TEST

1.

1.

What questions should be asked for each requirement / feature?

- How important is this to the customer?
- How much will it cost to implement?
- How risky will it be to attempt to build it?
- How is it implemented in the system?

对于每个要求/功能应该提出哪些问题?

- 这对客户有多重要?
- 实施起来需要多少费用?
- 尝试建造它会有多大风险?
- 在系统中是如何实现的呢?

Basics of Prioritisation

- Need to select what to implement
  - Customers (usually) ask for way too much
  - Balance time-to-market with amount of functionality
  - Decide which features go into the next release

- For each requirement/feature, ask:
  - How important is this to the customer?
  - How much will it cost to implement?
  - How risky will it be to attempt to build it?

- Perform Triage:
  - Some requirements *must* be included
  - Some requirements should definitely be excluded
  - That leaves a pool of “nice-to-haves”, which we must select from.

优先级划分的基础知识

- 需要选择要实施的内容
  - 顾客（通常）要求太多
  - 平衡上市时间和功能数量
  - 决定哪些功能进入下一个版本
- 对于每个要求/功能，询问：
  - 这对客户有多重要?
  - 实施起来需要多少费用?
  - 尝试建造它会有多大风险?
- 执行分类：
  - *必须*包含一些要求
  - 有些要求绝对应该被排除
  - 这就留下了一系列“有好有坏”的东西，我们必须从中进行选择。

What questions should be asked for each requirement / feature?

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2.

2.

What measurement approaches are used to assess requirements?

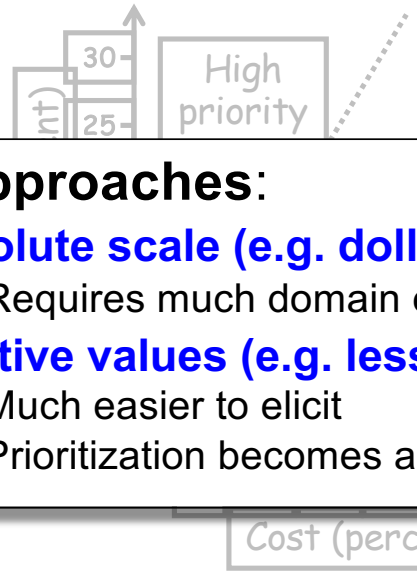
- Absolute scale
- Relative values
- Extra-ordinary scale
- Composite values

使用什么测量方法来评估需求?

- 绝对规模
- 相对值
- 规模非凡
- 综合值

A Cost-Value Approach

- Calculate return on investment
  - Assess each requirement's importance to the project as a whole
  - Assess the relative cost of each requirement
  - Compute the cost-value trade-off:

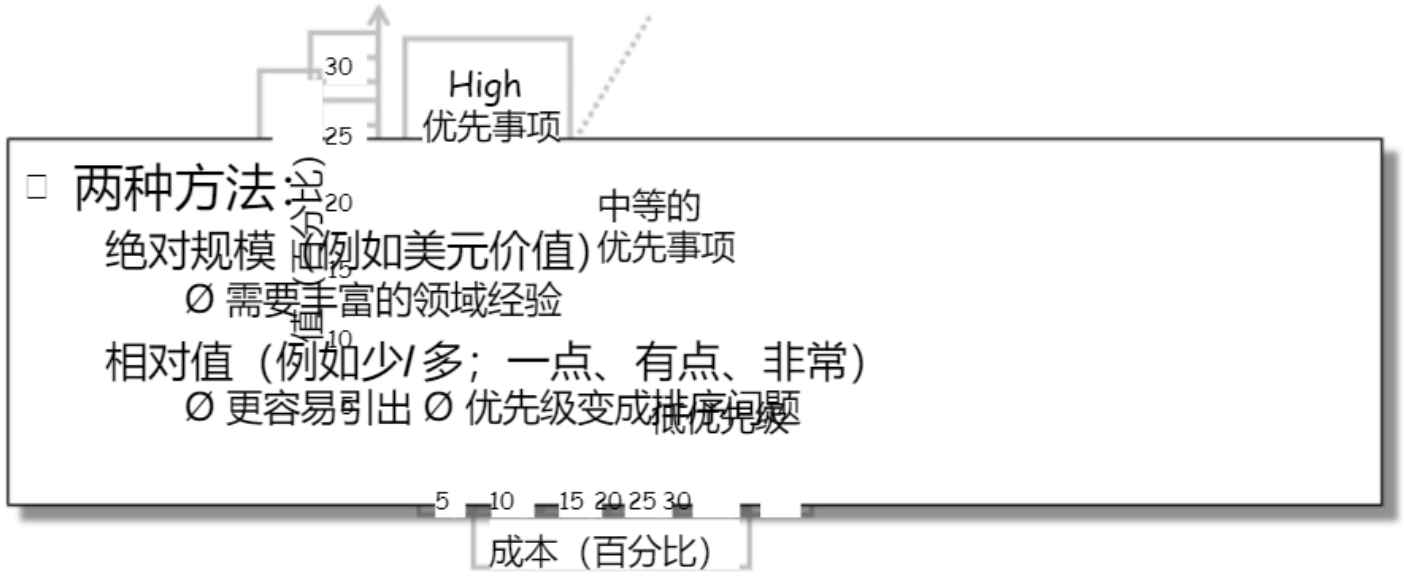


➜ **Two approaches**:

- **Absolute scale (e.g. dollar values)**
  - Requires much domain experience
- **Relative values (e.g. less/more; a little, somewhat, very)**
  - Much easier to elicit
  - Prioritization becomes a sorting problem

成本价值方法

- 计算投资回报率
  - 评估每个需求对整个项目的重要性
  - 评估每个需求的相对成本
  - 计算成本价值权衡：



- 两种方法：
  - 绝对规模（例如美元价值）
    - Ø 需要丰富的领域经验
  - 相对值（例如少/多；一点、有点、非常）
    - Ø 更容易引出 Ø 优先级变成排序问题

What measurement approaches are used to assess requirements?

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使用什么测量方法来评估需求?

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3.

3.

Why is it difficult to prioritize requirements?

- Hard to quantify differences
- Not all requirements comparable
- Requirements may not be independent
- Stakeholders may not be consistent

为什么很难确定需求的优先级？

- 难以量化差异
- 并非所有要求都具有可比性
- 需求可能不是独立的
- 利益相关者可能不一致

Some complications

- Hard to *quantify* differences
  - easier to say “x is more important than y”…
  - …than to estimate by how much.
- Not all requirements comparable
  - E.g. different level of abstraction
  - E.g. core functionality vs. customer enhancements
- Requirements may not be independent
  - No point selecting between X and Y if they are mutually dependent
- Stakeholders may not be consistent
  - E.g. If X > Y, and Y > Z, then presumably X > Z?
- Stakeholders might not agree
  - Different cost/value assessments for different types of stakeholder

一些并发症

- 难以量化差异
  - 更容易说“x 比 y 更重要”……
  - ……而不是估计多少。
- 并非所有要求都具有可比性
  - 例如。不同的抽象层次
  - 例如。核心功能与客户增强功能
- 需求可能不是独立的
  - 如果 X 和 Y 相互依赖，则没有必要在它们之间进行选择
- 利益相关者可能不一致
  - 例如。如果 X > Y，且 Y > Z，那么推测 X > Z?
- 利益相关者可能不同意
  - 针对不同类型的利益相关者进行不同的成本/价值评估

Why is it difficult to prioritize requirements?

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为什么很难确定需求的优先级？

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4.

4.

What are configuration management levels?

- Abstraction level
- Document level
- Requirements artefact level
- Attribute level

什么是配置管理级别?

- 抽象级别
- 文档级别
- 要求工件等级
- 属性等级

Configuration Management Levels

- **Document level**
  - Document – the smallest unit
  - Configurations and document versions created and managed
- **Requirements artefact level**
  - Requirements artefacts – the smallest unit
  - Configurations and artefact versions created and managed
- **Attribute level**
  - Individual attributes of requirements artefacts – the smallest unit
  - Configuration management at the attribute level is typically not realised in practice
    - Too large amount, too complex

配置管理级别

- 文档级别
  - 文档——最小单位
  - 创建和管理的配置和文档版本
- 要求工件等级
  - 需求工件——最小单位
  - 创建和管理的配置和工件版本
- 属性等级
  - 需求工件的个体属性——最小单位
  - 属性级别的配置管理在实践中通常无法实现
    - 数量太大、太复杂

What are configuration management levels?

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什么是配置管理级别?

- 抽象级别
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- 要求工件等级
- 属性等级

5.

5.

What is selected configuration of requirements artefacts, which includes stable requirements artefact versions and is realized in a particular system release?

- Version of requirements artefacts
- Baseline of requirements artefacts
- Report of change management activities
- I do not know

需求工件的选定配置是什么，其中包括稳定的需求工件版本并在特定的系统版本中实现？

- 需求工件的版本
- 需求工件的基线
- 变革管理活动报告
- 我不知道

Baseline of Requirements Artefacts

- Selected configuration of requirements artefacts
  - Stable requirements artefact versions
  - Realised in a particular system release

- All properties of configuration and in addition:
  - Basis for the definition of system release
  - Visible to the customer
  - Subject to change management
- Requirements baseline supports a number of important activities:
  - Basis for planning system release
  - Estimation of realisation effort
  - Comparison with competitor's product

需求基线工件

- 需求工件的选定配置
  - 稳定的需求工件版本
  - 在特定系统版本中实现

- 配置的所有属性以及此外：
  - 系统发布的定义依据
  - 客户可见
  - 服从变更管理
- 需求基线支持许多重要的活动：
  - 规划系统发布的依据
  - 估计实现工作量
  - 与竞争对手产品比较

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6.

6.

Why do requirements change?

- Because of problems encountered during system operation
- Because of change control board
- Because of process for requirements change management
- Because of changes in the system context

为什么要求会改变?

- 由于系统运行过程中遇到问题
- 由于变更控制委员会
- 由于需求变更管理流程
- 由于系统上下文的变化

Why do requirements change?

- Problem encountered during system operation
- Result from a change in the system context

为什么要求会改变?

- 系统运行过程中遇到的问题
- 系统上下文更改的结果

Why do requirements change?

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- Because of process for requirements change management
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Thank you!!

谢谢你！！