User Documentation

- Definition: Stored information about how to use a system

- One size does not fit all!
  - Needs vary with knowledge level and goals of user
    - new user trying to learn system
    - casual user trying to remember command
    - experienced user recovering from errors
    - experts needing advanced options
    - users needing confirmation that a function works properly
Universal Thought

- Nobody reads documentation, nobody writes documentation, but everybody needs documentation!

Paper vs. Online Documentation

- Paper Advantages
  - Highly portable
  - Easy to scan at varying levels of detail
  - Allows annotation
  - Familiarity
  - Quality of text best (25% more readable than on-line)
    - reading faster
    - can display more text
  - People like owning books

- On-line Advantages
  - Does not take physical space
  - Easy to find
  - Rapid search by keywords
  - Rapid page turning with links, scroll bar or table of contents

Overall Approaches

- Systematic documentation
  - Complete documentation of tasks
  - Sequential and explanatory

- Minimalism
  - Learning by doing
  - Work with familiar examples
  - Anticipate and manage errors
Types

- Information in the interface
- On-line help manuals
- Tutoring
- On-line user forums

Information in the Interface

- Error messages & input prompts
- Short-cuts for commands
- Balloon help

Advice to write better messages

- Make the message specific
  - Explain the error
  - Give the context
- Make the message action-oriented
  - Tell the user what to do
  - Use the labels on buttons in the message
  - Maintain consistency with similar functions
System message: Specific and action-oriented

There is not enough memory available to open "Microsoft Excel".
Do you want to quit the application "Microsoft PowerPoint" and open "Microsoft Excel" instead?

Cancel  Quit Application

Short cuts in menus

Balloon Help
On-line help Manuals

- Reference Manuals
  - System vs. application
  - User access
    - Search
      - Search by keyword
    - Browse
      - Table of contents
      - Index
  - Contents

Advice to write better manuals

- Use consistent language between pages and within the same page
- Be concise in your language
- Use familiar language and images
  - “Speak the user’s language!!!!!”
- Coordinate text, labels, images & error management

Coordinating text, labels, images & error management

(Kai’s Power GOO)
System level Help

System search

![System search screenshot](image1)

System search - results

![System search results screenshot](image2)
System Help

System Help results

Application level Help
WORD Help Menu

Search WORD help

Search WORD help -results
Acrobat pdf file Manuals

- "pdf" file
- Universally read by Adobe Acrobat Reader
  - Free download from web
- Created by Adobe Acrobat from text files
- Functionality
  - Print
  - Available off-line from software
  - Search by keyword
  - Table of Contents
  - Index
  - Bookmarks

Acrobat pdf file manual
Web Browser html file Manual

- “.html” file
- Universally read by any Web Browser
  - Free download from web
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Internet Explorer html manual

On-line Manual Contents

- Table of Contents
- Overview of System
- Getting Started
- Major Functions explained by how to do it
- Technical Information
- Frequently Asked Questions
- Trouble-shooting FAQs
- Index
Tutoring

• Types
  – “Getting started” manual
  – Interactive tutorial
  – Embedded demonstration
  – Intelligent tutoring

“Getting started” Manual

• Overall picture of interface
  – “parts” description labeled with functions
• Procedural
  – Focus on core (most frequent and necessary) tasks
  – Step by step
  – Assumes no errors made
• List of common problems

Interactive Tutoring
Embedded Demonstration: Microsoft WORD agent

Intelligent Tutoring

- AI system
  - Expert’s model
    - Representation of knowledge to teach
  - Student’s model
    - Representation of student’s knowledge
    - Difference between expert and student guides teaching
  - Heuristics about how to teach
    - Coach
    - Direct teaching
    - Drill and practice
- Experimental

On-line user forums

- Discussion groups
  - News groups
  - Chat rooms
- Frequently asked questions (FAQ)
- Web-based tech support
  - Email
  - Chat
Newsgroup Help

Issues in providing good help

• Relate to the user’s context
  – What is the user doing?

• Help is often used while performing a task
  – User must switch between the help windows and the application

• Multiple formats for multiple needs and users
Integrating Documentation with UI Design

Diagram showing steps in the process.