Practice Quiz, 1/4/18

1.   T   **F**   RSLinx is needed if the user wishes to do Offline Programming with RSLogix500, in order to create a new ladder logic program.
Explanation: RSLinx is required anytime the user needs to have the program panel communicate with the SLC-500 processor. Communication would be required if the user wanted to go online to monitor the program in real-time while it was running, to do a download, upload, online programming, or read I/O configuration. In order to communicate a driver must be created in RSLinx to determine the path for communications. Any offline programming with RSLogix500 does not require RSLinx.

2.   **T**   F   If the key switch is in the REM position on an SLC-5/04 processor, and the key is not in the key switch, the user must use a program panel to change the mode of the processor.
Explanation: Most companies remove the keys from the key switch on the SLC-500 processors, so no one can turn the key to the PROG position and shut the machine down. If the key is not in the key switch and the user wishes to change the mode of the processor, they must connect a program panel to the processor, setup a driver in RSLinx, then go online to the processor with RSLogix500, in order to change the mode of the processor.

3.   What task would a download perform when using RSLogix500/RSLinx with an SLC-5/05 processor?
   a. **Copying the PLC program from the program panel to the processor**
   b. Copying the PLC program from the processor to the program panel
   c. Obtaining a communication driver from a server off the internet
   d. Obtaining a software update for RSLogix500 from the internet
Explanation: A download will send the data files and program files (and other associated information) from the SLC-500 project on the program panel to the SLC-500 processor. An upload will make of copy of the data and program files in the processor and copy them to the SLC-500 project on the program panel. Though the terms download and upload are common with the internet, these terms when working with RSLogix500 has no association to the internet.

4.   T   **F**   RSLogix500 Address Symbols are set to the processor when the project is downloaded to an SLC-500 processor.
Explanation: When a download occurs from the program panel to the SLC-500 processor, the program and data files, I/O configuration and processor name are all sent from the .RSS file on the program panel to the processor. The address symbols are not sent, but reside in the .RSS file. This why the processor name is so critical. When RSLogix500 goes online to a processor, it looks at the processor name in the processor, then goes back to the RSLogix500 default directory on the program panel and finds the .RSS file with the same processor name. The software then

finds the symbols and descriptions for any address and displays it on the online screen. This is why it is important for all Allen Bradley PLCs to have unique processor names within a plant. Without this, RSLogix500 could open the wrong .RSS file, and show the wrong symbols and descriptions on the screen. The purpose of download the the I/O configuration is what is sometimes termed the "Traffic Cop". Initially when the project was created, the user did a Read I/O Config, which read every I/O module and processor types and part numbers. This was not only to create the I/O image tables, but also a snapshot of what module should be in each slot. This configuration is downloaded. The processor then monitors its own I/O chassis to make sure the exact same modules and processors are in the chassis, as what was originally read. If a Technician replaces a module that goes bad with a different module, the processor will fault out. If a module is pulled out while the machine is running, the processor will fault out. So if a module is replaced by another module that will work properly in the system, the user must go offline, Read the I/O configuration with the new module. Save the changes to RSLogix500, then download the adjusted project to the processor, so it knows what to monitor.

