

	Case Name: Lock Ganzepoot	Sector		
	OR-AS Operations Research - Applications and Solutions www.or-as.be info@or-as.be	Baseline schedule	Schedule with resources	
			Schedule with costs	
		Risk analysis	Random Simulation	
Submitted by	Mayté & Thymo		One of nine std. scenarios	
Date	2019	Project Control	User defined distributions	
File Name	C2019-08 Lock Ganzepoot		Automatic tracking	
			Tracking based on user input	

1. Project description

Project Authenticity

The project consists of *activity, resource and cost* data that were obtained directly from the actual project owner.

2. Project properties

2.1. Baseline schedule

General	
# Activities	32
Planned Duration (PD)	23 days*
Budget at Completion (BAC)	€ 170.000,00
Renewable Resources	1
Consumable Resources	-

Network Topology	
Serial/Parallel (SP)	64%
Activity Distribution (AD)	74%
Length of Arcs (LA)	23%
Topological Float (TF)	6%

* Standard eight-hour working days

2.2. Risk analysis

Random simulation by ProTrack was performed using the default symmetric triangular risk distribution

	Cost sensitivity		
	avg (%)	std dev (%)	skew (-)
CRI-r	17,13	11,55	0,1
CRI-rho	20,59	13,97	0,5
CRI-thau	17,88	28,35	2,4

	Time sensitivity		
	avg (%)	std dev (%)	skew (-)
CI	69,1	42,8	-0,9
SI	41,6	41,5	0,3
SSI	12,4	11,6	1,1
CRI-r	14,6	13,2	2,7
CRI-rho	18,8	16,2	2,7
CRI-thau	17,7	27,2	2,7

	Resource sensitivity		
	avg (%)	std dev (%)	skew (-)
CRI-r	100,00	0,00	N/A
CRI-rho	100,00	0,00	N/A
CRI-thau	98,00	0,00	N/A

3. Project control

3.1 simulated forecast accuracy

simulated EAC (t) accuracy		
Method - PF	MAPE (%)	MPE (%)
PV - 1	4,69%	1,53%
PV - SPI	11,75%	3,13%
PV - SCI	13,79%	-5,14%
ED - 1	4,86%	2,04%
ED - SPI	11,61%	2,99%
ED - SCI	12,90%	-1,68%
ES- 1	4,48%	2,27%
ES- SPI(t)	10,83%	2,49%
ES - SCI(t)	12,16%	-2,31%

simulated EAC accuracy		
Method - PF	MAPE (%)	MPE (%)
1	3,06%	3,06%
CPI	2,02%	-1,21%
SPI	8,74%	4,45%
SPI (t)	8,24%	3,45%
SCI	9,28%	0,00%
SCI (t)	8,86%	-1,25%
0.8 CPI + 0.2 SPI	2,98%	0,46%
0.8 CPI + 0.2 SPI (t)	2,69%	0,11%