

# Help and Documentation

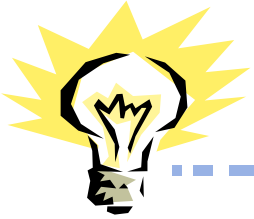
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It's in the manual



# Agenda

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



# Customer Support

DILBERT / SCOTT ADAMS, [scottadams@aol.com](mailto:scottadams@aol.com)



Secure Access Login

Username:

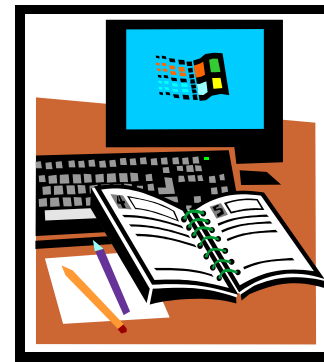
Password:

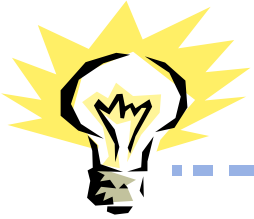


# User Support

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

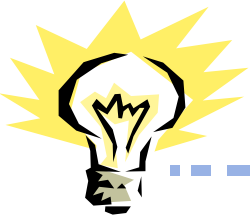




# Help & Documentation

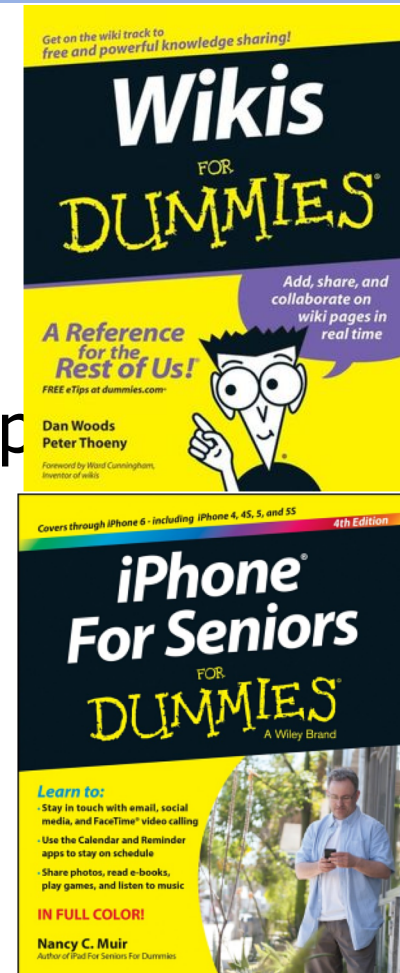
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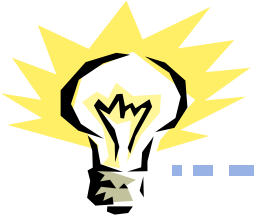
- Essential
  - ❖ BUT never a replacement for bad design
- Simple system
  - ❖ Walk up and use it
  - ❖ Name some
- Most systems with rich features (even well-designed ones) require Help systems



# 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

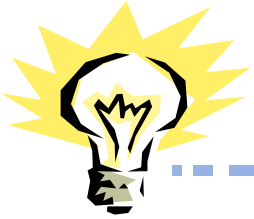
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## ➤ Availability

- ❖ Any time the user is operating the system

## ➤ Accuracy & Completeness

- ❖ Accurate (tricky with changing versions)
- ❖ Cover all aspects of application



# User Support Requirements

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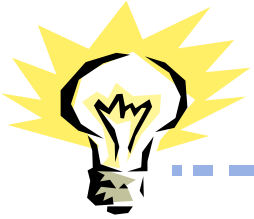
## ➤ Consistency

- ❖ 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

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## ➤ Flexibility

- ❖ Appropriate for novices through experts
  - ...maybe have expandable sections of details

## ➤ Unobtrusiveness

- ❖ Shouldn't distract from or interfere with normal work flow



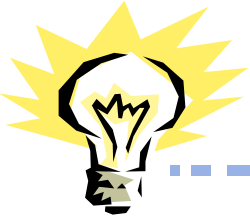
# Types of Doc/Help

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## ➤ 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

The screenshot shows a window titled "Quick Start Guide" with a sidebar containing a "Bookmarks" list. The main content area is titled "Getting Started" and contains the following text:

Before you can successfully install Eudora, you need to know the following information about your email account. Either your Internet Service Provider (ISP) or administrator can provide you with this information.

