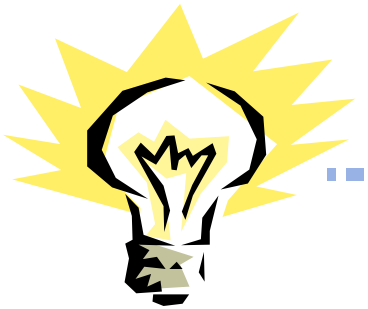
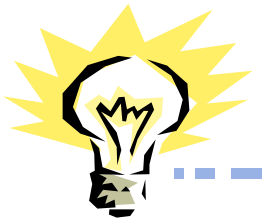


Help and Documentation

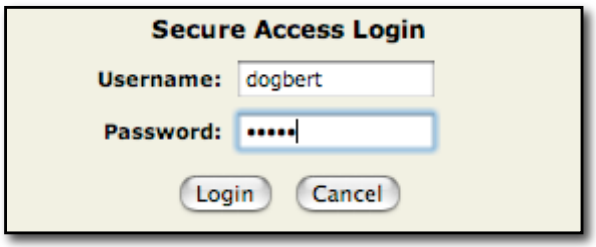
It’s in the manual

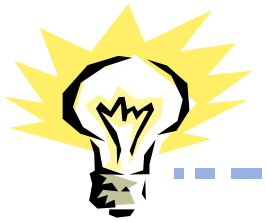


Agenda

- Guidelines
- Types of doc/help
- Presentation issues
- Doc organization

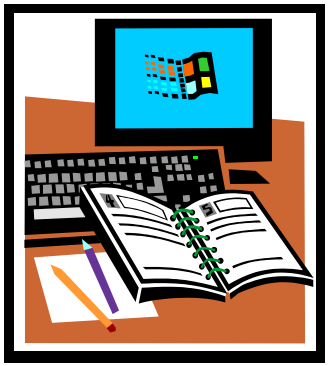
Customer Support

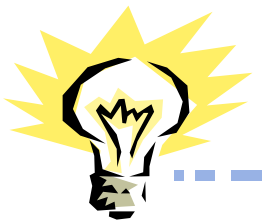




User Support

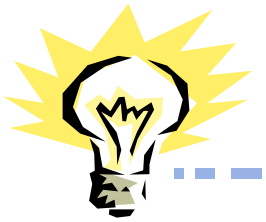
- Help
  - Problem-oriented and specific
- Documentation
  - System-oriented and general





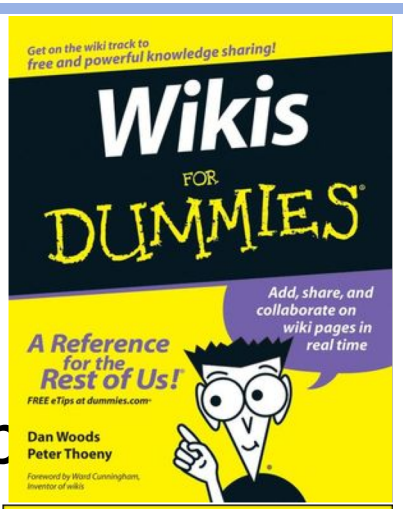
Help & Documentation

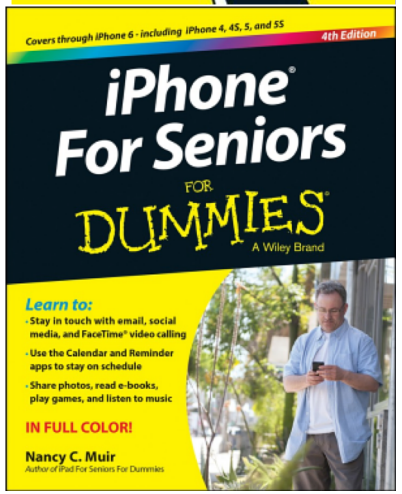
- Essential
  - BUT never a replacement for bad design
- Simple system
  - Walk up and use it
  - Name some
- Most systems with rich features (even well-designed ones) require Help systems

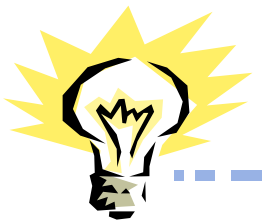


Documentation

- Users don't read manuals
  - Boring, no goal
  - Just dive in and start working
- Often use docs in panic mode, when user needs immediate help
  - Manuals probably locked away
  - Points to need for on-line help
  - Need search capability
- Sometimes want quick ref
  - phone feature card