5.   T   F   All RSLogix500 project files (.RSS) should be located in the default directory, so the address symbols and descriptions can show on the screen while online.
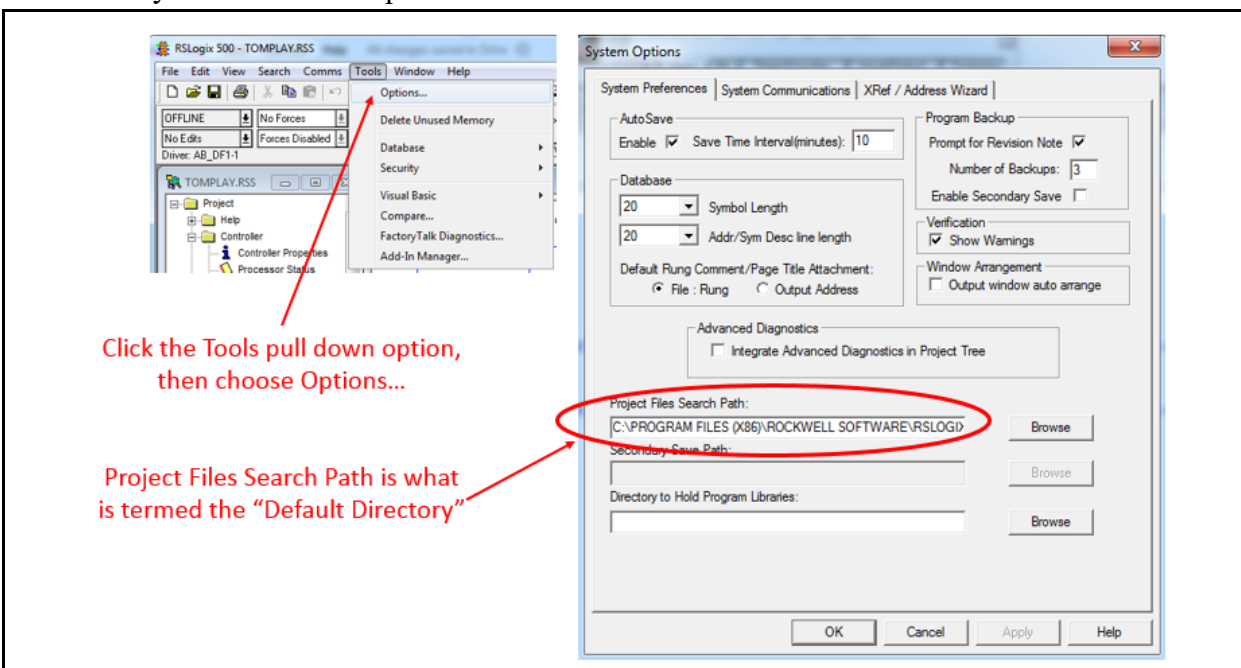
Explanation: When RSLogix500 goes online to a processor, it looks at the processor name in the processor, then goes back to the RSLogix500 default directory on the program panel and finds the .RSS file with the same processor name. The software then finds the symbols and descriptions for any address and displays it on the online screen. This is why it is important for all Allen Bradley PLCs to have unique processor names within a plant. Without this, RSLogix500 could open the wrong .RSS file, and show the wrong symbols and descriptions on the screen.
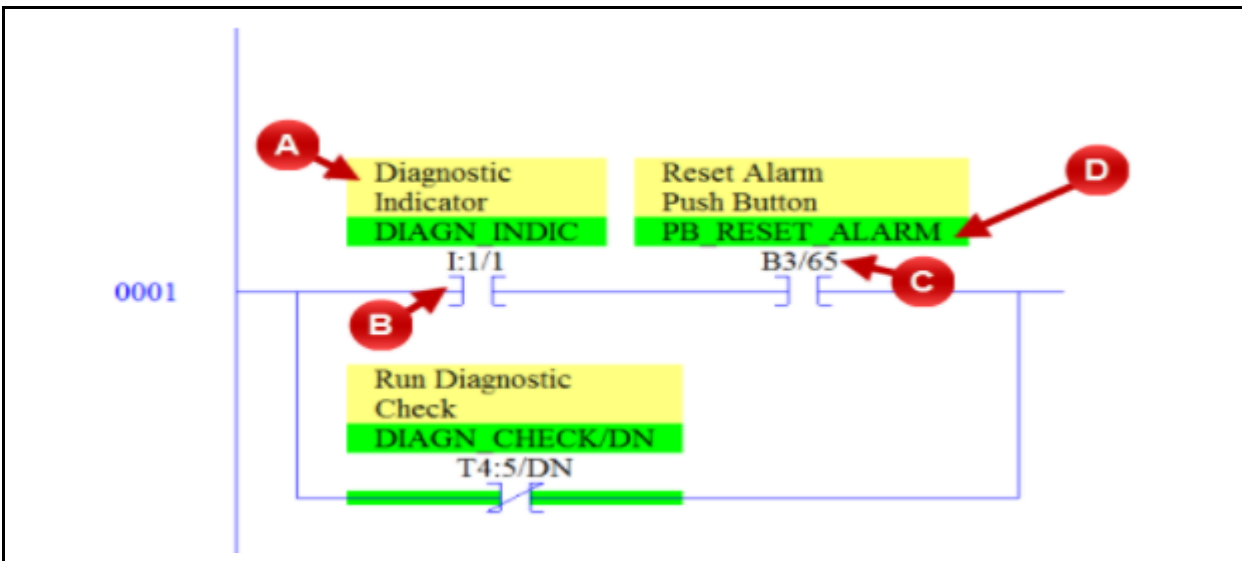
6.   The object in the RSLogix500 ladder logic view that is marked with "D" is a(n):

