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2nd International Workshop on Visualization in Requirements Engineering REV'07

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Why a workshop on Visualization (1)?

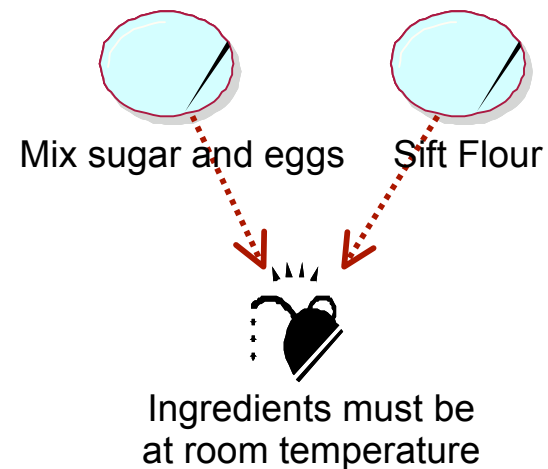
It has been found empirically that text specifications are inherently ambiguous. The ambiguity is exacerbated with global software development, different languages and cultures.

Graphical models are inherently unambiguous

“Mix the sugar and eggs.
Sift the flour. The
ingredients must be at
room temperature”

Mix what? – the sugar, the eggs
the flour or some combo?

vs.

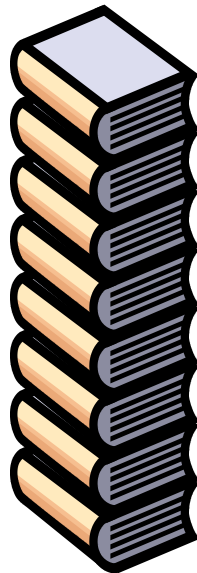


Unambiguous!

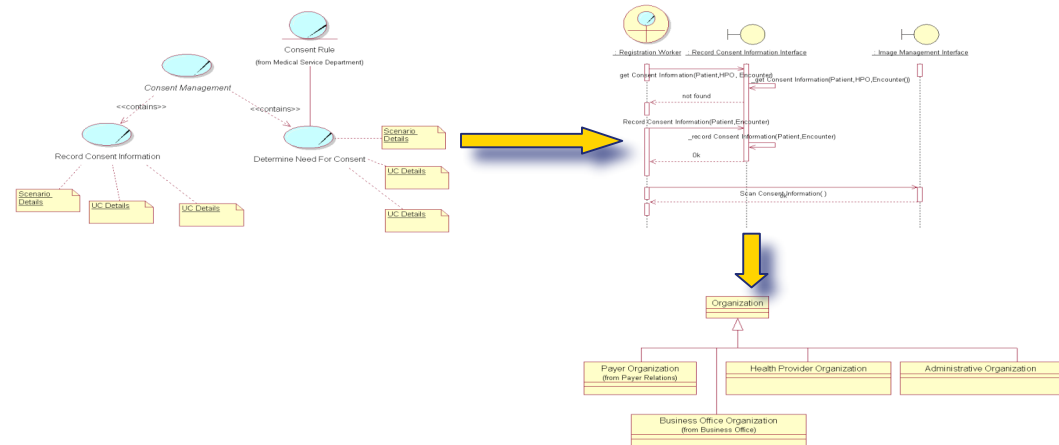
Why a workshop on Visualization (2)?

- ❑ It is extraordinarily difficult to get stakeholders across multiple time zones to effectively review complex requirement specifications
- ❑ Graphical models can be reviewed by all stakeholders together with minimal language or cultural issues.

This



VS.



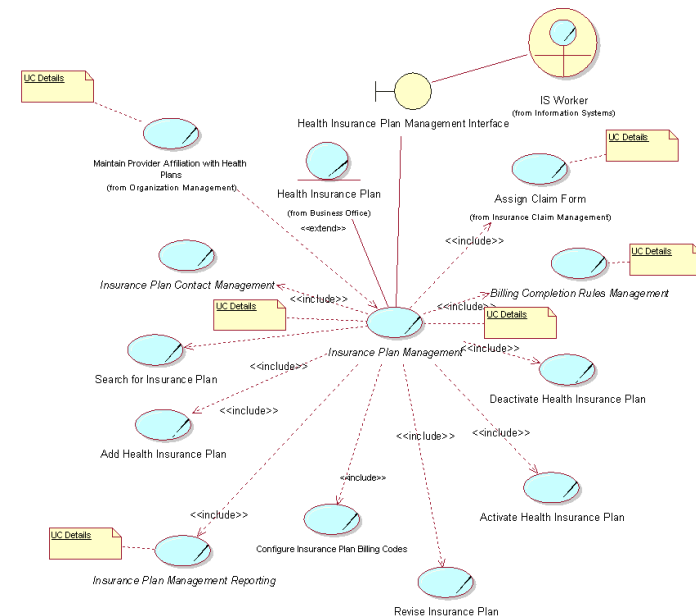
Why a workshop on Visualization (3)?

