


|   |   |                   |                              |  |
|---|---|-------------------|------------------------------|--|
|  | Case Name: C2018-11   | Sector            | Construction                 |  |
|   | OR-AS<br>Operations Research -<br>Applications and Solutions<br>www.or-as.be<br>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  | 2018  |                   | User defined distributions   |  |
| File Name   | C2018-11  | Project Control   | Automatic tracking           |  |
|   |   |                   | Tracking based on user input |  |

## 1. Project description

Project Authenticity

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

## 2. Project properties

### 2.1. Baseline schedule

| General                    |         |
|----------------------------|---------|
| # Activities               | 36      |
| Planned Duration (PD)      | 9 days* |
| Budget at Completion (BAC) | -       |
| Renewable Resources        | -       |
| Consumable Resources       | -       |

| Network Topology           |     |
|----------------------------|-----|
| Serial/Parallel (SP)       | 60% |
| Activity Distribution (AD) | 71% |
| Length of Arcs (LA)        | 0%  |
| Topological Float (TF)     | 72% |

\* Standard eight-hour working days

### 2.2. Risk analysis

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

|          | Cost sensitivity |             |          |
|----------|------------------|-------------|----------|
|          | avg (%)          | std dev (%) | skew (-) |
| CRI-r    | N/A              | N/A         | N/A      |
| CRI-rho  | N/A              | N/A         | N/A      |
| CRI-thau | N/A              | N/A         | N/A      |

|          | Time sensitivity |             |          |
|----------|------------------|-------------|----------|
|          | avg (%)          | std dev (%) | skew (-) |
| CI       | 61,1             | 48,7        | -0,5     |
| SI       | 47,0             | 45,6        | 0,3      |
| SSI      | 7,2              | 16,8        | 2,2      |
| CRI-r    | 8,9              | 15,4        | 2,2      |
| CRI-rho  | 38,7             | 18,1        | -0,9     |
| CRI-thau | 67,9             | 38,9        | -0,5     |

|          | Resource sensitivity |             |          |
|----------|----------------------|-------------|----------|
|          | avg (%)              | std dev (%) | skew (-) |
| CRI-r    | N/A                  | N/A         | N/A      |
| CRI-rho  | N/A                  | N/A         | N/A      |
| CRI-thau | N/A                  | N/A         | N/A      |