

QUIZ

hci.st/quiz1

Heuristic evaluation

CS147 TAs
Oct. 12, 2011

Genres of assessment

Automated Usability measures computed by software

Empirical Usability assesses by testing with real users

Formal Models and formulas to calculate measures

Inspection Based on heuristics, skills, and experience of evaluators

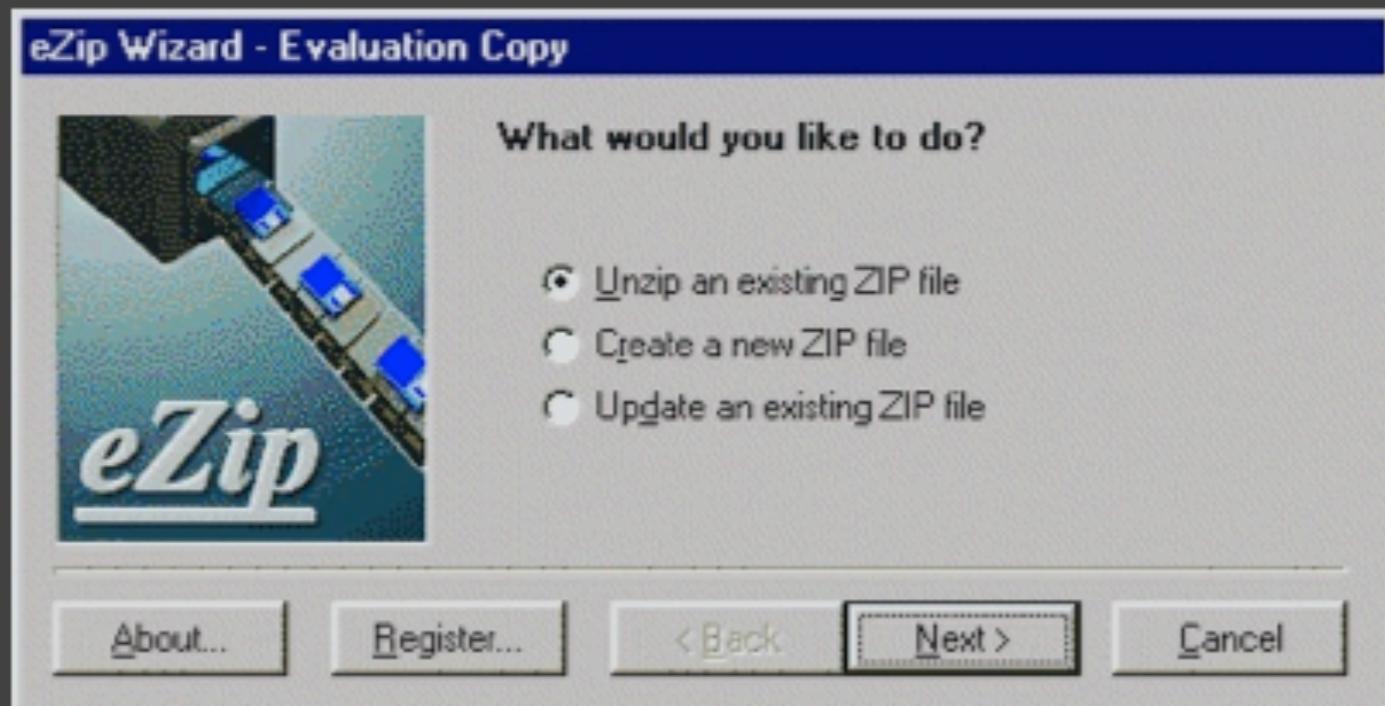
When to do a design review?

- Before user testing. Don't waste users on the small stuff. An expert usability inspection will identify minor issues that can be resolved before testing, allowing users to focus on the big issues.
- Before redesigning. Don't throw out the baby with the bathwater. An expert usability inspection will expose the elements of your existing design that work and should be retained (not just the bad stuff).
- When you know there are problems, but you need evidence. Perhaps you've received complaints from customers or found yourself stumbling around your own site. An expert usability inspection can help you articulate problems and provide you with the ammunition to build a business case for redesign.
- Before release. [Smooth] off the rough edges before go-live.

Heuristic Evaluation

- Developed by Jakob Nielsen
- Help find usability problems in a UI design
- Offer a language/framework to use in evaluation
- General Procedure:
 - Small set (3-5) evaluators examine UI
 - Independently check for compliance with usability principles (“heuristics”)
 - Different evaluators will find different problems
 - Evaluators communicate afterwards, findings aggregated
 - Can perform on working UI or on sketches