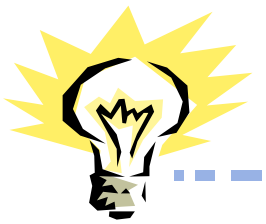






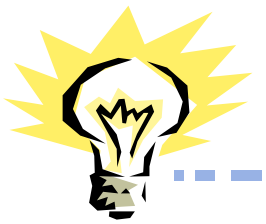
User Support Requirements

- Availability
  - Any time the user is operating the system
- Accuracy & Completeness
  - Accurate (tricky with changing versions)
  - Cover all aspects of application



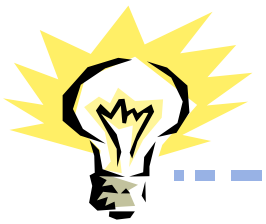
User Support Requirements

- Consistency
  - Across different sections
  - Between on-line and paper documentation
  - In terms of terminology, content and style
- Robustness
  - Predictable and free of errors



User Support Requirements

- Flexibility
  - Appropriate for novices through experts
    - …maybe have expandable sections of details
- Unobtrusiveness
  - Shouldn't distract from or interfere with normal work flow

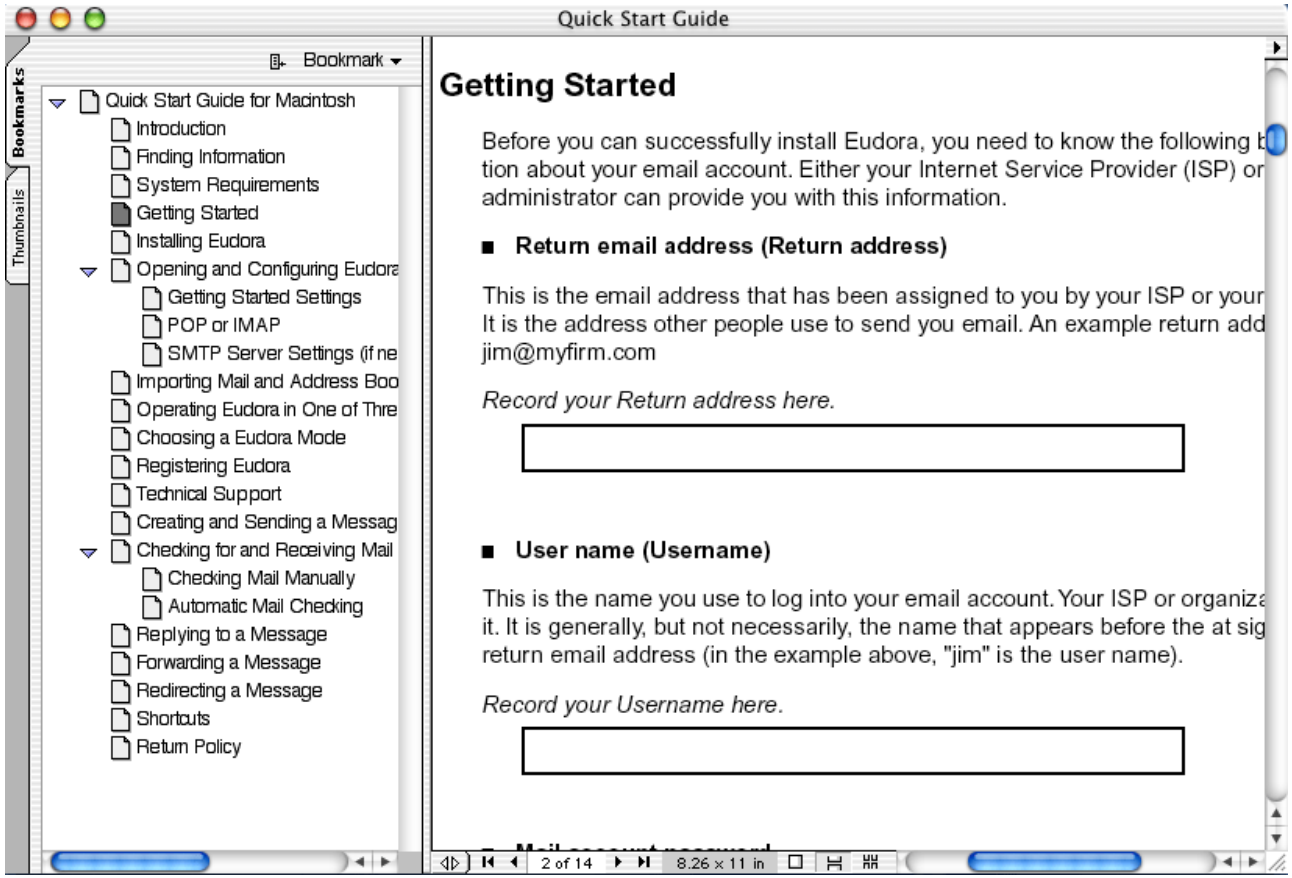


