

Techniques for Reviewing a User Interface

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Communication

What is communication in this context?

What's the cost of NOT reviewing an interface?

It's not just about text

'Communication' encompasses not only the words created for manuals and help systems, and not even the words used in the interface, but the interface itself, and the way it does—or doesn't—inherently communicate its functionality.

--Chuck Martin (HATT post, 9 Jan 2008)

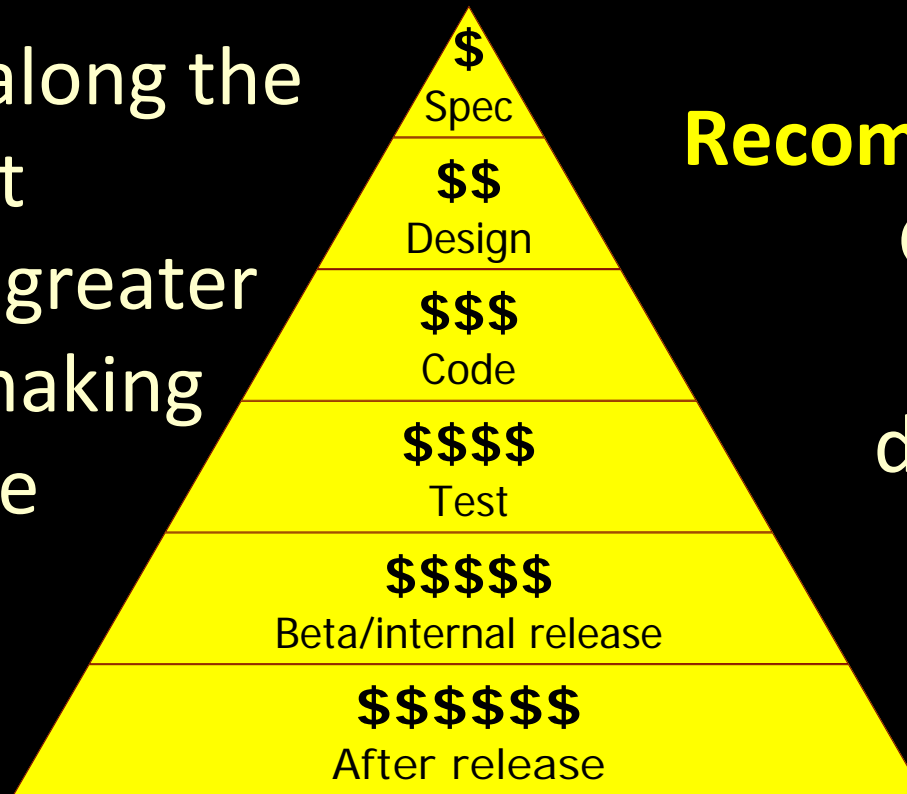
Three Cs of communication

- Clarity
- Consistency
- Conciseness

All help reduce that other 'C'—CONFUSION

Dollar cost

The further along the development process, the greater the cost of making even a simple change.



Recommendation:
Get involved
EARLY in the
development
cycle.

Reputation cost

Filedoyen 1.35

Old school file manager with some extras.

Filedoyen is a classic file manager with lots of additional features. There is an inbuilt archive manager, a hex editor, a file/folder comparer, an image viewer and a lot more. The program seems to be designed to leave even the most discerning power user satisfied. There are, however, a number of usability issues, particularly, in terms of the user interface and user interaction.

Filedoyen's file manager is standard. It works as a single or dual-pane window and behaves similarly to Windows Explorer. Initially it was a tad disconcerting to use because the mouse interaction wasn't consistent.

Bookmarking and file filtering are useful and intuitive. User feedback, however, could've been handled better. Instead of "The parameter is incorrect", the software should've reported, "A folder with the name you specified already exists". Not a big issue, but

CONTACT Cowtec
ONLINE www.filedoyen.com
MARKET Everyone
PRICE US\$24.95

✓ Some good features; price.

VERDICT ★★★★★

✗ Poor user interface; lacks polish.

it does show that it needs polish.

