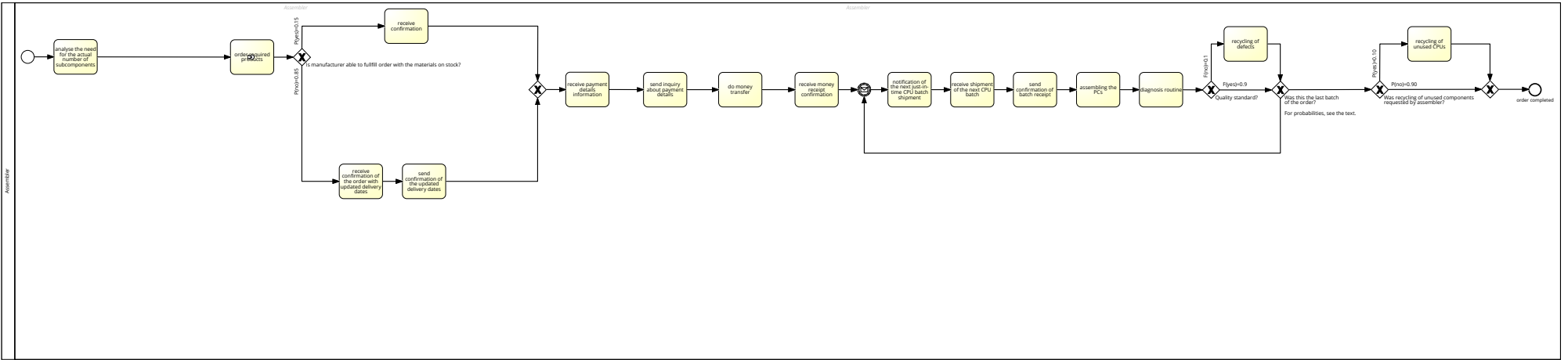




Supplier

Manufacturer



Choreography Model – Calculation Result:

Time: 72h

Costs: 4328€

Reliability: 85,56%

ID level 1	p of XOR	ID level 2	p of XOR	ID level 3	initiator	receiver	activity	time (hours) / person	human resource (in persons)	human resource (EUR/hour)	technical resources costs total (EUR)	reliability	total costs (EUR)	avg time	avg costs	avg reliability	
1	0,15 0,85	U1 D1 D2 D3 D4 D5			assembler	manufacturer	ordering required products	4,00	2	25	20	100,00%	220,00	4	220,00	100,00%	
					manufacturer	assembler	confirming order	1,00	1	25	0	99,00%	25,25				
					manufacturer	supplier	clarification of feasible projected date and required components	2,00	2	25	10	95,00%	115,79				
					manufacturer	assembler	confirming order with updated delivery dates	1,00	2	25	0	99,00%	50,51				
					manufacturer	supplier	placing order for materials	4,00	2	25	20	100,00%	200,00				
2					manufacturer	supplier	clarifying payment details	2,00	2	30	10	95,00%	136,84	8,65	499,45	90,80%	
					manufacturer	supplier	making payment	1,00	2	30	0	100,00%	60,00				
3	0,82	D1 D2	0,05	U1	assembler	manufacturer	clarifying payment details	2,00	2	30	10	100,00%	130,00	1	60,00	100,00%	
					assembler	manufacturer	making payment	1,00	2	30	0	100,00%	60,00				
4					manufacturer	supplier	coordination of the next just-in-time material batch shipment	2,00	2	20	10	99,00%	90,91	25,338	1.541,29	98,99%	0,9997
					supplier	manufacturer	shipment of the next material batch	8,00	2	20	200	99,80%	521,04				
					supplier	manufacturer	replacement of defect parts in the shipment	6,00	2	20	50	99,40%	291,75				
5	0,10	U1 U2			manufacturer	assembler	coordination of the next just-in-time CPU batch shipment	2,00	2	20	10	99,60%	90,36	6	1.567,84	94,42%	99,50%
					manufacturer	assembler	shipment of the next CPU batch	8,00	2	20	200	99,50%	522,61				
					assembler	manufacturer	recycling of unused CPUs	6,00	2	20	50	99,00%	292,93	1,3	58,59	99,80%	
U = up (upper path) D = down (bottom path)													72,188	4.348,25	85,56%		

Public Model – Calculation Result:

Time: 38h

Costs: 1161€

Reliability: 94,02%

ID level 1	p of XOR	ID level 2	p of XOR	ID level 3	initiator	receiver	activity	time (hours) / person	human resource (in persons)	human resource (EUR/hour)	technical resources costs total (EUR)	reliability	total costs (EUR)	avg time	avg costs	avg reliability
1							order required products	4,00	1	25	10,0	100,00%	110,00	4	110,00	100,00%
2	0,15 0,85	U1 D1 D2					receive confirmation	0,00	0	0	0,0	99,00%	0,00	0,85	21,4646465	0,981585
							receive confirmation of the order with updated delivery dates	0,50	1	25	0,0	99,00%	12,63			
							send confirmation of the updated delivery dates	0,50	1	25	0,0	99,00%	12,63			
3							receive payment details information	1,00	1	30	2,5	100,00%	32,50	1,00	32,50	100,00%
4							send inquiry about payment details	1,00	1	30	2,5	100,00%	32,50	1,00	32,50	100,00%
5							do money transfer	0,50	1	30	0,0	100,00%	15,00	0,50	15,00	100,00%
6							receive money receipt confirmation	0,50	1	30	0,0	100,00%	15,00	0,50	15,00	100,00%
7	0,10	U1					notification of the next just-in-time CPU batch shipment	2,00	1	20	5,0	99,60%	45,18	30	919,461757	0,95877655
							receive shipment of the next CPU batch	6,00	1	20	75,0	99,50%	195,98			
							send confirmation of batch receipt	2,00	1	20	25,0	99,50%	65,25			
							recycling of unused CPUs	6,00	1	20	25,0	99,00%	146,46	38	1161	94,02%

Private Model – Calculation Result:

Time: 66h

Costs: 2512€

Reliability: 88,43%

ID level 1	p of XOR	ID level 2	p of XOR	ID level 3	initiator	receiver	activity	time (hours) / person	human resource (in persons)	human resource (EUR/hour)	technical resources costs total (EUR)	reliability	total costs (EUR)	avg time	avg costs	avg reliability
1							analyse the need for the actual number of subcomponents	30	2	25	10	99%	1.525,25	30	1.525,25	99%
2	0,15 0,85	U1 D1 D2					order required products	4,00	1	25	10,0	100,00%	110,00	4	110,00	100,00%
							receive confirmation	0,00	0	0	0,0	99,00%	0,00			
							receive confirmation of the order with updated delivery dates	0,50	1	25	0,0	99,00%	12,63			
3							send confirmation of the updated delivery dates	0,50	1	25	0,0	99,00%	12,63	0,85	21,4646465	0,981585
							receive payment details information	1,00	1	30	2,5	100,00%	32,50			
4							send inquiry about payment details	1,00	1	30	2,5	100,00%	32,50	1,00	32,50	100,00%
5							do money transfer	0,50	1	30	0,0	100,00%	15,00	0,50	15,00	100,00%
6							receive money receipt confirmation	0,50	1	30	0,0	100,00%	15,00	0,50	15,00	100,00%
7	0,10	D1 U1					notification of the next just-in-time CPU batch shipment	2,00	1	20	5,0	99,60%	45,18	57	2267,94662	0,902667211
							receive shipment of the next CPU batch	6,00	1	20	75,0	99,50%	195,98			
							send confirmation of batch receipt	2,00	1	20	25,0	99,50%	65,25			
							assembling the PCs	8,00	2	20	100,0	99,00%	404,24	0,1	2,52525253	0,999
							diagnosis routine	1,00	1	20	5,0	99,00%	25,25			
							recycling of defects	1,00	1	20	5,0	99,00%	25,25	0,1	2,52525253	0,999
							recycling of unused CPUs	6,00	1	20	25,0	99,00%	146,46	66	2512	88,43%

ID level 1	p of XOR	ID level 2	p of XOR	ID level 3	initiator	receiver	activity	time (hours) / person	human resource (in persons)	human resource (EUR/hour)	technical resources costs total (EUR)	reliability	total costs (EUR)	avg time	avg costs	avg reliability		
1	0,15 0,85	U1 D1 D2 D3 D4 D5			assembler	manufacturer	ordering required products	4,00	2	25	20	100,00%	220,00	4	220,00	100,00%		
					manufacturer	assembler	confirming order	1,00	1	25	0	99,00%	25,25					
					manufacturer	supplier	clarification of feasible projected date and required components	2,00	2	25	10	95,00%	115,79					
					manufacturer	assembler	confirming order with updated delivery dates	1,00	2	25	0	99,00%	50,51					
					manufacturer	supplier	placing order for materials	4,00	2	25	20	100,00%	220,00					
					manufacturer	supplier	clarifying payment details	2,00	2	30	10	95,00%	136,84					
					manufacturer	supplier	making payment	1,00	2	30	0	100,00%	60,00	8,65	499,45	90,80%		
					2	assembler	manufacturer	clarifying payment details	2,00	2	30	10	100,00%	130,00	2	130,00	100,00%	
					3	assembler	manufacturer	making payment	1,00	2	30	0	100,00%	60,00	1	60,00	100,00%	
					4	0,82	D1 D2	0,05	U1	manufacturer	supplier	coordination of the next just-in-time material batch shipment	2,00	2	20	10	99,00%	90,91
supplier	manufacturer	shipment of the next material batch	8,00	2						20	200	99,80%	521,04					
manufacturer	supplier	replacement of defect parts in the shipment	6,00	2						20	50	99,40%	291,75	25,338	1.541,29	98,99%		
manufacturer	assembler	coordination of the next just-in-time CPU batch shipment	2,00	2						20	10	99,60%	90,36	6	271,08	99,60%		
manufacturer	assembler	shipment of the next CPU batch	8,00	2						20	200	99,50%	522,61	24	1.567,84	94,42%		
	0,10	U1 U2			assembler	manufacturer	recycling of unused CPUs	6,00	2	20	50	99,00%	292,93					
					manufacturer	supplier	recycling of unused materials	6,00	2	20	50	99,00%	292,93	1,2	58,59	99,80%		
														72,188	4.348,25	85,56%		

