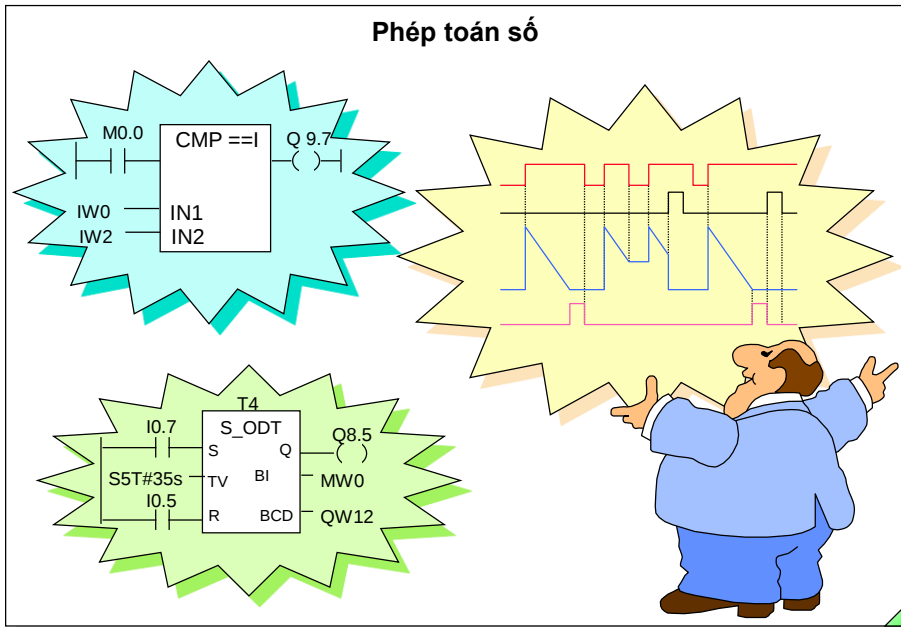




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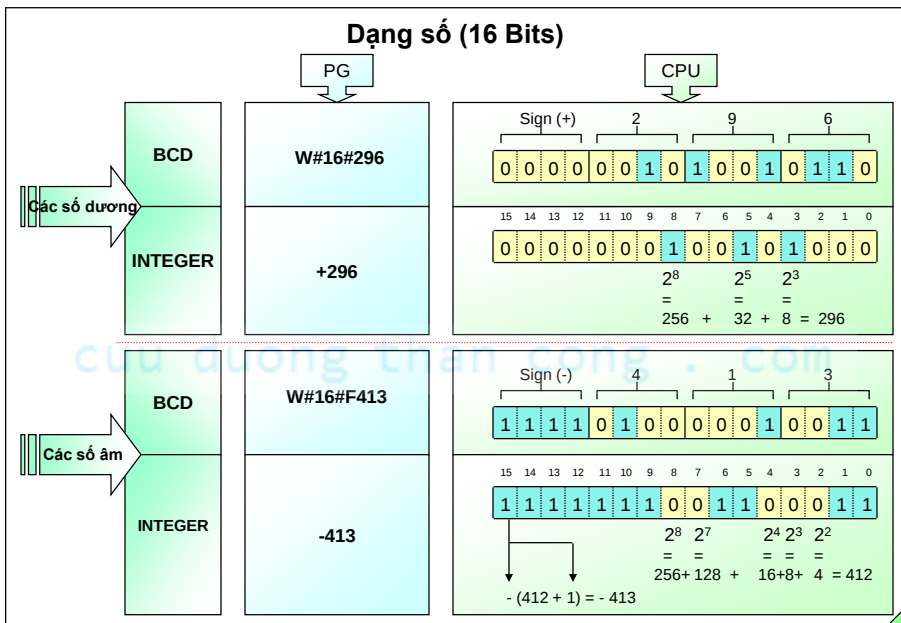
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Date: 11.09.2014
File: PRO1_07E.1



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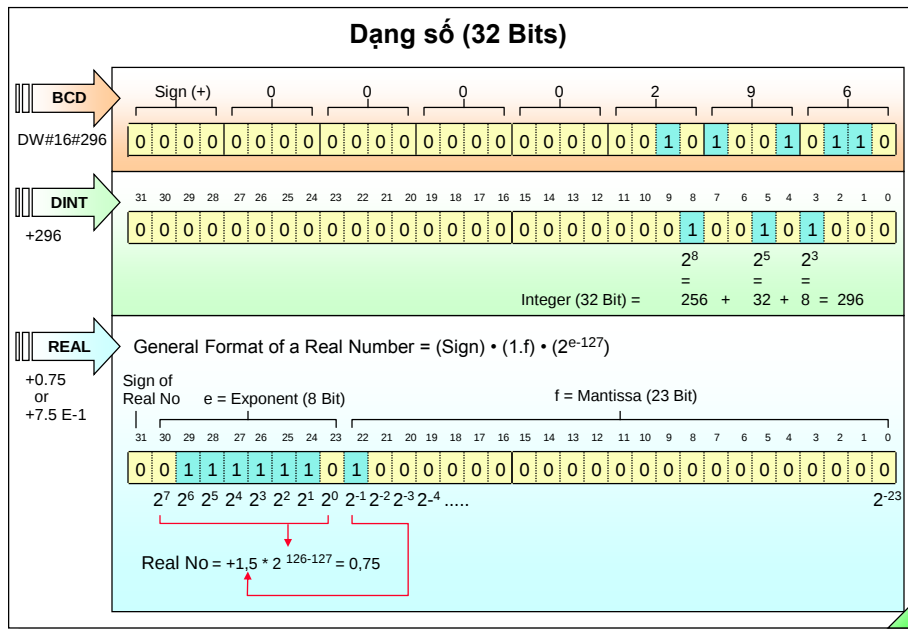
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Date: 11.09.2014
File: PRO1_07E.2



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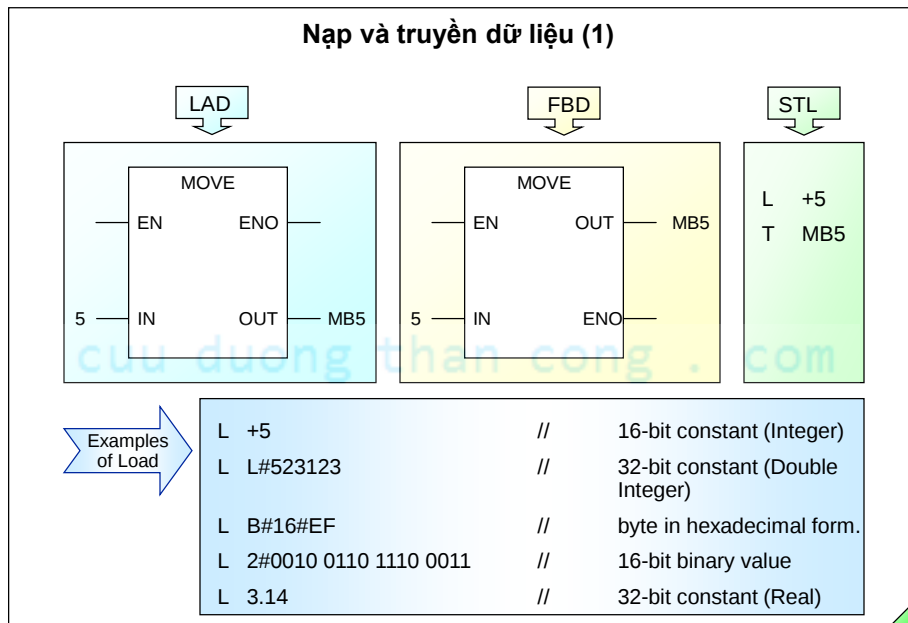
Date: 11.09.2014
File: PRO1_07E.3



