OPERATOR INTERFACE PRODUCTS APPLICATION NOTE

Description: FIFO Stack Implementation

Scenario:

Various applications require the function of a First in First Out (FIFO) stack of values. As an example, we will use a scenario of a production monitoring screen. The requirements for the production monitoring screen is that it display the production counts by hour for the previous 8 hours. The PLC will not have the value for each hour so that requires the SoftScreen application to capture the production counter every hour and display on the Production Screen.

Implementation:

To accomplish the task you will need a Pseudo Key, Internal Registers and a Recipe.

Format the Recipe "FIFO" :

ADDRESS	VALUE
#28	#27
#27	#26
#26	#25
#25	#24
#24	#23
#23	#22
#22	#21
#21	[Production_count_register]

Configure the Pseudo Key:

Periodic Time Out each hour to Load Recipe "FIFO".

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Run-Time Behavior:

When the Pseudo key triggers the first time all of the Internal Registers (#21 - #28) are
zero. The value of the Production_count_register is placed into internal register #21.

The next time the Pseudo Key triggers the Recipe, the value of #22 is set equal to #21
and #21 becomes the value of Production_count_register.

The subsequent executions of the Recipe will continue to move the values up the stack.

The SoftScreen screen developed with a row of Data Display objects assigned to
Internal registers #28 through #21 will then display the Production_count_register
values for the past eight hours.