- ❑ Hierarchical Storage Mechanisms for requirements breakdown with cross-cutting requirements and scale.
- ❑ Graphical models size nicely and manage crosscutting requirements without difficulty

Tag	Name	TracedFrom	TracedTo
SUC101	Filter View in IET Central	CSC306, CSC307, CSC313, CSC314, CSC315, CSC324, CSC327, CSC378, CSC379, CSC380, CSC381, CSC382, CSC383, CSC404	BUC17, BUC18, BUC22, BUC201
SUC107	Change Active Project in MSD	CSC20, CSC40, CSC188, CSC189, CSC191, CSC246, CSC244, CSC302	BUC196, BUC201
SUC111	View Concepts in MSD	CSC44, CSC195, CSC284, CSC387, SUC116, SUC121	BUC17, BUC18, BUC22, BUC201
SUC112	View Drawing in MSD	CSC286, CSC289, CSC338, CSC340, SUC120, SUC121	BUC6, BUC18, BUC23, BUC124, BUC125, BUC131, BUC135, BUC145, BUC146, BUC201, BUC202
SUC113	View Material Flow Diagram in IET Central	CSC230, CSC231, CSC242, SUC122	BUC3
SUC114	View Projects in IET Central	CSC288, CSC305, SUC122	BUC17, BUC18, BUC22, BUC201
SUC115	View Properties in IET Central	CSC74, CSC101, CSC102, CSC156, CSC158, CSC218, CSC227, CSC228, CSC300, CSC385, SUC122	BUC6, BUC17, BUC22, BUC25, BUC38, BUC37, BUC201, SUC26, SUC29, SUC34, SUC40, SUC55, SUC111, SUC132, SUC133, SUC134
SUC116	Manage Concepts in MSD	CSC192, CSC193, CSC194, CSC195, CSC196, CSC197, CSC209, CSC283	CSCOMP121
SUC117	Manage Concepts in IET Central	CSC216, CSC217, CSC218, CSC219, CSC220, CSC221, CSC226, CSC285, CSC296, CSC297, CSC309	BUC47, BUC48, SUC32, SUC94, SUC97, SUC99
SUC119	Manage Groups in IET Central	CSC42, CSC54, CSC56	SUC15, SUC24, SUC30, SUC35, SUC36, SUC38
SUC122	View Objects in IET Central	CSC213, CSC225, CSC227, CSC230, CSC231, CSC242	SUC63(p), SUC64, SUC65, SUC113, SUC114, SUC115
SUC123	Manage Collections (Dashboards) in IET Central		SUC39, SUC63(p), SUC74, SUC76, SUC77
SUC124	Promote Objects in IET Central	CSC75, CSC308, CSC309	SUC48, SUC49, SUC50
SUC125	Manage System Elements in MSD	CSC381	BUC6, BUC17, BUC22, SUC17, SUC18, SUC19, SUC23, SUC27, SUC32, SUC36, SUC52, SUC53, SUC61, SUC69, SUC83, SUC84
SUC131	Manage Drawing Content in MSD	CSC412, CSC413, CSC414, CSC415, CSC416, CSC417, CSC418, CSC419, CSC420, CSC421, CSC422, CSC423, CSC424, CSC425	BUC18, BUC201
SUC136	Refresh Drawing in MSD	SUC120	BUC17, BUC18, BUC22, BUC201
SUC137	Open Drawing in MSD	SUC120	BUC6, BUC18, BUC23, BUC124, BUC125, BUC131, BUC135, BUC145, BUC146, BUC201, BUC202
SUC138	Check in Drawing in MSD	SUC120	BUC6, BUC18, BUC23, BUC124, BUC125, BUC131, BUC135, BUC145, BUC146, BUC201, BUC202