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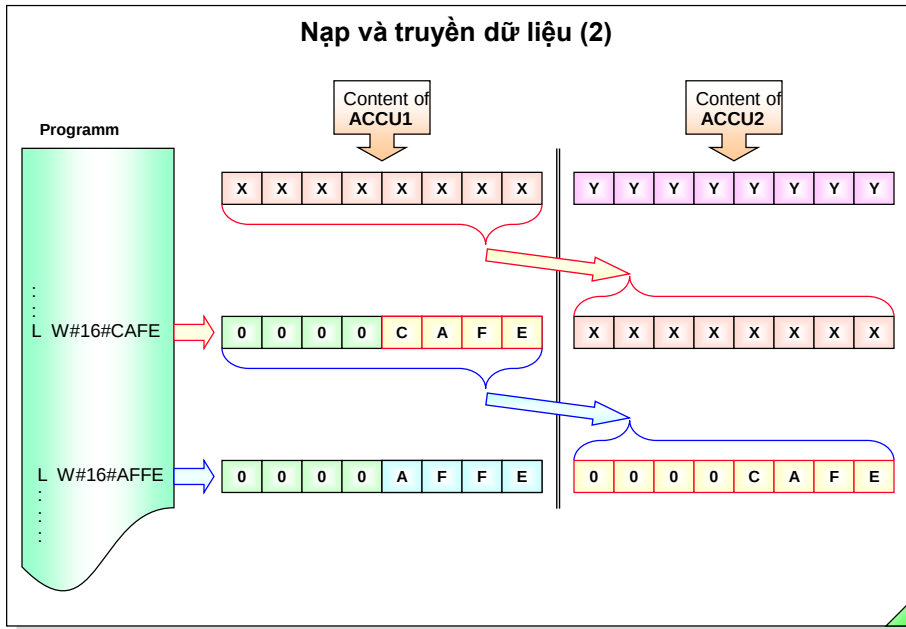
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Date: 11.09.2014
File: PRO1_07E.4



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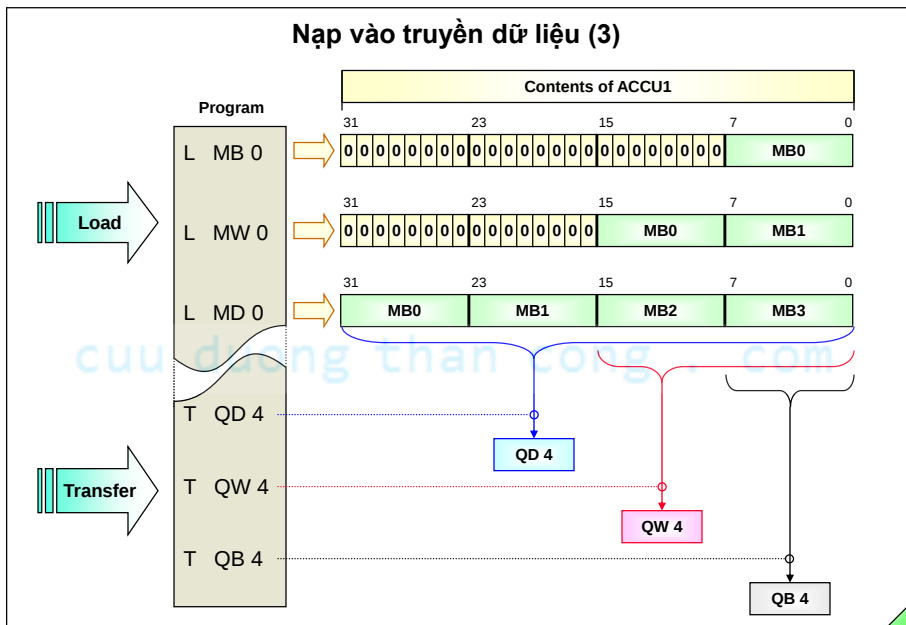
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File: PRO1_07E.5



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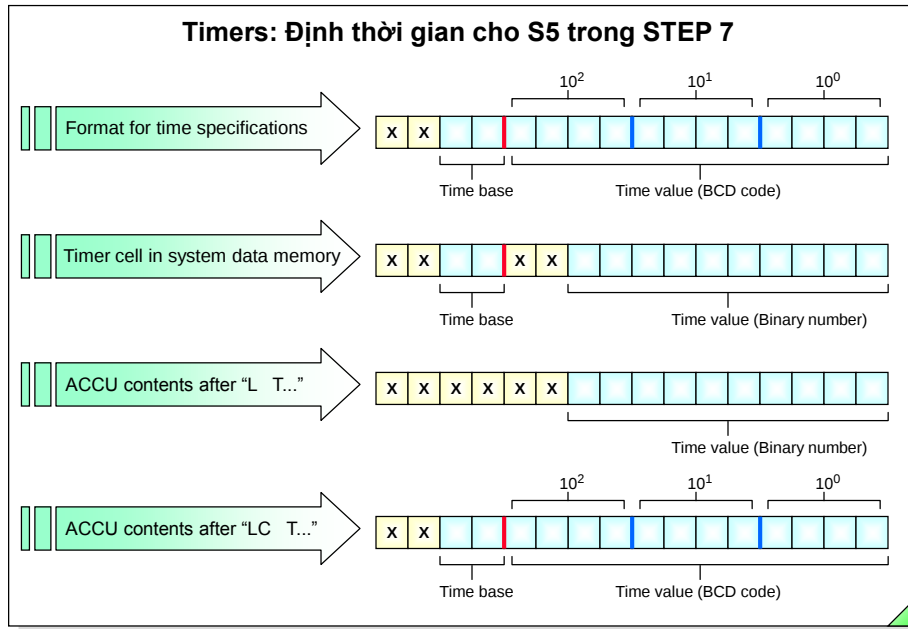
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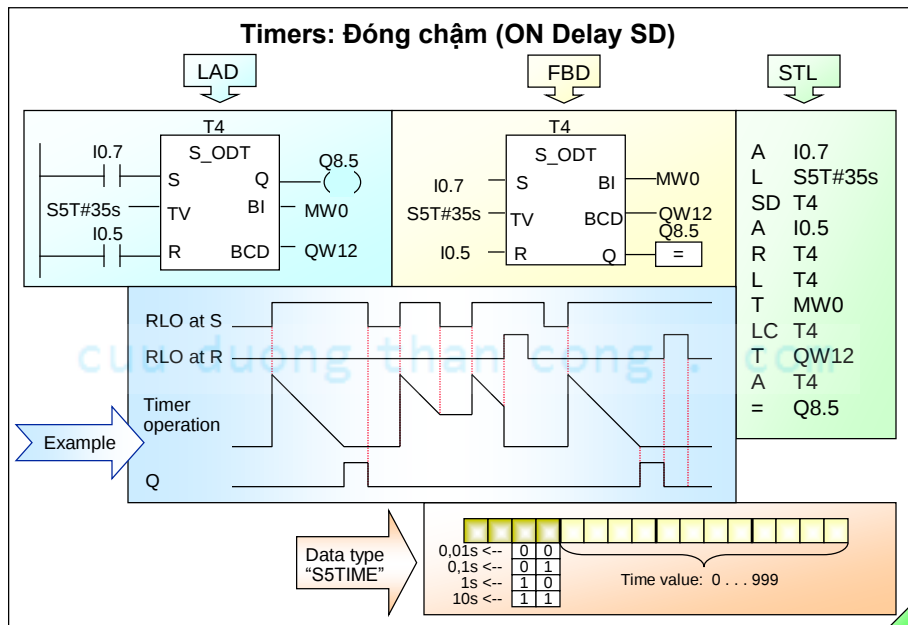
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File: PRO1_07E.7



