



Topic-Oriented Documentation or How I Fell in Love with the Building Block

This document discusses the principle of topic-oriented documentation. It draws attention to typical linguistic and organizational stumbling blocks of this method and shows why the method is advisable nevertheless. Subsequently, it presents procedures for avoiding the said stumbling blocks and shows how topic-oriented writing can be optimized.

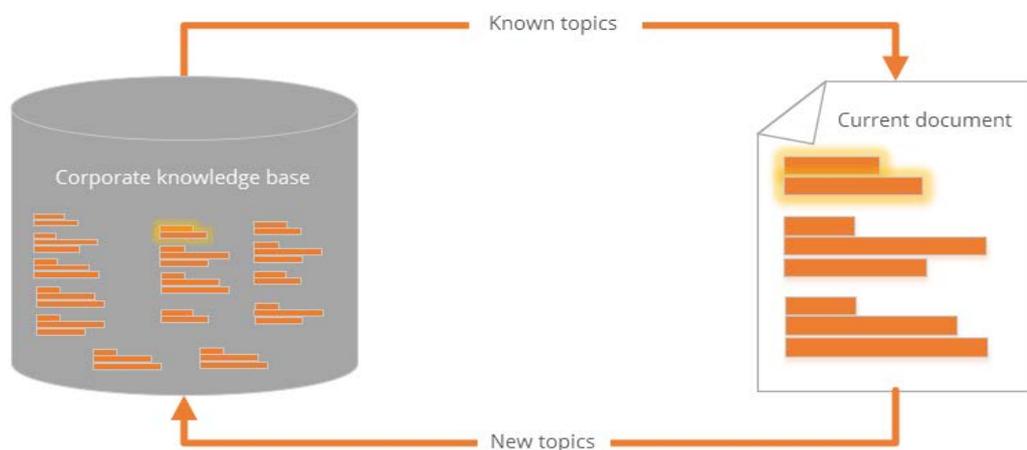
| Table of Contents

1	Introduction	3
2	What Is the Reason for Topic-Oriented Writing?	3
3	Linguistic Stumbling Blocks in Topic-Oriented Writing	5
3.1	Cohesion Issues	5
3.2	Coherence Issues	6
3.3	Consistency Issues	6
	Inconsistent Language	6
	Inconsistent Style	7
	Inconsistent Content	8
4	Organizational Stumbling Blocks	9
4.1	Not All Departments Are Involved	9
4.2	Rule Sets Are Too Extensive and Complex	10
4.3	Employees Come and Go	10
4.4	Some Topics Fit Only in Part	10
4.5	Recycling Legacy Data	10
5	How to Tackle the Issues	11
5.1	Use Standards Like DITA	11
5.2	Build up an Editorial Guide	12
5.3	Build up an Internal Dictionary	12
5.4	Specialize Your Employees	12
5.5	Ensure Application of All Rules	13
5.6	Adjustments at Sentence Level	13
5.7	Migrate Existing Documentation	13
5.8	Work on the Subject with as Many Departments as Possible	14
6	Conclusion	14

1 Introduction

Doubtlessly, your enterprise, too, has considered the question of how to produce documentation. In view of Section 3 of the German Product Liability Act (ProdHaftG)¹ and Section 434 of the German Civil Code (BGB)² – also referred to as the "IKEA clause" – there is actually no way around this question. As a company whose main business does not consist of creating documents, you surely want to be as efficient as possible. Sooner or later, you will therefore start thinking about topic-oriented documentation, especially when faced with a constantly growing documentation volume.

But what exactly is topic-oriented documentation? Who needs it? What must be taken into consideration when using it? Would it suit your company? This white paper addresses these questions.



Topics are something you come across every day, e.g. on smartphones and on webpages, in online help sections and news.

But why do so many enterprises use this approach? Below, we will examine this question.

2 What Is the Reason for Topic-Oriented Writing?

Topic-oriented writing has been very popular for quite some time. Technical documentation is especially suitable for this method, as both the writers and the text consumers can benefit greatly from the clear structure.

¹ http://www.gesetze-im-internet.de/prodhaftg/_3.html (last accessed on September 6, 2017, 3:52 pm)

² https://www.gesetze-im-internet.de/bgb/_434.html (last accessed on September 7, 2017, 3:10 pm)

There are many reasons why businesses opt for this building-block method. Often, the documentation reaches a volume that is simply impossible to manage meaningfully on a document basis. Content is repeated frequently, but is difficult to find when actually needed. Change workflows are cumbersome and inefficient, as it is often necessary to review much more than merely the changed passages.

