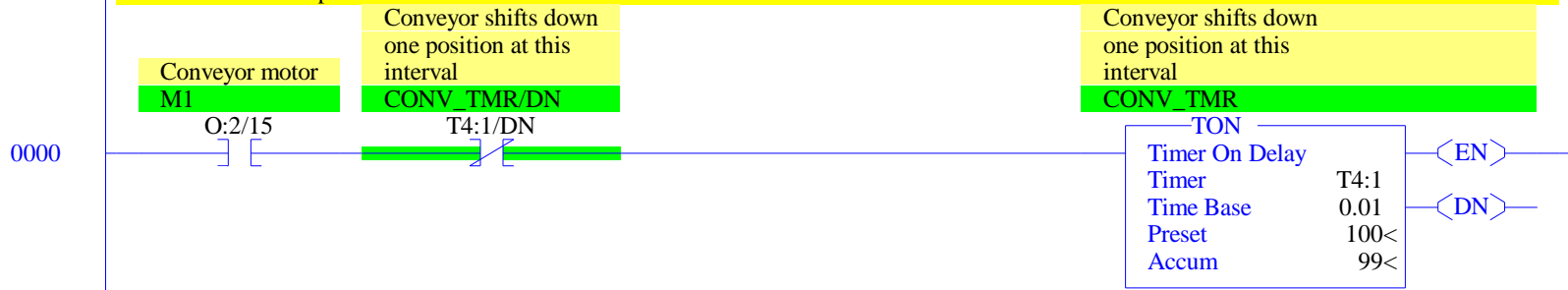


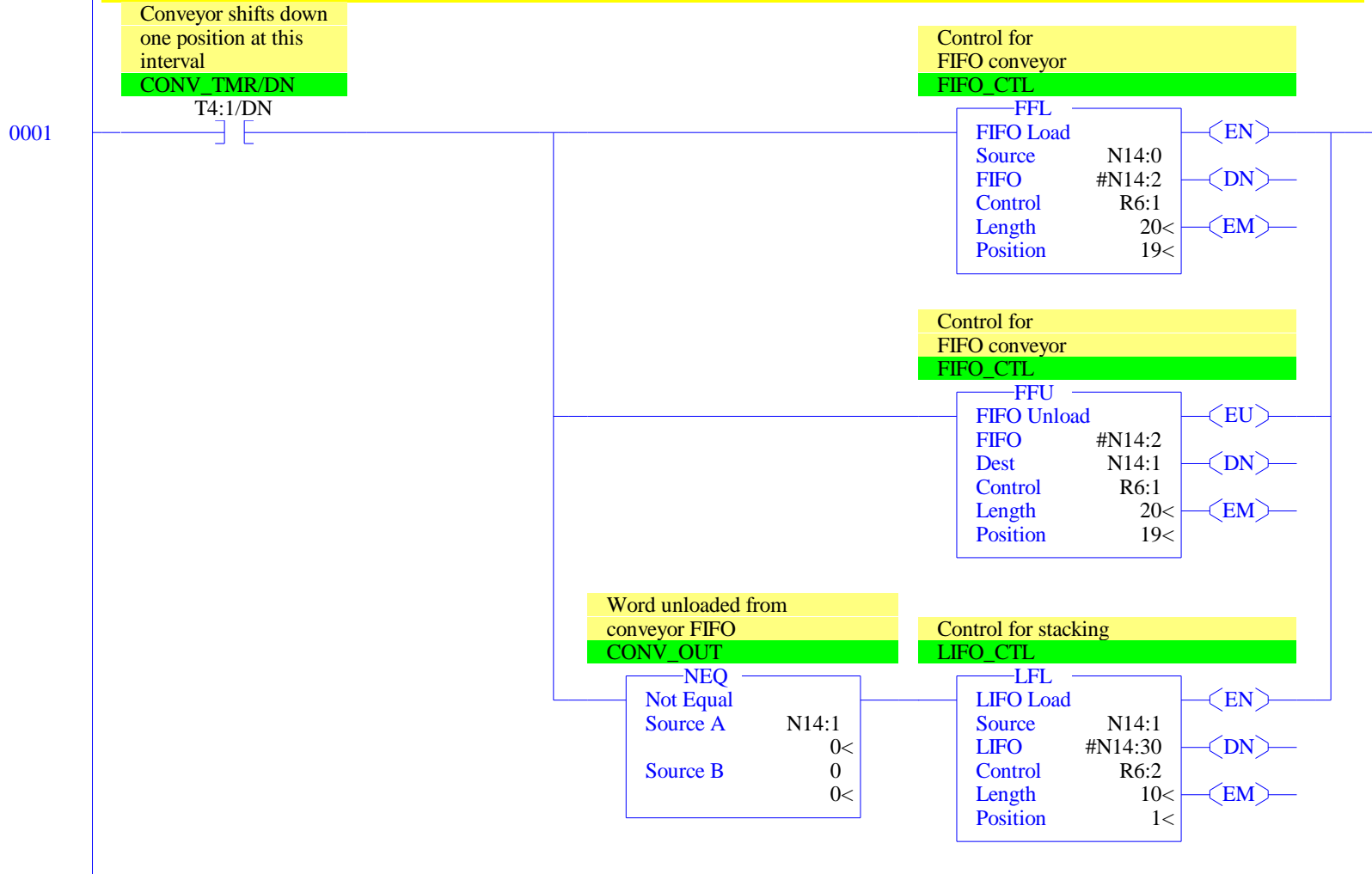
Example 8.2 FIFO/LIFO Example

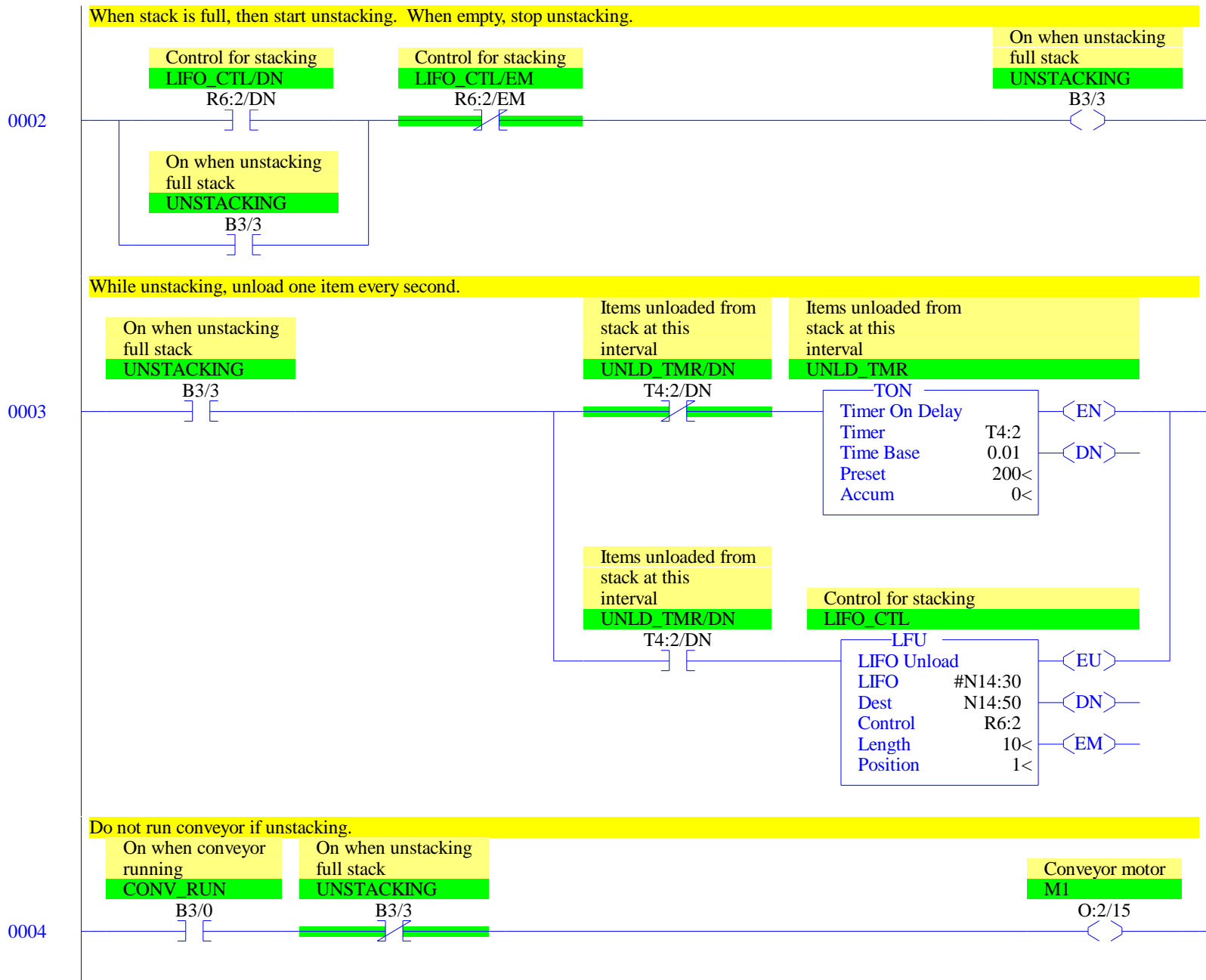
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Generate FIFO shift pulse



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:2/15      - {M1} Conveyor motor
              OTE - File #2 - 4
              XIC - File #2 - 0
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

```