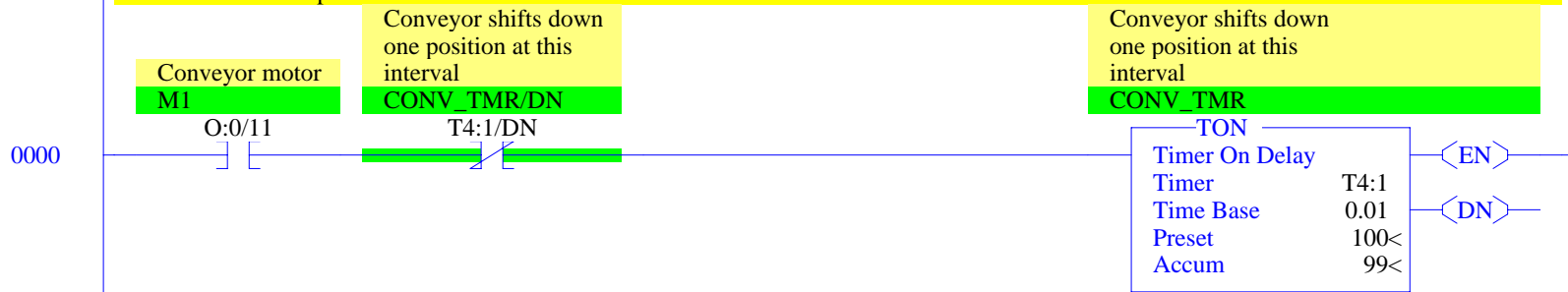


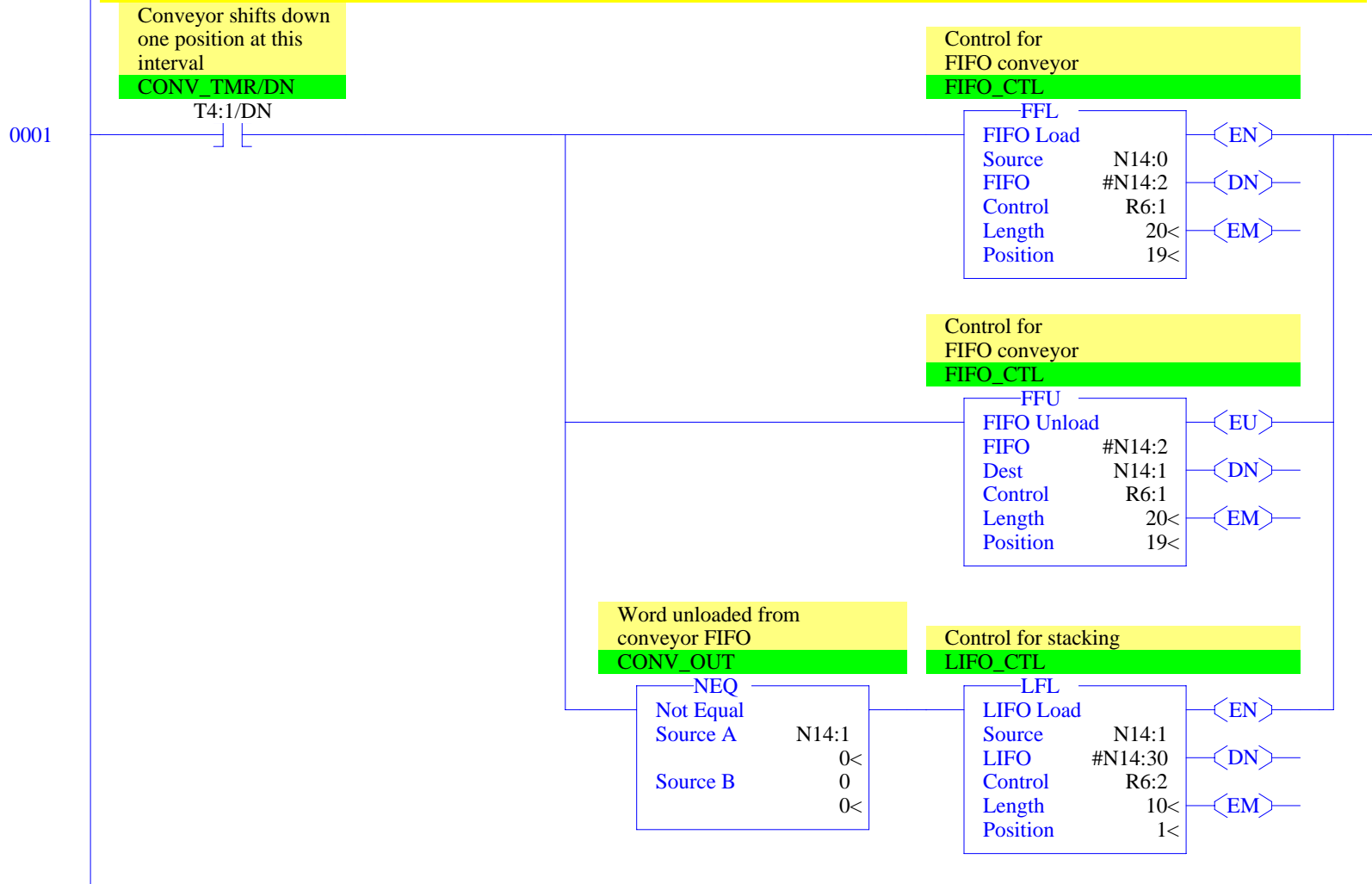
## Example 8.2 FIFO/LIFO Example