User Control & Freedom

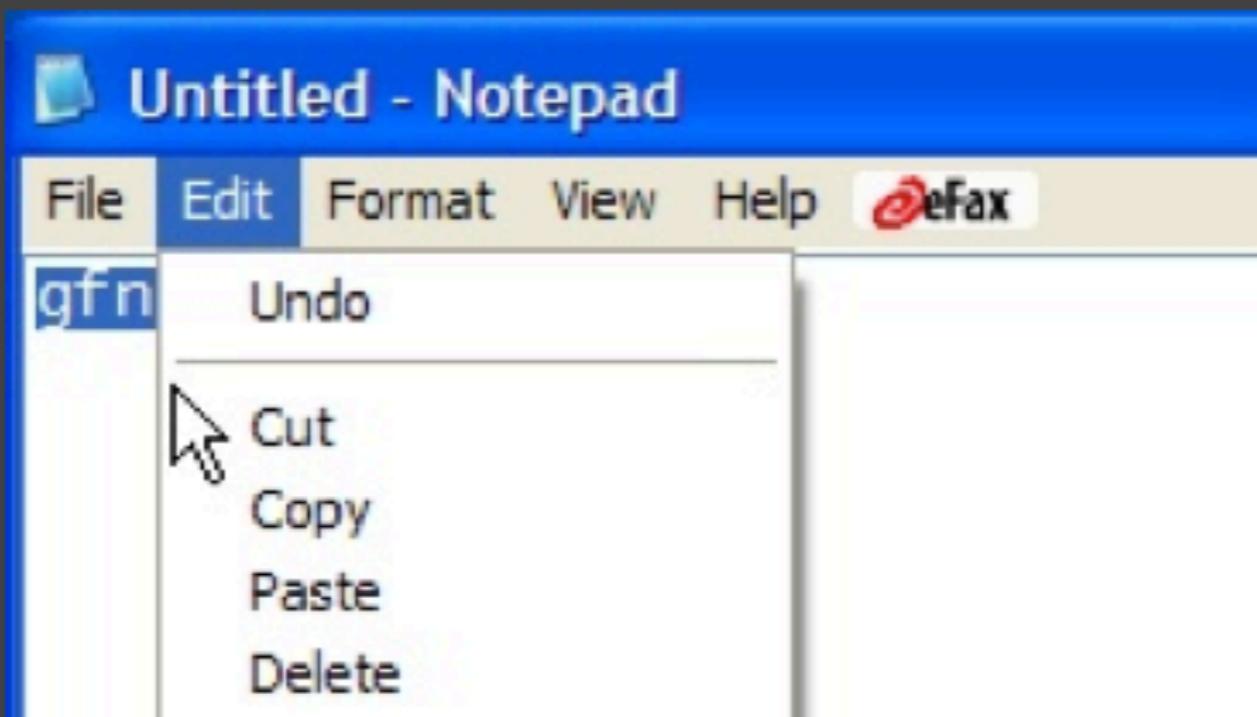


- “exits” for mistaken choices, undo, redo
- don’t force down fixed paths

- Wizards

- must respond to Q before going to next
- for infrequent tasks
 - e.g., configuration
- not for common tasks
- good for beginners
 - have 2 versions

Flexibility & Efficiency of Use



- accelerators for experts (e.g., gestures, kb shortcuts)
- allow users to tailor frequent actions (e.g., macros)

Aesthetic & Minimalist Design

Form Title -- (appears above URL in most browsers and is used by 'WWW' search)		Background Color:
Q&D Software Development Order Desk		FFFFBF0 ...
Form Heading -- (appears at top of Web page in bold type)		Text Color:
Q&D Software Development Order Desk		000080 ...
E-Mail responses to (will not appear on dversch@q-d.com)	Alternate (for mailto forms only)	Background Graphic ...
Text to appear in Submit button Send Order	Text to appear in Reset button Clear Form	<input type="radio"/> Mailto <input checked="" type="radio"/> CGI
Scrolling Status Bar Message (max length = 200 characters) ***WebMania 1.5b with Image Map Wizard is here!!***		
<< Prev Tab		Next Tab >>

Aesthetic & Minimalist Design

https://ssl.catalinaexpress.com - New Accounts - Mozilla Firefox

Booking Functions

[My Account](#)

[New Account](#)

[Find Account](#)

[Submit](#)

[Reservation Lookup](#)

[New Reservation](#)

[Reset Entries](#)

[Exit](#)

Travel Information

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[Schedule & Fares](#)

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[Reservation Tips](#)

All fields marked *** are required.

Once all information has been entered:

Click "Submit"

Questions or Comments

Zip Code, Phone, Fax: Numbers only. No dashes.
Phone & Fax = 5555555555. No special characters.

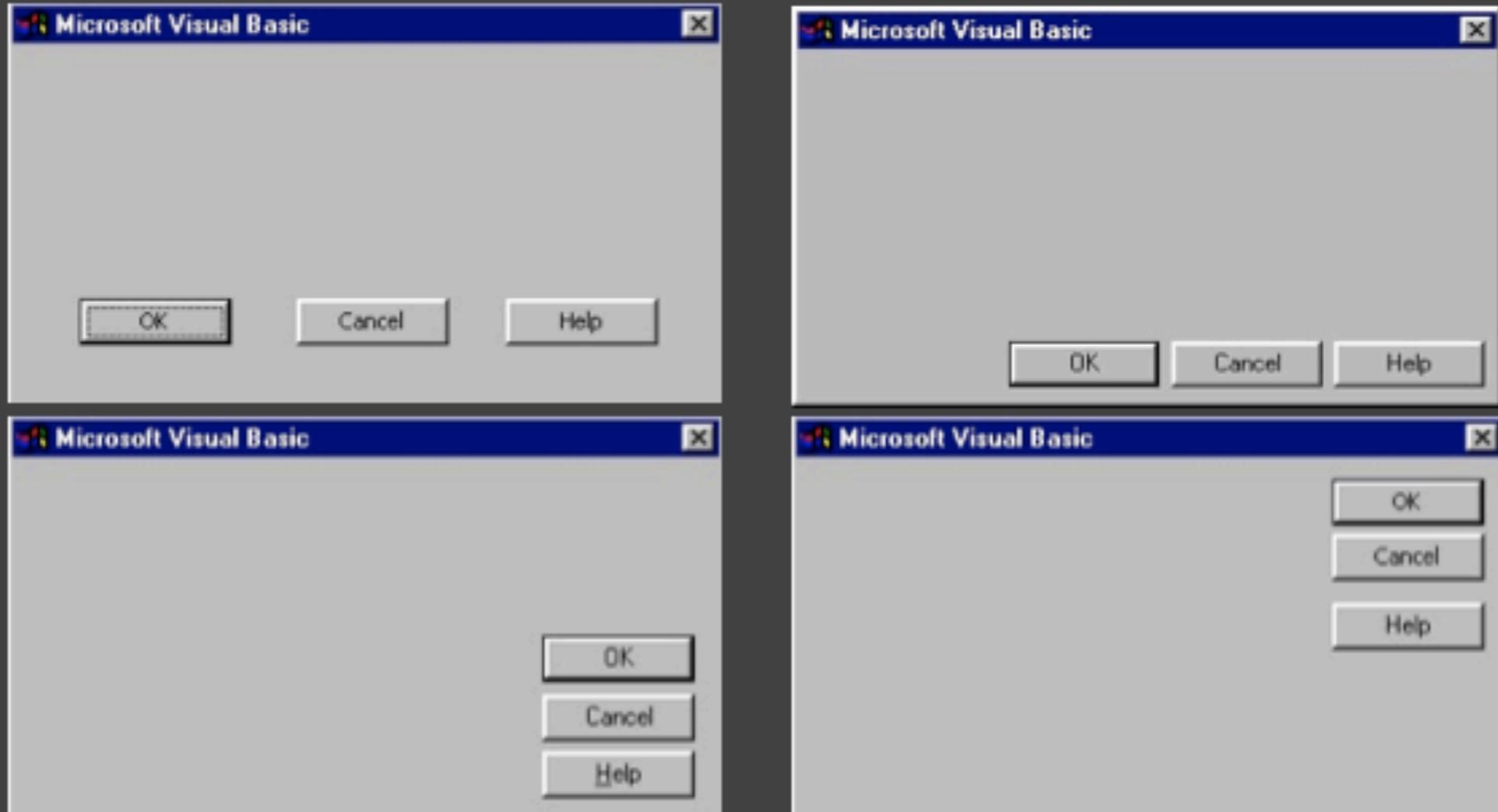
If you live outside the United States,
Please call 800-622-2354 for reservations.