- **Return email address (Return address)**

This is the email address that has been assigned to you by your ISP or your administrator. It is the address other people use to send you email. An example return address is jim@myfirm.com

*Record your Return address here.*

- **User name (Username)**

This is the name you use to log into your email account. Your ISP or organization assigns it. It is generally, but not necessarily, the name that appears before the at sign in your return email address (in the example above, "jim" is the user name).

*Record your Username here.*

The sidebar on the left lists the following items under "Bookmarks":

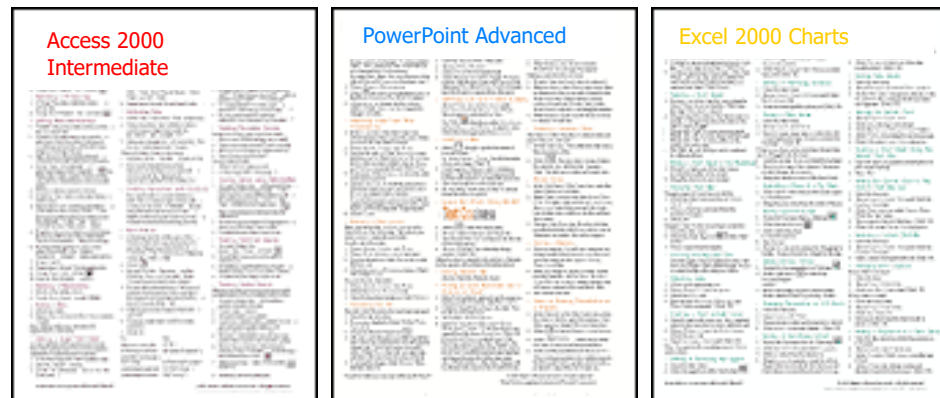
- Quick Start Guide for Macintosh
  - Introduction
  - Finding Information
  - System Requirements
  - Getting Started
  - Installing Eudora
- Opening and Configuring Eudora
  - Getting Started Settings
    - POP or IMAP
    - SMTP Server Settings (if needed)
  - Importing Mail and Address Book
  - Operating Eudora in One of Three Modes
  - Choosing a Eudora Mode
  - Registering Eudora
  - Technical Support
  - Creating and Sending a Message
- Checking for and Receiving Mail
  - Checking Mail Manually
  - Automatic Mail Checking
- Replying to a Message
- Forwarding a Message
- Redirecting a Message
- Shortcuts
- Return Policy

