

Chapter 2

Basic Principle for DITA: Topic-Oriented Structuring

DITA builds on topic-oriented structuring. The basic idea of this structuring principle is the division of content into pieces known as *topics* with the aim of assembling and reusing them flexibly. This structuring principle has a long history and was used in classical book production for lexicons and glossaries [2].

Example

A term definition is a good topic example. A term is defined only once. Its definition can then be used anywhere where the term occurs and an explanation is needed. The topic advantages can be seen immediately:

- If the term definition has to be translated, it has to be translated only once. There is no redundant content that would cause multiple translations.
- Any changes are made in a single place only, and they are then consistently available everywhere.
- A term can be defined independently of the content in which it occurs.
- Creation and maintenance can be carried out by special experts.

But topic-oriented structuring really first came to life when content could be created and displayed digitally, and when important functions, in particular linking, could be technically implemented in an effective manner.

Topic-oriented structuring experienced a first heyday with the arrival of online help for software. Tools known as help authoring tools were developed both to support the creation of topics and to integrate technical functionality without any programming effort. However, the sources created with these tools are to a high degree tool-specific. In contrast, DITA offers a largely tool- and manufacturer-independent XML basis for the sources.

2.1 What Is a Topic?

Not every snippet of content is a good topic. As the example of the term definition shows, a topic should be a self-contained piece of content as context-independent as possible, containing a key statement and making sense on its own. The division of content into topics does not have to be just content- and usage-related: it can also have technical or organizational reasons. There are no rules governing the size of a topic. However, a topic should not be too large, for two reasons: first, there is a risk that the topic contains more than one key statement; second, it is difficult to display it on small devices. On the other hand, a topic should not be too small: it should be large enough to contain meaningful content that can be properly managed.

In the case of traditional book-oriented writing, content is created in context. Hierarchy and order of subjects are predefined. Explanation and instruction are often mixed up together, and the same content occurs redundantly but not identically at different places. In contrast, topics should be created separately from a concrete publication and context-independent so that they can be used in multiple ways. Each subject should be described only once (single point of truth). Just when a term is defined we do not necessarily know where that term is going to be used. The rule that applies when creating a topic is that its context is first revealed when topics are assembled for a special purpose and for a particular target group.

When presenting a topic on screen to the user, in the simplest case a topic is also displayed as a separate page. But this is not necessary. Content that is divided into several topics in the source can be presented contiguously if this is considered appropriate for the user.

For newcomers to topic-oriented structuring, dividing contents into topics is unfamiliar. The topic rules of the class concept method[®] help to find the right modularization [2].

DITA topic

DITA topics should conform to the topic rules and they must have a title and a particular topic type. In file-based management, each DITA topic is usually stored as a separate file.

2.2 Why Topic Types?

Topics offer more flexibility, but they also require a lot of organizational effort because the number of topics can grow very fast and numerous topics have to be planned, managed, and organized properly in order to be found again. Classification or typing is a methodical approach to keep the amount of topics under control. With suitable classification criteria, you divide topics into different types characterized by features such as heading style, content type, etc. Instead of having to plan each topic individually, you just have to design a few topic types. Usually, you only need up to

ten topic types for the architecture of a specific documentation environment. For each topic type, as many topics as necessary can be created, in a controlled and consistent manner.

The design of topic types is a central task for information architects [3]. The class concept method[®] supports the iterative, agile development of topic types and their characteristic features [2].

Example

A typical classification criterion is the content type. According to a proven modularization rule, explanations and background information should be separated from instructions (“separate what from how”). Therefore, DITA has contained the topic types `concept` and `task` right from the beginning [1]. The optimal structure of a task has been extensively researched: first the prerequisite, then the individual action steps, then the result. DITA has defined the suitable XML elements and structures for this.

Advantages of classification

The topic types create a framework that ensures efficiency and quality and can guarantee the long-term stability of a topic pool.

DITA topic types

Finding suitable topic types is not a simple task. This is where we see another advantage of DITA. As the name says, the standard supports typing. For the commonest content types such as step-by-step instructions, descriptions, and glossary entries, suitable topic types have become established throughout the years. DITA takes these up and, starting from the generic topic type, offers predefined specializations for established topic base types. Table 2.1 shows the base types in DITA 1.3.

Additionally, DITA offers topic types for specific applications. These include a series of topic types for the learning environment such as `LearningAssessment`, `LearningOverview`, `LearningPlan`, and `LearningSummary`.

The topic types have common elements such as the `title` element for the title, whereas specific elements characterize the type and structure of the content for which they are intended.

Table 2.1 DITA topic types

DITA topic type	For
<code>concept</code>	Background information, concept, interdependencies, overview
<code>glossentry</code>	Glossary entry
<code>machinery task</code>	Instruction in engineering
<code>reference</code>	Facts, description of functions, commands, parameters
<code>task</code>	Instruction, procedure
<code>topic</code>	Content that does not suit any other topic type and basic type for specializations
<code>troubleshooting</code> (DITA 1.3)	Error message and removal

DITA – the Topic-Based XML Standard

A Quick Start

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