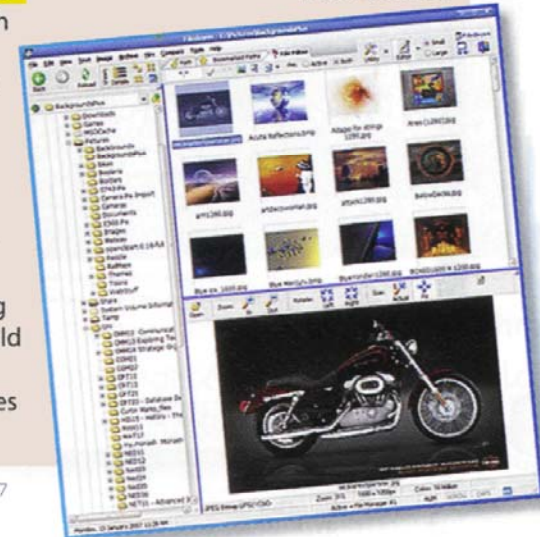
The archive manager is an excellent feature. It supports a good range of formats which means that you don't have to buy a separate utility to handle your rars and zips. It would be nice, however, to have more meaningful option names or context-sensitive help. The search utility is alright, although, with free applications such as Google Desktop or Windows Desktop Search, it's hard to imagine anyone using it.

The hex editor is basic but is still good to have. Same goes for the file and folder comparers. These features are not something you would use daily but they could come in handy.

While there are a lot of features packed into Filedoyen, the

software needs to be more cohesive. The user interface looks about ten years out of date. It is too busy and the dialogs are too cramped. Filedoyen would benefit from a rethink, a new UI and a good polish.

Peter Sbarski



From *Australian Personal Computer*, Nov 2007

www.cybertext.com.au

apc labs ▶ november 07

Slide 6

Design Elements

Does it 'look good'? (Aesthetics)

Does it work? (Function)

Is there anything that makes you hesitate?

Quotable quote...

Design is NOT about decoration. It's about communication and problem solving.

*--Garrett Dimon, "Improving Interface Design"
(Web Visions 2007)*

*[http://garrettdimon.com/pages/
improving_interface_design](http://garrettdimon.com/pages/improving_interface_design)*

Quotable quote...

Sometimes there is a huge disconnect between the people who make a product and the people who use it.

--Barbara Whitaker, NY Times, 8 July 2007

<http://www.nytimes.com/2007/07/08/business/yourmoney/08starts.html>

Overall design

- Object placement (label, group all related features)
- Object alignment
- Logical flow (left to right, top to bottom; TAB order; visual layout; focus on opening)
- Scrolling (vertical, horizontal, non-scrolling regions)
- Keyboard access to ALL elements
- Sufficient space for translation

Text Elements

What to check?

Check for what?

Check these text elements

- Title and status bars
- Menu and selection list items
- Grouping box, field, column labels
- Error messages—validation, system; correct icon
- Icons, buttons—labels, graphics, tooltips
- Hyperlinks—avoid "click here"
- User assistance on interface

Check text for...

■ Spelling

- ◆ Misspellings, typos
- ◆ US, UK English

■ Correctness against style guide

- ◆ Punctuation, capitalization (e.g. sentence/title case)
- ◆ Font size, family, weight
- ◆ Terminology

■ Language & structure

- ◆ Plain English appropriate for users
- ◆ Parallel structure and consistent wording (e.g. gerunds vs imperatives)
- ◆ Impact of other languages on text display
- ◆ Avoid abbreviations

Internationalization


- Design must consider
 - ◆ Right-to-left languages (e.g. Hebrew, Arabic)
 - ◆ Double-byte languages (e.g. Chinese, Japanese, Korean)
 - ◆ Long labels (e.g. German)

- Default language used
 - ◆ Hard-coded or in linked resource files?
 - ◆ Anything culturally specific?

Weak error messages

menu	Menu
Menu Compose message Get new mail Settings Manage folders Address Book Log out	Result Your message has not been sent. Something went wrong. Back to INBOX

Some files were not updated. (N... X



Some files were not updated.

OK


Please select the Template to edit and try again X

Error

Yes No Cancel

2 Enter the phone number in Australia (with area code)

Error



Column 'GroupName' is constrained to be unique. Value " is already present.

OK


Invalid phone number



The number you dialed is either invalid or does not exist

Better error message

The page at <https://www.anz.com> says:

 You have entered your password incorrectly.
Your password must be between 8 and 16 characters in length and contain at least one number and one letter.

If you are registering for Internet Banking for the first time, please select the 'Register' button on the Homepage. Otherwise please check your password and try again.

