

5 Processes P_0 through P_4 ;

3 resource types: A (10 instances), B (5 instances), C (7 instances)

At time T_0 : Allocation

	A	B	C	Max A B C	Available A B C
P_0	0	1	0	7 5 3	3 3 2
P_1	2	0	0	3 2 2	
P_2	3	0	2	9 0 2	
P_3	2	1	1	2 2 2	
P_4	0	0	2	4 3 3	
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	7	2	5		

Need = Max - Allocation \Rightarrow

Bankers Algorithm: Work = available

Need \leq Work (available)

Work = Work + Allocation.

Need

	A	B	C
P_0	7	4	3
P_1	1	2	2
P_2	6	0	0
P_3	0	1	1
P_4	4	3	1

$P_0 \Rightarrow 743 \leq 332 \quad \times$

$P_1 \Rightarrow 122 \leq 332 \quad \checkmark$

$$\text{Work} = 332 + 200 = 532$$

$P_2 \Rightarrow 600 \leq 532 \quad \times$

$P_3 \Rightarrow 011 \leq 532 \quad \checkmark$

$$\text{Work} = 532 + 211 = 743$$

$P_4 \Rightarrow 431 \leq 743 \quad \checkmark$

$$\text{Work} = 743 + 002 = 745$$

$P_0 \Rightarrow 743 \leq 745 \quad \checkmark$

$$\text{Work} = 745 + 010 = 755$$

$P_2 \Rightarrow 600 \leq 755 \quad \checkmark$

$$\text{Work} = 755 + 302 = 1057$$

Safe Sequence $\Rightarrow P_1, P_3, P_4, P_0, P_2$