



## Risk Management Is Project Management For Grown-ups

Presented by Tim Lister

#### This is a risk...



#### This is a risk...

#### This is a problem.





#### NO!

#### Structure of the CMM<sup>®</sup>

Level	Focus	Key Process Areas	Result
5 Optimizing	Continuous Process Improvement	Defect prevention Technology innovation Process change management	Productivity & Quality
4 Managed	Product and Process Quality	Quantitative Process Mgmt. Software Quality Management	
3 Defined	Engineering Process	Organization process focus Organization process definition Peer reviews Training program Inter-group coordination Software product engineering Integrated software mgmt.	
2 Repeatable	Project Management	Requirements management Software project planning Software project tracking Software subcontract mgmt. Software quality assurance Software configuration mgmt.	
1 Initial	Heroes		Risk

## What Does it Cost to Build a Swimming Pool?



#### 2 Ways to Think About Risk...



• A risk is a potential problem.

#### 2 Ways to Think About Risk...

• A *risk* is any variable on your project that, within its normal distribution of possible values, could take on a value that is detrimental, even fatal, to your project.



#### We Can't Avoid Risk...

- All projects with benefit but no risk were completed long ago.
- You can't control many of the variables that could be risks.



# Avoiding a risk usually lowers the value of the product.



(Value inside a Risk.)

#### A Risk Ritual...

- Identify risks
- Assess risk exposure
- Determine which risks to manage
- Form action plans for *direct* risks.
- Form mitigation plans for *indirect* risks.
- Determine contingency fund.
- Build tripwires into project plan.
- Keep the process going...

### **Identify Risks**

- Don't start with a blank sheet - *www.sei.cmu.edu* then "software risk management"
- McConnell's Rapid Development
- Sweep for risks using brainstorms
- Keep tribes separate



#### **Assess Risk Exposure**

- Determine probability of risk becoming problem.
- Determine cost/effort if it does become a problem.



Oh, that on-coming train!

## Determine Which Risks to Manage

- Is there a profitable trade-off here?
- Are there any actions I can take now that will either lower the probability or the cost?
- Should I try to contain this risk by building some contingency into my plan?

abulia, also aboulia \uh-BOO-lee-uh; uh-BYOO-\, noun: Loss or impairment of the ability to act or to make decisions.

#### Form Action Plans for Direct Risks

- Some risks you can mitigate immediately.
- This mitigation will cause you to change project plan, product definition, staffing plan...something!

#### Form Mitigation Plans for Indirect Risks

- Some risks you can't mitigate now.
- Determine actions if the problem manifests.
- Determine tripwire for risk-problem transition.
- Build in contingency.

**Indirect Risk Mitigation... Risk 3:** All functionality may not be ready to go at start of new fiscal year. Mitigation: Build "bridge code' between old system and new, using sub-systems 3 and 4 of old until all is ready. **Probability: 50% Tripwire:** If all DDRs are not passed by 12/21/1999, we build bridge. **Cost:** Al + 2 contractors = 6 work months = \$170,000.

#### **Keep the Process Going**

- No reason to believe that you can identify all risks in one go.
- Review risks for changes in likelihood and opportunities for new actions.
- Retire a risk; they all move up the list.

#### Good Luck on your project...

#### Good Luck on your project... Just don't count on it!



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