

Elicitation on Site

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The importance of context to identify stakeholder needs

Agenda

Motivation - The Importance of Work Context

Success Story - VANTAGE

Tools

Summary and Discussion

Motivation - The Importance of Work Context

- > Systems are used in a work context
- > People have difficulties expressing requirements
 - due to automated work steps
 - due to missing “triggers”

⇒ Understanding work context can lead to (more || more accurate) requirements!

VANTAGE - a air traffic management system

- > A scenario-driven process to discover requirements for VANTAGE

 - three scenarios for on-site requirements elicitation

⇒ How effective are these processes?

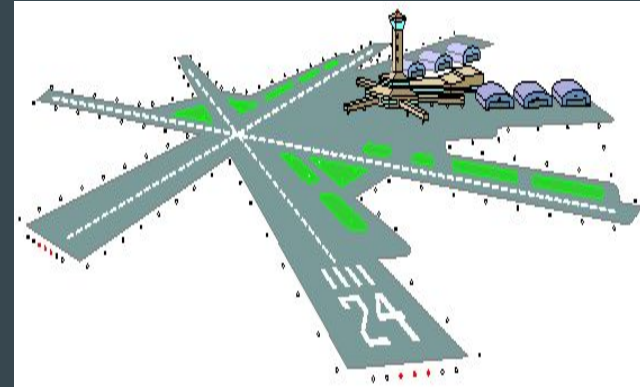
VANTAGE - used scenarios walkthroughs



Workshop



work-context



Visual simulation

VANTAGE - Results

work-context



→ Different requirements

→ more requirements

Visual simulation



→ no different types of requirements

Reason: limited capabilities of simulation

Tools for In Situ RE

Motivation

- Allow for in context scenario walkthrough
- Many short tasks and impressions
 - Allow for quick reporting

Available Solutions

- Paper and Pencil
- Cell Phone and Tablets
 - Generic Purpose Tools or Specific Tools

Tools - Requirement Engineering Specific Tools

The Mobile Scenario Presenter (MSP)

- Supports walk through of automatically generated scenarios
- Direct capture of new requirements
- Supports audio recording and drawing sketches
- Post-processing on Desktop Computer



Tools - Requirement Engineering Specific Tools

Arena-M

- Anytime, Anywhere Requirements Negotiation Assistant - Mobile
- Supports Negotiation-Based Requirements Elicitation
- Users Express Goals and Expectations in Brainstorming Tool
- Electronic polling for prioritization → Facilitates Consensus Process

Tool Support

- > Mobile tools are well suited for on-site scenario walkthroughs
- > Mobile requirement tools can accelerate the RE process
 - Audio and image recording highly beneficial
 - Allow for capturing queues, not full requirements
- > But..
 - Tools need to reflect requirements → Focus on usability and technical infrastructure
 - Very few specific tools available

Conclusion

- > Elicitation on site helps to identify requirements
- > Mobile tools can improve in situ requirements engineering
- > Tools explicitly for RE allow for greater benefits
- > Tool support is still limited

Resources

- Maiden, N., Ncube, C., Kamali, S., Seyff, N., & Grunbacher, P. (2007, October). Exploring scenario forms and ways of use to discover requirements on airports that minimize environmental impact. In 15th IEEE International Requirements Engineering Conference (RE 2007) (pp. 29-38). IEEE.
- Maiden, N., Seyff, N., Grunbacher, P., Otojare, O. O., & Mitteregger, K. (2007). Determining stakeholder needs in the workplace: How mobile technologies can help. IEEE software, 24(2), 46-52. Chicago.

Questions for Discussion 1/3

- > Any experience with requirements elicitation on site?
- > If yes: What approach was used? How successful was it?
- > Where do you see benefits? Is it worth the time and effort?

Questions for Discussion 2/3

- > Distributed settings are quite common - what effect does this have on requirements elicitation in the workplace?
- > Are special tools required to support this? How would they differ?

Questions for Discussion 3/3

- > Do you know any tools specifically for requirements elicitation? Is there a neglect of such tool? Why?
- > Any experience with requirements elicitation tools, especially for on site?