC-500 based systems including processor, channel & I/O configuration, as well as program and data files. Click on the module Learning Sequence Sheet ↓ to show the amount of time this module may require a student to complete.

Module Outcomes: Upon completion of this module students will be able to:

1. Find a cut sheet with wiring diagram for an SLC-500 I/O module on the Rockwell Knowledgebase
2. Explain how to wire an SLC-500 discrete I/O module based on the wiring diagram
3. Create a newSLC-500 project in RSLogix 500 with full documentation
4. Perform download, upload and online functions with RSLogix 500.
5. Go online to the processor and change the mode of the processor (run or program)
6. Explain the operation of the basic relay instructions
7. Toggle the instruction descriptions and symbols on/off in RSLogix500
8. Setup the Emulator in the Virtual Machine and run the same program as done with hardware in the PLC lab
9. Reset an SLC-500 processor back to factory reset