OK

Registration Number:

Password:

[log on](#)

Trouble logging on? [Help](#)

- > Tips on how to [Protect your banking](#)
- > Find out [more about Internet Banking](#)
- > [Register](#) for Internet Banking.
- > Check your [software settings](#).
- > View [Terms and Conditions](#).

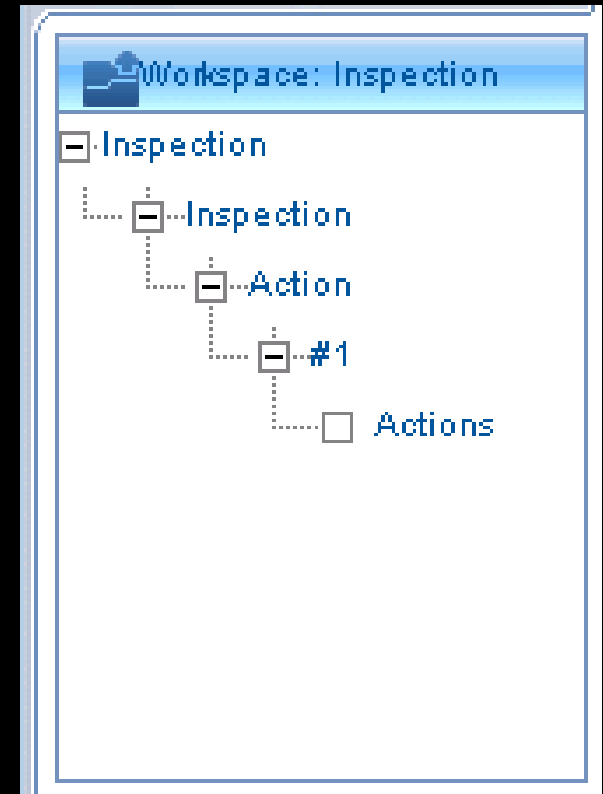
Link Elements

Internal (navigational and page)

External

Navigational links

- Menus, submenus
- Breadcrumb trails
- Sidebars
- Headers, footers
- Sitemap
- Browse sequences—Next, Previous, Home, etc.



Page links

- Text hyperlinks
 - ◆ Within page
 - ◆ Within application
 - ◆ To external location
 - ◆ Popups
 - ◆ Expand/collapse elements
 - ◆ Back to Top
- Images, image maps
- Links to Help (go to TOC, page, field, web?)

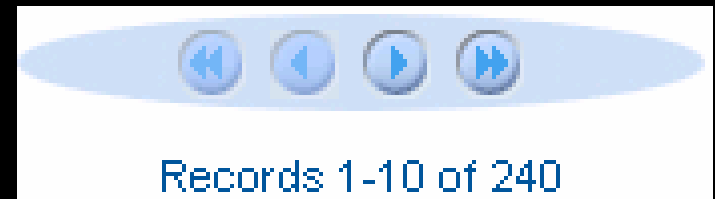
External links

- URLs
- 'Mailto' links
- Internal and external files (e.g. PDFs)
- FTP links

Link mechanisms

- Do the same link types use consistent display mechanisms? (e.g. underline, hover color, etc.)

So, how many ways *can* you do 'next page' links in the one app?



Visual Elements

Graphics, color, display...

Do all graphics add value?

- Are any unnecessary?
- Are any too large/small?
- What displays when graphics are turned off?
(ALT/TITLE tags)
- Are common graphics used for common actions?
(e.g. new, open, save, email)

Check these elements

Check graphical elements for:

- 'Jaggies', blurred, or broken images
- Appropriate cropping
- Transparency renders correctly
- Image maps in web apps cover correct elements

Color...

- Renders differently on screen and on paper
- Displays differently on every monitor
- Is seen differently by color-blind users
- Is symbolic, with distinct meanings in many cultures (e.g. white means purity—and death)
- Is personal

Check these color elements

Check:

- How color elements print
- The color palette (limited/extensive range of colors)
- If user/admin can change color schemes
- How special elements are distinguished from standard (e.g. read-only, required fields)

Styles

- Text styles should follow the style guide (e.g. bold, headings, fonts)
- Web apps only:
 - ◆ Does the page validate correctly? (HTML, DOCTYPE, CSS, etc.)
 - ◆ Turn off the CSS—is the page still usable?
 - ◆ Can the user apply their own CSS or modify yours?
 - ◆ Print a page:
 - ★ 'Wrapper' elements should not print
 - ★ Is any content missing? (e.g. large images, wide tables)

How do web apps display?

