



Centro Universitario de los Valles

Master of Software Engineering

Intelligent Traffic Management System

Status Accounting 1.1

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Define the scales and the criteria to measure changes in the baseline.

Policies

Scales and Procedures for timing, money, effort, team skills, timing.

Timing:

Timing	
Evaluation of existing schedule	
	Review the current project planning in detail to identify phases or tasks affected by the change.
Identification of additional required duration	
	Accurately determine how much additional time is needed to implement the change.
Quantification of change	
	Calculate in percentage terms the impact of the change on the total project time. This involves determining whether the estimated time extends or shortens.
	It is done using the initial estimation's 100% as a reference.

Scale: 0-100%

0-4% +- than was estimated-> Excellent

5-9% +- than was estimated-> Good

10-15% +- than was estimated-> Acceptable

>15% +- than was estimated-> BAD

Money:

Money	
Analysis of current budget	
	Thoroughly assess the project's existing budget, considering personnel costs, resources, and software licenses.
Estimation of additional costs	
	Precisely determine how much costs will increase due to the requested change.
Assignment of percentage increase:	
	Quantify the increase in the total budget in relation to the initial budget. This quantification allows for a more precise evaluation of the financial impact.
	It is done using the initial estimation's 100% as a reference.

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- Assignment of percentage increase: Quantify the increase in the total budget in relation to the initial budget. This quantification allows for a more precise evaluation of the financial impact.

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Effort:

Effort	
Detailed evaluation of current work:	
	Analyze existing tasks
	Analyze the current workload of the team in depth.
	Are we capable of supporting more workload?
Calculation of additional necessary hours	
	Estimate the number of work hours required to carry out the change.
Assignment of increase in percentages	
	This is taken as a reference: $((time + money)/2) + HR$ and evaluated based on experience.
	Quantify the increase in the project's total effort due to the requested change. This provides a clear assessment of the additional workload involved.

Scale: 0-100%

0-3% +- than was estimated-> Excellent

4-8% +- than was estimated-> Good

9-12% +- than was estimated-> Acceptable

12-16% +- than was estimated-> Bad

>16% +- than was estimated-> Unacceptable

Team:

Team	
Identification of current team skills	
	Evaluate the technical competencies of the work team and understand their current level of expertise.
	Use tests and assessment tools
	Give each employee a level: jr, medium, or senior
Comparison with necessary skills	
	Determine the specific skills required for implementing the change and compare them with existing skills.
Assignment of necessary skill level	
	Classify the required skill level to implement the change as Junior, Medium, or Senior, providing a clear understanding of the necessary competencies.

Skills scale: jr, medium, or senior

Scale: Number of people

1+- than was estimated-> Excellent

2+- than was estimated-> Good

3+- than was estimated-> Acceptable

4+- than was estimated-> BAD

These procedures enable a thorough and structured assessment of each aspect affected by a change in the project, providing an objective basis for the analysis.

Previous Estimation of CRs

CR3 (The client requests that the user experience should be recorded first on the phone and later uploaded into the system database):

- Timing: +14.28% (Additional 2 months)
- Money: +7% (\$70,000)
- Effort: +11% (Moderate workload)
- Team and Skills: +2 Medium – Mobile implementation knowledge

CR4 (Due to a government law, a report of usage by each should be generated monthly, including used days, hours, and travels):

- Timing: +7.14% (Additional 1 month)
- Money: +5% (\$50,000)
- Effort: +8% (Moderate workload)
- Team and Skills: +2 Medium – Experience in monthly report generation

100% Total Project Estimation after CRs Acceptance

- Timing: 100% (17 months)
- Money: 100% (\$1,120,000)
- Effort: (Moderate workload)
- Team and Skills: Medium
 - 2 Software engineers (medium and senior)
 - 8 Developers (2 jr, 3 medium, 3 seniors)
 - 1 Security expert (senior)
 - 1 project manager (senior)
 - 1 traffic expert (senior)
 - 1 data storage specialist (senior)