Click "Exit" to return to the Home Page.

ACCOUNT	<input type="text"/>
PASSWORD	<input type="password"/> *****
CONFIRM	<input type="password"/> *****
FIRST NAME	SCOTT
LAST NAME	KLEMMER
ADDRESS LINE 1	
ADDRESS LINE 2	

CITY	<input type="text"/> SAN FRANCISCO	***
ZIP CODE	<input type="text"/> 94110	***
STATE	<input type="text"/> CALIFORNIA	***
COUNTRY	<input type="text"/>	
PHONE	<input type="text"/> 415.920.17	***
FAX	<input type="text"/>	
EMAIL ADDRESS	<input type="text"/> SRK@CS.STANFORD.EDU	***

Consistency & Standards



Consistency and Standards

The screenshot shows a step-by-step process for setting up a new feed in FeedBurner. It begins with a welcome message and a summary of what happens next, followed by a form to enter the feed title and address.

Welcome! Let us burn a feed for you.

The original blog or feed address you entered has been verified.

Here is what happens next in the setup process:

- FeedBurner will apply some of our most popular services to your new feed to get you started. (You can always modify or remove them later.)
- This new feed will be activated in your FeedBurner account.
- You may also set up some optional traffic stats tracking and podcasting services.

Give your feed its title and feedburner.com address:

Feed Title: Design Behavior

Enter a title to help identify your new feed in your account.

Feed Address: <http://feeds.feedburner.com/>
DesignBehavior

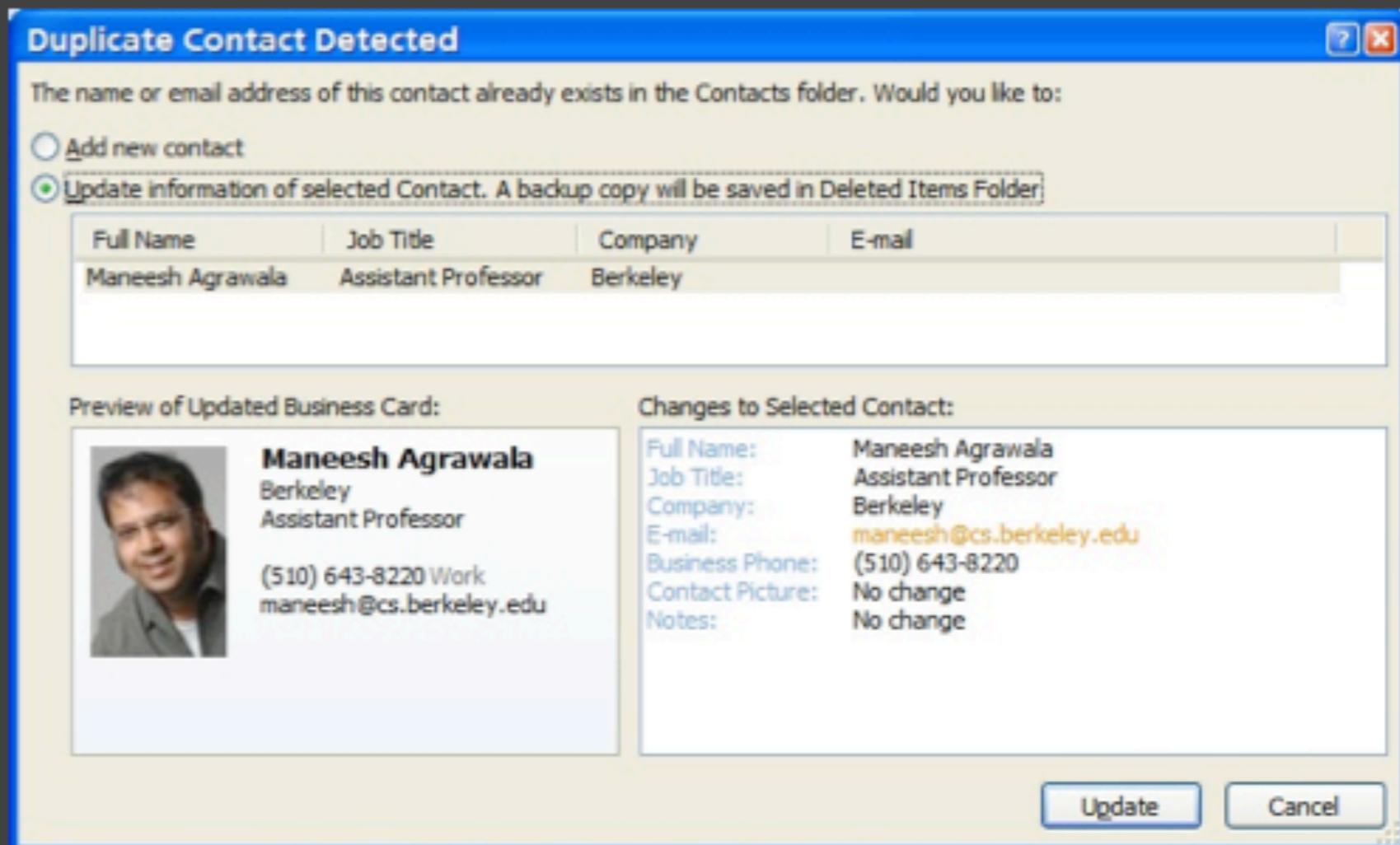
The address above is where people can find your new feed.