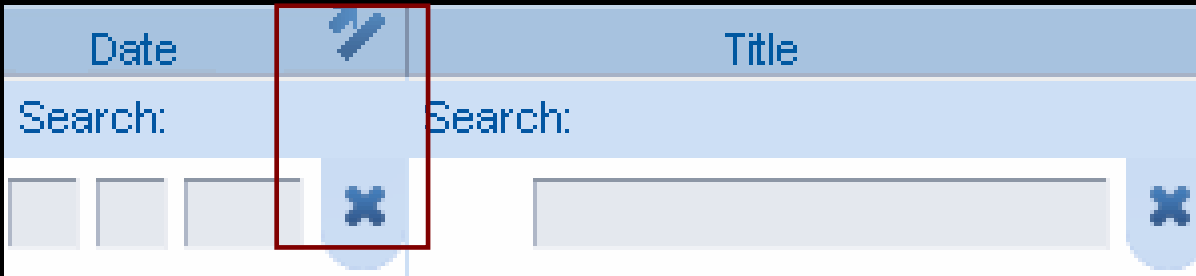
- Test in the main browsers
 - ◆ IE and FF at least
 - ◆ Turn off JavaScript, cookies, frames, etc.—what happens?
 - ◆ Resize the browser window
 - ◆ Resize fonts
 - ◆ Apply other browser/Windows settings (color schemes, CSS)
- Test on various devices (large and small)
- Test at different resolutions (large and small)

How do installed apps display?

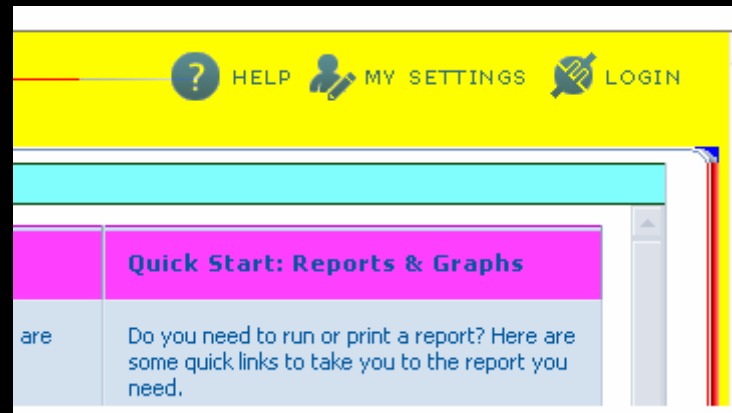
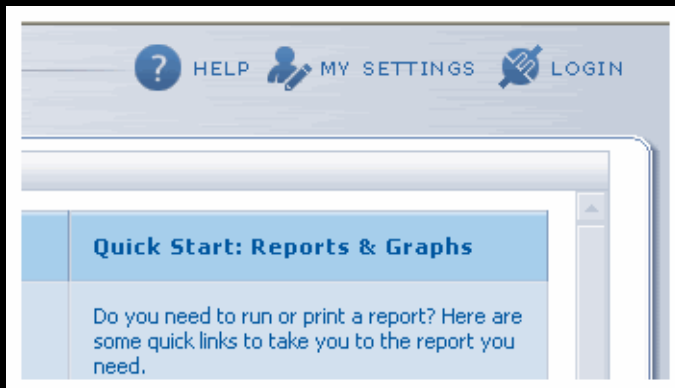
- How do ALL screen elements display when you:
 - ◆ Change the screen resolution
 - ◆ Change the Windows color scheme
 - ◆ Resize all resizable windows
 - ◆ Install on other devices (e.g. cell phones)
- Do the new settings hold:
 - ◆ For the current session?
 - ◆ On shutdown and restart?

Examples

Familiar icons and placement?



And if you change the CSS...



User Actions

What happens when you do something?

Do you get what you expect?

Quotable quotes...