It gets even more difficult if the growing scope also results in a growing number of authors who are supposed to work together on the same documents. Against this backdrop, the building-block method is viable even from the mere organizational perspective, as it is much easier to assign and process blocks.

Moreover, the building-block approach is often made use of in order to improve the review and translation. The translation and review of building blocks can be handled much more flexibly and without waiting for and processing entire manuals. In smartly designed workflows, the translation and review can be finished not long after the writing and editing stages are completed.

Another key factor is the saving potential from the reuse of building blocks. Reused, previously released building blocks do not need to be created anew, do not need to be reviewed, and are automatically pre-translated by the translation memory system. This factor is especially weighty if there are multiple product variants whose documentation sometimes differs only marginally. In her book entitled *"Single Source Publishing"*³, Sissi Closs points out that the amount of content can be reduced by up to 40 percent by introducing topic-oriented documentation.

Industry requirements also play a key role with respect to the strong position of text blocks. For example, small topics with high information content are essential for mobile devices, on which conventional documentation would be difficult to read.

Text blocks are also useful for establishing a company-internal knowledge base, as each idea is described only once and thus serves as a "single point of truth". The statement of a released text block is accurate and is not partially or fully refuted by other text blocks. In case of doubt, it is thus always possible to invoke existing text blocks.

And last but not least, topic-oriented documentation is well supported: There are standards like DITA (Darwin Information Typing Architecture) and content management systems such as ASC Author-it⁴, FCT AG TIM⁵, DOCUFY⁶ COSIMA⁶, and SCHEMA ST4⁷. These aids greatly facilitate the setup, management, and creation of text blocks.

So there are plenty of arguments in favor of topic-oriented documentation. But as in the case of

3 Single Source Publishing, Sissi Closs, 2011

4 <http://www.author-it.com/> (last accessed on September 7, 2017, 5.20 pm)

5 <http://www.fct.de/> (last accessed on September 7, 2017, 5.21 pm)

6 <https://www.docufy.de/> (last accessed on September 7, 2017, 5.24 pm)

7 <https://www.schema.de/> (last accessed on September 7, 2017, 5.24 pm)

other changes, the risks must be assessed as well. In this white paper, we will focus on the linguistic and organizational risks.

3 Linguistic Stumbling Blocks in Topic-Oriented Writing

When creating documentation, you need to make sure that the individual building blocks are compatible with each other and can be combined freely. If this is not guaranteed, the goal of reusing as many idea blocks as possible will be endangered simply because two building blocks are incapable of being combined.

The main reasons for being unable to combine building blocks are cohesion, coherence, and consistency issues. (Don't worry, I will explain these terms later on.)

3.1 Cohesion Issues

Cohesion issues are a widespread source of errors when creating building blocks. Cohesion establishes the syntactic connection between two sentences. In other words, the sentences are pasted together with certain words so that the reader automatically associates them. Conjunctions like "and", "but", and "because" are typical cohesion utilities. Pronouns like "he", "she", or "it" are also used frequently. Cohesion issues arise especially when data is migrated from conventional documentation. They can also arise if more than one topic is visible when creating a document. During a moment of carelessness, authors could write as they would in a continuous document that merely needs to be self-sufficient.

Topic 1	<p>Warning:</p> <p>Risk of burns</p> <p>The door handle gets very hot during operation, and touching it can cause severe burns.</p> <p>Wait for an hour after switching off the oven before you touch the door handle.</p>
Topic 2	<p>It can be switched off via the touchscreen. To do so, touch [...]</p>

Topic 1 is a warning and is self-contained. It can thus be reused whenever needed. **Topic 2** already touches on a new idea, but refers to the previous sentence by starting with a personal pronoun. Thus, the two sentences fit together, but **topic 2** is useless for other contexts. We cannot assume

that the preceding topic will always be about the oven or that the gender will always match. This type of cohesion is superfluous and should be avoided.

3.2 Coherence Issues

When you create text blocks, their content might not match when blocks are combined. This is called a lack of coherence. Two sentences might address different topics, contradict each other, or irritate the reader because they do not meet his expectations.

Topic 1	Note: Do not open the washing machine during the washing cycle.
Topic 2	The washing machine can be built in. [...]