U = up (upper path)
D = down (bottom path)

average number of batches 3

ID level 1	p of XOR	ID level 2	p of XOR	ID level 3	initiator	receiver	activity	time (hours) / person	human resource (in persons)	human resource (EUR/hour)	technical resources costs total (EUR)	reliability	total costs (EUR)	avg time	avg costs	avg reliability					
1	0,15 0,85	U1 D1 D2					order required products	4,00	1	25	10,0	100,00%	110,00	4	110,00	100,00%					
							receive confirmation	0,00	0	0	0,0	99,00%	0,00								
							receive confirmation of the order with updated delivery dates	0,50	1	25	0,0	99,00%	12,63								
							send confirmation of the updated delivery dates	0,50	1	25	0,0	99,00%	12,63	0,85	21,4646465	0,981585					
					2		receive payment details information	1,00	1	30	2,5	100,00%	32,50	1,00	32,50	100,00%					
					3		send inquiry about payment details	1,00	1	30	2,5	100,00%	32,50	1,00	32,50	100,00%					
					4		do money transfer	0,50	1	30	0,0	100,00%	15,00	0,50	15,00	100,00%					
					5		receive money receipt confirmation	0,50	1	30	0,0	100,00%	15,00	0,50	15,00	100,00%					
					6							notification of the next just-in-time CPU batch shipment	2,00	1	20	5,0	99,60%	45,18			
												receive shipment of the next CPU batch	6,00	1	20	75,0	99,50%	195,98			
		send confirmation of batch receipt	2,00	1						20	25,0	99,50%	65,33	30	919,461767	0,958774555					
	0,10	U1					recycling of unused CPUs	6,00	1	20	25,0	99,00%	146,46	0,6	14,6464646	0,999					
														38	1161	94,02%					

ID level 1	p of XOR	ID level 2	p of XOR	ID level 3	initiator	receiver	activity	time (hours) / person	human resource (in persons)	human resource (EUR/hour)	technical resources costs total (EUR)	reliability	total costs (EUR)	avg time	avg costs	avg reliability		
1	0,15 0,85	U1 D1 D2					analyse the need for the actual number of subcomponents	30	2	25	10	99%	1.525,25	30	1.525,25	99%		
							order required products	4,00	1	25	10,0	100,00%	110,00	4	110,00	100,00%		
							receive confirmation	0,00	0	0	0,0	99,00%	0,00					
							receive confirmation of the order with updated delivery dates	0,50	1	25	0,0	99,00%	12,63					
							send confirmation of the updated delivery dates	0,50	1	25	0,0	99,00%	12,63	0,85	21,4646465	0,981585		
					3		receive payment details information	1,00	1	30	2,5	100,00%	32,50	1,00	32,50	100,00%		
					4		send inquiry about payment details	1,00	1	30	2,5	100,00%	32,50	1,00	32,50	100,00%		
					5		do money transfer	0,50	1	30	0,0	100,00%	15,00	0,50	15,00	100,00%		
					6		receive money receipt confirmation	0,50	1	30	0,0	100,00%	15,00	0,50	15,00	100,00%		
					7							notification of the next just-in-time CPU batch shipment	2,00	1	20	5,0	99,60%	45,18
		receive shipment of the next CPU batch	6,00	1						20	75,0	99,50%	195,98					
		send confirmation of batch receipt	2,00	1						20	25,0	99,50%	65,33					
		assembling the PCs	8,00	2						20	100,0	99,00%	424,24					
		diagnosis routine	1,00	1						20	5,0	99,00%	25,25	57	2267,94662	0,902667211		
	0,10 0,90	U1 D1					recycling of defects	1,00	1	20	5,0	99,00%	25,25	0,1	2,52525253	0,999		
	0,10	U1					recycling of unused CPUs	6,00	1	20	25,0	99,00%	146,46	0,6	14,6464646	0,999		
														66	2512	88,43%		