

Micro-Programmed Control

Step	Action
1	PC_{out} , MAR_{in} , Read, Select4, Add, Z_{in}
2	Z_{out} , PC_{in} , Y_{in} , WMFC
3	MDR_{out} , IR_{in}
4	$R3_{out}$, MAR_{in} , Read
5	$R1_{out}$, Y_{in} , WMFC
6	MDR_{out} , SelectY, Add, Z_{in}
7	Z_{out} , $R1_{in}$, End

Figure 7.6 Control sequence for execution of the instruction Add (R3),R1.

Micro - instruction	..	PC_{in}	PC_{out}	MAR_{in}	Read	MDR_{out}	IR_{in}	Y_{in}	Select	Add	Z_{in}	Z_{out}	$R1_{out}$	$R1_{in}$	$R3_{out}$	WMFC	End	:
1		0	1	1	1	0	0	0	1	1	1	0	0	0	0	0	0	
2		1	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	
3		0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	
4		0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	
5		0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	
6		0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	
7		0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	

Figure 7.15 An example of microinstructions for Figure 7.6.