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Using Horizontal Displays for Distributed & Collocated Agile Planning

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Problems

- Distributed agile teams are becoming more widespread
 - Teleconferencing for planning
- Project planning with distributed teams is difficult
 - Paper index cards are cumbersome to use in distributed planning meetings
 - Digital planning tools do not support natural interaction and slow planning sessions down
 - Pointing to cards is not possible

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Distributed AgilePlanner (DAP)

- Digital environment for card-based planning
- Combines digital tabletop displays & handheld devices for distributed collaboration
- Support for distributed teams
 - Real time updates
 - Shared mouse awareness
 - Shared text editing awareness
- Tabletop support for organization and planning
- Supports digital tables as well as vertical displays
- Pen based inputs for story creation / modification

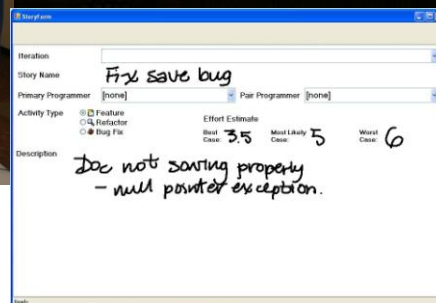
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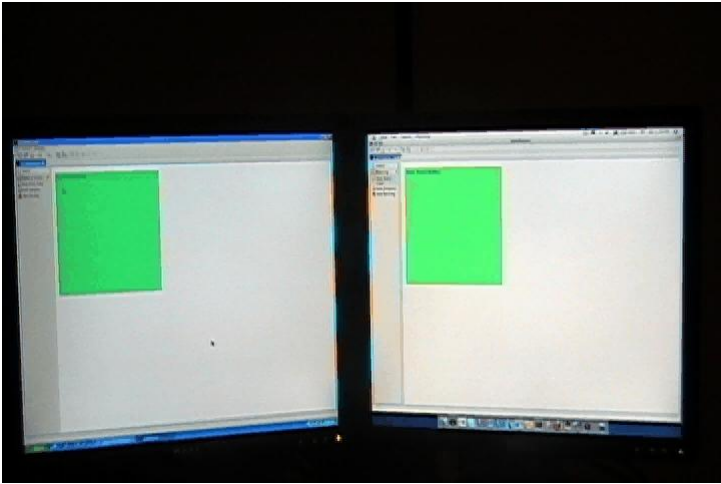
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Distributed AgilePlanner (DAP)



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DAP in Action



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Evaluation

Evaluation Status


- Distributed planning component
 - Experiments conducted
 - Data is being analyzed
- Digital tabletop planning component
 - Still to come

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Evaluation


- Look at the advantages and disadvantages of distributed card-based planning.
- How are communication and collaboration affected?
- Determine the usefulness and usability of the DAP environment compared to phone conferencing
- Set up
 - In-house use with industry partner
 - Controlled experiments with 2 student teams
 - Simulated planning sessions with teams in Lancaster (UK) and Victoria (Canada)

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Evaluation - Participants


Team	Size	Location	Participants	Type of Project
DAP	6-7	Calgary Can. Bolder USA	Industry, Grad Students, Interns,	DAP Dev.
Project Course	6-8	Calgary, Can	Grad Students, Professors	Eclipse plug-in
Simulated 1	6	Calgary, Can. Lancaster, UK.	Grad Students (Management & Computer Science)	Simulated Planning
Simulated 2	6	Calgary, Can. Lancaster, UK.	Grad Students (Management & Computer Science)	Simulated Planning
Simulated 3	6	Calgary, Can. Victoria, Can.	Grad Students	Simulated Planning

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Evaluation - Feedback


- Preliminary feedback from distributed planning is positive
 - “The collaborative aspects of the tools are really cool”
 - “Felt like we spent less time trying to figure out what the other team wanted”
- Participants like the visual representations of cards and the ability to interact with them
- Teams are able to quickly start planning with little instruction
- Shared workspace reduced misunderstanding
 - Many indicated that they like knowing that they haven’t misunderstood.
 - During telephone only meetings there was
 - a difference in understanding what the requirements were.
 - a different number of stories from one site to the other.

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Next Steps

- Support for multiple collocated users
- Card rotation for tabletop interaction
- Formal evaluation of DAP environment

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Thank You



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