

Correction du TD2

Programmation avancée des API

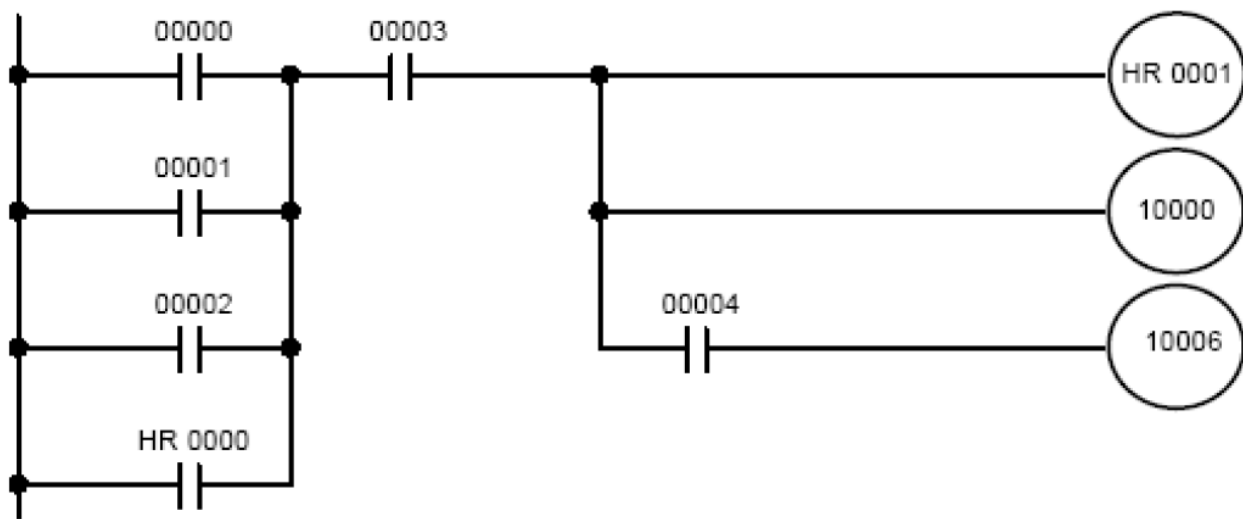
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Unité d'enseignement : Systèmes automatisés 1

Classe : AI2.1

EXERCICE N°1

Figure 1 :

