Interface building tools
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Three pillars of successful UI development

- Each pillar of success CAN help user interface designers to turn good ideas into successful systems
- Working guidelines are critical to the success of an interface

Standards

Important to specify (and follow) standards and guidelines

Example
- Microsoft and Apple have standards and guidelines
- The KDE User Interface Guidelines, have instructions (and examples) for developing UI for their applications
  

Methodologies

- Prototyping
- JAD: Joint Application Development,
- RAD: Rapid application development

User-centered design!!
Prototyping is

- A model of the overall design – features, function, 'look and feel'
- Often a working mini version of the final product
- 'proof of concept'
- Demonstrates the underlying technology of the final product
- A potential marketing tool

Prototype development process

Create
- Development environment,
- Standards
- content

Test Usability
- Formative evaluation

Modify
- Redesign, start again, or abort

Prototyping tools (examples)

- Paper
- PICTIVE. (Plastic Interface for Collaborative Technology Initiatives through Video Exploration; Muller, 1991) ; using "low fidelity office items, such as sticky notes and pens, and a collection of design objects to investigate specific screen and window layouts for a system." (Preece et al 2002 p. 307).

Tools

- Purpose built tools, eg Authorware
- Customized tools, eg Powerpoint, Flowcharting programs (eg Visio), mindmapping tools

Designing specific components
- Menu-selection and dialogue-box trees;
- do not show where the user has come from or going to
- Transition diagrams;
- show the full picture or storyboard of the application
• Interface building tools [w6]

Platform

• Development platform
• End user platform
• Testing

Summary

• For the practitioner:
  – Interface development tools have been designed to assist in the development of the interface, they can be complex and take control of the project
  – Need to evaluate the tool before it is used
  – User involvement (through participation, and evaluation)
• For the organisation:
  – Addressing the possible dilemma - Too many ideas: Not enough time
  – Be aware of the standards and guidelines and ensure attention to these are written into the plans.
  – Examine the project against the requirements

References and readings

• Shneiderman and Plasiant (2005) ch 5

Pillar 3: Expert reviews and usability testing

• Pilot testing of components
• Experts and intended users (see another lecture)