- The GUI is the only contact the user has with an application
- Users want to invest as little time as possible in learning applications

--Leah Guren, 2006 "It may be GUI..."

http://www.wordsisrael.com/training_presentations.html

Check all user ACTIONS

- Menu, submenu items
- Command buttons
- Toolbar buttons
- All other clickable icons, buttons, tabs, controls (e.g. calendar and spin controls)
- Keyboard commands (e.g. ALT, TAB, ENTER, Function keys)

Check all user INTERACTIONS

■ Search

- ◆ Boolean operators (AND, OR, NOT , +, -, !, |, =)
- ◆ Wildcards (*, ?)
- ◆ Phrases, multiple terms (with/without quotes)

■ Forms

- ◆ Validation errors—on entry or submission?
- ◆ On-screen user assistance
- ◆ Text/visual indicators for required fields

Performance

Waiting, waiting...

Speed and response times

Check for acceptable system response times for:

- Opening, closing the application
- Loading new pages, dialogs, tabs
- Results of actions
- Running processes, such as time taken to:
 - ◆ Save a record
 - ◆ Display a report

'It needs work'

You don't want to hurt anyone's feelings, but...

It's not about what YOU like

- It's not about you...
 - ◆ It's about improving the USER'S experience
- Offer constructive suggestions/alternatives
 - ◆ Avoid emotive and unsubstantiated comments like "It's ugly", "I don't like it"
- Be assertive, not aggressive
 - ◆ ALWAYS back up an assertion with a reason

Some good reasons

- Usability
- Readability
- Accessibility
- Familiarity
- Legislative compliance
- Accepted industry standards

Legislation and standards:

- **W3C Web Content Accessibility Guidelines checklist:** <http://www.w3.org/TR/WCAG10/full-checklist.html>
- **US:** Section 508 of Rehabilitation Act
- **UK:** British Disability Discrimination Act
- **Australia:** Disability Discrimination Act

Document the issues

- Bug tracking software:
 - ◆ Use what the developers use
 - ◆ Get 'write' access to their system
 - ◆ Learn how to use it
 - ◆ Follow up—make your voice heard
- Checklists
- Documents
 - ◆ Use screen shots, callouts, comments
- Animations
 - ◆ 'Show and tell'

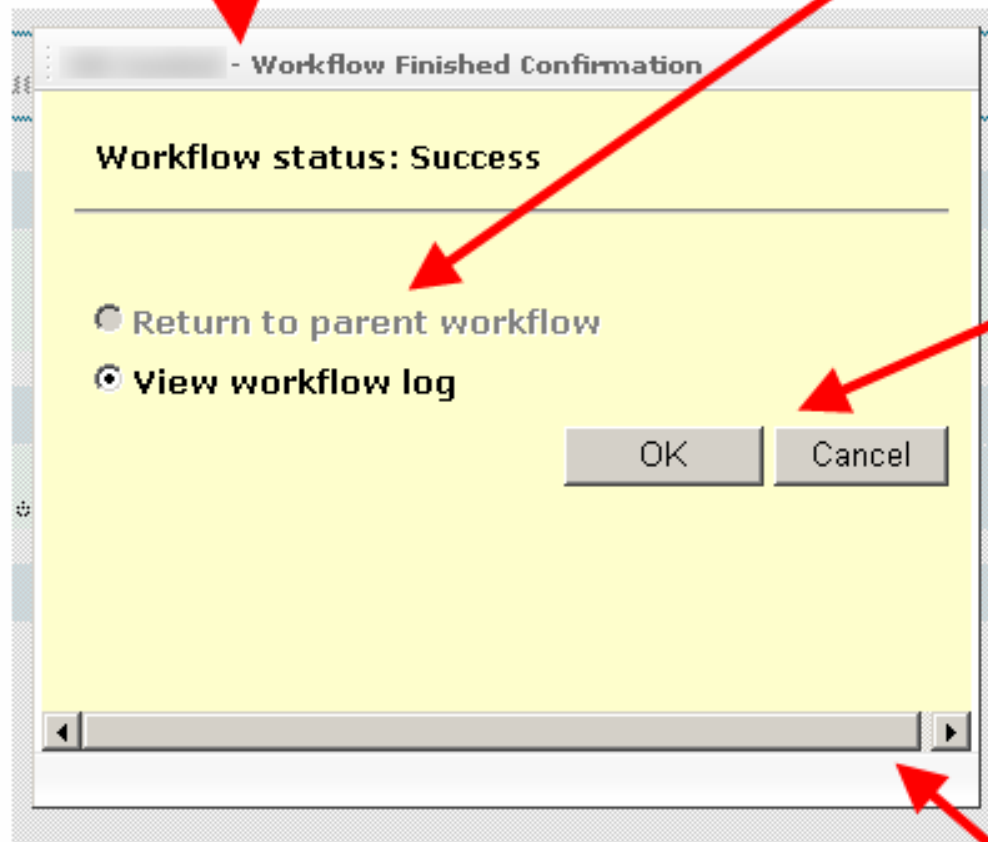
Examples:

- Microsoft's *Visual Studio Team System* products
- Bugzilla: <http://www.bugzilla.org>

Example: Callouts

Title bar and entire window is quite a different 'look and feel' to other popup messages, including font. All popup boxes should use a common design.

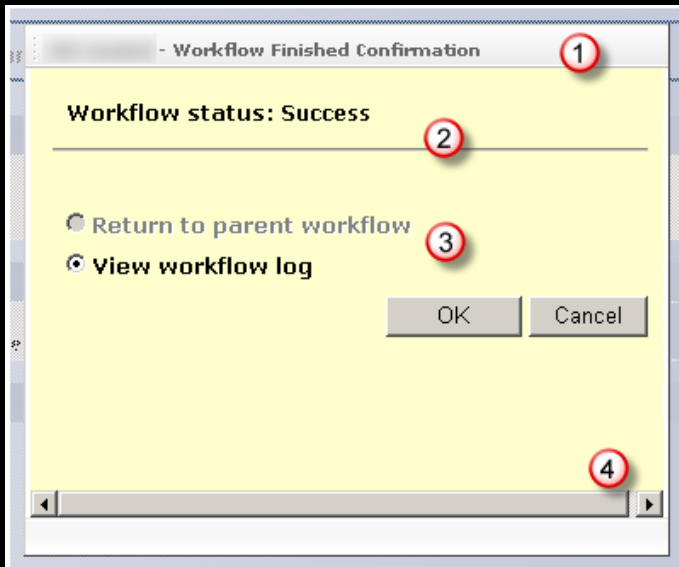
This option is listed but cannot be selected.



Position of these command buttons is higher than in other popup message windows. All should be consistently placed in relation to bottom of window.

Why is there a scroll bar on this confirmation window?

Example: Document (1)



Item	Comments
1	<ul style="list-style-type: none">Title bar and entire window look different to other popup messages in [redacted] (including font). Why? All popup windows should use a common design.Remove "Confirmation" as it's not necessary
2	Is there a reason for the dividing line? Remove it if it has no purpose under any circumstances.
3	<ul style="list-style-type: none">The "Return to..." option is listed but inactive. If this option cannot be selected under any circumstances (I'm logged in as "admin"), then it should be removed or hidden from the user."View log" is sufficient – you don't need "workflow" in this label.Position of the command buttons is higher than on most popup and other windows. Is there a reason for that? Should be consistent placement of such elements.
4	Why is there a scroll bar on this confirmation window? If it is necessary, why doesn't it disappear? This window is the full size and cannot be resized.

Example: Document (2)

Tooltips (Admin)

Section/tab	Current tooltip	Suggested tooltip
Users	Click here to manage Users accounts	Manage user accounts
Groups	Click here to manage Groups	Manage user groups
Status	Click here to view Status of Workflows	View the status of workflows, start and stop Workflow Manager
Execution Groups	Click here to view the execution groups list	Manage execution group lists
Machines	Click here to view a complete list of machines that has logged into the system	View all machines that have logged in to the system
Theme	Click here to change the theme of the system	Change the design theme
Selections	Click here to manage Metadata Selection fields	Manage selection lists
Catalogues	Click here to manage Catalogues	Manage catalogs

Example: Checklist

Screen/page name			Reviewer	
			Review date	
User interactions	OK?	Comments		
Search using single terms				
Search using multiple terms/phrases (with and without quotes)				
Search using Boolean operators				
Search using wildcards				
Complete and submit a form in full				
Submit a form with only the required fields completed				
Submit a form with empty required fields				
Submit a form with data you know to be incorrect (e.g. text in a number field)				
Check all validation error messages				

Sell your skills

- Build relationships with developers, project managers, team leads
- Convince them you can:
 - ◆ Help them create a better interface for ALL users
 - ◆ Free them from tasks they may find tedious (e.g. checking spelling, writing tooltips)
 - ◆ "Walk the 'user advocate' walk"
(adapted from Leah Guren's *"It may be GUI..."*)

Some developers get it

... your matter-of-fact, no-holds-barred, warts-and-all style of constructive criticism is new to the [team]...

