Northwest State
Community College

PLC 220 Hands-On Assessment
Module 2

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

Equipment Required:
- ControlLogix Demo with processor – Local Chassis
- ControlLogix Demo without processor-Remote Chassis
- Twisted pair cables
- Computer with Studio 5000, BOOTP/DHCP Server and RSLinx software
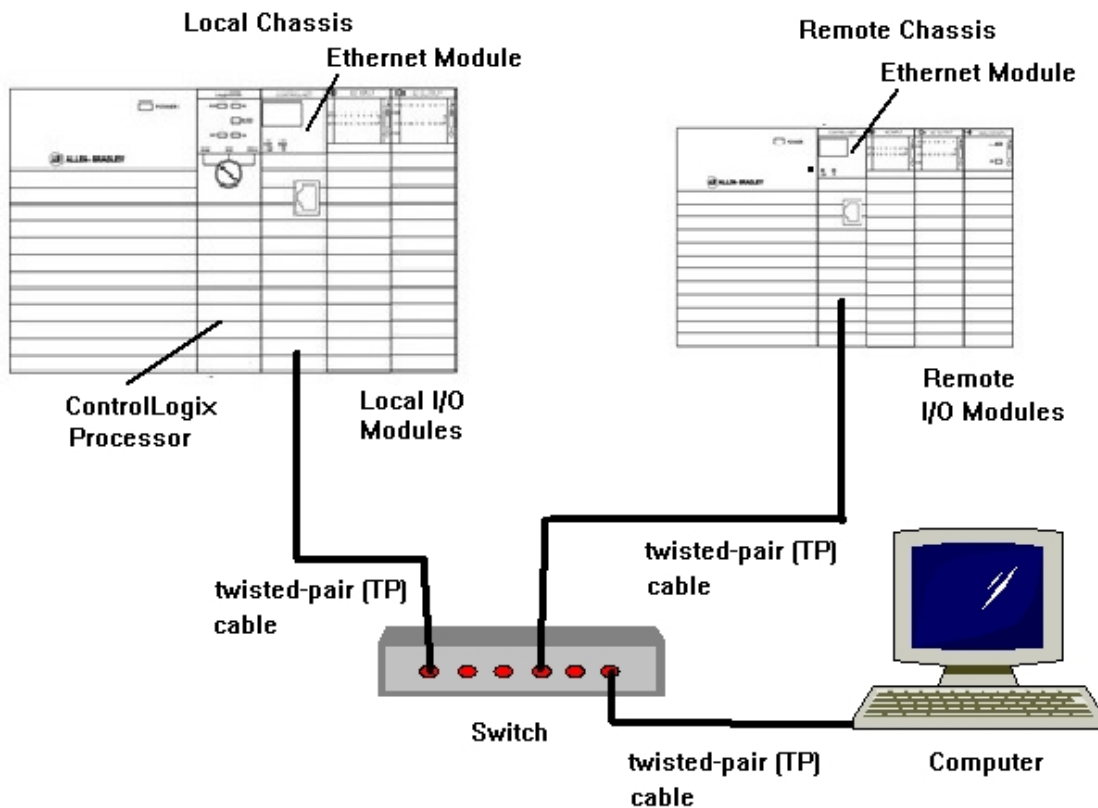- Ethernet Switch

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Figure 1 – A. A local and remote chassis connected by Ethernet.

Set-up hardware as shown in Figure 1 - A

_____ 1. Determine the following computer information

IP Address:_____

Subnet Mask:_____

Ethernet Address:_____

_____ 2. Set the Ethernet module in the Local Chassis to default setting.
Using the BOOTP/DHCP Server assign an IP Address and Subnet Mask
that will work on the same network as the computer to the Ethernet Module.

Record the following Ethernet Module information

IP Address:_____

Subnet Mask:_____

Ethernet Address:_____

Configure the Ethernet Module to Static Set-up

_____ 3. Set the Ethernet module in the Remote Chassis to default setting.
Using the BOOTP/DHCP Server assign an IP Address and Subnet Mask
that will work on the same network as the computer to the Ethernet Module.

Record the following Ethernet Module information
IP Address:_____
Subnet Mask:_____
Ethernet Address:_____

Configure the Ethernet Module to Static Set-up

_____ 4. Verify connections using PING utility

_____ 5. Using Studio 5000 software develop a Project Files that will:

- Name the Ethernet Module in the Local Chassis as ENET_Local
- Name the Ethernet Module in the Remote Chassis as ENET_Remote
- Name the I/O Module in the Local Chassis based on slot location, i.e. Slot_2, etc.
- Name the I/O Module in the Remote Chassis based on remote slot location, i.e. Remote_Slot_2, etc.
- SS7 switch on the Local Demo board will turn ON/OFF PL5 on the Remote Demo Board
- SS4 switch on the Remote Demo Board will turn ON/OFF PL0 on the Local Demo Board
- Save the Project File as HOA_Module2.ACD
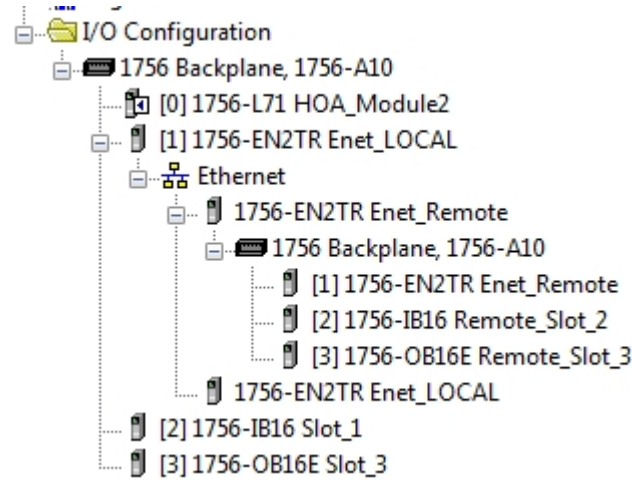- Download Project File and verify operation
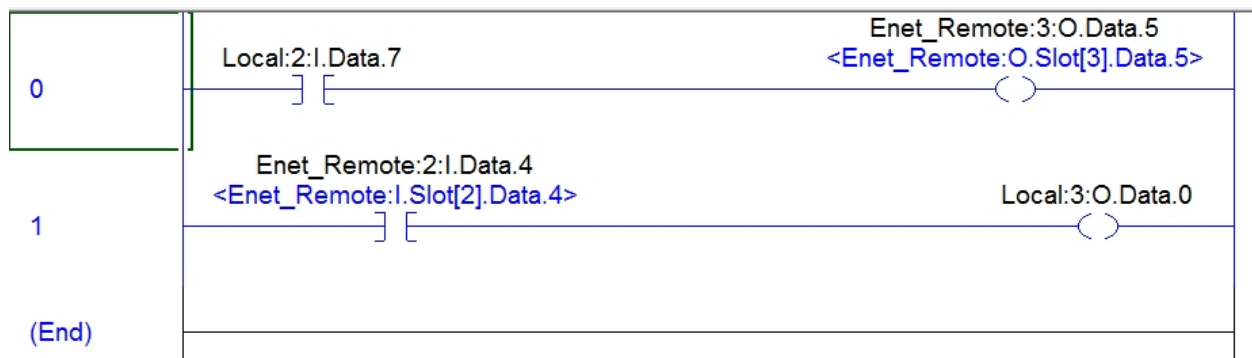
Figure 2-A
I/O Configuration for HOA Project File

Figure 2-A
Ladder Logic for HOA Project Files

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