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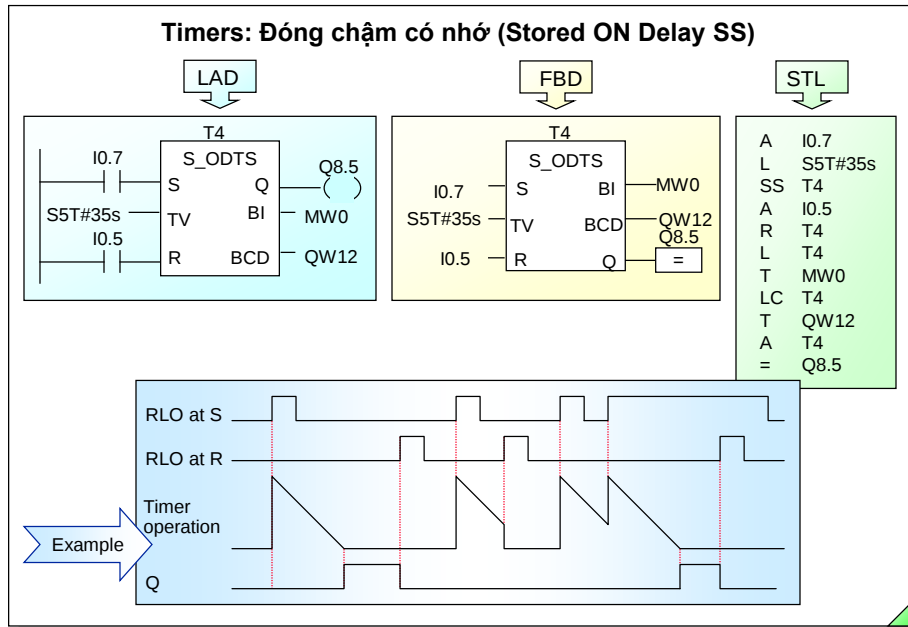
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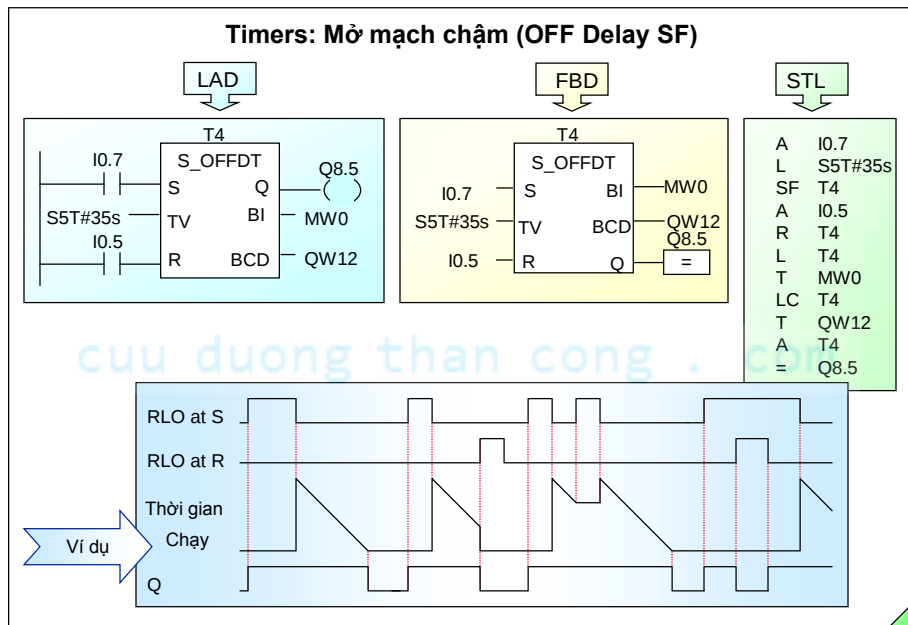
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File: PRO1_07E.9



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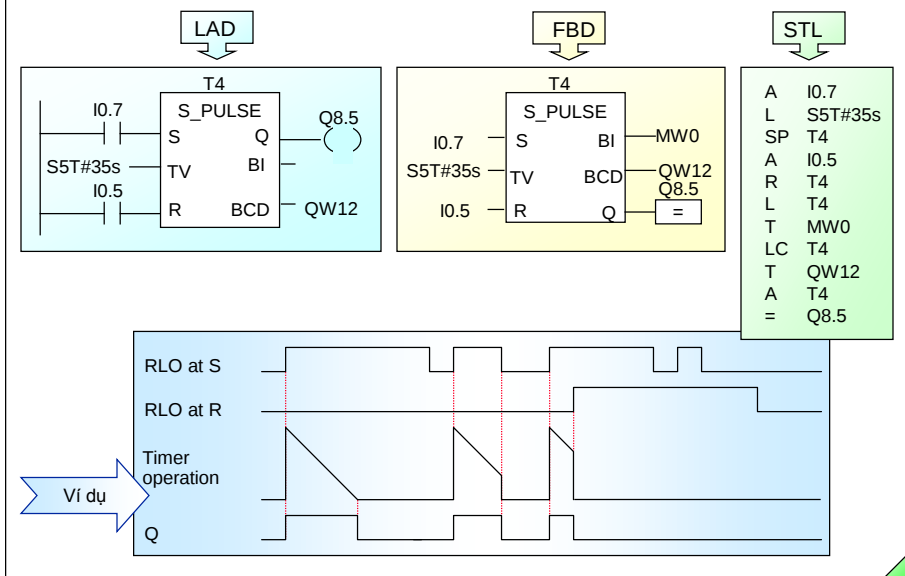
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Timers: Tạo xung (Pulse SP)