a. Symbol

b. Address Description

c. Address

d. Instruction

Explanation: On this screen, the letter "A" is the address description, "B" is the instruction (XIC), "C" is the address (B3/65), and "D" is the address symbol. The symbol is in all caps, and is directly linked to the address. Two symbols cannot have the same names. The address descriptions and symbols are located in the .RSS project file database.

7.   T **F** When the user is offline with RSLogix500, the ladder logic that is shown on the screen is coming from the SLC-500 processor.

Explanation: When online the ladder logic program on the screen of the program panel is coming from the processor. When offline, the ladder logic program on the screen of the program panel is coming from the RSLogix500 project file (.RSS file).

8.   **T**   F   An RSLogix500 project file is saved with a .RSS extension.

Explanation: A standard RSLogix500 project file is saved as a .RSS file. The user can also do a backup, which compresses the project file and saves is as a .RS1 file.
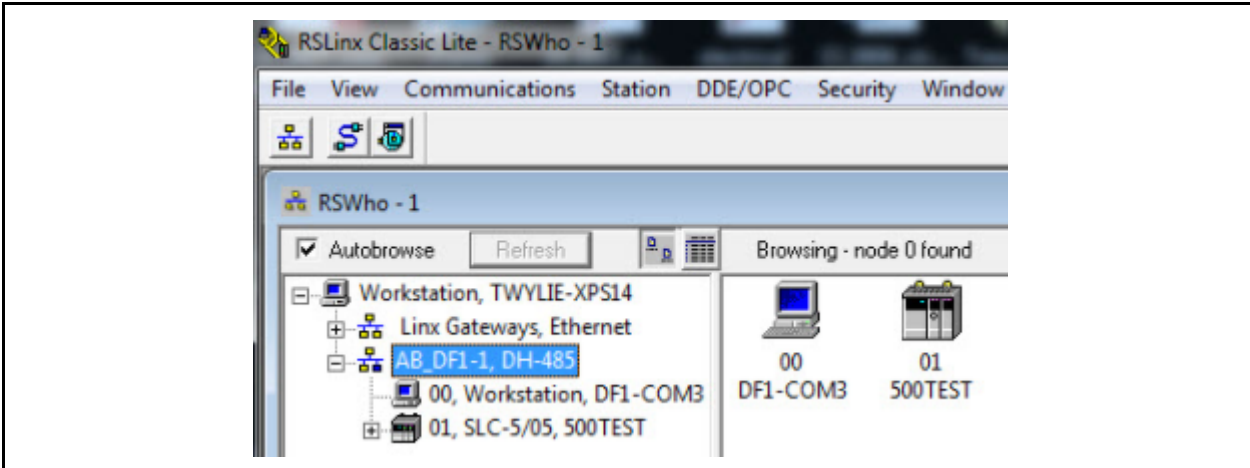
9.   What is the name of the communication driver in this RSWho view of RSLinx?
   a. AB_DF1-1, DH-485
   b. DF1-COM3
   c. 500TEST
   d. SLC-5/05

Explanation: AB_DF1-1, DH-485 is the name of the RSLinx driver. DF1-COM3 indicates that the on the computer workstation, serial data is used, and COM3 is the computer communication port the data will be transmitted on 500TEST is the processor name for the SLC-5/05 processor that the program panel is communicating with.

10.   T   **F**   The SLC-500 processor will scan all of the program files that has ladder logic within the program file, when put into the run mode.

Explanation: The SLC-500 processor will only scan ladder file #2, which is the main program file. In order to have the processor scan the ladder logic in other program files, there will have to be a JSR (Jump SubRoutine) instruction programmed into program file 2, that will jump to those program files.