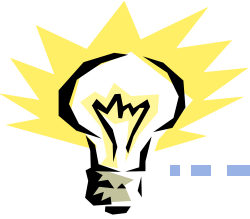


# Types of Doc/Help

## ➤ 2. Quick reference/review

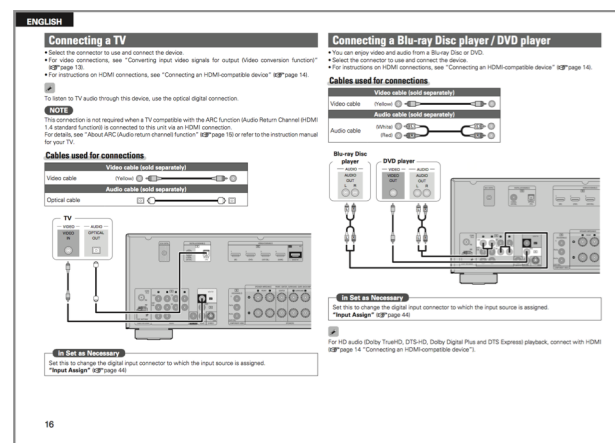
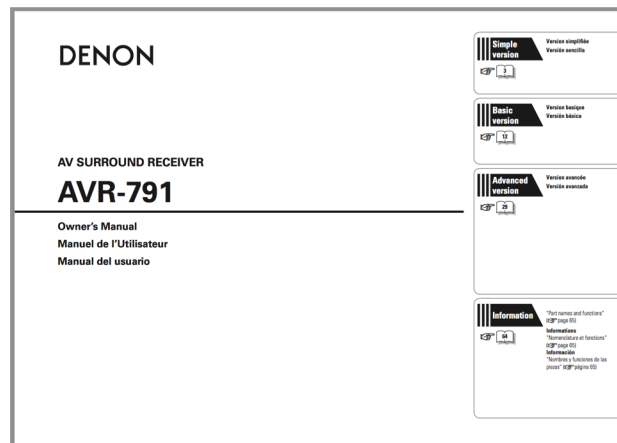
- ❖ Reminder or short reference
- ❖ Often for syntax
- ❖ Can be recall aid for expert
- ❖ Can allow novice to see what's available

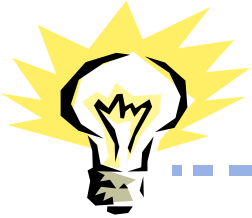




# Types of Doc/Help

- 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

Address: http://www.php.net/manual/en/function.strtotime.php

php

downloads | documentation | faq | getting help | mailing lists | reporting bugs | php.net sites | links

search for \_\_\_\_\_ in the function list

lookup: <input type="text"/>

PHP Manual

^Date/Time

- checkdate
- date
- getdate
- gettimeofday
- gmdate
- gmmktime
- gmstrftime
- localtime
- microtime
- mktime
- strtotime
- time

<<strtotime

view the [printer friendly version](#) or the [printer friendly version with notes](#) or change language to Bra

## strtotime

(PHP 3 >= 3.0.12, PHP 4 )

strtotime -- Parse about any English textual datetime description into a UNIX timestamp

### Description

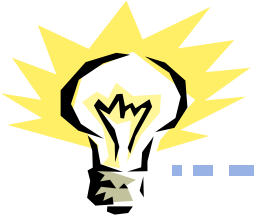
int **strtotime** ( string time [, int now])

The function expects to be given a string containing an English date format and will try to Upon failure, -1 is returned.

Because **strtotime()** behaves according to GNU date syntax, have a look at the GNU m