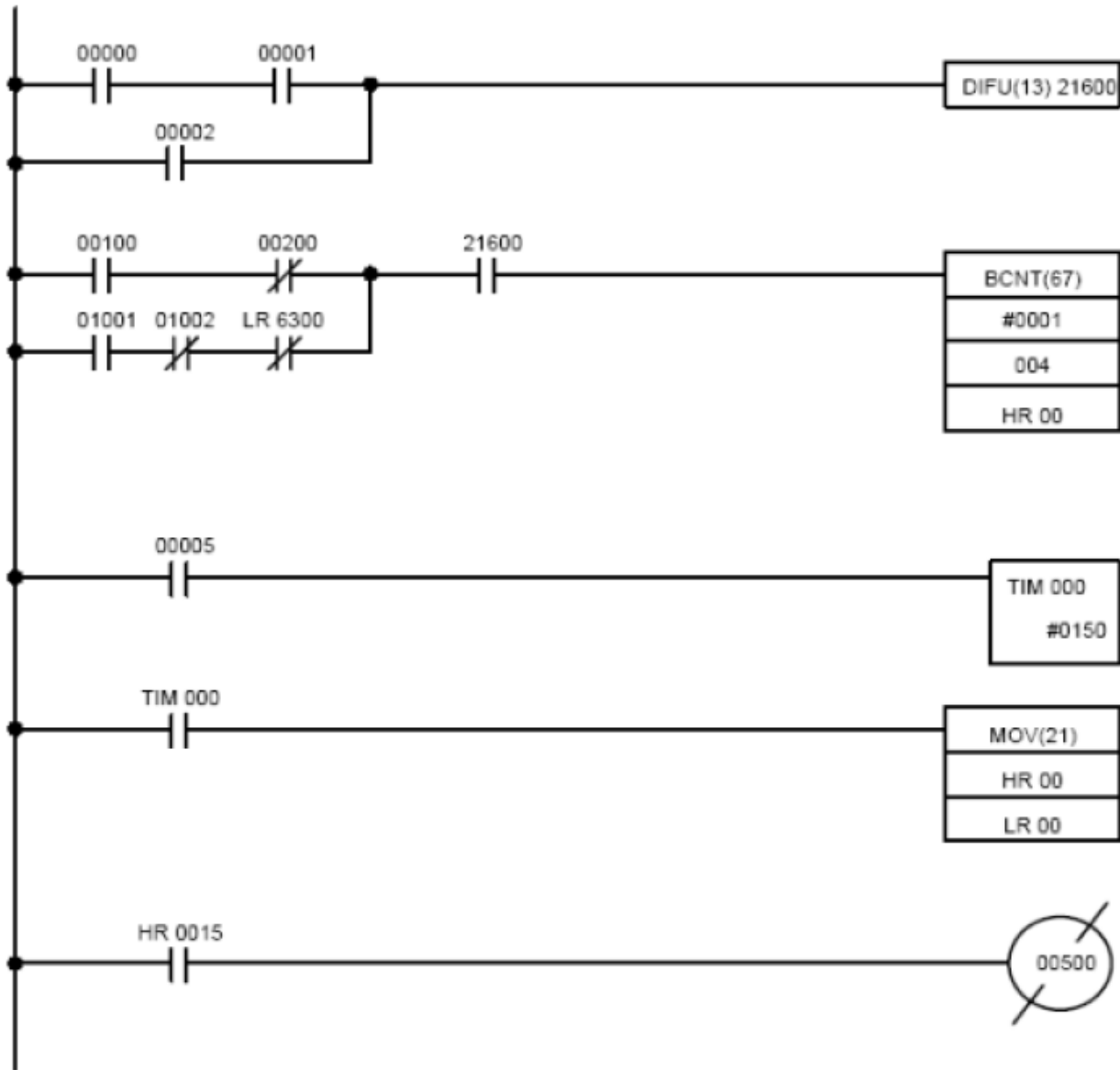


Programme List de la figure 1 :

```

LD          00000      WR
OR          00001      WR
OR          00002      WR
OR          HR 0000    WR
AND        00003      WR
OUT        HR 0001    WR
OUT        10000      WR
AND        00004      WR
OUT        10006      WR
END. « FUNC 01 WR »
  
```

Figure 2 :



Programme List de la figure 2 :