11.   **T**   F   When a new project is created in RSLogix500, the name given to the processor until the user changes it is: Untitled.

Explanation: Untitled is the default processor name. The user should change it immediately. It is important that all PLC systems have a unique processor name.
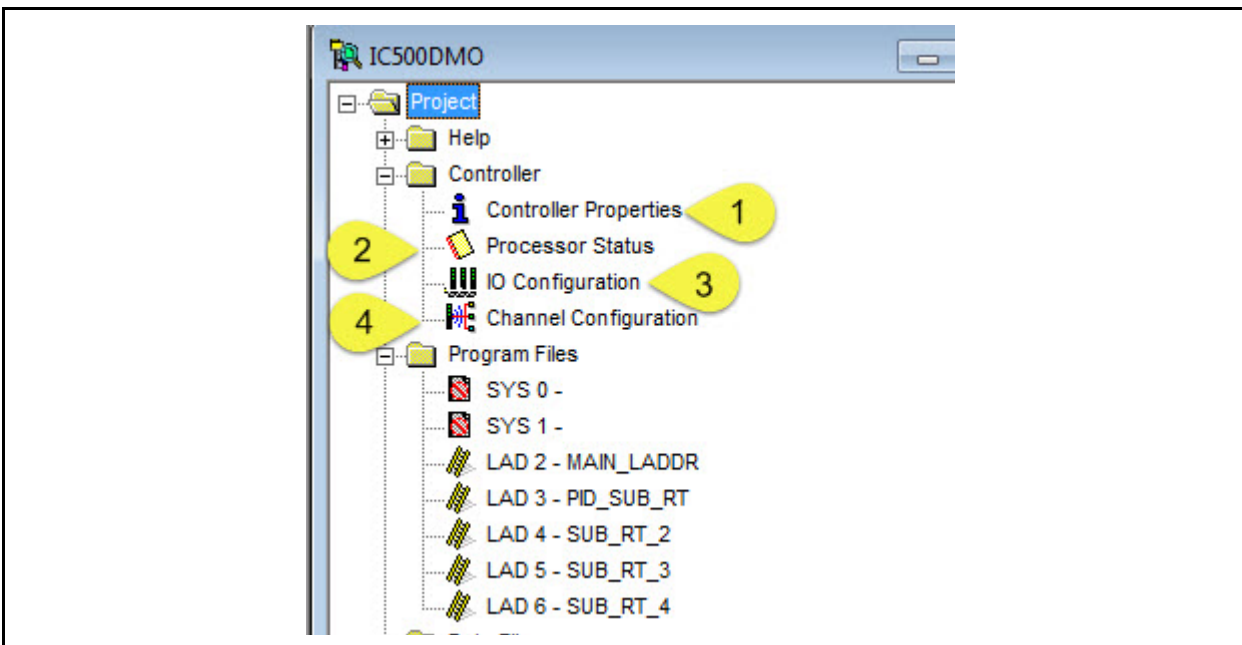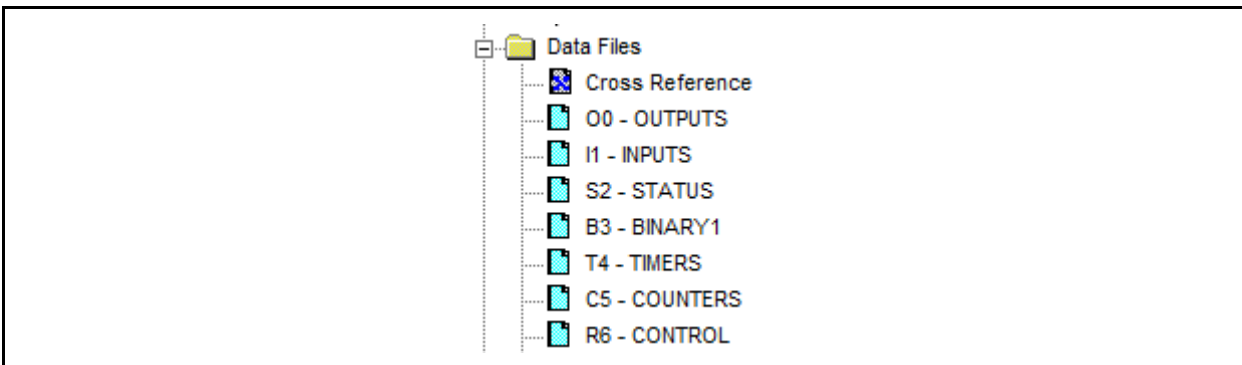
12.   Which one of the objects would the user click on in the controller options, to check the I/O chassis size, and modules within it?