Next » **Cancel and do not activate**

Recognition Rather than Recall



Recognition Rather than Recall

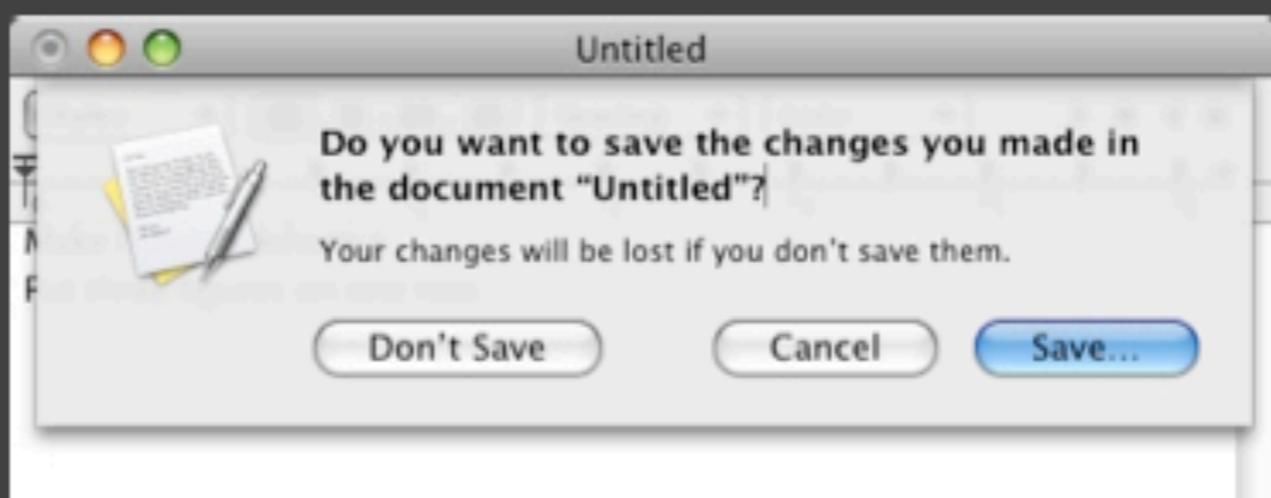


Visibility of System Status



- Keep users informed about what is going on
- Example: pay attention to response time
 - 0.1 sec: no special indicators needed, why?
 - 1.0 sec: user tends to lose track of data
 - 10 sec: max. duration if user to stay focused on action
 - for longer delays, use percent-done progress bars

Visibility of System Status



Match between system & world



- Speak the users' language
- Follow real world conventions

Error Prevention



- **Before dialing**
 - asks for id & password
- **When connecting**
 - asks again for id & pw

Citrix Online: unsubscribe

<http://learn.citrixonline.com/forms/Unsubscribe?uniqueid=6f8ddf9fd63e49dd8cbb4fc180e4efe&email=srk@cs.stanford.edu>



Unsubscribe From Our Mailing List

To unsubscribe from our mailing list, enter your email address, select from the list below and click Submit. After unsubscribing, you will no longer receive email offers, including newsletters and invitations to preview new product versions.

Email Address:

[Unsubscribe from the following mailing lists:](#)

- All Products
 - GoToMyPC Personal or Pro customer newsletter
 - GoToMyPC Personal or Pro email offers
 - GoToMyPC Corporate
 - GoToAssist Corporate
 - GoToAssist Express
 - GoToMeeting and GoToWebinar Personal
 - GoToMeeting and GoToWebinar Corporate
 - HiDef Conferencing

Submit

[Next](#) [Previous](#)

Highlight all

Match case



Database

hci (2)

hci (2)

Ad Comparison
publications

Error

SQL query:

ALTER TABLE `Ad Comparison` ADD `id` INT(11) NOT NULL AUTO_INCREMENT FIRST

MySQL said:

#1075 - Incorrect table definition; there can be only one auto column and it must be defined as a key

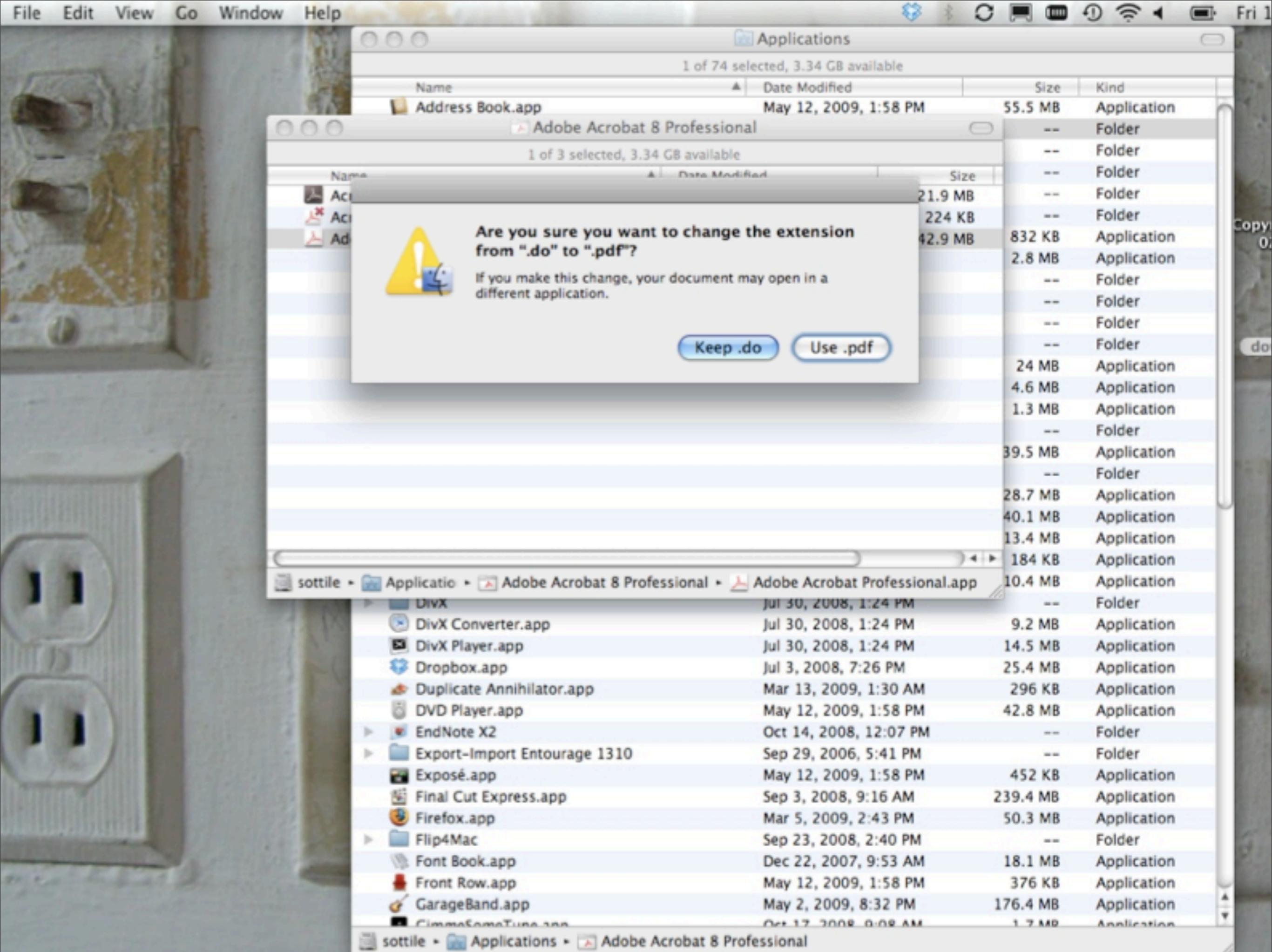
Field	<input type="text" value="id"/>
Type <small>?</small>	<input type="text" value="INT"/> <small>(dropdown)</small>
Length/Values ¹	<input type="text" value="11"/>
Collation	<input type="text"/> <small>(dropdown)</small>
Attributes	<input type="text"/> <small>(dropdown)</small>
Null	<input type="text" value="not null"/> <small>(dropdown)</small>
Default ²	<input type="text"/>
Extra	<input type="text" value="auto_increment"/> <small>(dropdown)</small>
	<input checked="" type="radio"/>
	<input type="radio"/>
	<input type="radio"/>
---	<input type="radio"/>
	<input type="radio"/>
Comments	<input type="text"/>