Topic 1 introduces a note, but does not finish it. **Topic 2** appears awkward, as the reader would normally expect the note to be duly concluded before the next topic starts. Thus, **topic 1** does not fulfill the preconditions for effective reuse.

3.3 Consistency Issues

The by far most frequent reason for incompatible building blocks is the lack of consistency between two ideas. A text is consistent if it follows the same language, style, and content rules and standards. In other words, there is a common thread that runs through the entire manual. Inconsistencies can have serious consequences, as they could irritate readers or render content incomprehensible. However, they are particularly difficult to avoid in topic-oriented documentation. This is because building blocks are often created independently or by different authors.

Inconsistent Language

One of the main problems that writers are confronted with is the great variety of styles and spelling proposed by different style manuals and dictionaries. Moreover, regional differences can be an issue especially for an international team, e.g. UK English (centre) and US English (center). Besides, there are common mistakes such as wrong use of apostrophes and commas, misuse of words such as "except" and "accept", and so on. Obviously, it would not be good to use different spelling in different topics, especially if these topics are to be joined to a manual, and misuse of words must be prevented.

Topic 1

[...] The overview shows the details of the life cycle of the software. [...]

Topic 2

[...] More information on the software lifecycle is available in the online manual. [...]

Basically, neither topic is wrong. However, you can easily see that different spelling was used for identical information media. This makes a poor impression and forces the reader to unconsciously scrutinize the document on a meta level: "Why have they spelled the same expression differently in two places?"

Inconsistent Style

Sometimes, text blocks cannot be joined seamlessly due to differences in the writing style. There are many different styles that can be used. For example, you can address the reader directly ("Dismantle the engine") or use the passive voice ("The engine needs to be dismantled"). Some writers prefer a more polite style ("Please dismantle the engine"), soften the statement ("If possible, dismantle the engine"), or use modal verbs ("You can dismantle the engine").

This, too, will irritate the reader, as he unconsciously expects a consistent communication style. If the tone or general style changes, the reader will perceive this as a disruption of the reading flow. Texts like that are often considered to be clumsy or awkward. Moreover, the reader will immediately realize that the text has been patched together. However, this is a piece of information that we do not want to share with the reader and that should not be noticeable.

Topic 1

Warning:

Risk of injury

The container may be under high pressure.

Open the container only after checking the pressure gauge.

Topic 2

Warning:

Risk of injury

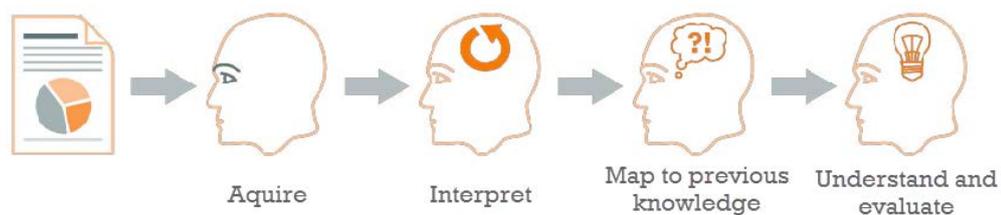
The blades are very sharp.

Do not touch them during operation.

Apart from the fact that neither **topic 1** nor **topic 2** are very effective warnings, the main issue is that their styles differ too much. The reader will notice this, and in the worst case, he will think that the severity of the statements is different. To avoid such a problem, the same style should be used consistently.

Inconsistent Content

Inconsistent content is doubtlessly the worst kind of inconsistency. In a sentence, ideas can be expressed with a virtually unlimited variety and combination of words. At the sentence level, this is a problem for the translation, as identical ideas in different building blocks need to be translated repeatedly. If this is the case, translation systems will not deliver any 100-percent matches. It is also bad for the reader. Due to the different wording, he needs just as much time to grasp and evaluate one and the same idea as for an entirely new idea. The human brain processes information in sentences, paragraphs, or concepts as follows:



If the content is identical, the acquisition of the information is usually immediately followed by the understanding and evaluation phase. If words or sentences change, the processes starts from zero.

Topic 1

[...] Open the flap.
 Dismantle the engine.
 Clean the engine.
 The assembly takes place in the opposite order.

Topic 2

[...] Pull the strap.
 Remove the old magnet from the open flap.
 Extract the new magnet from the protective film.
 You can perform the assembly in the opposite order.

