



Figure 7.8 Three-bus organization of the datapath.

Step	Action
1	$PC_{out}, R=B, MAR_{in}, Read, IncPC$
2	WMFC
3	$MDR_{outB}, R=B, IR_{in}$
4	$R4_{outA}, R5_{outB}, SelectA, Add, R6_{in}, End$

Figure 7.9 Control sequence for the instruction Add R4,R5,R6 for the three-bus organization in Figure 7.8.

Consider the three-operand instruction

Add R4,R5,R6

control sequence for executing this instruction