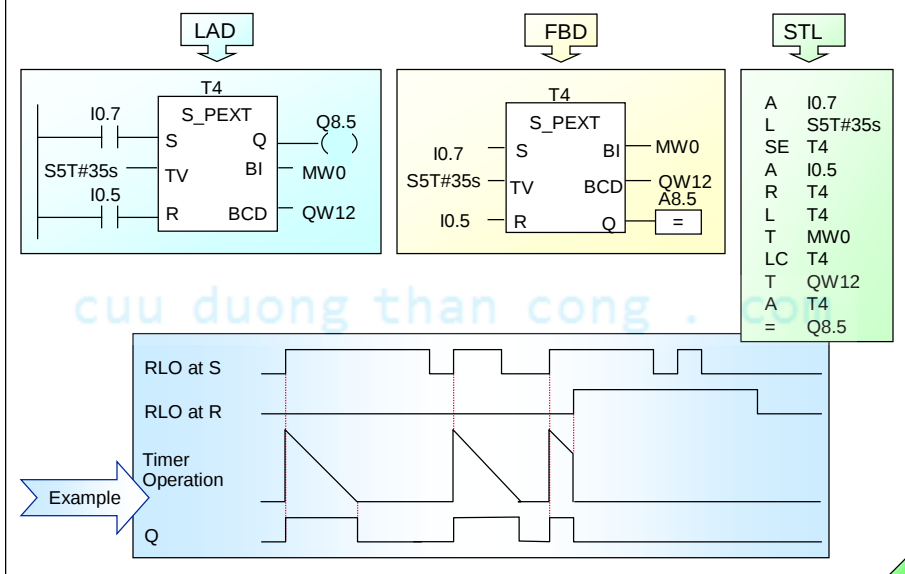
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Timers: Tạo xung có nhớ (Extended Pulse SE)

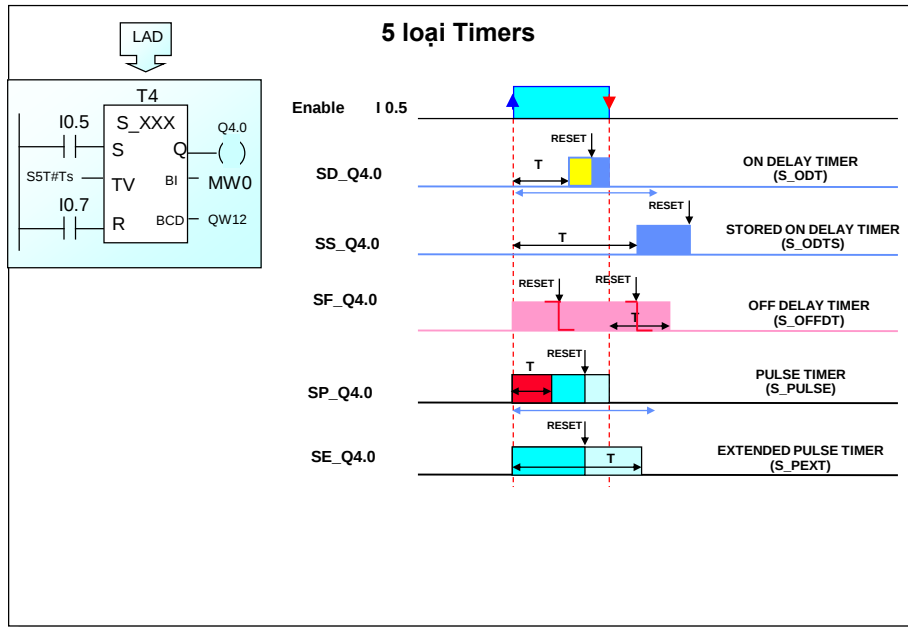


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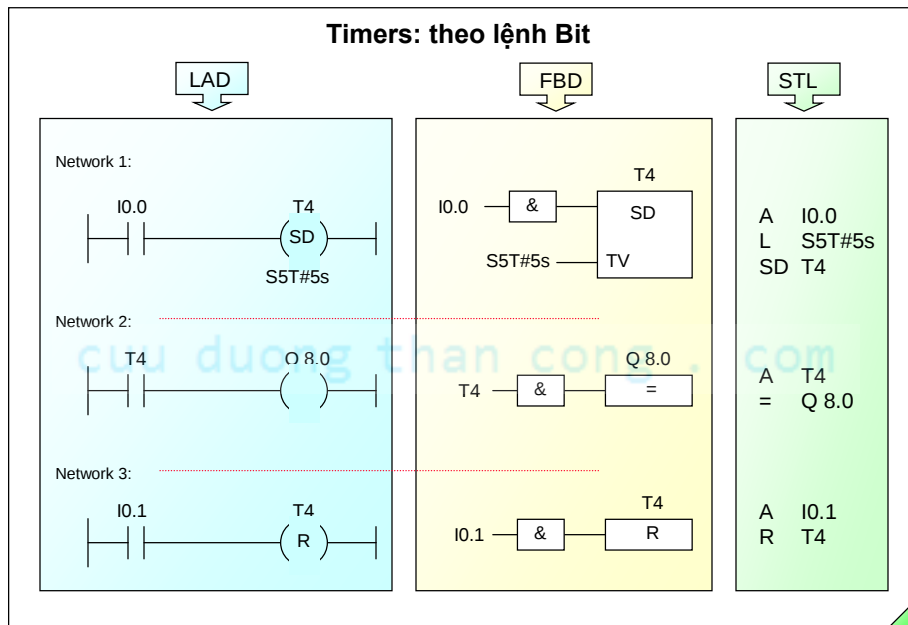
Date: 11.09.2014
File: PRO1_07E.13



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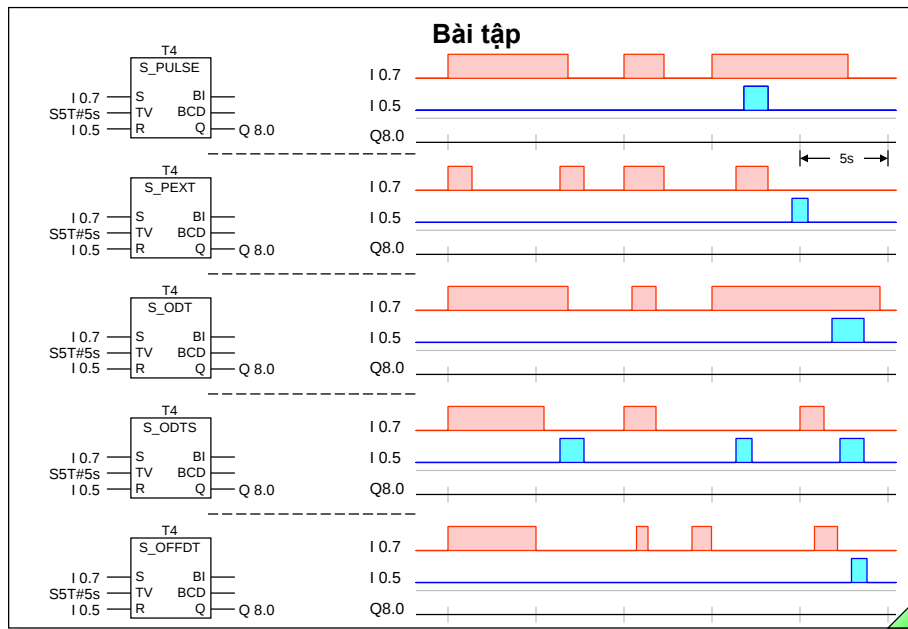
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Bài 1.