In **topic 2**, we see an unnecessary variant of "The assembly takes place in the opposite order". This variant generates superfluous translation and review overhead and makes it more difficult for the reader to grasp the information.

The problem is even more serious at word level. If the author uses different terminology for a specific concept in different building blocks or different sentences, the reader might not recognize that the text is actually about the same concept. This will inevitably lead to misunderstandings, handling errors, and dissatisfied customers. The situation will doubtlessly also confuse and frustrate the reader, who needs to re-identify and re-align every new term in his mind.

Topic 1

[...] The headphones are accompanied by a remote console. [...]

Topic 2

[...] Use the remote control to go to the next track. [...]

Topic 1 mentions a "remote console", which is suddenly called "remote control" in **topic 2**. Imagine what this means for the reader: In the manual for his headphones, he reads that there is a "remote console". He looks at the device and believes he has identified this console. Then he reads on and stumbles over a "remote control". Instead of reading on, he needs to return to the previous passage. He looks at the headphones, but he realizes that there is only one part that would suit both terms. Eventually, he realizes that the two terms refer to the same thing.

All of this is unnecessary, confusing, and time-consuming and often leads to support requests or incorrect use (or to the feared "didn't read, LOL"⁸). Consistent terminology is especially important for topic-oriented documentation, in which it is anyway more difficult to achieve a high level of consistency.

4 Organizational Stumbling Blocks

In addition to the linguistic challenges, other factors that could endanger the efficient use of topic-oriented documentation need to be considered as well. For instance, there could be organizational stumbling blocks.

4.1 Not All Departments Are Involved

In most companies, customer communication is not only produced in one department. For example, presentations might be prepared by the product management. Advertising texts usually come from the marketing department, and instructive texts from the technical documentation and support units. Every department has different conditions and might use different editors. Often, the switch to topic-oriented documentation takes place in the form of an isolated solution for a particular

⁸ <http://knowyourmeme.com/memes/didnt-read-lol> (last accessed on September 14, 2017, 1.19 pm)

department and a particular editor. Obviously, this can cause problems. Firstly, cross-departmental inconsistencies will persist, as the departments do not access the same basis. Secondly, the benefits are limited, as only some of the authors can use the new approach. In view of the substantial software and consulting expenses associated with such a change, plans often fail due to financial obstacles that would be irrelevant in the event of an implementation throughout all departments.

4.2 Rule Sets Are Too Extensive and Complex

Due to the numerous linguistic stumbling blocks, editorial guides and the terminology database (i.e. our repository of permitted concepts) must be relatively extensive. Nobody can memorize all these rules or search the terminology database for possible entries each time a noun is to be used. This would simply take too much time. There is a risk of poor acceptance of the switch to the building-block method. As a result, the authors could lose their motivation. This would inevitably lead to inferior document quality and violations of defined rules.

4.3 Employees Come and Go

Once the building-block method has been successfully introduced, it is still necessary to make sure that this unfamiliar and rather artificial way of composing texts is embraced by all authors. Whenever the headcount grows or people leave or join the company, it must be made sure that all writing conventions are known and duly applied. The costs incurred by measures to ensure this must be calculated on a continuous basis.

4.4 Some Topics Fit Only in Part

The larger the pool of text blocks gets, the higher the recycling rate. Of course, a lot of new content will still be generated. Building blocks may be suitable for some new contents. The authors will be pleased to apply these and adapt them at the sentence level. However, this will only work smoothly if all changes are implemented according to the criteria applied to the original topic. Thus, there is a need for mechanisms that check the compliance with writing rules in real time while adapting building blocks.

4.5 Recycling Legacy Data

As this is not the first time we prepare documentation, we doubtlessly want to integrate any existing documentation as effectively as possible in the new system. The question is how legacy data can be converted into building blocks. How can I make sure that existing texts meet the requirements

of the building-block method? How can I avoid time-consuming manual sifting of existing data? Failure to clarify these questions could make it impossible to use existing contents, which would impair the business case significantly.

5 How to Tackle the Issues

Though there are numerous obstacles, you do not need to tackle all of them by yourself. Happily, established solution approaches and industry standards already exist for many tasks. Try to follow such standards! This will save you a lot of time and money and ensure a smooth transition into the world of building blocks.