Save Or Add field(s) Go

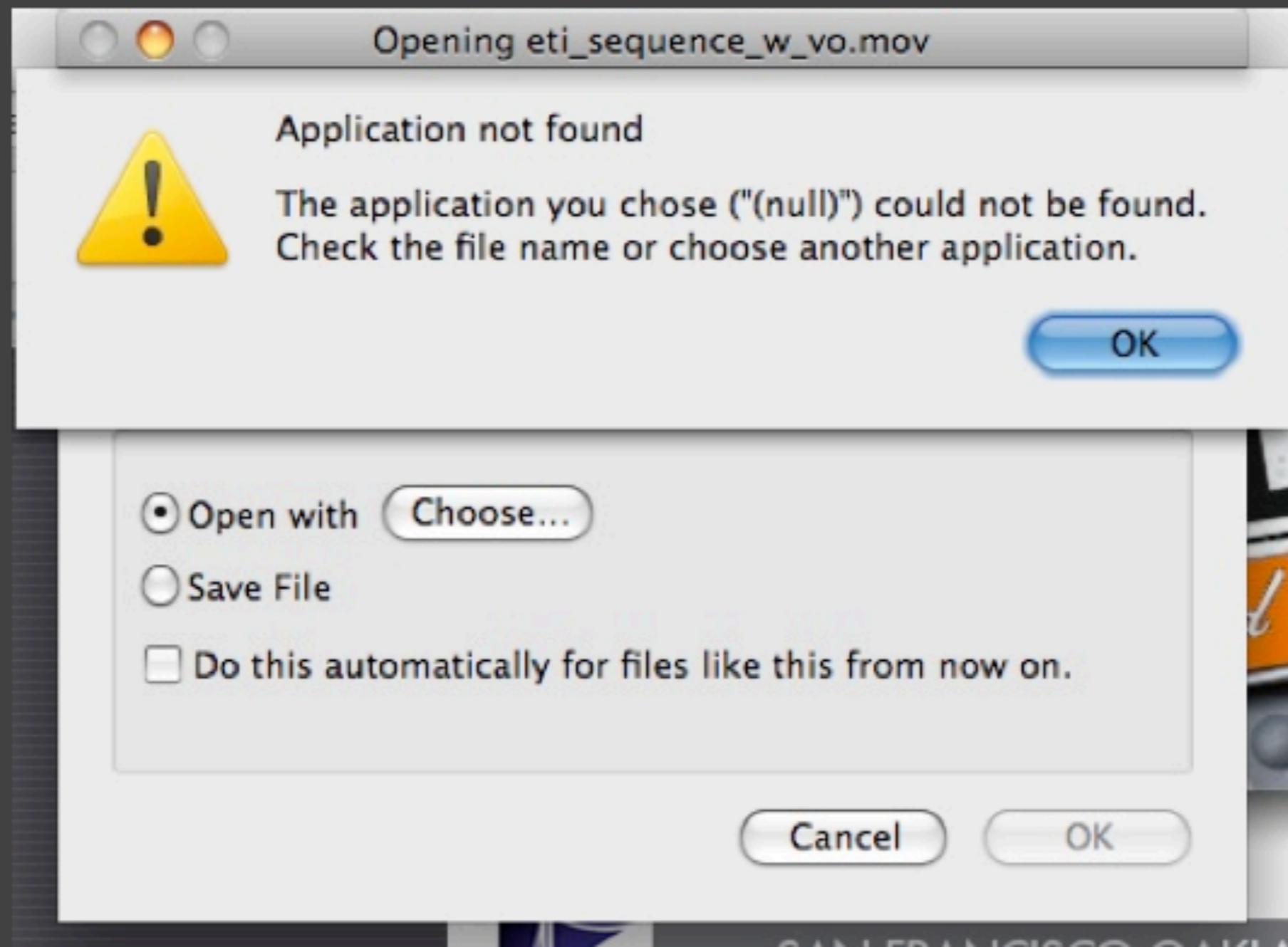
¹ If field type is "enum" or "set", please enter the values using this format: 'a','b','c'...

If you ever need to put a backslash ("\\") or a single quote ("') amongst those values, precede it with a backslash (for example '\\xyz' or 'a\\b').