Viết chương trình điều khiển cho các đèn như sau : khi ấn nút START đèn xanh sáng trong khoảng thời gian 5s, sau đó đến đèn vàng sáng trong 2s và cuối cùng là đèn đỏ sáng trong 5s. Chu kỳ này trên được lặp lại cho đến khi ấn nút STOP.

Bài 2.

Viết chương trình điều khiển đèn giao thông tại một ngã tư : đèn xanh sáng trong 8s, đèn vàng sáng trong 2s và đèn đỏ trong 10s. Chu kỳ này được bắt đầu bằng nút START (I124.0) và kết thúc bằng nút STOP (I124.1).

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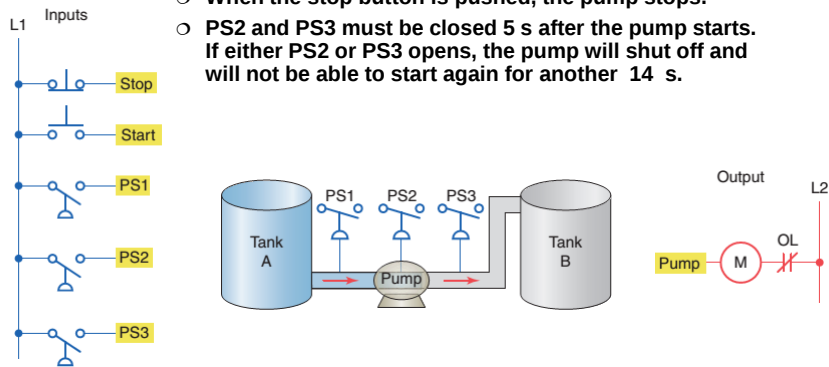
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Pumping fluid from tank A to tank B

□ process can be summarized as follows:

- Before starting, PS1 must be closed.
- When the start button is pushed, the pump starts. The button can then be released and the pump continues to operate.
- When the stop button is pushed, the pump stops.
- PS2 and PS3 must be closed 5 s after the pump starts. If either PS2 or PS3 opens, the pump will shut off and will not be able to start again for another 14 s.



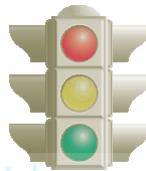
SIMATIC S7

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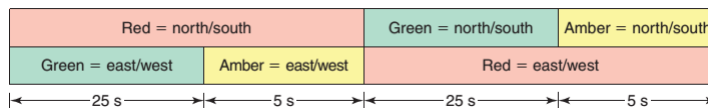
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File: PRO1_07E.17Information and Training Center
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Control of traffic light



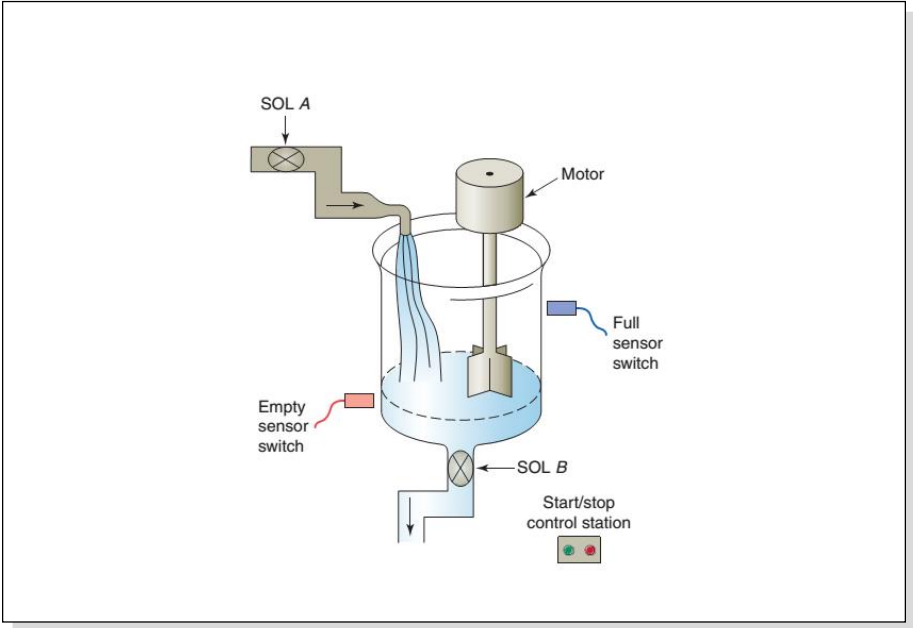
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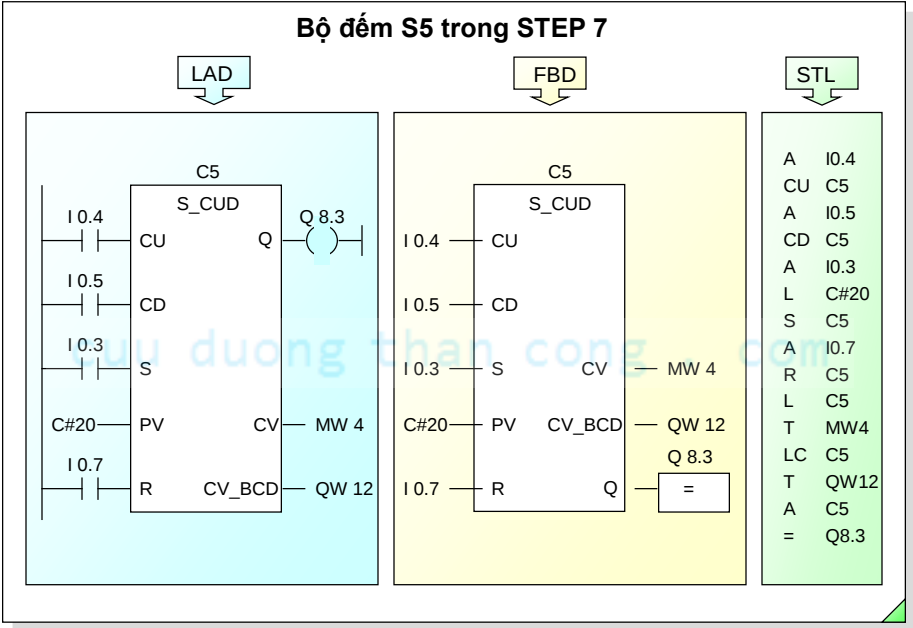
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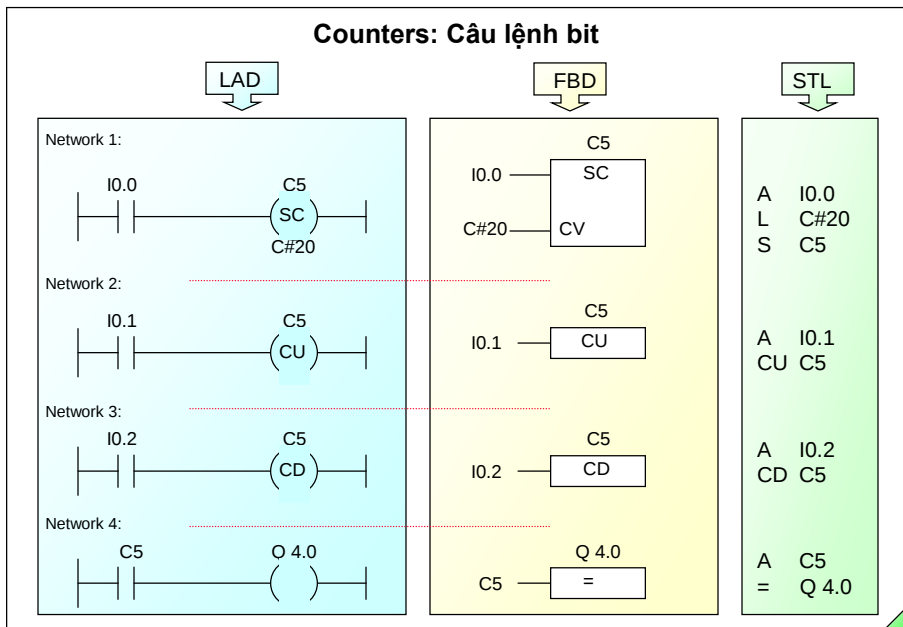


