

Requirements Change Management

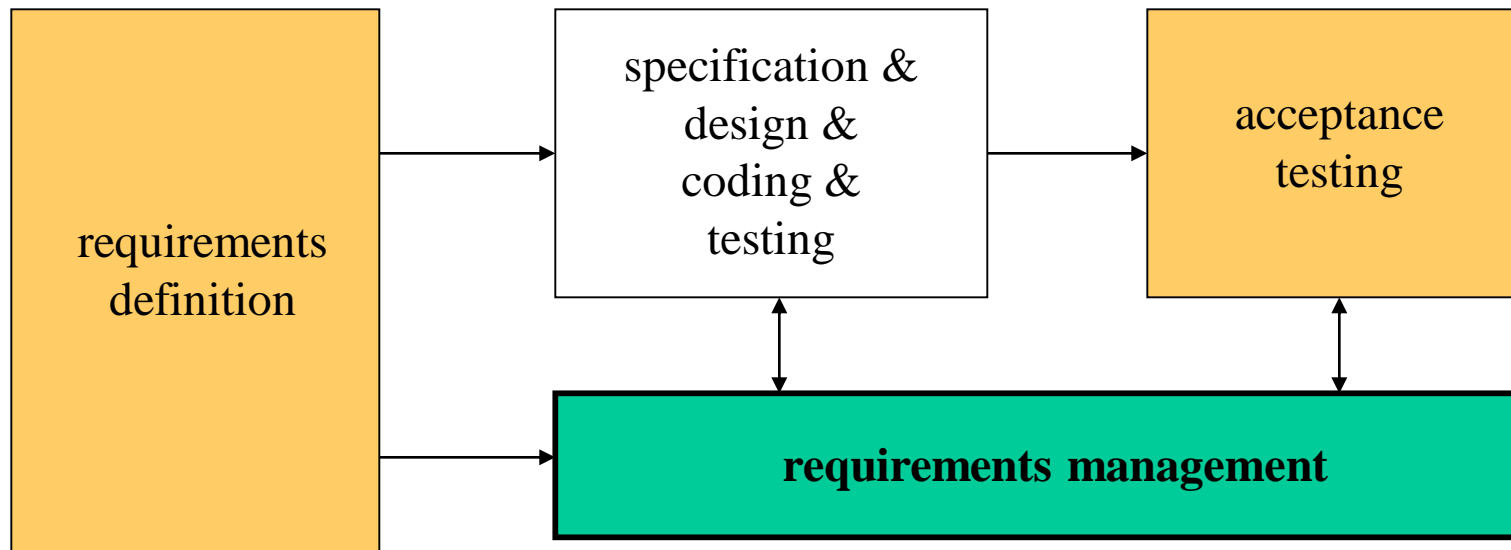


Agenda

- Introduction
- Requirements Change Management Process
- Traceability
- Summary



Introduction (1/3)



Requirements management is the process of managing changes to a system's requirements [Kot98], and it is an important part of requirements engineering.

Introduction (2/3)

- It is often the case that more than 50% of a system's requirements will be modified before it is put into service [Kot98].
- New requirements emerge and existing change due to
 - errors
 - increased understanding
 - change in external circumstances.



Introduction (3/3)

Changes to the requirements should be documented and controlled formally.

