supplier

ask inner production and deliver capacities

calculate if requested projected completion date is feasible

receive inquiry about feasible projected completion date

sends confirmation of feasible projected completion date

receive order

send confirmation of order

receive inquiry of payment details

calculates and finalise payment details

send payment details

get payment

get the needed raw materials

prepare the raw material for the production

produce part one

produce part two

send confirmation of payment

receive that next batch is needed

verify shipment

send confirmation of sending the next batch

send next batch of materials

receive confirmation of batch receipt

are there defect parts?

p(yes)=0.05

p(no)=0.95

controll the received parts

gather new parts as replacement

receive defect parts

send new parts

order fulfilled?

no: p(up)

yes: p(right)

are there parts for recycling?

p(no)=0.90

p(yes)=0.10

receive parts for recycling

disassemble received parts

recycle disassembled parts

The probabilities for this gateway are defined by the following rule:

If an order has n batches, then for the first n-1 batches p(up)=100% and p(right)=0%

For the last batch the probabilities are: p(up)=0% and p(right)=100%

manufacturer

inquiry about projeted completion date

confirmation of projected completion date

order of parts

confirmation of order

inquiry of payment details

paymanet details

payment

payment confirmation

notification that next batch is needed

confirmation for next batch

next batch of materials

confirmation of batch receipt

defect parts

new parts

parts for recycling

private model

activity	XOR	propability	time (hour)	number	type	cost/hour	reliability	total cost	average time	average cost	avarage realability	Help
receive inqury about feasible projected completion date			1	1	secretary	24	0,98	24,49			98,00%	
ask inner production and deliver capacities			1,5	1	secretary	24	0,98	36,73			98,00%	
calculate if requested projected completion date is feasible			0,5	1	secretary	24	0,97	12,37			97,00%	
sends confirmation of feasible projected completion date			1	1	secretary	24	0,99	24,24			99,00%	
receive order			2	1	secretary	24	0,98	48,98			98,00%	
send confirmation of order			2	1	secretary	24	0,98	48,98			98,00%	
receive inquery of payment details			1	1	secretary	24	0,98	24,49			98,00%	
calculates and finalise payment details			1	1	secretary	24	0,98	24,49			98,00%	
			1,2	1	accounting	26	0,96	32,50			96,00%	
send payment details			1	1	secretary	24	0,98	24,49			98,00%	
get payment			0,5	1	secretary	24	0,99	12,12			99,00%	
send confirmation of payment			0,5	1	secretary	24	0,99	12,12			99,00%	
get the needed raw materials			2,5	3	factory worker	28	0,91	230,77			91,00%	
prepare the raw material for the production			4	2	factory worker	28	0,97	230,93			97,00%	
			5	1	machine	16	0,95	84,21	24,7	871,92	95,00%	
produce part one		1	3	3	factory worker	28	0,94	268,09				
			5	2	machine	16	0,98	163,27				
produce part two		1	6	1	machine	16	0,97	98,97	8	530,32	89,36%	
receive that next batch is needed			1	1	secretary	24	0,99	24,24				99,00%
verify shipment			0,5	1	factory worker	28	0,92	15,22				92,00%
send confirmation of sending the next batch			1	1	secretary	24	0,98	24,49				98,00%
send next batch of materials			7	1	factory worker	24	0,98	171,43				98,00%
receive confirmation of batch receipt			1	1	secretary	24	0,99	24,24				99,00%
	receive defect parts	0,05	3	1	secretary	24	0,97	74,23				4,85%
	controll the received parts		0,75	1	factory worker	28	0,97	21,65				4,85%
	gather new parts as replacement		1	2	factory worker	28	0,9	62,22				4,50%
	send new parts		3	1	factory worker	28	0,99	84,85	32,6625	815,30	96,60%	4,95%
	receive parts for recycling	0,1	3	1	secretary	24	0,97	74,23				9,70%
	disassemble received parts		2	1	factory worker	28	0,96	58,33				9,60%
			4	1	machine	16	0,85	75,29				8,50%
	recycle disassembled parts		1	1	factory worker	28	0,97	28,87	1	23,67	90,01%	9,70%
									66,3625	2.241,21	51,10%	

Notes

rescoure type	price/hour
secretary	24
machine	16
accounting	26
factory worker	28
number of batches	3

(how often the circle is executed)

prallele Aktivitäten

Public Model

activity	XOR	propability	time (hour)	number	type	cost/hour	reliability	total cost	average time	average cost	avarage realability	Help
receive inqury about feasible projected completion date			1	1	secretary	24	0,98	24,49			98,00%	
sends confirmation of feasible projected completion date			1	1	secretary	24	0,99	24,24			99,00%	
receive order			2	1	secretary	24	0,98	48,98			98,00%	
send confirmation of order			2	1	secretary	24	0,98	48,98			98,00%	
receive inquery of payment details			1	1	secretary	24	0,98	24,49			98,00%	
send payment details			1	1	secretary	24	0,98	24,49			98,00%	
get payment			0,5	1	secretary	24	0,99	12,12			99,00%	
send confirmation of payment			0,5	1	secretary	24	0,99	12,12	9	219,91	99,00%	
receive that next batch is needed			1	1	secretary	24	0,99	24,24				99,00%
send confirmation of sending the next batch			1	1	secretary	24	0,98	24,49				98,00%
send next batch of materials			7	1	factory worker	24	0,98	171,43				98,00%
receive confirmation of batch receipt			1	1	secretary	24	0,99	24,24				99,00%
	receive defect parts	0,05	3	1	secretary	24	0,97	74,23				0,00%
	send new parts		3	1	factory worker	28	0,99	84,85	30,9	757,07	96,00%	0,00%
	receive parts for recycling	0,1	3	1	secretary	24	0,97	74,23	0,3	7,42	90,00%	0,00%
									40,2	984,41	75,78%	

Notes

rescoure type	price/hour
secretary	24
machine	16
accounting	26
factory worker	28

number of batches 3
(how often the circle is executed)

prallele Aktivitäten