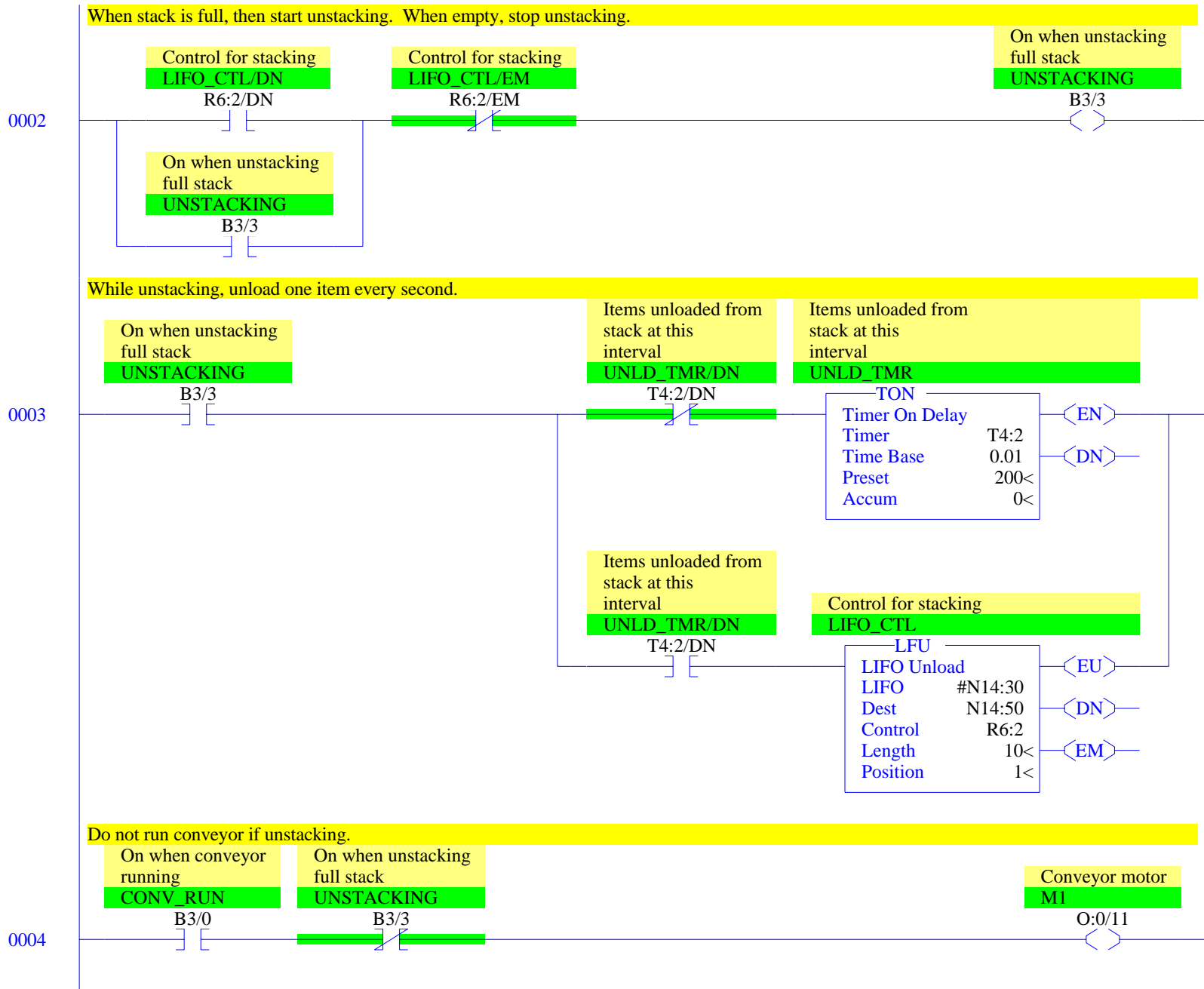
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Generate FIFO shift pulse