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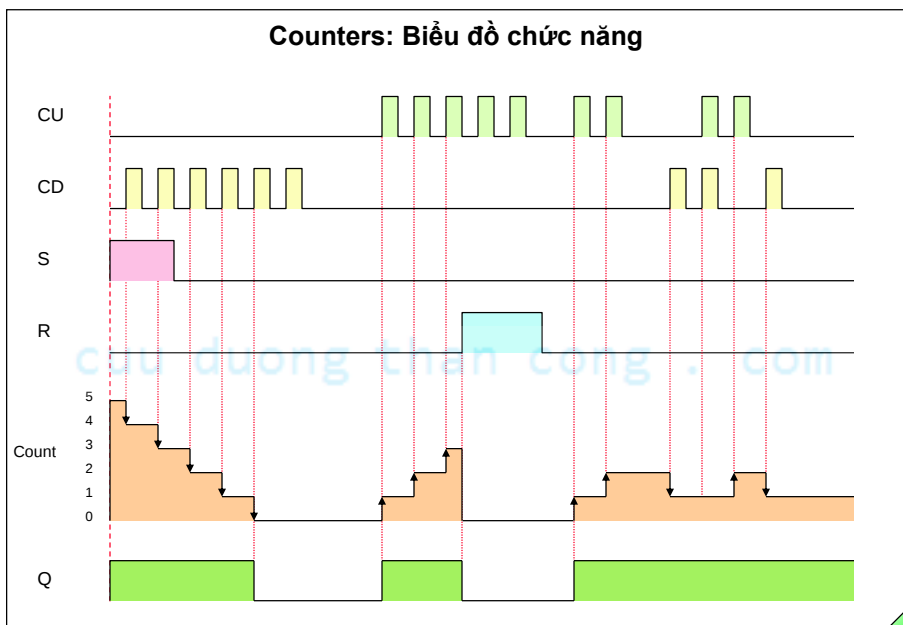
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Bài tập: Chương trình cho hệ thống làm đầy chai (Chu kỳ làm đầy và đếm chai)

Plant ON/OFF:

I 0.0 = Start (NO contact, mom-cont. switch)

I 0.1 = Stop (NC contact)

Manual/Automatic mode:

I 0.4 = Manual /Automatic

I 0.5 = Adopt mode

I 0.2 = Jog forwards

I 0.3 = Jog backwards

Bottle sensor
I 16.5 (I 8.5)

Bottle sensor
I 16.6 (I 8.6)

Bottle sensor
I 16.7 (I 8.7)

Q 20.5 (Q 8.5) Conveyor forwards
Q 20.6 (Q 8.6) Conveyor backwards

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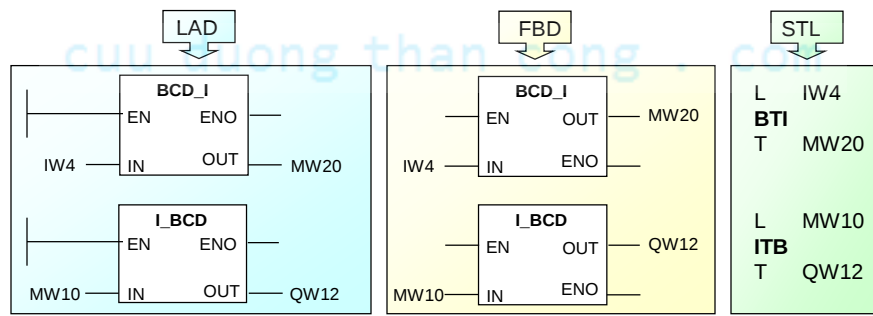
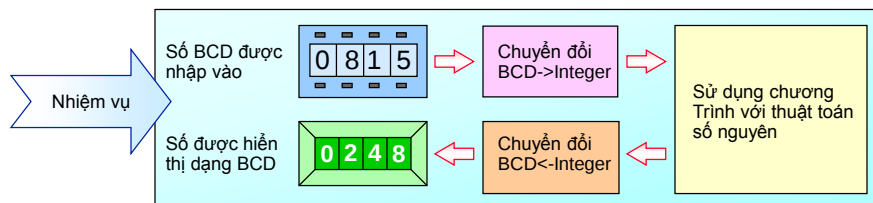


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Phép toán chuyển đổi BCD <-> Integer