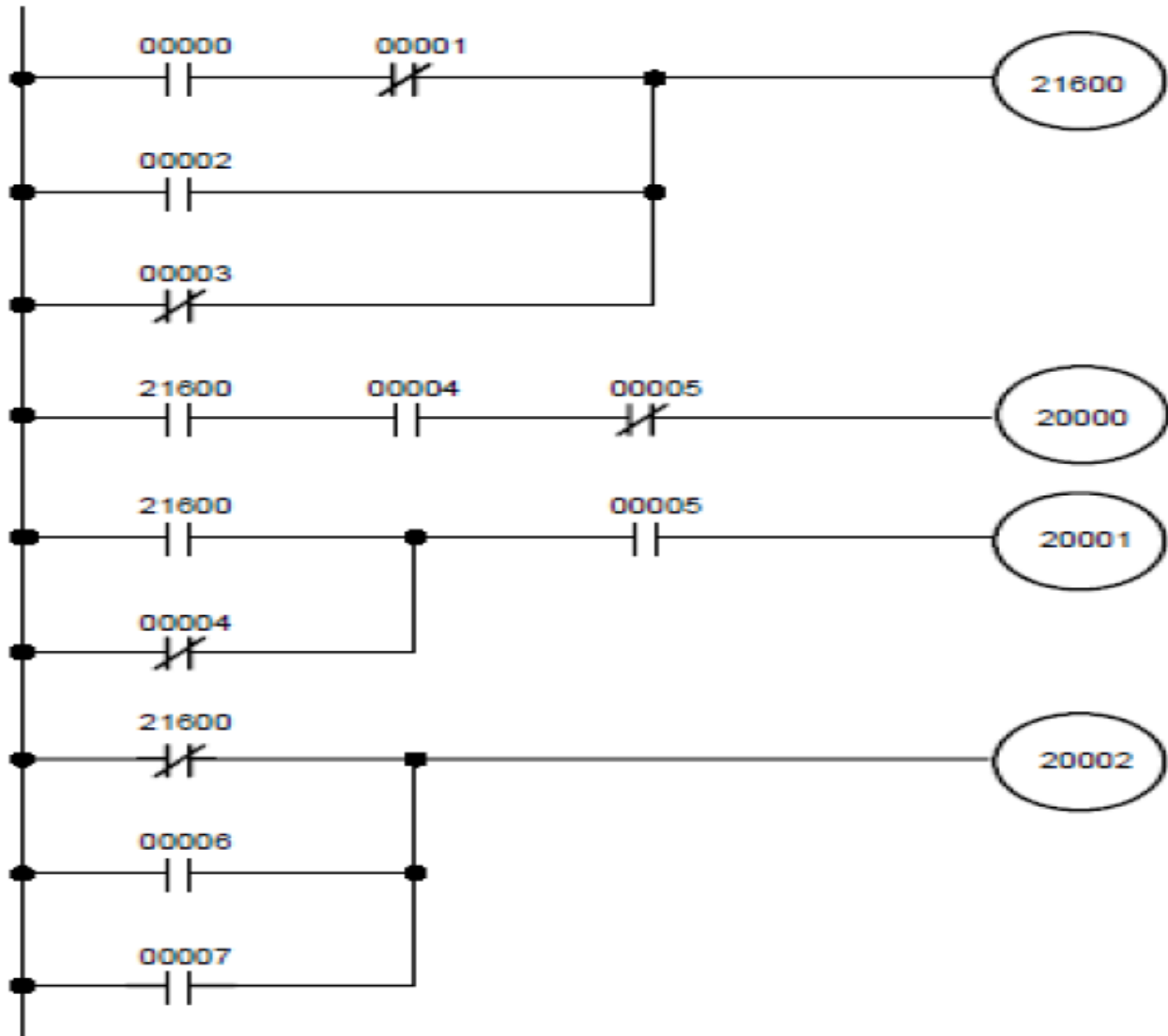
```

LD      00000    WR
AND     00001    WR
OR      00002    WR
DIFU (13) 21600  WR
LD      00100    WR
AND NOT 00200    WR
LD      01001    WR
AND NOT 01002    WR

```

AND NOT LR	6300	WR
OR LD		WR
AND	21600	WR
BCNT (67)		WR
#0001		WR
004		WR
HR00		WR
LD	00005	WR
TIM	000	WR
# 0150		WR
LD TIM	000	WR
MOV (21)		WR
HR 00		WR
LR 00		WR
LD HR	0015	WR
OUT NOT	05000	WR
END. « FUNC 01 WR »		

Figure 3:



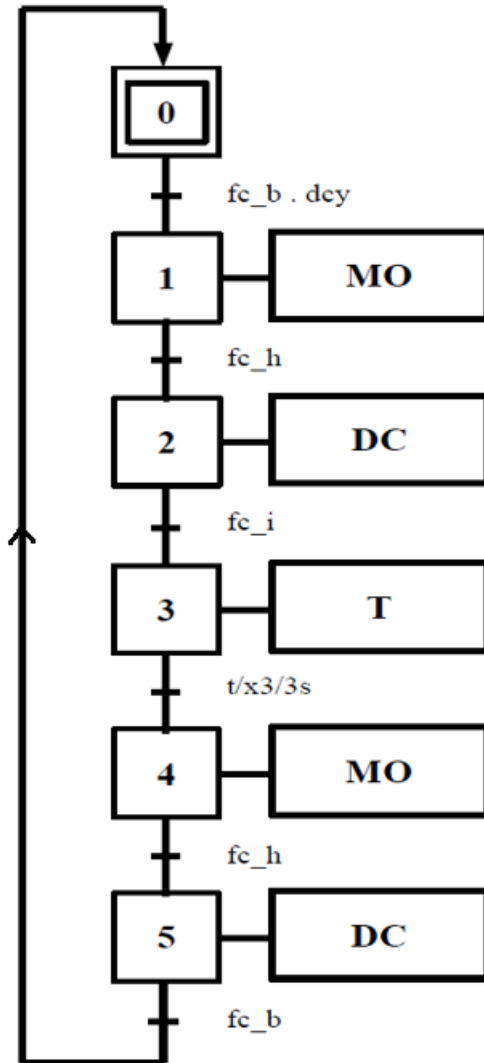
Programme List de la figure 3 :

LD	00000	WR	OR NOT	00004	WR
AND NOT	00001	WR	AND	00005	WR
OR	00002	WR	OUT	20001	WR
OR NOT	00003	WR	LD NOT	21600	WR
OUT	21600	WR	OR	00006	WR
LD	21600	WR	OR	00007	WR
AND	00004	WR	OUT	20002	WR
AND NOT	00005	WR	END. « FUNC 01 WR »		
LD	21600	WR			

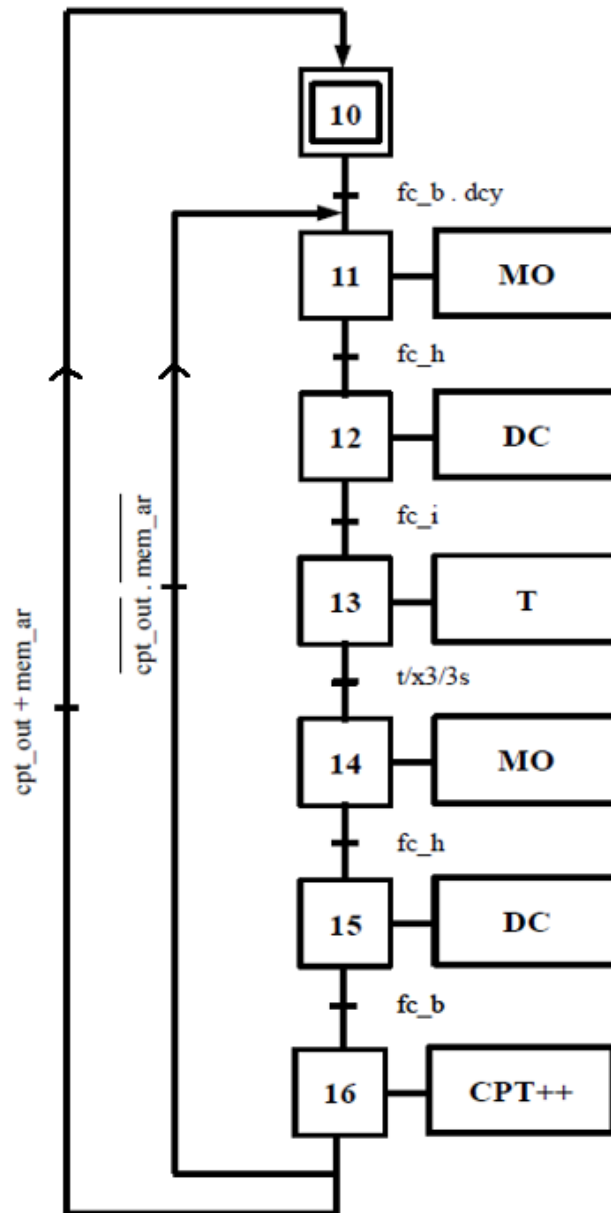
EXERCICE N°2

1)