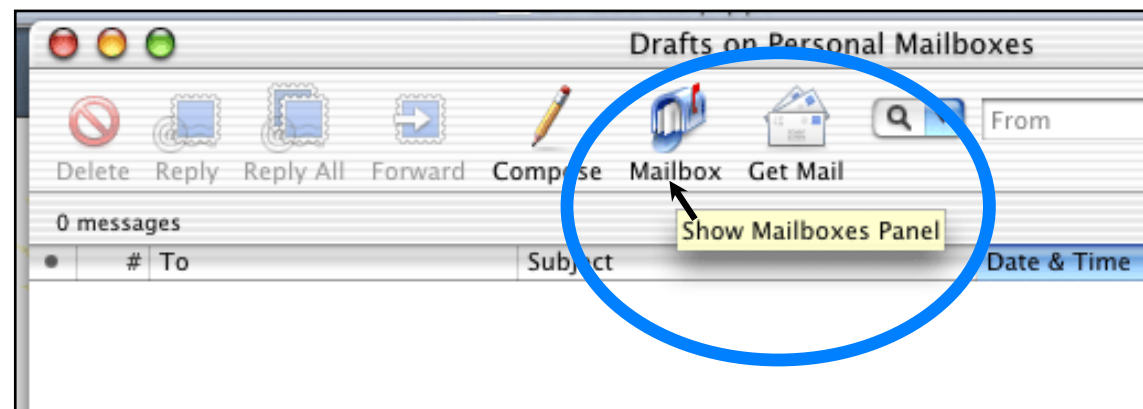
#### Example 1. strtotime() examples

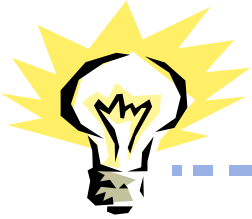
```
echo strtotime ("now"), "\n";
echo strtotime ("10 September 2000"), "\n";
echo strtotime ("+1 day"), "\n";
echo strtotime ("+1 week"), "\n";
echo strtotime ("+1 week 2 days 4 hours 2 seconds"), "\n";
echo strtotime ("next Thursday"), "\n";
echo strtotime ("last Monday"), "\n";
```