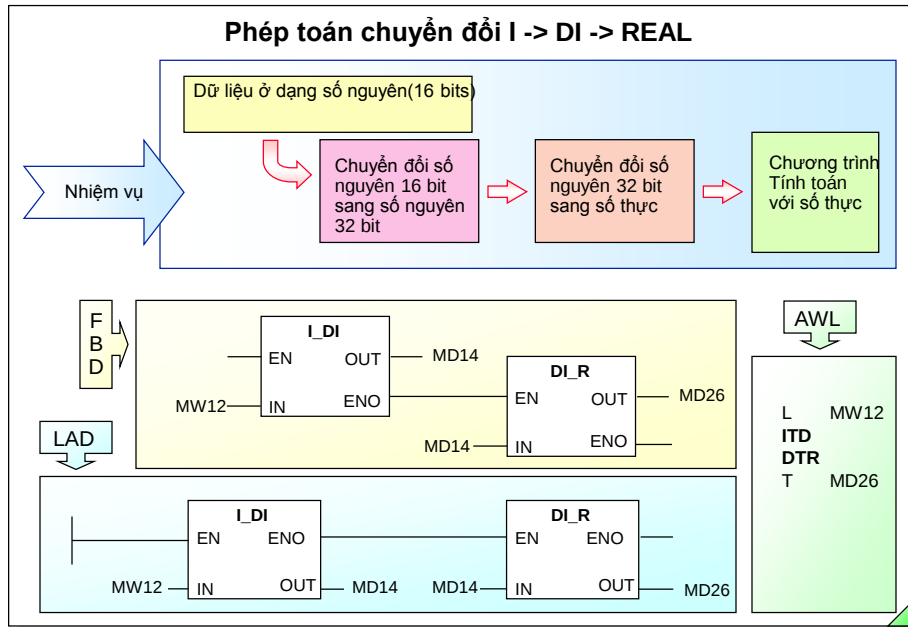
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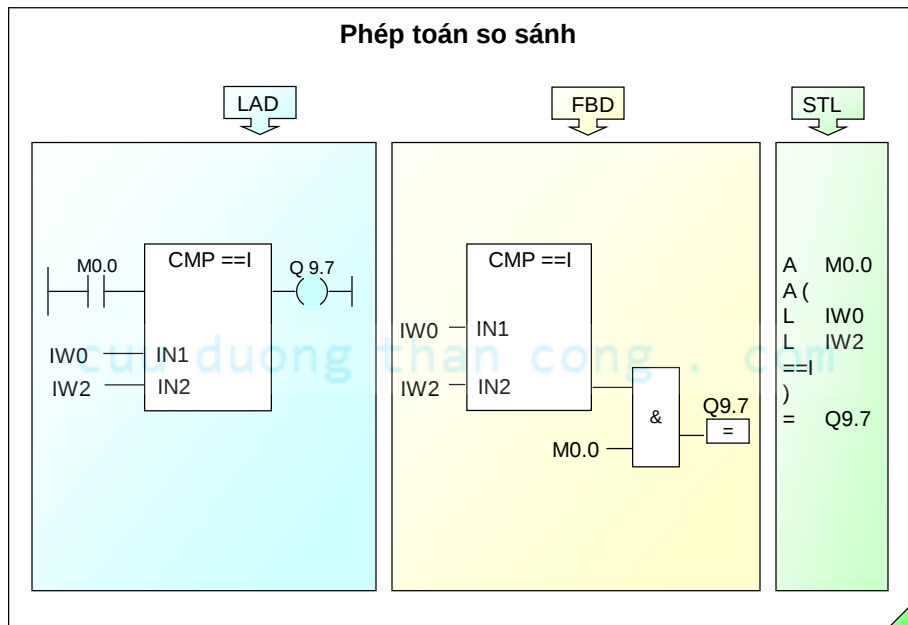


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File: PRO1_07E.25Information and Training Center
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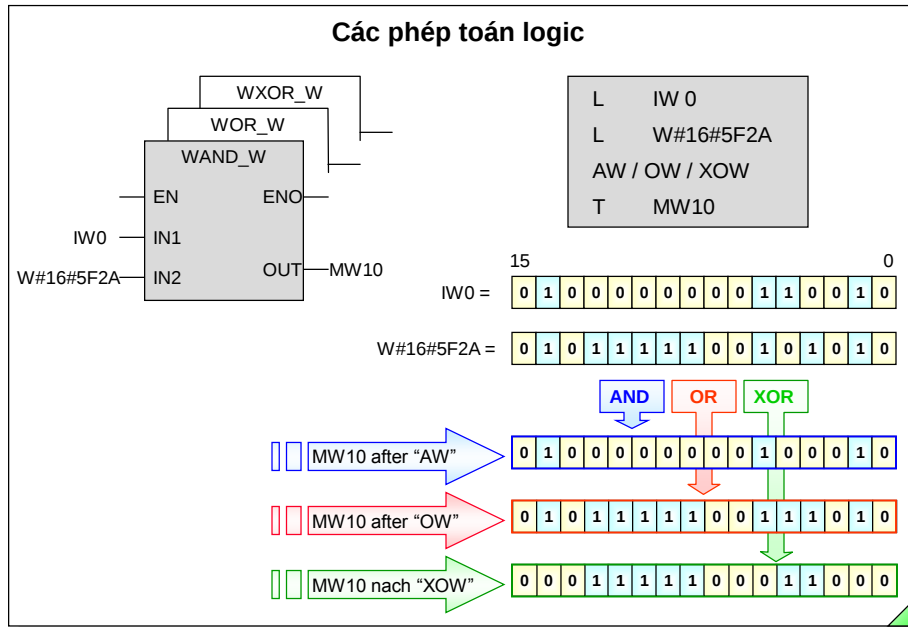
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File: PRO1_07E.26Information and Training Center
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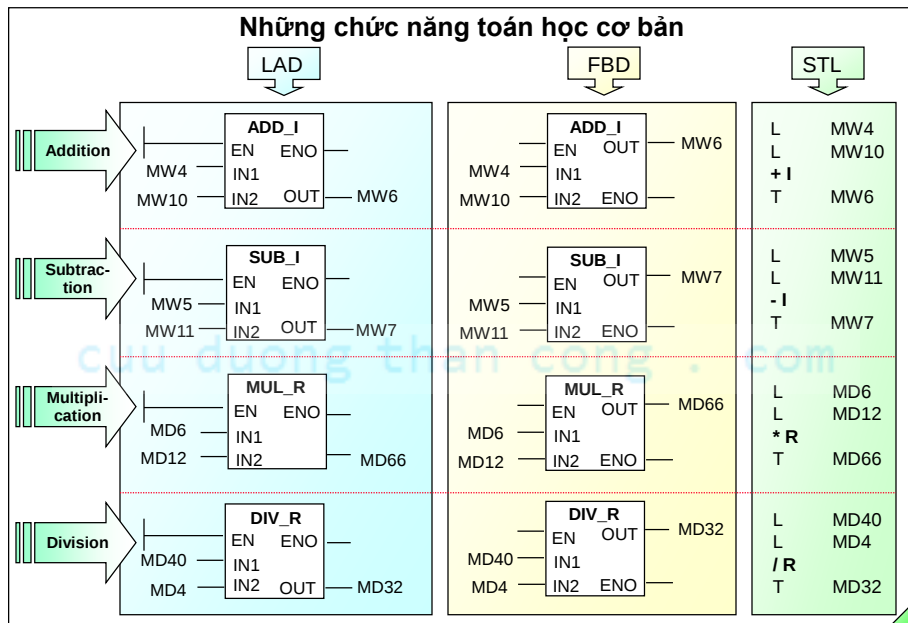