Have you been asked to do further in-depth reviews of their applications? It would be good to have your recommendations/guidelines adhered to from the outset.

--email from Team Architect and Integration Coordinator, Oct 2007

But there's a long way to go

In my opinion, trapping exceptions with ... plain English dialogs is folly; a waste of developers' time, a waste of development budget when there are more important things to do.

--email from QA Tester (ex-colleague), Jan 2007

Handy Tools and Resources

Style guides and standards

- Use development's style guide, if there is one...
- If not, consult those for your platform:
 - ◆ Microsoft
 - ◆ Apple
 - ◆ Sun
 - ◆ Web, etc.
- **Hint: No style guide? Write one!**

List of many UI style guides:

<http://www.experiencedynamics.com/science-of-usability/style-guides/>

Capture and edit

■ SnagIt

- ◆ Shows links graphically
- ◆ Captures scrolling web pages
- ◆ Allows markup (numbers, balloons, highlights etc.)

■ Acrobat

- ◆ Captures web pages
- ◆ Full editing functions

Links:

<http://www.techsmith.com>

<http://www.adobe.com>

Show me

Are *moving* pictures worth more than 1000 words?

- Camtasia
- Captivate
- ViewletBuilder
- Wink (free)
- CamStudio (open source; free)

Links:

<http://www.techsmith.com>

<http://www.adobe.com>

<http://qarbon.com>

<http://www.debugmode.com>

<http://camstudio.org>

HTML validation tools

- CSE HTML Validator
 - ◆ HTML/XHTML/CSS code to standards
 - ◆ Links, spelling, accessibility

Links:

<http://www.htmlvalidator.com>

<http://validator.w3.org>

<http://jigsaw.w3.org/css-validator>

- W3C HTML validator (free)
- W3C CSS validator (free)

Accessibility tools

■ Web applications

- ◆ VisCheck
- ◆ AIS Web Accessibility Toolbar (IE only)
- ◆ Web Developer Extension (Firefox only)

■ Installed applications

- ◆ Screen readers (e.g. JAWS)
- ◆ Microsoft accessibility features and assistive technologies

Links:

<http://www.vischeck.com/vischeck/>

<http://www.visionaustralia.org.au>

<http://chrispederick.com>

<http://www.freedomscientific.com>

<http://www.microsoft.com/enable/>

Other useful tools

- Screen Ruler
- Screen sharing and meeting applications
- Skype

Links:

<http://www.microfox.com>

<http://www.webex.com>

<http://www.gotomeeting.com>

<http://www.adobe.com>

<http://www.gotomypc.com>

<http://www.skype.com>

- Other resources:

- ◆ *Don't make me think!*
(Steve Krug)

- ◆ My usability links

- ◆ User Interface Design
Patterns Library

Links:

http://www.cybertext.com.au/links_usability.htm

<http://ui-patterns.com/>

Summary

- Remember the **three Cs of communication**
 - ◆ Clarity
 - ◆ Consistency
 - ◆ Conciseness
- Use tools to assist you, but ultimately, your **eyes and brain** are the best tools you have
- It's about making a better product for everyone

Thank you!

- Any questions?
- Please complete your evaluation sheets
- Contact me:
 - ◆ rhonda.bracey@cybertext.com.au
 - ◆ <http://www.cybertext.com.au>



Just for fun...

*O***No!**

If you are reading this message it means we have made a mistake. **Don't worry**, you can be sure that as you are reading this people are freaking out around here - testing circuits, rebooting systems, and even typing resumés (just kidding).

Please try back in 5 minutes, as we still have plenty of great stuff.

<http://www.overstock.com>

From "Error Pages":
<http://www.smashingmagazine.com>

Late additions

- Jakob Nielsen's "Top 10 application design mistakes":
<http://www.useit.com/alertbox/application-mistakes.html> (19 Feb 2008)
- Alan Cooper: *The inmates are running the asylum*
- CyberText Newsletter/blog:
<http://cybertext.wordpress.com>