## Types of Doc/Help

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

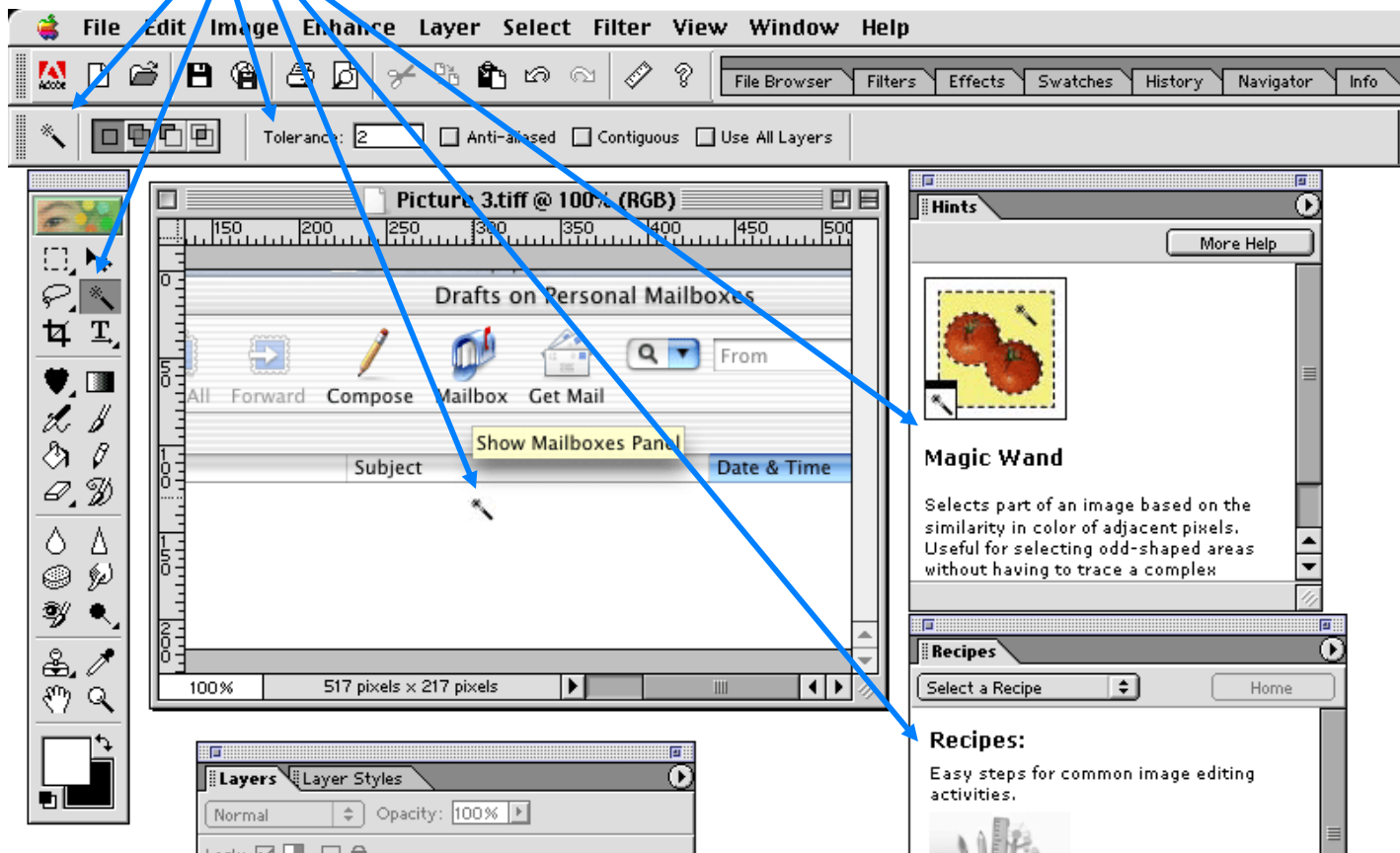




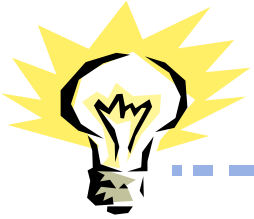
# Types of Doc/Help

Context Sensitive Help

e.g. Photoshop







# User Support Approaches

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## ➤ 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

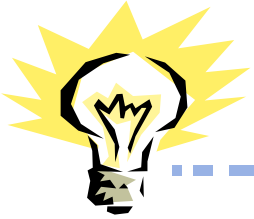
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- Context-sensitive help

- ❖ Information pertinent to a particular situation or interface item

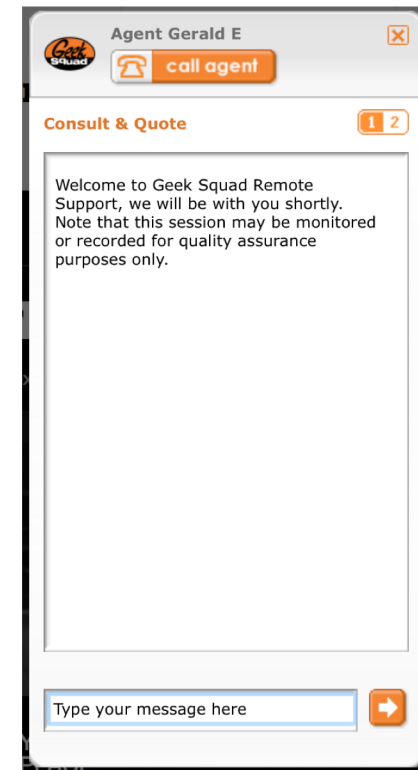
- On-line tutorials

- ❖ 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



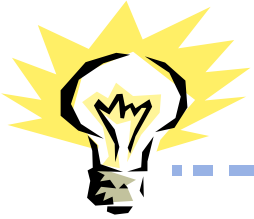


## (Display) Medium

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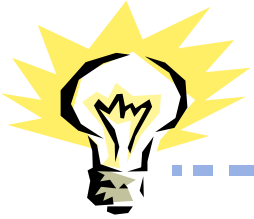
- Paper versus monitor?
- People are 15-30% slower reading and comprehending text from a display as compared to paper
- Generational effects





## ➤ Causes for slow-down

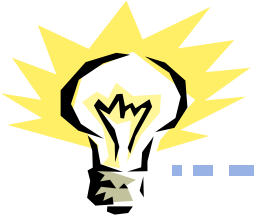
- ❖ Poor fonts (monospace, bad kerning, spacing)
- ❖ Low contrast of letters & background
- ❖ Emitted vs. reflected light (curved tube)
- ❖ Small display -> page turning
- ❖ Distance, placement of monitor
- ❖ Layout and formatting problems
- ❖ Reduced hand and body motion



# Presentation Issues

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- 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


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## ➤ 3. Effective presentation of help

### ❖ Design it like any other part of UI

- language, terminology, jargon, etc.