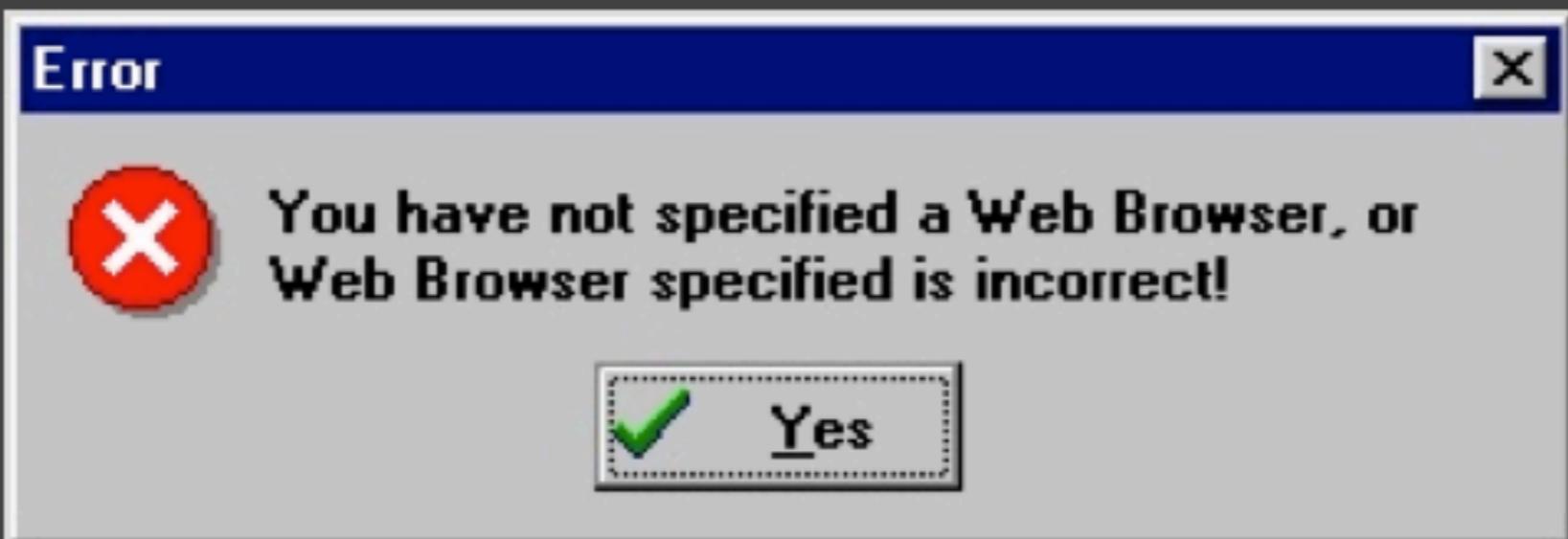
² For default values, please enter just a single value, without backslash escaping or quotes, using this format: a



Help Users Recognize, Diagnose, & Recover from Errors



Help Users Recognize, Diagnose, & Recover from Errors





01 02 03 04 1

Besonderheiten:

- Zimmer steht auf dem Fußboden
- 4 Betten und 4 Sitze
- Nichtraucher-Zimmer

Beschreibung:

Die Möbel hängen von schlafen und sitzen in unter dem Fußboden. Se 4-Bett-Zimmer. Eines d Zimmer!

ROOMS**PROPELLER ISLAND CITY LODGE
Reservation
Mistake****month****back****ROOMS**

are beneath

in the ceiling and
comfortable boxes
Uncannily surreal
One of the most

F R G

Done

mobile (every day 12:00 - 20:00) +49 - (0)163 - 296 99 99
other times answering machine or fax: +49 - (0)39 - 692 87 21 [to a friend](#)

Help Users Recognize, Diagnose, & Recover from Errors

(All prices are in US Dollars)

UIST '09: The 22nd Annual ACM Symposium on User Interface Software and Technology [\(Event Details\)](#)



	Amount	Quantity	Subtotal
Extra Demo Reception ticket	\$40.00	<input type="text" value="1"/>	
Extra Banquet Ticket	\$90.00	<input type="text"/>	
Extra copies of the proceedings	\$45.00	<input type="text"/>	
Total So Far: \$0.00			Recalculate Total

[Continue ▶](#)

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(All prices are in US Dollars)

[Contact Info](#)

Help and Documentation

- easy to search
- focused on the user's task
- list concrete steps to carry out
- not too large

Firefox File Edit View History Bookmarks Tools Window Help

PHP: Your first PHP-enabled page – Manual

http://us.php.net/manual/en/tutorial.firstpage.php

147 547 TWC wthr Docs Books Maps Schol Cal mail nyTimes Azon srk stanford Mint sfcu Chase

PHP: Your first PHP-enabled page ... +

php

downloads | documentation | faq | getting help | mailing lists | licenses | wiki | reporting bugs | php.net

search for

▲ PHP Manual

^ Getting Started

^ A simple tutorial

▪ What do I need?

▪ Your first PHP-enabled page

▪ Something Useful

▪ Dealing with Forms

▪ Using old code with new versions of PHP

▪ What's next?

«What do I need?

view this page in Bulgarian

Your first PHP-enabled page

Create a file named *hello.php* and put it in your web server's root directory (*DOCUMENT_ROOT*) with the following content:

Example #1 Our first PHP script: *hello.php*

```
<html>
<head>
<title>PHP Test</title>
</head>
<body>
<?php echo '<p>Hello World</p>'; ?>
</body>
</html>
```

Use your browser to access the file with your web server's URL, ending with the */hello.php* file reference. When developed something like *http://localhost/hello.php* or *http://127.0.0.1/hello.php* but this depends on the web server's configuration. If configured correctly, this file will be parsed by PHP and the following output will be sent to your browser:

```
<html>
<head>
<title>PHP Test</title>
</head>
<body>
```

