

Project 9

PROCESS:

CURRENT MODE: ST9:0 VALUE
CURRENT FUNCTION: ST9:1 VALUE
CURRENT MODE + FUNCTION: ST9:2 VALUE
M1F1 TOTAL CYCLES: N7:0 VALUE
M1F2 TOTAL CYCLES: N7:1 VALUE
M2F1 TOTAL CYCLES: N7:2 VALUE
M2F2 TOTAL CYCLES: N7:3 VALUE

REFRESH DATA

SUMMARY:

We're going to set up a machine that cycles between two modes each of which runs two functions. The names are "Mode-1," "Mode-2," "F1" and F2." The process is continuous, and each function lasts for 10 seconds. We want to store the current mode and function names as strings, count each cycle and then pull all this data into Excel on demand.

IO / ASSIGNED MEMORY:

ST9:0 - Mode
ST9:1 - Function
ST9:2 - Mode + Function
N7:0 - M1F1 cycles
N7:1 - M1F2 cycles
N7:2 - M2F1 cycles
N7:3 - M2F2 cycles

TEST CRITERIA:

Okay, let's kick this one off by, running your program on Emulate. Your modes and cycles should immediately begin cycling every 10 seconds and as they do, ST9:0-ST9:2 should be changing values to show the mode, function and mode+function respectively. Your counters (N7:0-N7:3) should also be counting up each time we enter a new cycle (0,0,0,0), (1,0,0,0), (1,1,0,0), (1,1,1,0), (1,1,1,1), (2,1,1,1) and so on.

The only other piece is to open our Excel workbook and press the button! When we do, our sheet should update itself and show the current values for all of our strings and all of our integers as well.

And if it does, you are awesome.

NOTES:

This is a research project for you. Should you choose to accept this mission, you'll need to do some research (Google anyone?) to learn how to configure a DDE topic in RSLinx and how to assign macros to buttons in Excel. Now, why am I asking you to do this stuff when I haven't shown you how to do it yet?

Because... REAL LIFE, BABY! As a programmer, people are going to ask you to do things you don't know how to do ALL THE TIME, and you're not going to have anybody there to hold your hand. You're going to have to learn to hit the forums, raid YouTube, take Udemy courses, reverse-engineer similar projects and master the pristine ART of trial and error in order to get the job done.

And that is exactly what I want to prepare you for – survival in the real world as a MONEY-MAKING programmer who people LOVE to work with because you ALWAYS deliver!

So, tough project here... step up and show us whatcha got! 😊