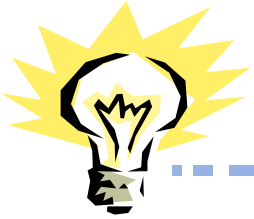
### ❖ Use active voice

- “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

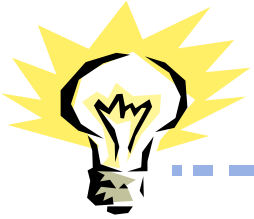
### ❖ How is help stored? File, database, ...?



# Adaptive Help

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





# User Model

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## ➤ Creating & maintaining a user model

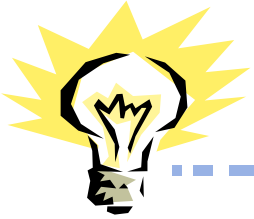
- ❖ 1. Quantification - Numeric levels of use
- ❖ 2. Stereotype
  - Novice, intermediate, expert
  - Utilize command use and errors to categorize
- ❖ 3. Overlay model
  - Build expert user profile with optimal behavior
  - Compare to what user is currently doing



# Adaptive Help Issues

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- 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

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

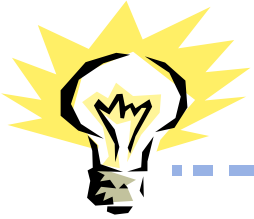


# Doc Organization

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- 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

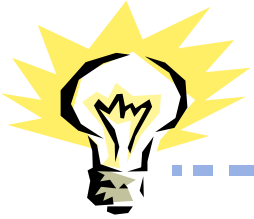


## Improving Doc

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- 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??

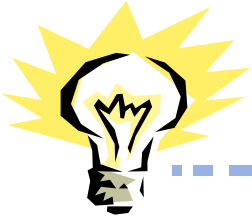


# Human Characteristics

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## ➤ 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

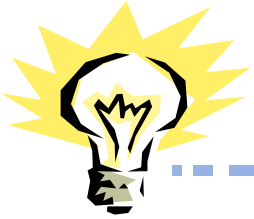
## ➤ Avoid

- ❖ 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??

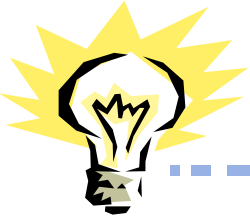


# Help Levels

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- 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

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## ➤ OK

- ❖ All details of each command
- ❖ BNF or formal notation
- ❖ Terse, technical prose

## ➤ Better

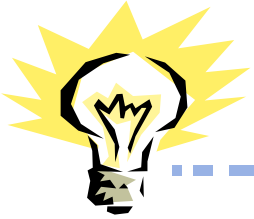
- ❖ Subsets of concepts
- ❖ Lots of examples
- ❖ Readable explanations with a minimum of technical terms