Heuristic Evaluation Process

Heuristic Evaluation Process

- Evaluators go through UI several times

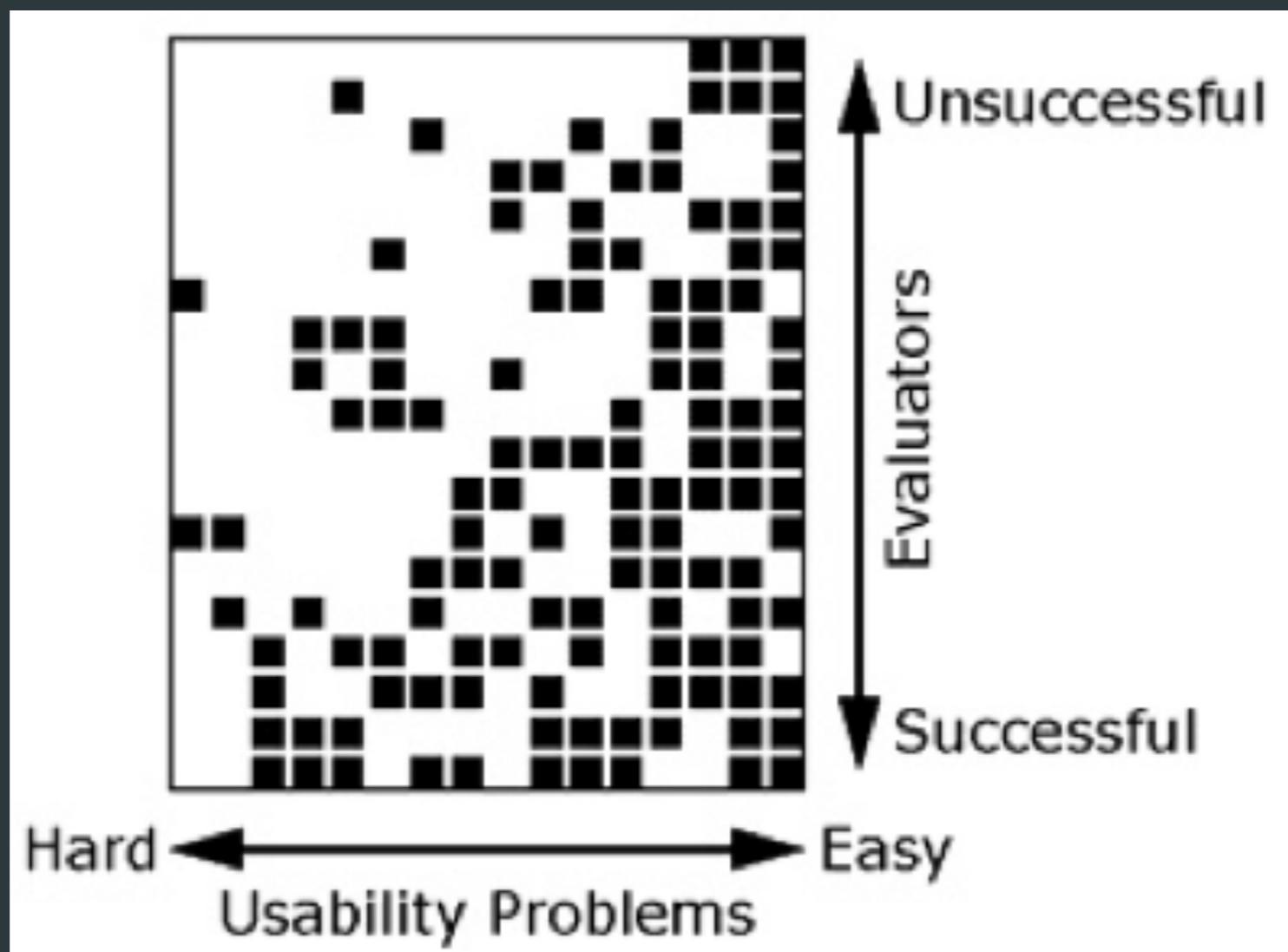
Heuristic Evaluation Process

- Evaluators go through UI several times
- Usability principles

Heuristic Evaluation Process

- Evaluators go through UI several times
- Usability principles
- Use violations to redesign/fix problems

Why Multiple Evaluations?



HE vs. User Testing

HE vs. User Testing

HE	User Testing
1-2 hours	Days, weeks
Does not require interpreting user actions	More accurate