✓ **GFP_Manu**



✓ GFP_Auto



2)

Entrées		Sorties		Etapas	
Symbole	Adresse	Symbole	Adresse	Symbole	Adresse
dcy	00.00	MO	100.00	X0	240.00
fc_b	00.01	DC	100.01	X1	240.01
fc_i	00.02	T	100.02	X2	240.02
fc_h	00.03	CPT++	100.03	X3	240.03
mem_ar	00.04			X4	240.04
cpt_out	00.05			X5	240.05
				X10	340.00
				X11	340.01
				X12	340.02
				X13	340.03
				X14	340.04
				X15	340.05
				X16	340.06

➤ **Language LIST mode manu**

LD	240.05	WR	}	X0
AND	00.01	WR		
LD	240.00	WR		
OR LD		WR		
AND NOT	240.01	WR		
OUT	240.00	WR		

LD	240.00	WR	}	X1
AND	00.01	WR		
AND	00.00	WR		
LD	240.01	WR		
OR LD		WR		
AND NOT	240.02	WR		
OUT	240.01	WR	}	X2
LD	240.01	WR		
AND	00.03	WR		
LD	240.02	WR		
OR LD		WR		
AND NOT	240.03	WR		
OUT	240.02	WR	}	X3
LD	240.02	WR		
AND	00.02	WR		
LD	240.03	WR		
OR LD		WR		
AND NOT	240.04	WR		
OUT	240.03	WR	}	T
LD	240.03	WR		
OUT	TIM 01	WR		
#30				
LD	TIM 01	WR		
OUT	100.03	WR		

LD	240.03	WR	}	X4
AND	TIM 01	WR		
LD	240.04	WR		
OR LD		WR		
AND NOT	240.05	WR		
OUT	240.04	WR		
LD	240.04	WR	}	X5
AND	00.03	WR		
LD	240.05	WR		
OR LD		WR		
AND NOT	240.00	WR		
OUT	240.05	WR		
LD	240.01	WR	}	MO
OR	240.04	WR		
OUT	100.00	WR		
LD	240.02	WR	}	DC
OR	240.05	WR		
OUT	100.01	WR		

END. « FUNC 01 WR »

3)

➤ language LIST mode auto

LD	00.05	WR	}	X10
OR	00.04	WR		
LD	340.06	WR		
AND LD		WR		
LD	340.00	WR		
OR LD		WR		
AND NOT	340.01	WR		
OUT	340.00	WR		
LD	340.00	WR	}	X11
AND	00.01	WR		
AND	00.00	WR		
LD	340.06	WR		
AND NOT	00.04	WR		
AND NOT	00.05	WR		
OR LD		WR		
OR	340.01	WR		
AND NOT	340.02	WR		
OUT	340.01	WR		
LD	340.01	WR	}	X12
AND	00.03	WR		
LD	340.02	WR		
OR LD		WR		
AND NOT	340.03	WR		
OUT	340.02	WR		

LD	340.02	WR	}	X13
AND	00.02	WR		
LD	340.03	WR		
OR LD		WR		
AND NOT	340.04	WR		
OUT	340.03	WR		
LD	340.03	WR	}	T
OUT	TIM 01	WR		
#30				
LD	TIM 01	WR		
OUT	100.03	WR		
LD	340.03	WR	}	X14
AND	TIM 01	WR		
LD	340.04	WR		
OR LD		WR		
AND NOT	340.05	WR		
OUT	340.04	WR		
LD	340.04	WR	}	X15
AND	00.03	WR		
LD	340.05	WR		
OR LD		WR		
AND NOT	340.00	WR		
OUT	340.05	WR		
LD	340.01	WR	}	MO
OR	340.04	WR		
OUT	100.00	WR		

LD	340.02	WR	}	DC
OR	340.05	WR		
OUT	100.01	WR		
LD	340.06	WR	}	CPT++
OUT	CNT 01	WR		
#4		WR		
LD	CNT 01	WR		
OUT	100.03	WR		

END. « FUNC 01 WR »