While conveyor running, shift conveyor position down every second by loading and unloading FIFO. If non-zero entry comes out of FIFO, then load it into the LIFO stack.





On first scan of ladder or reset, force FIFO to full and zero out stuff on conveyor.  
Also, empty LIFO and zero stuff in stack.

To reset FIFO

**INT\_RESET**

B3/1

First scan  
of ladder  
or SFC  
step

**FIRST\_SCAN**

S:1/15

Conv station 20

**#CONV\_20**

FLL

Fill File

Source 0

Dest #N14:2

Length 20

Control for  
FIFO conveyor

**FIFO\_CTL.POS**

MOV

Move

Source 20

20<

Dest R6:1.POS

19<

Word to load onto  
conveyor FIFO- zero

**CONV\_SOURCE**

CLR

Clear

Dest N14:0

-24551<

Stack implemented as  
LIFO

**#STACK\_LIFO**

FLL

Fill File

Source 0

Dest #N14:30

Length 10

Control for stacking

**LIFO\_CTL.POS**

MOV

Move

Source 0

0<

Dest R6:2.POS

1<

⟨END⟩

## RSLogix 500 Cross Reference Report - Sorted by Address

```

O:0/11      - {M1} Conveyor motor
              XIC - File #2 - 0
              OTE - File #2 - 4
S:1/15      - {FIRST_SCAN} First scan of ladder or SFC step
              XIC - File #2 - 5
B3/0        - {CONV_RUN} On when conveyor running
              XIC - File #2 - 4
B3/1        - {INT_RESET} To reset FIFO
              XIC - File #2 - 5
B3/3        - {UNSTACKING} On when unstacking full stack
              OTE - File #2 - 2
              XIC - File #2 - 2, 3
              XIO - File #2 - 4
T4:1        - {CONV_TMR} Conveyor shifts down one position at this interval
              TON - File #2 - 0
T4:1/DN     - XIC - File #2 - 1
              XIO - File #2 - 0
T4:2        - {UNLD_TMR} Items unloaded from stack at this interval
              TON - File #2 - 3
T4:2/DN     - XIC - File #2 - 3
              XIO - File #2 - 3
R6:1        - {FIFO_CTL} Control for FIFO conveyor
              FFL - File #2 - 1
              FFU - File #2 - 1
R6:1.POS    - MOV - File #2 - 5
R6:2        - {LIFO_CTL} Control for stacking
              LFL - File #2 - 1
              LFU - File #2 - 3
R6:2/EM     - XIO - File #2 - 2
R6:2/DN     - XIC - File #2 - 2
R6:2.POS    - MOV - File #2 - 5
N14:0       - {CONV_SOURCE} Word to load onto conveyor FIFO- zero
              CLR - File #2 - 5
              FFL - File #2 - 1
N14:1       - {CONV_OUT} Word unloaded from conveyor FIFO
              FFU - File #2 - 1
              LFL - File #2 - 1
              NEQ - File #2 - 1
N14:2       - {CONV_20} Conv station 20
              FLL - File #2 - 5
              FFL - File #2 - 1
              FFU - File #2 - 1
FILE N14:2 LEN:20 - FLL - File #2 - 5
              FFL - File #2 - 1
              FFU - File #2 - 1
N14:30      - {STACK_LIFO} Stack implemented as LIFO
              FLL - File #2 - 5
              LFL - File #2 - 1
              LFU - File #2 - 3
FILE N14:30 LEN:10 - FLL - File #2 - 5
              LFL - File #2 - 1
              LFU - File #2 - 3
N14:50      - {UNSTACK_DEST} Destination items are unstacked to
              LFU - File #2 - 3

```