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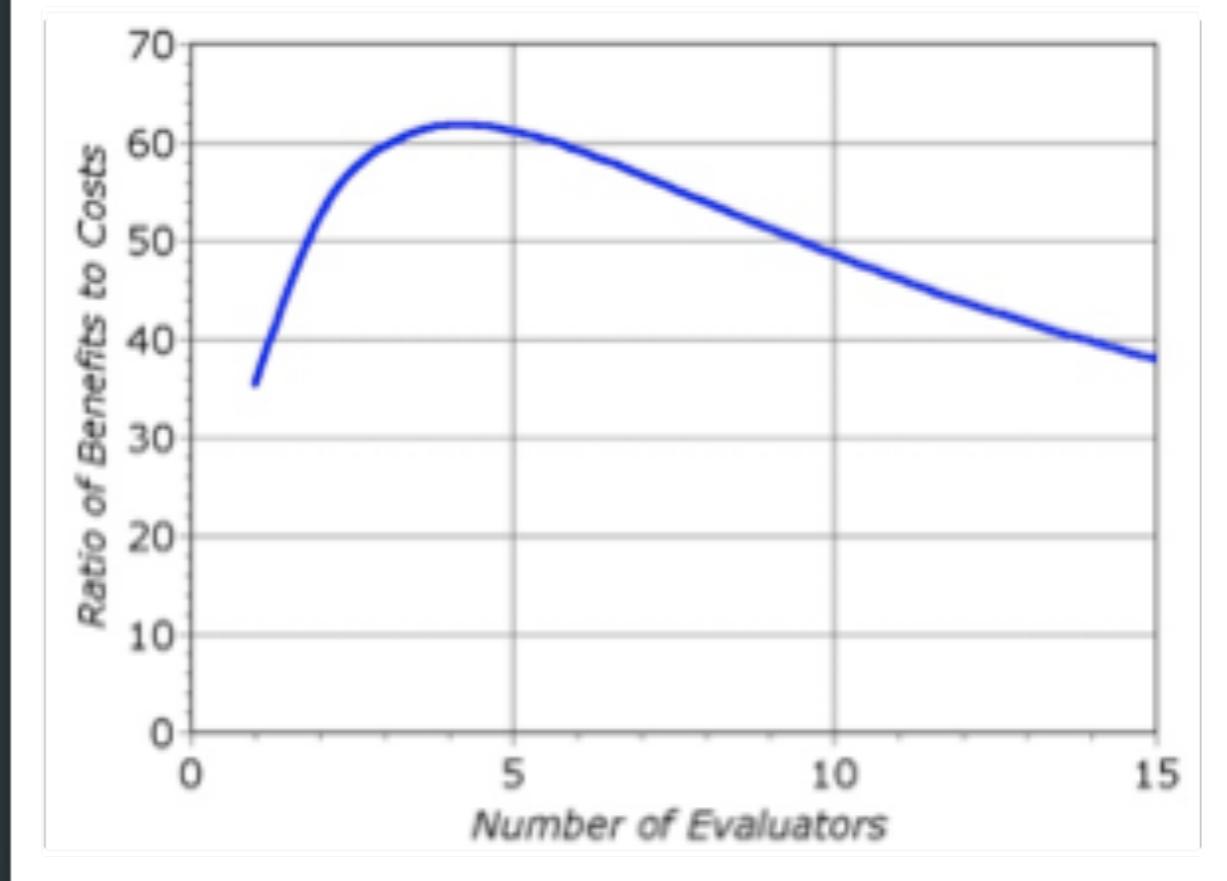
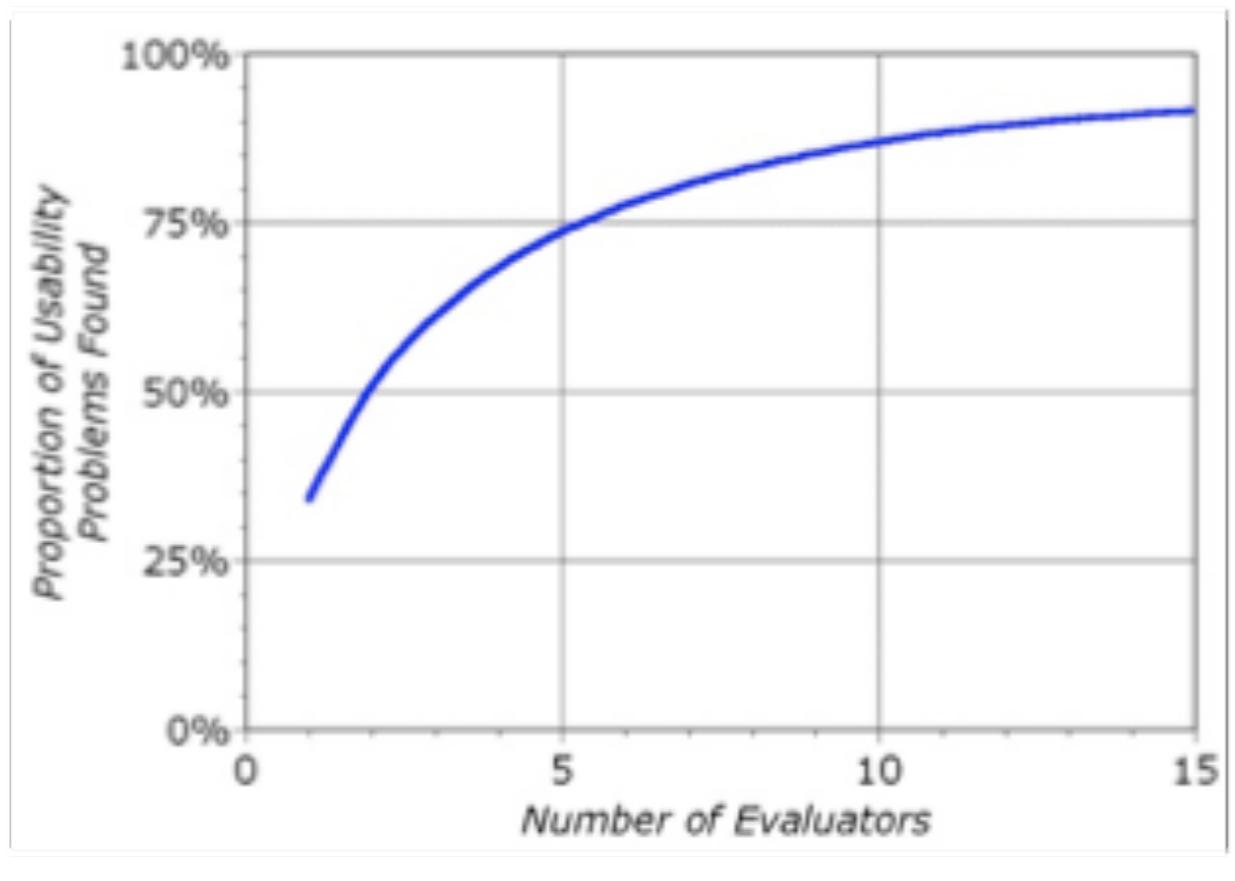
- Good to alternate between the two

HE vs. User Testing

HE	User Testing
1-2 hours	Days, weeks
Does not require interpreting user actions	More accurate

- Good to alternate between the two

Decreasing Returns



Phases of HE

Phases of HE

- Pre-evaluation Training

Phases of HE

- Pre-evaluation Training
- Evaluation

Phases of HE

- Pre-evaluation Training
- Evaluation
- Severity Rating

Phases of HE

- Pre-evaluation Training
- Evaluation
- Severity Rating
- Debriefing

Key Points about HE

Key Points about HE

- Go through at least two passes

Key Points about HE

- Go through at least two passes
- May require some assistance for scenarios

Key Points about HE

- Go through at least two passes
- May require some assistance for scenarios
- Each evaluator provides a list of problems

Key Points about HE

Key Points about HE

- Why separate violations?

Key Points about HE

- Why separate violations?
- Where problems may be found:

Key Points about HE

- Why separate violations?
- Where problems may be found:
 - Single location in UI

Key Points about HE

- Why separate violations?
- Where problems may be found:
 - Single location in UI
 - Two or more comparable locations

Key Points about HE

- Why separate violations?
- Where problems may be found:
 - Single location in UI
 - Two or more comparable locations
 - Overall UI

Key Points about HE

- Why separate violations?
- Where problems may be found:
 - Single location in UI
 - Two or more comparable locations
 - Overall UI
 - Something is missing

Severity Rating

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- Prioritize problems

Severity Rating

- Prioritize problems
- Combines

Severity Rating

- Prioritize problems
- Combines
 - frequency

Severity Rating

- Prioritize problems
- Combines
 - frequency
 - persistence

Severity Rating

- Prioritize problems
- Combines
 - frequency
 - persistence
 - impact

Severity Rating

- Prioritize problems
- Combines
 - frequency
 - persistence
 - impact
- Performed after the evaluations

Severity Rating

- Prioritize problems
- Combines
 - frequency
 - persistence
 - impact
- Performed after the evaluations
- Done independently by all judges

Severity Rating

Severity Rating

O - not a problem at all

Severity Rating

- - not a problem at all
- 1 - cosmetic

Severity Rating

- 0 - not a problem at all
- 1 - cosmetic
- 2 - minor usability problem

Severity Rating

- 0 - not a problem at all
- 1 - cosmetic
- 2 - minor usability problem
- 3 - major usability problem

Severity Rating

- 0 - not a problem at all
- 1 - cosmetic
- 2 - minor usability problem
- 3 - major usability problem
- 4 - usability catastrophe



Debriefing

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- Conduct with evaluators, observers, and development team member

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- Discuss general characteristics of UI

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- Conduct with evaluators, observers, and development team member
- Discuss general characteristics of UI
- Suggest potential improvements to address major usability problems
- Dev. team rates how hard things are to fix
- Make it a brainstorming session

<http://hci.stanford.edu>