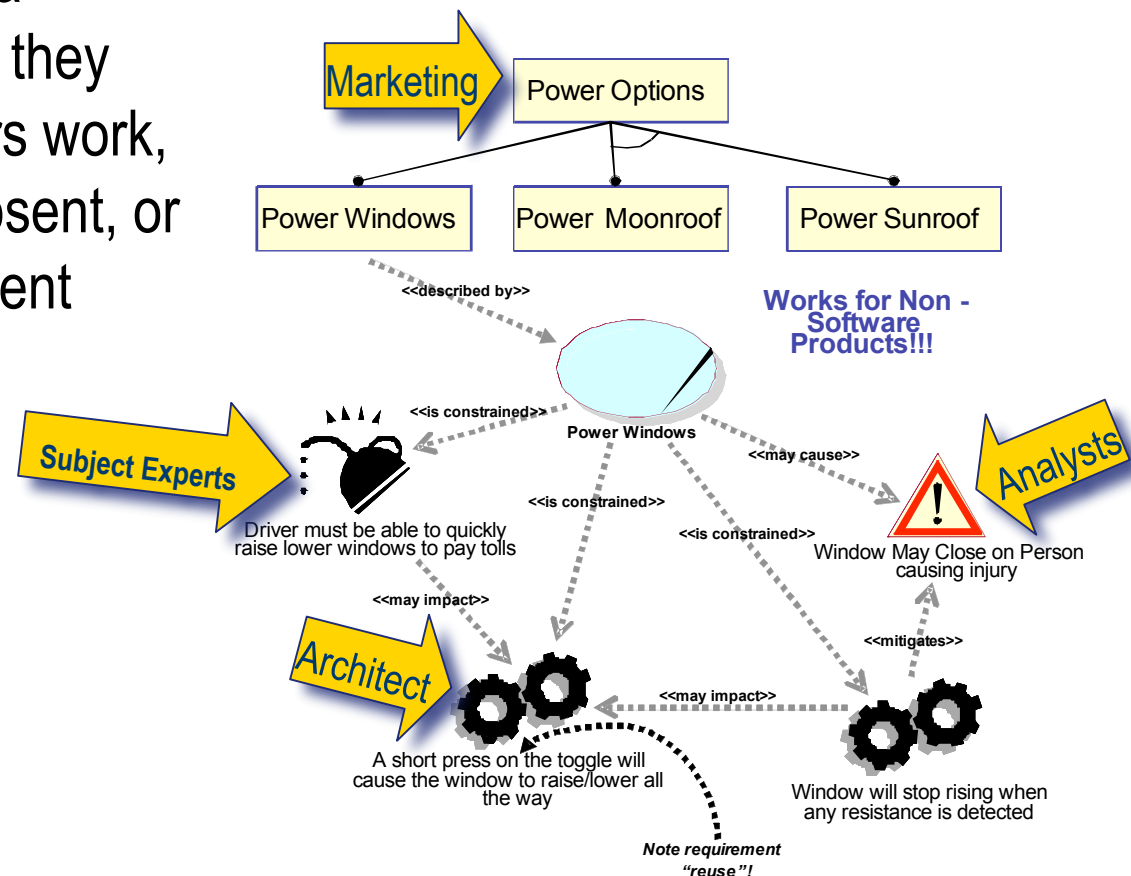
Trace Map

VS.



