

Designing Single Source Materials

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Timelines for developing documentation are getting shorter and budgets are getting smaller. This means that we have to find more efficient ways of developing documentation. One way is to consider single-sourcing your information for multiple media (paper, online), multiple types of documentation (user documentation, Help, training), multiple users and reuse of information for multiple products. While this process takes a lot of up-front planning it can significantly decrease your costs and development times. This session looks at the process for designing and creating single-source materials for multiple media, users, or types of documentation.

WHY SINGLE SOURCING

It used to be that technical communicators created one type of documentation, paper-based user guides and reference material. This is no longer the case. More likely you are responsible for:

- multiple media
 - paper based materials (user guides, reference material)
 - Help (Windows or HTML)
 - Web-based materials
 - training (classroom or web-based)
- creating documentation for multiple types of users
- creating multiple versions of information for diverse product lines
- documentation in multiple languages
- documentation that can be easily configured for customized products

Creating information for more than one of these multiple types of documents simultaneously can be time consuming and costly. Single sourcing can simplify the process and ensure that you meet the multiple demands.

WHAT IS SINGLE SOURCING?

Traditional documents are written in files that consist of chapters or sections. These files are assembled to create a document. Help topics are also contained in files, which are often grouped by section. Single source materials are materials that come from a single location.

Typically this means that content is contained in a database. Single source information is broken down to the element level (section, paragraph, sentence). When information is broken down to this level it is easy to select an element to reuse or repurpose. It is not necessary to store all these elements in separate files; rather they can be contained in a standard document and identified as individual elements.

THE PROCESS

There are typically two types of single source projects, conversion of existing legacy information to single source materials or creating single source materials from scratch. SingleSource Associates has developed a 10-step process to analyse, design and create effective single source materials. Step 1 is applicable to existing materials, while the remainder of the steps apply to all materials. The steps that are specific to single sourcing are explained in more detail.

Phase 1. The Information Audit™

1. Information Analysis.
2. Audience Analysis.
3. Process Analysis.

Phase 2. The Customized Information Blueprint™

4. Information Modeling
5. Technology Review
6. Information Design

Phase 3. Proof of Concept

7. Prototype Development.
8. Usability Testing.

Phase 4. Full implementation

9. Development.

Phase 5. Knowledge Transfer (10)

Information Analysis

Most corporations have a lot of existing documentation that would benefit from moving into a single source structure. You need to identify:

- repetitious information
- similar topics
- potential missing information
- multiple outputs
- multiple audiences

Audience Analysis

You need to understand the needs of your audiences and the tasks they perform. Knowing this information you can identify the types of information they require (e.g., Help, training).

Process Analysis

It is important to understand your current processes to understand how single sourcing will affect your processes and how easily the changes can be made. Single sourcing requires new processes such as:

- structured writing
- content management

Structured writing

Structured writing is not new. It was first designed for SGML. Structured writing for single sourcing is not as rigid as that of SGML, however, it does require that each component of information (e.g., procedure, caution, warning) be written exactly alike. This means that it will be completely transparent when it is used in multiple locations and very easy to identify in the content management system.

Information modeling

Each output type (e.g., web) requires a different design for information, however much of the content is the same regardless of the media. It is important to design information appropriately for optimum usability in that media. It is also very important to design each component of information consistently so that each component can be reused as required. SSA uses a building block approach to information.

Building Blocks

Help (reference)	Help (Task oriented)/ Online user guide	User Guide (paper)	Training (Classroom)	Web-based Training (basic interactivity)
Field definitions (direct access)	Field definitions (direct access)	Field definitions (secondary access)	Field definitions (secondary access)	Field definitions (secondary access)
Screen level information (direct access)	Screen level information (direct access)	Screen level information as part of an overall task	Screen level information as part of an overall task	Screen level information as part of an overall task
	Screen images (optional)	Screen images	Screen images	Screen images (secondary access)
	Overviews	Overviews	Overviews	Overviews
	User tasks (TOC accessible)	User tasks	User tasks	User tasks
			Objectives	Objectives
			Task context	Task context
			Examples	Examples
			Exercises	Exercises (interactive where possible)

Content management

Content management is similar to document management, however, document management manages files and content management manages content (e.g., paragraphs). Content management provides:

- version control (at the element level not just the file level)
- security (check in/check out procedures)
- categorization of every component of information (repository, indexing)
- searching (access and retrieval of information both by word or phrase and by context)
- workflow (routing of information through the development and review cycle)

Sample information element

Information elements should be written consistently to ensure consistency across the document suite and facilitate transparent reuse. For example, a procedure could be defined as:

Procedure title
 Link to previous procedure
 Pre-requisites
 Procedure body
 Overview
 (Notes, cautions, warnings)
 Steps
 Explanatory text, result
 Link to next procedure
See also

Technology review

Technology is a key component for the success of single sourcing. Until recently few tools were available. This made creating single source materials difficult to create and manage. A number of new tools are entering the market, which will assist you in making your job easier.

Multiple formats (WinHelp, paper, HTML-based Help, Web Site)

- BlueSky RoboHelp
- WexTech Doc2Help
- Quadralay WebWorks

Content management

- AutoDoc (MS-Word)
- Chrystal Software Canterbury (FrameMaker), Astoria (SGML)
- HyNet (FrameMaker and MS-Word)

SAMPLE PROJECT

A client required documentation and training for a large product (800 Windows-based screens with more than 5000 individual fields). A review of the users' needs identified that the following documentation was required:

- Windows Help
- Web-based user guide
- classroom training (paper)

The traditional method of development would have been to have two teams (documentation and training) simultaneously developing training and documentation. A preliminary analysis indicated that at least five writers and two instructional designers would be required to complete the materials in the required timeframe. Unfortunately the cost could not be born by

the existing budget. A re-analysis indicated that single sourcing could be the solution.

A building block approach to the documentation was designed:

- Core – Help (tasks and field descriptions)
- 2nd block – Web-based user guide (Core plus overviews and explanations)
- Comprehensive – classroom materials (2nd block plus Core, plus examples and exercises)

MS-Word was used with RoboHelp to create the materials. RoboHelp does not support conditional text so content was tagged using styles to identify which media it applied to. A Word Basic macro was created that stripped the source file (comprehensive) for each of the other media, then multiple projects were created for generation into the appropriate media.

The team consisted of two writers, a project manager, and an electronic publisher. Traditional Help typically requires 6 hours per topic to design and create. A user guide is usually calculated at 6 hours /page and training at 15 hours per hour of instruction. The average time to create Help, Web-based user guide and classroom material was 8 hours in total. This is a significant decrease in cost and time.

REFERENCES

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SingleSource Associates is dedicated to improving the way you create and manage your information. Ann Rockley has more than 15 years experience developing online documentation and training. JoAnn Hackos has more than 20 years' experience in project management, designing effective interfaces and information, minimal information products, usability testing, online documentation and computer-based training. Both are

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