    a.   1-Controller Properties
    b.   2-Processor Status
    c.   3-IO Configuration
   d.   4-Channel Configuration

Explanation: 1-Controller Properties would let the user change the type of processor and the processor name. 2-Processor Status would let the user view the processor diagnostic data information. 3-IO Configuration will let the user change the size of chassis, insert different I/O modules, and most important: Read I/O Configuration. 4-Channel Configuration will allow the user to configure the two communication ports.

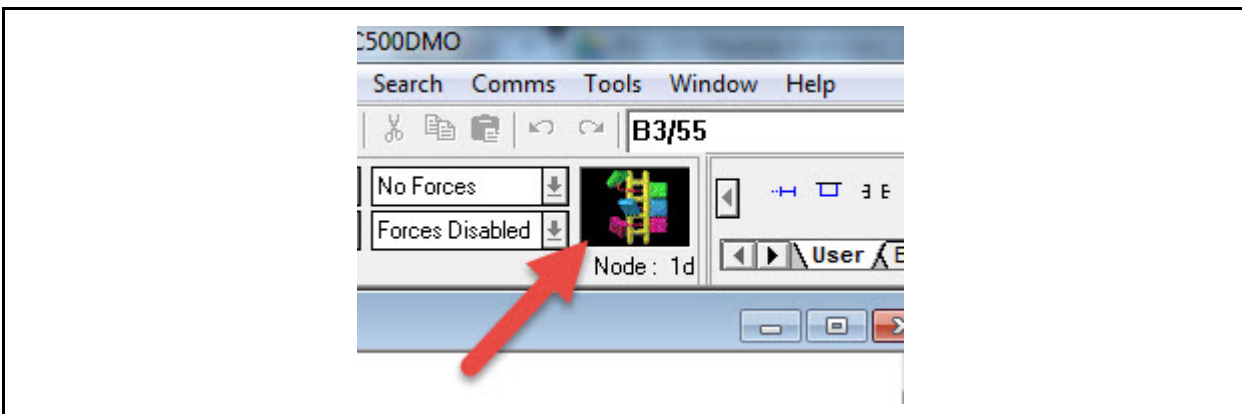13.   Which one of the data files will the output image table be stored in?
    a.   0
    b.   1
    c.   2
    d.   3

Data Files
Cross Reference
O0 - OUTPUTS
I1 - INPUTS
S2 - STATUS
B3 - BINARY1
T4 - TIMERS
C5 - COUNTERS
R6 - CONTROL

Explanation: As shown in this graphic, the outputs are stored in data file 0. The inputs are stored in data file 1. The processor status information is stored in data file 2, and the binary (internal bit storage) data is stored in data file 3.
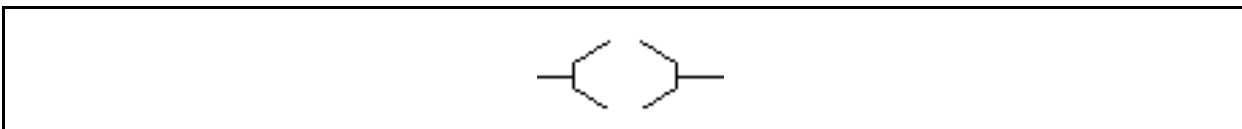
14.   The mnemonic that represents this ladder logic instruction in an SLC-500 is:
    a. OTU
    b. OTL
    c. OTE
    d. OCC
    e. XIO

C500DMO
Search Comms Tools Window Help
B3/55
No Forces
Forces Disabled
Node : 1d
User

15.   T **F** The ladder emblem in the RSLogix500 application will be spinning anytime the software is running.

Explanation: This ladder emblem will only spin when RSLogix500 is online with a processor. The faster the communication speed between the program panel and the processor, the faster the ladder will spin.

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