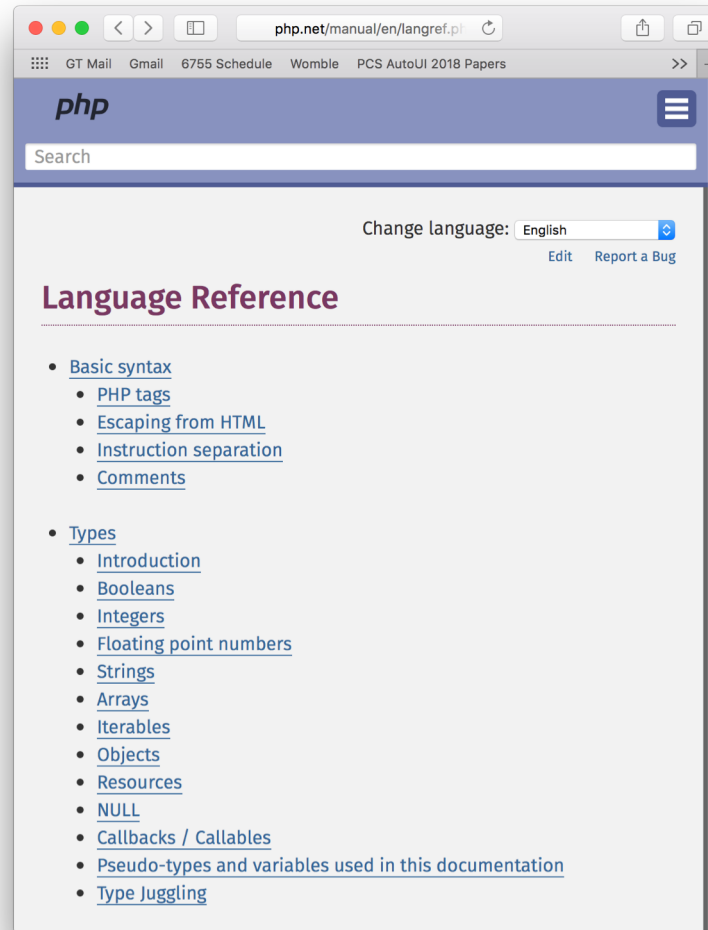
## Studies

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- Studies have taken documentation and improved it
  - ❖ People did perform better with the improved documentation
  
- -> Effort here is worthwhile

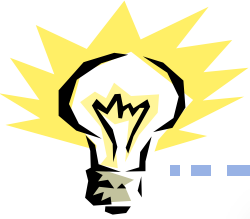


# PHP Language Reference



A screenshot of a web browser displaying the PHP Language Reference page. The browser's address bar shows the URL `php.net/manual/en/langref.p`. The page features a blue header with the `php` logo and a search bar. Below the header, there is a language selection dropdown set to "English" and links for "Edit" and "Report a Bug". The main content area is titled "Language Reference" and contains a list of links organized into two categories: "Basic syntax" and "Types".

- [Basic syntax](#)
  - [PHP tags](#)
  - [Escaping from HTML](#)
  - [Instruction separation](#)
  - [Comments](#)
- [Types](#)
  - [Introduction](#)
  - [Booleans](#)
  - [Integers](#)
  - [Floating point numbers](#)
  - [Strings](#)
  - [Arrays](#)
  - [Iterables](#)
  - [Objects](#)
  - [Resources](#)
  - [NULL](#)
  - [Callbacks / Callables](#)
  - [Pseudo-types and variables used in this documentation](#)
  - [Type Juggling](#)



# PHP Language Reference

The screenshot shows the PHP.net manual page for "PHP tags". The browser address bar is "php.net/manual/en/language.ba". The page title is "PHP tags". The main content area contains the following text:

When PHP parses a file, it looks for opening and closing tags, which are `<?php` and `?>` which tell PHP to start and stop interpreting the code between them. Parsing in this manner allows PHP to be embedded in all sorts of different documents, as everything outside of a pair of opening and closing tags is ignored by the PHP parser.

PHP also allows for short open tag `<?` (which is discouraged since it is only available if enabled using the `short_open_tag` `php.ini` configuration file directive, or if PHP was configured with the `--enable-short-tags` option).

If a file is pure PHP code, it is preferable to omit the PHP closing tag at the end of the file. This prevents accidental whitespace or new lines being added after the PHP closing tag, which may cause unwanted effects because PHP will start output buffering when there is no intention from the programmer to send any output at that point in the script.

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

// ... more code

echo "Last statement";

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

The screenshot shows the "Changelog" and "User Contributed Notes" sections of the PHP.net manual page for PHP tags.

### Changelog

| Version | Description  |
|---------|--|
| 7.0.0   | The ASP tags <code>&lt;%</code> , <code>%&gt;</code> , and the script tag <code>&lt;script language="php"&gt;</code> are removed from PHP. |
| 5.4.0   | The tag <code>&lt;?=&gt;</code> is always available regardless of the <code>short_open_tag</code> 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: