



System Development and Life-Cycle Management (SDLCM) Methodology

Subject Online Help Systems and Tutorials	Type	Standard
	Identifier	S-6052
	Effective Date	February 2002
	Revision No.	2

Approval

CISSCO Program Director

A. PURPOSE

This standard prescribes the format of an Online Help System and provides guidelines to support determining the content of the Online Help System for a specific application system.

B. APPLICABILITY

This standard applies to any Online Help System developed in support of an NRC application system.

C. REFERENCE PUBLICATIONS

The following were used in developing this standard:

- *SDLCM Methodology Procedures, Standards, and Forms, Version 1.2, December 1999.*
- SDLCM Methodology Standard S-6051, User Guide.
- SDLCM Methodology Standard S-9053, Content and Format of SDLCM Methodology Standards.
- Horton, W. (1994). *Designing and Writing Online Documentation Hypermedia for Self-supporting Products* (2nd ed.). New York: John Wiley & Sons, Inc.
- Alred, G., Brusaw, C. & Oliu, W. (2000). *Handbook of Technical Writing* (6th ed.). Boston, New York: Bedford/St. Martin's.
- Weinschenk, S., Jamar, P., & Yeo, S. (1997). *GUI Design Essentials*. New York: John Wiley & Sons, Inc.

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B. STANDARD

An Online Help System presents user-needed information in small, independent amounts. It is designed for ease of navigation and speed of viewing information. It is also meant to serve different types of users and their unique needs.

An Online Help System should never be a User Guide converted to hypertext. A User Guide is a book or document that works in a linear fashion, one page after another. Online Help is an electronic medium where each screen or topic must stand alone, because it can be accessed from anywhere within the Online Help System.

D.1 ANALYSIS

The key to a successful Online Help System is analysis and research: Know your user, learn the software to be used, understand the questions of the user, and define the objectives for the Online Help System to address. Out of this analysis will come the structure of the system.

The following sections illustrate the analysis process for developing an Online Help System.

D.1.1 Identify Users

Research the user community to identify the different types of users. It is likely you will find several types of users using the same software or computer system. User types include the following:

- **Novices** – These users may be new to the computer, new to the software or system or new to the job. They are curious but anxious about making mistakes. They are likely not to ask questions because they won't have the knowledge of the terms or concepts in order to express their thoughts. They will use online help to gather as much information as possible.
- **Occasional Users** – These users have mastered the system, but due to infrequent need, are likely to forget a key element or essential function. They may forget basic terms or details of commands. They will use online help to refresh their memories.
- **Transfer Users** – These users already know how to use a similar system, they just need to know the differences between the old version and the new one.
- **Experts** – These users know the system. They want shortcuts and a fast response time. They know what they want and they want it now and they want it simple and concise. They will skim online help for quick answers.

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- Rote Users – These users do repetitive tasks as instructed by a supervisor. They don't know what to do with unusual circumstances or exceptions that require them to depart from their usual routine. Rote users need clear, simple, low-level instructions that tell them exactly what button to push or what code to enter. They will want online help to tell them everything.

D.1.2 Identify Tasks

Learn the software yourself. Ask the programmer or developer to show you how it works from his or her perspective. Experiment with the system. Identify the different functions the software is capable of performing and keep a list of these functions. Think like the users you identified in the previous section.

D.1.3 Identify Questions

Build a list of questions that a typical user might ask about each function you identified in the previous section. Identify any potential trouble spots or areas that may be particularly difficult to the average user.

D.1.4 Identify Objectives

From the research and analysis gathered during the previous sections, you will be able to define clear objectives of what your Online Help System should address: the kinds of users the system should focus on, the kinds of problems it should solve, and the kinds of questions it should answer. Make a list of objectives to reference after the online help is built.

D.2 STRUCTURE

Begin your structure of your online help like a pyramid, from the general to the specific. Then structure the topics like a spider web, linking one topic to another where appropriate.

Use the following guidelines to develop your structure.

D.2.1 Topics – First Level

Start with the highest level information, for example, basic background information about the system or the primary functions of the system. Make these topics general but specific enough that the user knows where he or she is going. Make the topics stand-alone chunks of information independent of any other topic. These topics will be the first layer of your Table of Contents.

Subject Online Help Systems	Type	Standard
	Identifier	S-6052
	Effective Date	February 2002
	Revision No.	2

D.2.2 Topics – Second Level and Beyond

Take the high level topics and break them out into more detailed topics. Break the topics out into another layer if the previous layer has topics that are too big. Include another layer of topics if necessary. The number of layers will depend on the intricacy of the software or computer system. Make each layer of topics progressively disclose information, so the expert can receive information immediately and the novice can go further.

Do not make users go down more than three layers to find the needed information. They may need to go in a different direction if they have pursued the wrong thread, but it should not take more than three layers for users to learn this.

D.2.3 Size of Topics

The text for a topic must not exceed the size of two screens. If the topic is larger, break it out into two or more topics. Under extreme circumstances topics can be as large as three screens, but there should be very few large topics within a Help system.

D.3 DESIGN

Once the topics have been determined, consider the visual design of the system. The following sections describe the elements of Online Help.

D.3.1 Navigation

Include sufficient navigation devices so a user will not get lost in the online help. Use the following list for navigation needs. As technology changes the types of navigation devices available may change.

- An Online Help System must have at least three different methods for finding topics: Table of Contents, Find, and Index. A user must be able to get back to any one of these methods at any position within the Online Help System.
- A Browse Sequence may be included but it is not required. It allows a user to move from one topic to a related topic by using the arrow buttons either forward or backward.
- A user must be able to exit the system from any topic.
- A user must be able to go back to a previous topic.

Subject Online Help Systems	Type	Standard
	Identifier	S-6052
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	Revision No.	2

D.3.2 Context-sensitive Help

Context-sensitive Help is not required but can be helpful. It limits the amount of time a user takes to find the information he or she needs to perform a task. If the system for which the Online Help is being written is a very large system or very detailed, Context-sensitive Help is highly recommended.

D.3.3 Glossary

Include a glossary of terms, phrases, and acronyms as separate topics even if these are explained or hyperlinked within other topics. This allows the user another option for gaining information at any given time.

D.3.4 Display

Even though the screen of Online Help will vary in size according to the computer settings of the user, there are certain standards for layout and design of the screen that make it easier for a user to read and comprehend information from the screen.

D.3.4.1 TYPEFACE AND TYPE SIZE

Use a sans serif (without serifs) font such as Arial or Helvetica. Serif fonts, such as Times New Roman and Courier, have small projections at the end of each stroke in a letter. The serifs make it easier for the eye to move from one letter to another in printed text. On the computer screen, text becomes cluttered and the eye gets stalled.

Use an 8-point or 10-point sans serif font. Smaller fonts are easier to read on the computer screen.

D.3.4.2 JUSTIFICATION

Use left-justified margins. The ragged right provides the eyes with landmarks allowing the eye to flow over the text more readily.

Full-justification will cause greater space between letters as the user enlarges the screen causing the text to be cumbersome to read.

Subject Online Help Systems	Type	Standard
	Identifier	S-6052
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	Revision No.	2

D.3.4.3 HIGHLIGHTING DEVICES

Use highlighting devices such as UPPERCASE LETTERS, **bold**, and *italics* sparingly. They are intended to make the reader stumble slightly so as to imply a change or a difference. They work well for headings or important notes of information that need to stand out from the regular text. Do not create long, continuous text using any one of these devices. They reduce legibility and slow the reader.

Underlining on a computer screen is hard to read so should be avoided.

D.3.4.4 WHITE SPACE

White space is very important for the reader of an Online Help System. A user wants a direct answer to a specific need or question quickly, so every screen must be easy to scan for answers. If the screen is full of text and not organized, it cannot be scanned quickly. White space allows for that scanning.

D.3.4.5 GRAPHICS AND ILLUSTRATIONS

Graphics such as screen captures are to be used *only* when the text for explaining the concept would be too great. Illustrations such as toolbar buttons can be used very effectively in online help. Because online help is mostly instructions, avoid large graphics or illustrations. Small graphics work best.