Change management process ensures that

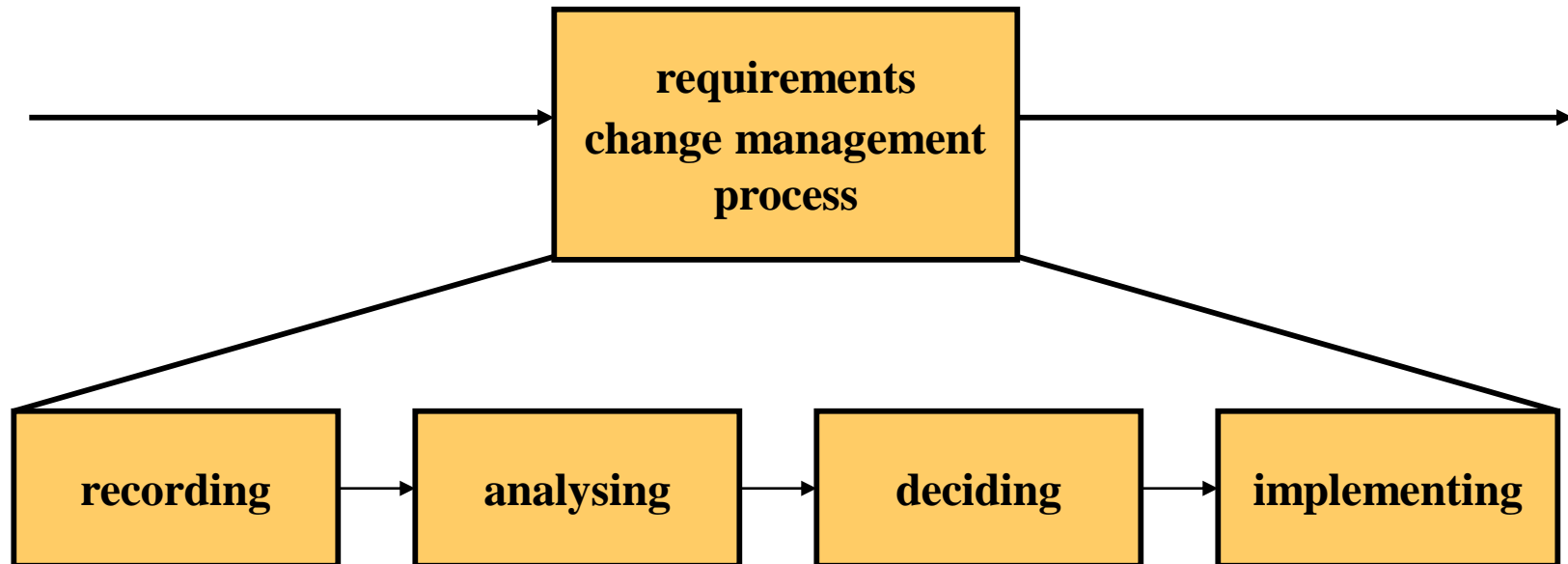
- changes are made systematically
 - similar information is collected for each proposed change
 - overall analysis is made about the costs, benefits and timing
- the requirements document is updated.



Requirements Change Management Process (1/5)

- approved user requirements document
- change proposal

- updated user requirements document
- change history



Requirements Change Management Process (2/5)

Recording a change proposal:

- Stakeholders submit proposals for requirements changes using a pre-defined form.

Requirements Change Management Process (3/5)

Analysing a change request:

- The proposed change is analysed to see
 - if it is valid. Sometimes stakeholders misunderstand the requirements and suggest unnecessary changes.
 - how many requirements and system components are affected
 - how much it would cost, in both time and money, to make the change
 - what the benefits of the change are.



Requirements Change Management Process (4/5)

Deciding on a change request:

- Change requests are considered formally by a group or a person who decide whether or not the change should be accepted.

Requirements Change Management Process (5/5)

Implementing a change:

- Updating the requirements document.
- Informing all the necessary people.



Traceability

- Requirements cannot be managed effectively without requirements traceability [Kot98].
- Traceability types [Som97]
 - requirements - sources
 - requirements - rationale
 - requirements - requirements
 - requirements - architecture
 - requirements - test cases



Summary (1/2)

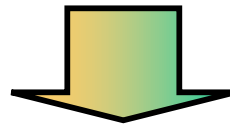
Requirements Engineering

User
requirements
definition

Design, coding and
system testing

Acceptance
testing

User requirements management



Useful and Successful Products



Summary (2/2)

Systematic requirements change management ensures that product development produces useful and successful systems.



References

- **[Kot98]** G. Kotonya and I. Sommerville, Requirements Engineering - Processes and Techniques, John Wiley & Sons, New York, 1998.
- **[Som97]** I. Sommerville and P. Sawyer, Requirements Engineering - A Good Practice Guide, John Wiley & Sons, New York, 1997.