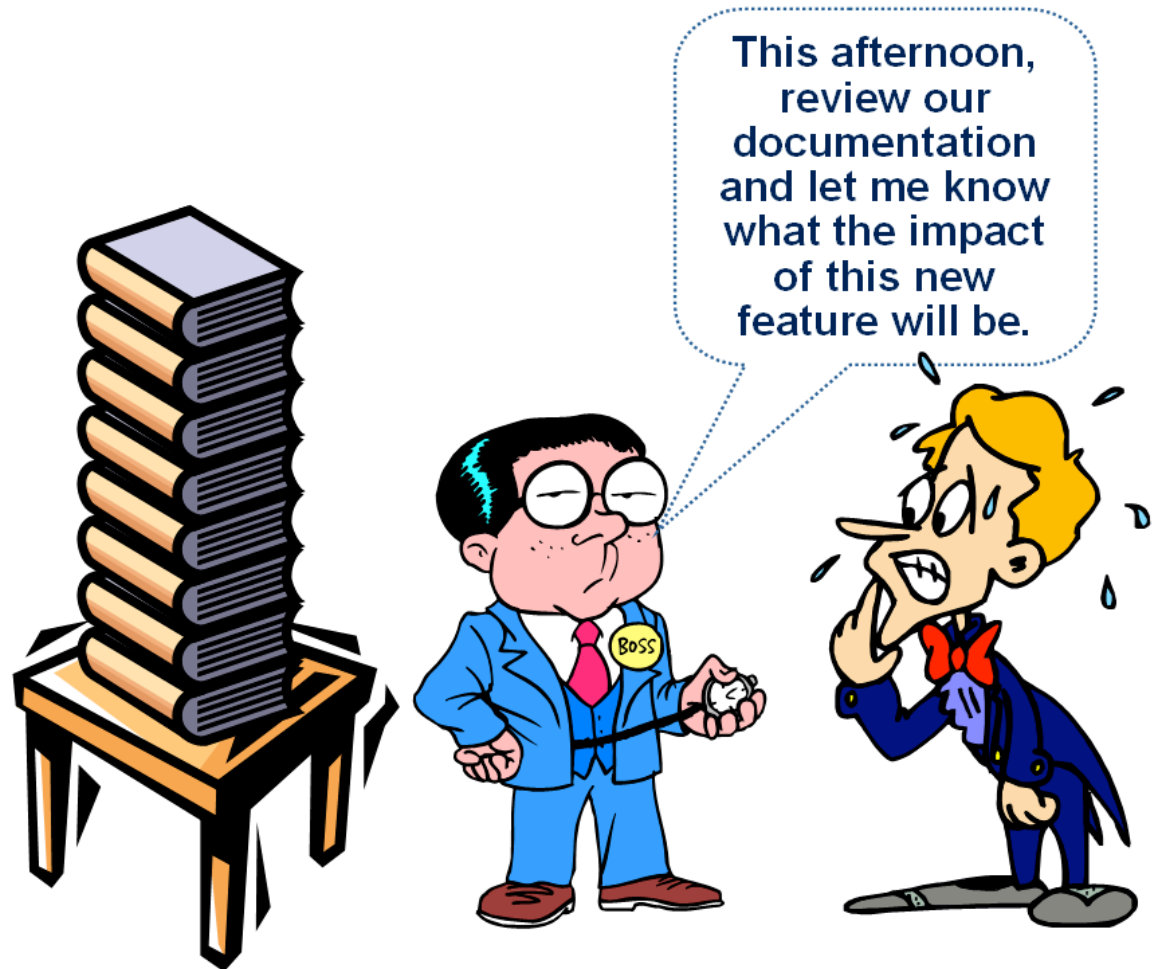
Why a workshop on Visualization (4)?

Different teams work on different requirement sets. With a conventional approach, they may not see each others work, or the traces may be absent, or may break across different media.



Why a workshop on visualization (5)?

Natural Language techniques just do not SCALE!



Conclusions

- ❑ Natural language techniques alone are not sufficient and viable
- ❑ Visualization techniques work, and work better than traditional text approaches:
 - ❑ Scalability
 - ❑ Overcoming global boundaries
 - ❑ Improved Communication
 - ❑ Support for cross-cutting
 - ❑ Inherently Unambiguous

Workshop Goals

- The workshop aims to provide a collaborative session in which ideas related to the visualization of requirements and ways of making them practical are shared, reviewed and debated.
- The controversy surrounding the practicality of non-traditional requirements engineering techniques will be discussed.
- The workshop will be used to identify future work, issues, problems and priorities, and to propose recommendations around these dimensions for requirements engineering visualization research.

Program

09:00 – 09:30 Welcome to REV and Program Overview

09:30 – 10:30 Session 1: Visualizing Goals

Open Discussion on Presenters' Visualization Posters (10 minutes)

10:30 – 11:00 Coffee/Tea Break

11:00 – 12:30 Session 2: Visualizing Relationships and Dynamics

Open Discussion on Presenters' Visualization Posters (10 minutes)

12:30 – 14:00 Lunch

14:00 – 15:30 Session 3: Visualizing Product Lines and Models

Open Discussion on Presenters' Visualization Posters (10 minutes)

15:30 – 16:00 Coffee/Tea Break

16:00 – 16:45 Session 4: Visualization Visions in Requirements Engineering

Open Discussion on Presenter's Visualization Posters and Guided Brainstorming/Future-Gazing Session (25 minutes)

16:50 – 17:00 REV Wrap-up and Closing Comments

Key Points to Look for

What is the problem you are working on?

How and why is visualization expected to help?

Who and what is the visualization for? How are they expected to use it?

What visualization(s) have you created?

How was it (they) derived and constructed?

How does it (they) work?

Show and tell -- explain your poster...

Has your visualization(s) been used in practice? If so, with what results? If not, what are your plans for validating your work?

Critique your visualization(s) (i.e., pros, cons, strengths and weaknesses).

Next steps? Open questions? Include any suggestions as to how things could be done differently/better. Perhaps compare with the state of the art or state of the practice.

And Now...

On with the workshop!