Types of Doc/Help

- 1. Tutorial
  - For start-up
  - Gets user going
  - Convey conceptual model
  - Communicate essential items
  - Sometimes see on-line tour or demo

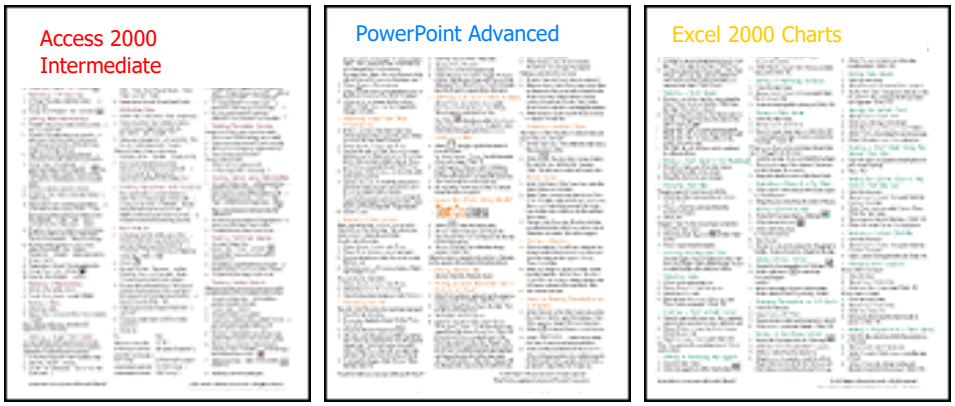
Types of Doc/Help

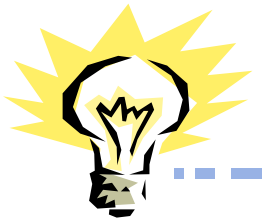
Quick start guide as a tutorial



Types of Doc/Help

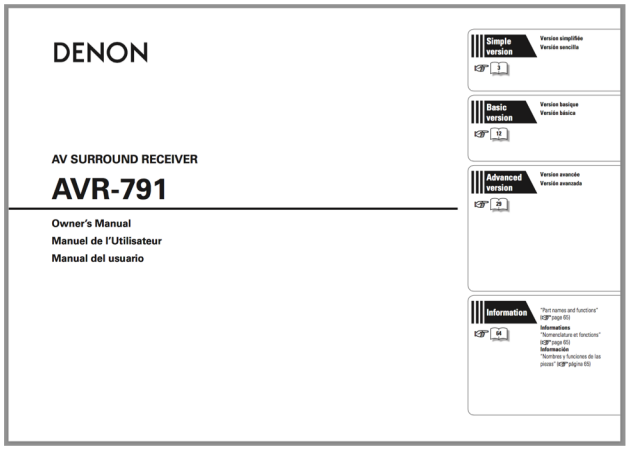
- 2. Quick reference/review
  - Reminder or short reference
  - Often for syntax
  - Can be recall aid for expert
  - Can allow novice to see what's available

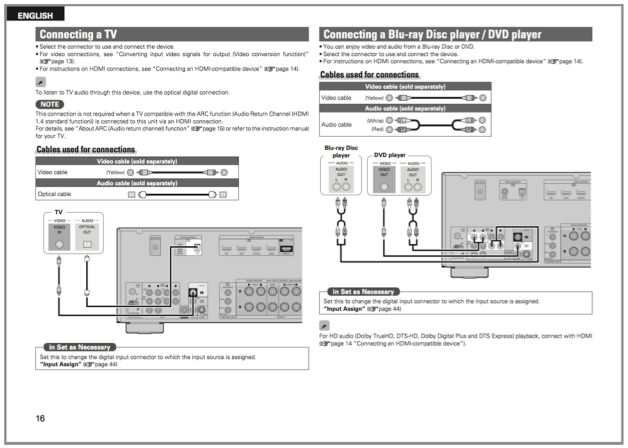


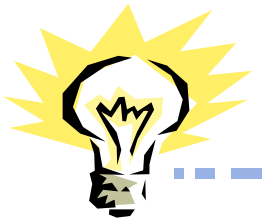


Types of Doc/Help

- 3. Reference Manual (Full explanation)
  - Detailed command descriptions
  - Usually for experts
  - Unix on-line manual pages, for example



