

Prototypes: Methods, Mysteries, and Magic

Presented By

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Acknowledgement

We thank CSC for permission to use portions of the prototype from their Ordering Application



CSC The United States Corporation Company is a leading provider of corporate legal, compliance and secured transaction services.



What is a Prototype?

- Presents the look and feel of the completed project
- Not a working system
- Quicker development than application
- Concept adopted from engineering disciplines

Prerequisites...



- Understand the business...
 - Process flow
 - Data models
 - Timing conflicts
- Understand the technical environment
 - Approved tools, platforms
 - Features and limitations

Constructing a web prototype

- Use just HTML
- Use WYSIWYG design tools
- HTML facilities for navigation flow
 - Links
 - Buttons
- Copy pages for alternate layouts and flows

Prototype Methodology

- Three-Session Approach

Session 1. Architecture:

Alternative flows for navigation to select one

Session 2. Layout Design

Detailed data element placement and layout

Session 3. Technical Design

Implementation plan including the placement of validations and business rules logic

Tools



- Choose for target environment - Web
- Determine page styles
 - query criteria
 - result lists
 - input forms
 - overflow navigation
- Compose one set of pages for each scenario

Prototype Mysteries

Why do prototypes fail?

- Analysis paralysis
- Creeping featuritis
- Inefficient database access
- Wrong presentation controls
- Guiding User Expectations
- Creativity





Analysis Paralysis

What happens?

- Revising the prototype with no end

Solution?

- Define the goals of the prototype clearly
- Use Three-Session Approach
- Monitor completion of milestones

Creeping Featuritis

What Happens?

- In-depth design reveals complexities
- Users want more automation

Solution?

- Don't get carried away with user needs
- Write down the desired features
- Cost justify features vs a quick completion



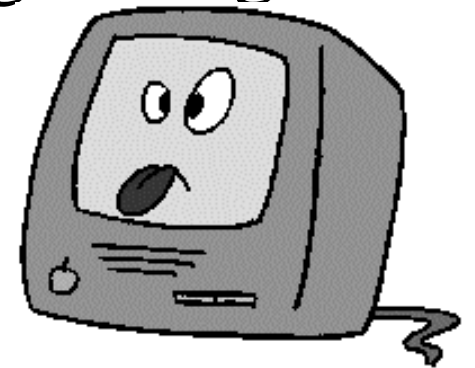
Inefficient Database Access

What Happens?

- Prototype ignores data storage and retrieval
- Poor performance discovered during testing

Solution?

- A good data model is a prerequisite
- Aids good navigation design



Wrong Presentation Controls



What Happens?

- Sticking to one favorite control
- Discover unfriendliness when testing

Solution?

- Consider all possible scenarios, not just the one you are presenting
- Know your data!



Guiding User Expectations

What Happens?

- Analyst asks “What to do when...?” (or worse, doesn’t ask!)
- Users suggest inappropriate techniques

Solution?

- Match process flow and system navigation
- Learn the business to dig out issues
- Have a suggested solution before asking!



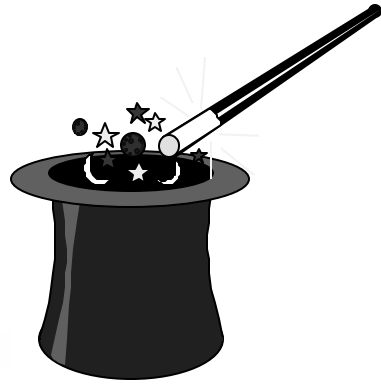
Creativity

What Happens?

- Designer uses styles from legacy tools
- Inappropriate for web environment

Solution?

- Learn the styles of the new environment: links, buttons, clickable graphics, frames
- Surf sites for interfaces you like and dislike
- Use an experienced graphic designer



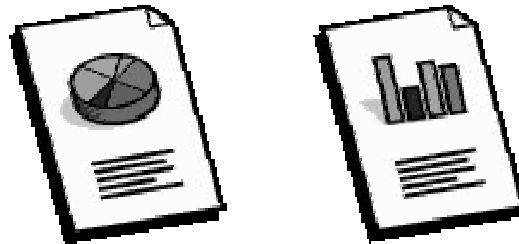
Prototype Magic

- Graphics
- Colors and Fonts
- Terminology
- Sample data



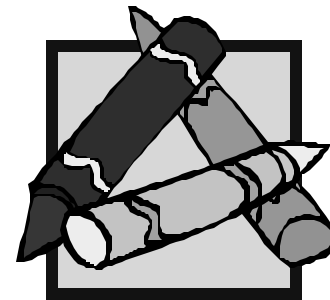
Graphics

- Makes the difference between people understanding your presentation concept and getting lost



Colors and Fonts

- Draws the eye to the parts to be emphasized
- Limit number of colors, fonts and font sizes
- Color scheme is important!



Terminology

- Use business terms
- Be consistent throughout
- Be concise - less ambiguity!



Sample Data

- Must be realistic and accurate
- Remember you are playing to a non-technical audience
- Examples of “ABC” and “XYZ” don’t suffice!



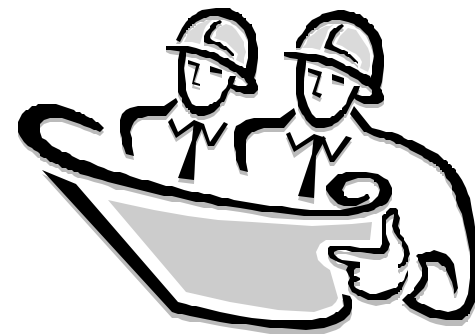


Prototype Success

- Goal is to get a consensus from the users and the technical team that it:
 - represents the needs
 - is feasible to implement
 - can be implemented in a timely manner

Summary

- Control the scope
 - Assess the impact of each feature
 - Cost justify delay in completing system
- Prototype is the blueprint for development
 - Details, details!
 - Architect to Builder handoff



Resources



- Paper and presentation downloads from
 - www.etransitions.com
- Available at the bookstore
 - Oracle: A Database Developer's Guide,
by Ulka Rodgers, Prentice-Hall 1999
- Other Presentations (downloads available)
 - Doing it Right the Second Time... Prototyping Web Applications Using Dream Weaver and Cold Fusion