

13 Risk Management

Project team reacts to risks when they occur.

Mitigation- plan for additional resources in anticipation of fire fighting.

Fix on failure - resource are found and applied when the risk strikes

Crisis management- failure does not respond to applied resources and project is in jeopardy.

Risk Management Principles:

- Maintain a global perspective - view software risks within the context of system and the business problem
- Take a forward looking view - think about the risks that may arise in the future; establish contingency plans
- Encourage open communication - if someone state a potential risk, don't discount it
- Integrate - a consideration of risk must be integrated into the software process.

Risk Components:

- Performance risk - the degree of uncertainty that the product will meet its requirements and be fit for its intended use
- Cost risk - the degree of uncertainty that the project budget will be maintained
- Support risk - the degree of uncertainty that the resultant software will be easy to correct adapt and enhance
- Schedule risk - the degree of uncertainty that the project schedule will be maintained and that the product will be delivered on time.

Risk projection attempts to rate each risk in two ways:

1. Likelihood or probability that the risk is real
2. Consequences of the problems associated with the risk

Risk table impact on the project on a scale of 1 to 5

1 = low impact on project success

5 = catastrophic impact on project success

Sort the table by probability and impact

Risk Impact: overall risk exposure RE is determined using the following relationship

$$RE = P * C$$

P is the probability of occurrence for a risk

C is the cost to the project should the risk occur

Mitigation - how can we avoid the risk

Monitoring - what factors can we track that will enable us to determine if the risk is becoming more or less likely

Management - what contingency plans do we have if the risk becomes a reality