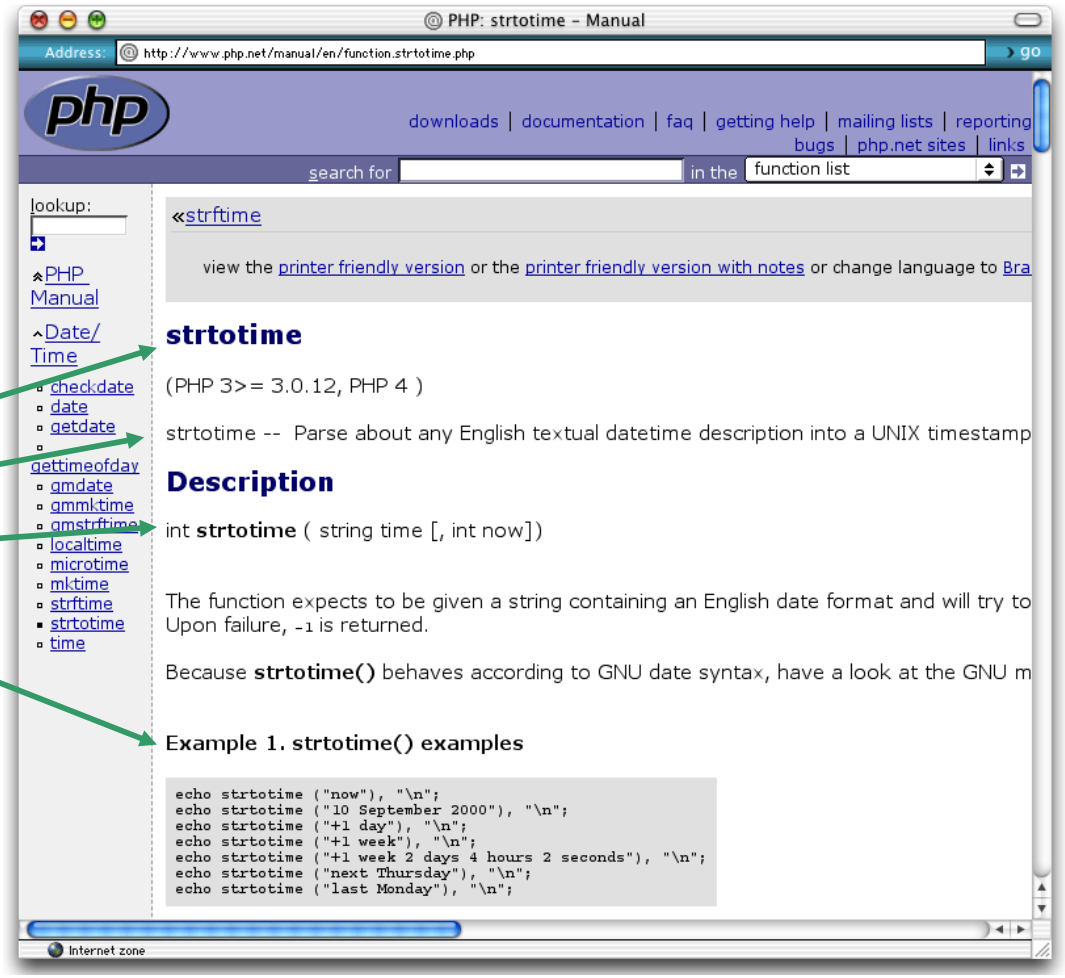


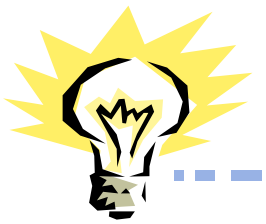


Types of Doc/Help

Combined Quick Reference and full Reference Manual

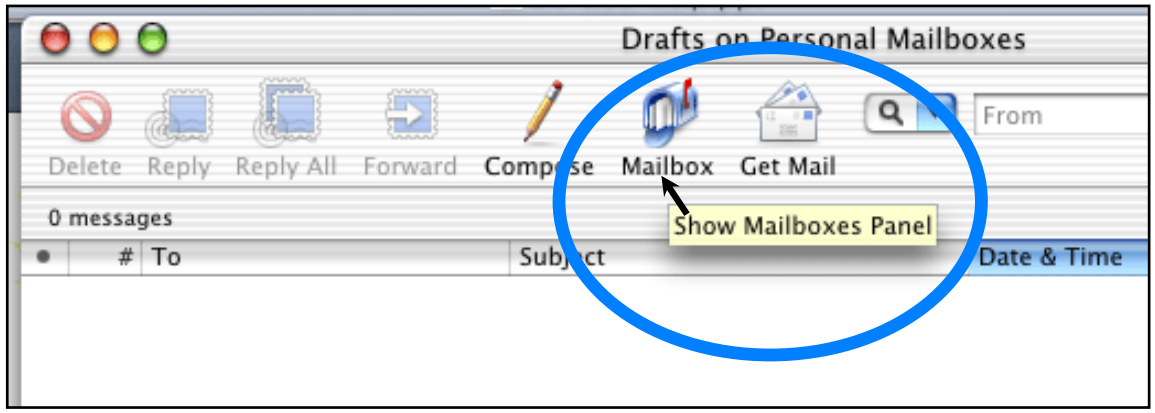
- command
- purpose
- syntax
- example
- links to details





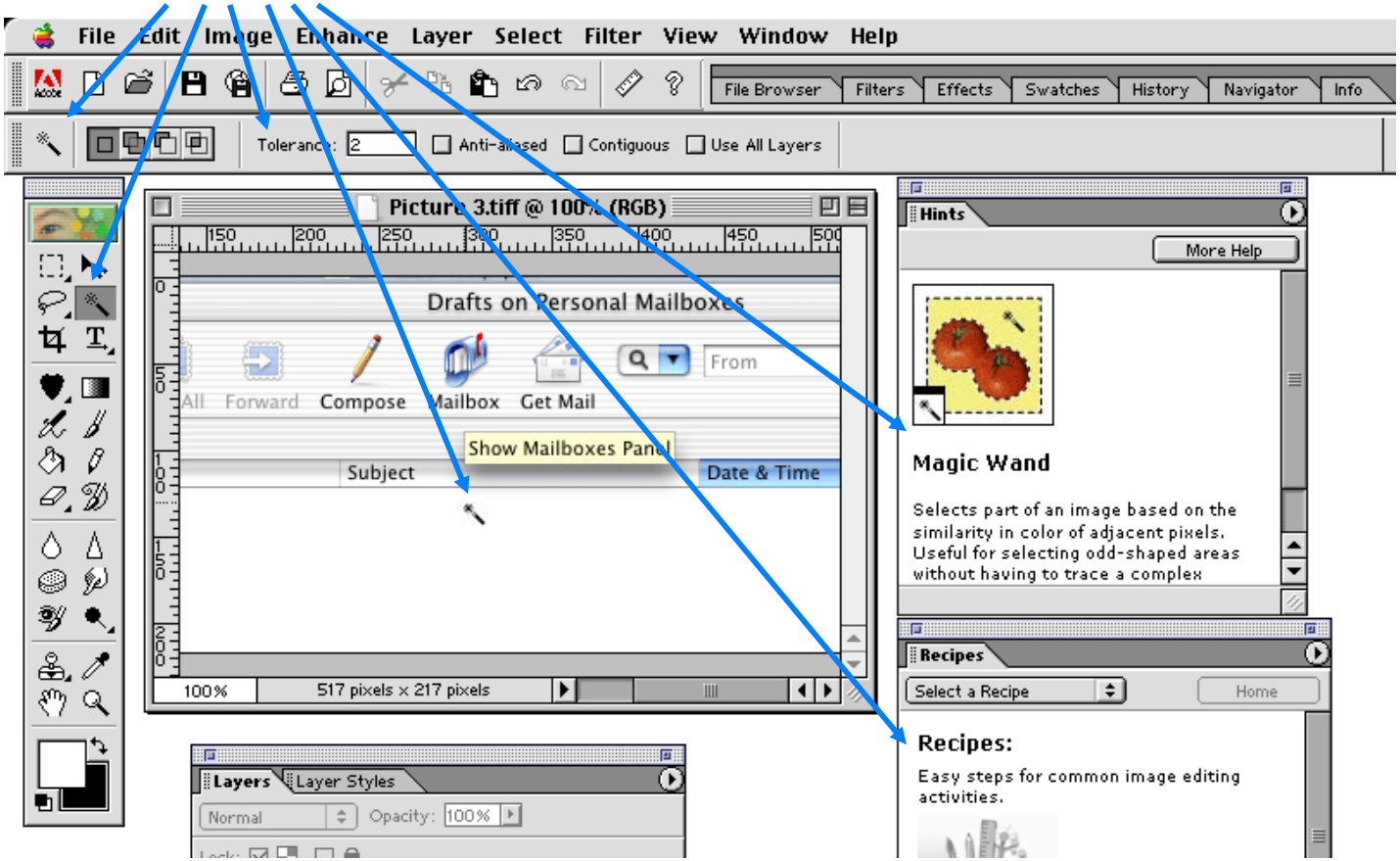
Types of Doc/Help

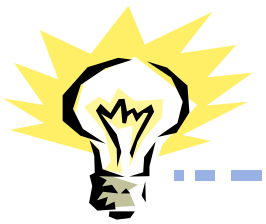
- 4. Context-sensitive (task-specific) help
  - System provides help on current situation
  - Balloon help, ToolTips
  - Other examples?



Types of Doc/Help

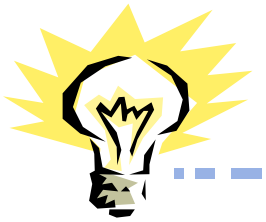
Context Sensitive Help e.g. Photoshop





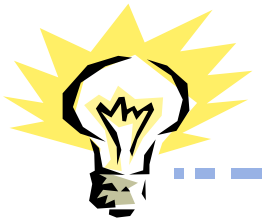
User Support Approaches

- Command assistance
  - Specific details on particular command
    - e.g. UNIX %> man ls
  - Good if user knows what s/he wants
    - not always the case!
- Command prompts
  - Message when user commits an error
  - Menus and icons fall under this category to a degree



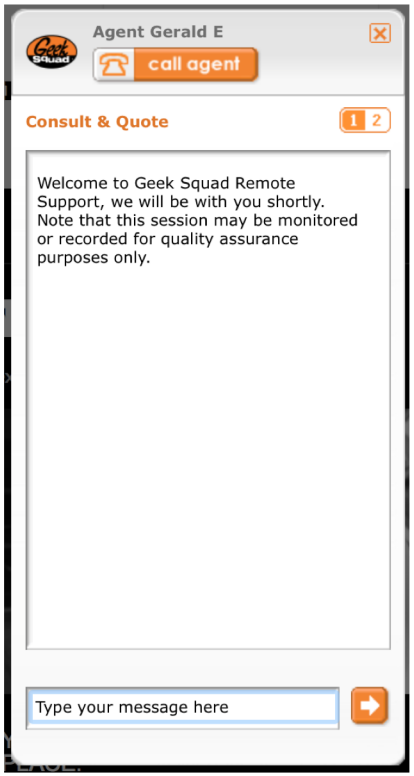
User Support Approaches

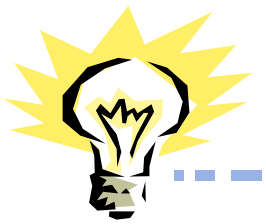
- Context-sensitive help
  - Information pertinent to a particular situation or interface item
- On-line tutorials
  - Work through simple examples, provide a feel for application



User Support Approaches

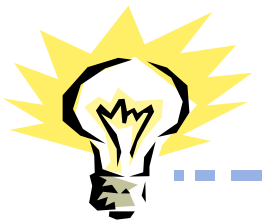
- On-line documentation
  - How much like paper doc?
  - Electronic can emphasize hypertext, indexing, and searching
- Live help – phone or online chat
  - Can often see your screen, or even take control of your computer
  - Need to be online and logged in





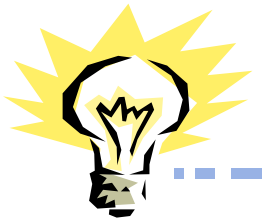
(Display) Medium

- Paper versus monitor?
- People are 15-30% slower reading and comprehending text from a display as compared to paper
- Generational effects



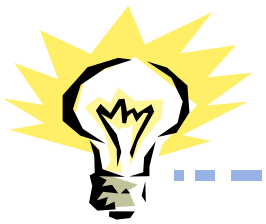
Monitor

- Causes for slow-down
  - Poor fonts (`monospace`, bad kerning, spacing)
  - Low contrast of letters & background
  - Emitted vs. reflected light (curved tube)
  - Small display -> page turning
  - Distance, placement of monitor
  - Layout and formatting problems
  - Reduced hand and body motion



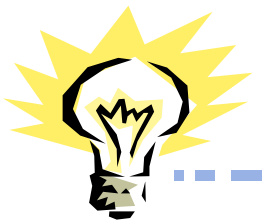
Presentation Issues

- Integrate with system, don't "add on"
- 1. How is help requested?
  - Command, button, function, separate app.
  - Advantages, disadvantages?
- 2. How is help displayed?
  - Separate window, whole screen?
  - On top of application, pop-up box?
  - Command line, button, light bulb…?



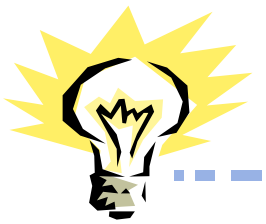
Presentation Issues

- 3. Effective presentation of help
  - Design it like any other part of UI
    - language, terminology, jargon, etc.
  - Use active voice
    - "To close a window, place the mouse cursor over the red circle at the upper left corner () and click the mouse button."
- 4. Implementation issues
  - Fast response time is important
  - How is help stored? File, database, …?



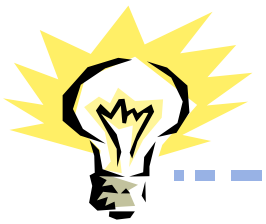
Adaptive Help

- Tailor help level and style to the *particular user*
- Usually requires a system to maintain a *user model*



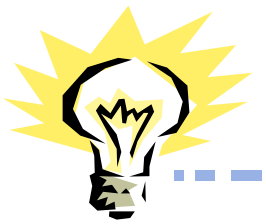
User Model

- Creating & maintaining a user model
  - 1. Quantification - Numeric levels of use
  - 2. Stereotype
    - Novice, intermediate, expert
    - Utilize command use and errors to categorize
  - 3. Overlay model
    - Build expert user profile with optimal behavior
    - Compare to what user is currently doing



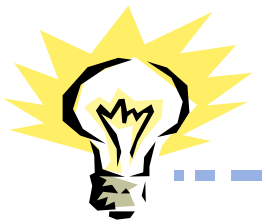
Adaptive Help Issues

- Initiative & control
  - Does user feel that control was taken away?
  - "You're not performing efficiently in this task"
- Use
  - Is all this work actually useful?
- Scope
  - To what aspect of system does it apply?



Doc Organization

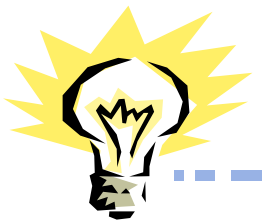
- State educational objectives
- Present concepts in logical sequence, increasing order of difficulty
- Avoid forward references
- Have plenty of examples, complete sample sessions



Doc Organization

- Each concept section:
  - Explain reason for concept
  - Describe concept in task-domain terms
  - Show computer-related semantic concepts
  - Offer syntax
- Table of contents and index are important
- Keep reading level simple
  - People liked 5th grade text best

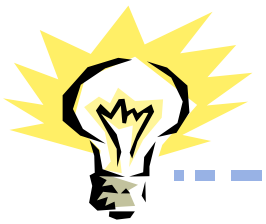
Roemer & Chapanis, CHI '82



Improving Doc

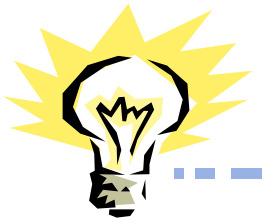
- Run through think-aloud sessions
- Use on-line example tutorials
- Try to predict common states & problems
- Anticipate errors
- Develop manuals early and pilot test
- Iteratively refine

Sound familiar??



Human Characteristics

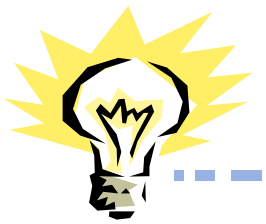
- Don't anthropomorphize
  - ✘ "The computer will calculate an answer after you respond"
    - Gives user inaccurate impression
  - ✓ "You can get the solution by pressing F1"
    - Better to put user in control



Terminology

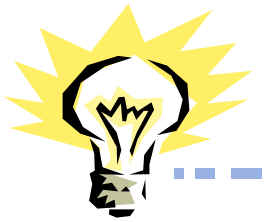
- Avoid
  - know, think, understand, have memory
  - ask, tell, speak to, communicate with
- Better
  - process, print, compute, sort, store, search, retrieve
  - use, direct, operate, program, control

But is this the whole story??
Is this always the case??



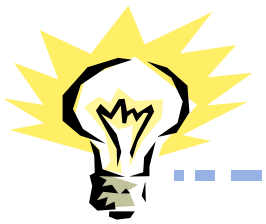
Help Levels

- 1. Designer model
  - System designer has model of typical user and builds interface with this in mind
- 2. Adaptable help
  - User can edit their own model, for example, .profile on UNIX
- 3. Adaptive help
  - System maintains a user model and can change it on the fly



Recommendations

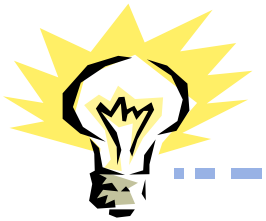
- OK
  - All details of each command
  - BNF or formal notation
  - Terse, technical prose
- Better
  - Subsets of concepts
  - Lots of examples
  - Readable explanations with a minimum of technical terms



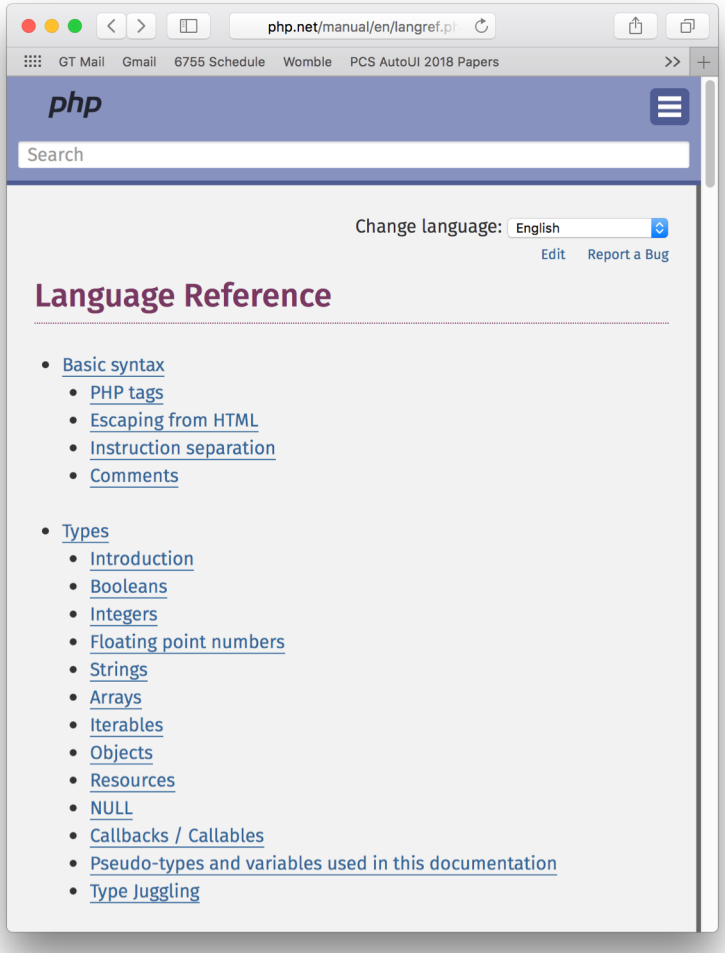
Studies

- Studies have taken documentation and improved it
  - People did perform better with the improved documentation

- -> Effort here is worthwhile



PHP Language Reference



PHP Language Reference


```
<?php
echo "Hello world";

// ... more code

echo "Last statement";

// the script ends here with no PHP closing tag
```

Changelog

Version	Description
7.0.0	The ASP tags <%, %>, <%=, and the script tag <script language="php"> are removed from PHP.
5.4.0	The tag <?= is always available regardless of the short_open_tag ini setting.

User Contributed Notes 5 notes — add a note

▲ 61 ▼ crazytonyi at gmail dot com — 2 years ago

```
Regarding earlier note by @purkrt :

> I would like to stress out that the opening tag is "<?
php[whitespace]", not just "<?php"

This is absolutely correct, but the wording may confuse some
developers less familiar with the extent of the term "
[whitespace]".

Whitespace, in this context, would be any character that
generated vertical or horizontal space, including tabs ( \t
), newlines ( \n ), and carriage returns ( \r ), as well as a
space character ( \s ). So reusing purkrt's example:
```