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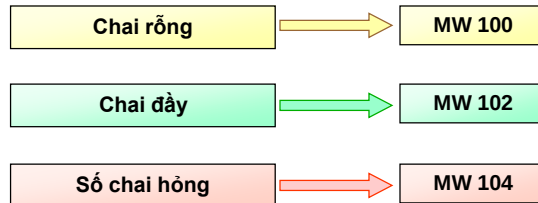


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Bài tập: Chương trình cho hệ thống làm đầy chai (dữ liệu sản xuất)



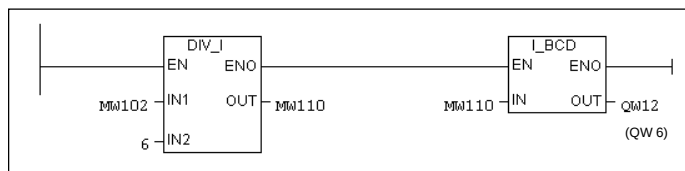
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Bài tập : Lập trình cho hệ thống làm đầy chai (Số thùng)



Chương trình nhập dạng LAD

Chuyển đổi chương trình sang STL

Chương trình nhập dạng STL

```

L    MW 102
L    6
/I
ITB
T    QW 12
  
```

```

A (
L    MW 102
L    6
/I
T    MW 110
AN   OV
SAVE
CLR
A    BR
)
JNB  _002
L    MW 110
ITB
T    QW 12
_002: NOP 0
  
```

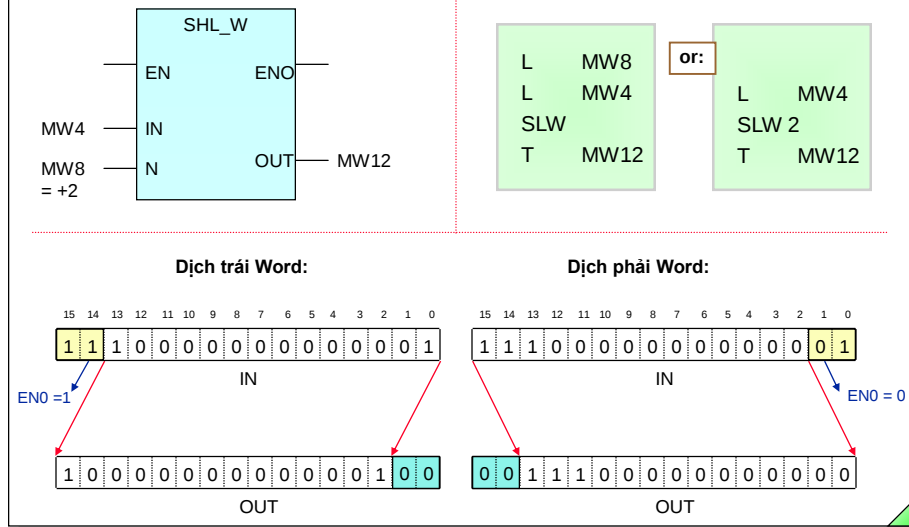
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Lệnh dịch chuyển (Word / Doubleword)



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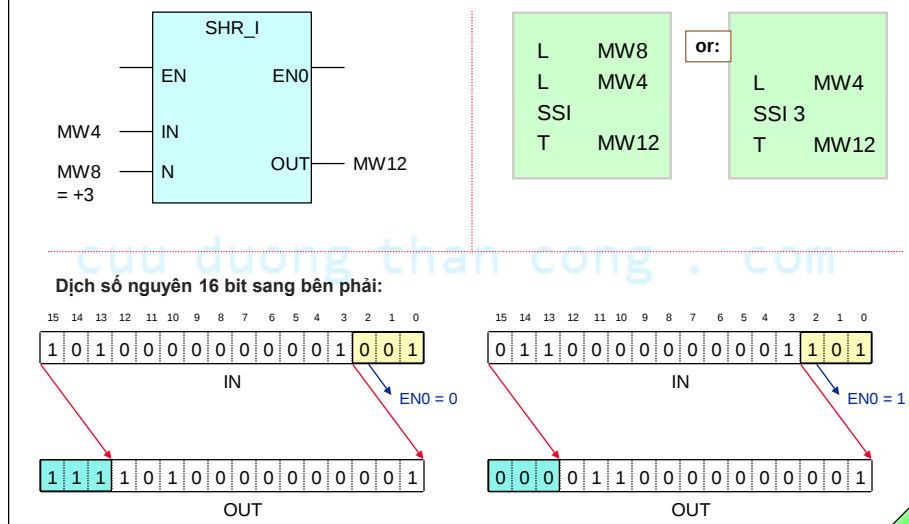


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Dịch phải số nguyên có dấu



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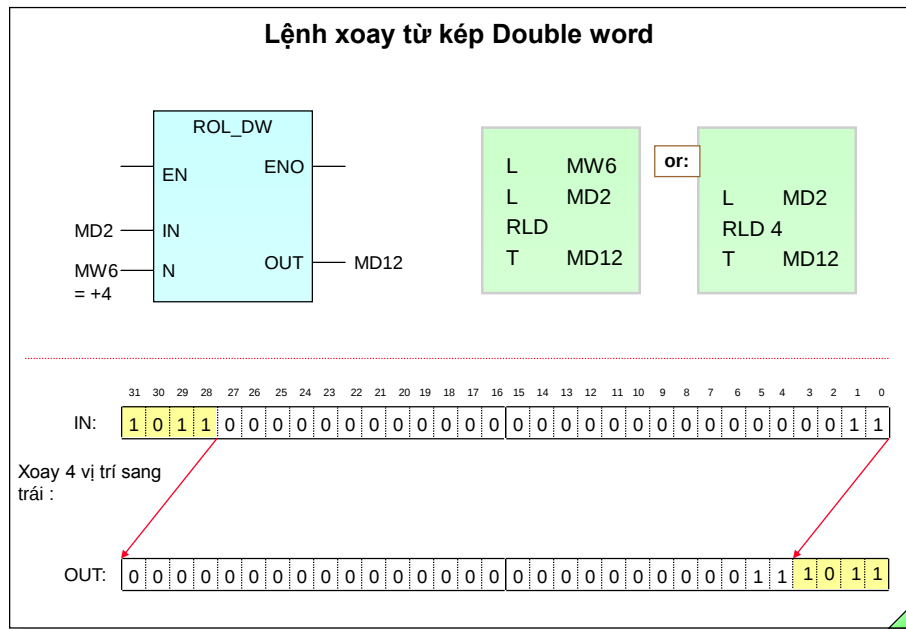
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Lệnh xoay từ kép Double word



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