5.1 Use Standards Like DITA

DITA⁹ is a free XML data model that can help you to create topics in the right way. It defines the structure of topics and makes sure that topics are structured comprehensively and correctly. With the help of meta data, DITA also allows the flagging of contents for a specific target group, specific products, or any other values. In this way, documents for various purposes can be created in a single topic.

You could think of DITA as an automatic guide that shows the author which information still needs to be added.



This excerpt from a typical XML editor shows what information a topic must contain when creating a warning. The topic begins with a title and is followed by the hazard type. The text then describes the danger and explains how it can be avoided. Many XML editors and content management systems support DITA by default. You should by all means read up on this subject and examine whether DITA could be beneficial for you. Other good standards that we will not discuss in detail include Docbook¹⁰, PI-Mod¹¹, and Funktionsdesign¹².

⁹ <http://dita.xml.org/> (last accessed on September 14, 2017, 1.31 pm)

¹⁰ DocBook 5: The Definitive Guide, Norman Walsh, 2010

¹¹ <http://i4icm.de/forschungstransfer/pi-mod/> (last accessed on September 14, 2017, 1.31 pm)

¹² <http://www.schmeling-consultants.de/leistungen/funktionsdesignr/> (last accessed on September 14, 2017, 1.31 pm)

5.2 Build up an Editorial Guide

If you do not yet have any editorial guide that determines the writing rules for your enterprise, the time has come to introduce one. For the said reasons, topic-oriented documentation would not be viable without an editorial guide. If you are unable to develop your own editorial guide, you can draw on established industry standards. For example, consider the Chicago Manual of Style¹³ or the ASD Simplified Technical English Specification¹⁴.

If you already have an editorial guide, adapt it to the new challenges. Focus on the issues of cohesion, coherence, and consistency as described in this white paper. Make the editorial guide available to your authors in electronic or printed form. Moreover, you should view the guide as a living object and regularly review and update it on the basis of experience and feedback from authors.

5.3 Build up an Internal Dictionary

Regardless of whether you prefer a local or online table or a modern database-based terminology system such as SDL MultiTerm¹⁵, Across crossTerm¹⁶, or termXplorer¹⁷, be sure to provide your authors with a dictionary that at least provides terms for all internal concepts. Ideally, even deprecated terms and definitions should be included in order to make the use as clear as possible. A good coverage will make sure that concepts that are important to you are clearly designated and duly identified by your customers. Of course, all employees involved should be able to access the dictionary via the Internet or intranet.

5.4 Specialize Your Employees

The world of building blocks requires specialists. Therefore, you need to train your team members both at the outset and regularly thereafter. Make sure that newly recruited employees are duly inducted. Moreover, it is vital to directly and efficiently publish all changes to the rules.

Designate certain employees as contacts for and owners of subjects such as the editorial guide, the structure of the building blocks, the dictionary, tools, etc.

Establish reliable methods for quickly identifying and processing problems and questions.

¹³ <http://www.chicagomanualofstyle.org> (last accessed on September 14, 2017, 1.33 pm)

¹⁴ <http://www.asd-ste100.org/> (last accessed on September 14, 2017, 1.33 pm)

¹⁵ <http://www.sdl.com/de/software-and-services/translation-software/terminology-management/> (last accessed on September 14, 2017, 1.52 pm)

¹⁶ <http://www.across.net/produkte/terminologiemangement/> (last accessed on September 14, 2017, 1.53 pm)

¹⁷ <https://termtechnologies.com/tools-terminologiemangement/terminologieverwaltung-mit-termxplorer/> (last accessed on September 14, 2017, 1.53 pm)

Remember that new ideas and systems often fail due to the lack of support by the employees who are unable to see the benefits. Unfortunately, it is very difficult to change deeply ingrained opinions. Often, you only have one shot to do it right, and poor preparation frequently results in a failure of the rollout.

5.5 Ensure Application of All Rules

The editorial guide and the terminology will be of little use if it cannot be made sure that the authors actually follow them. This cannot be done by manually browsing the guide and the dictionary or by subsequently reviewing the text. Employee fluctuation, rule updates, and the sheer scope of the rules and dictionaries would inflate the overhead so much that the entire building-block method would have to be questioned. Therefore, it is important to deploy an electronic author assistance tool that automatically identifies and reports any violations of the guide and of the dictionary. Such tools also deliver statistics on how much the communication produced deviates from the defined standard.

Owing to the direct integration of the guide and dictionary, an author assistance tool usually also eliminates the need for special training, as every new rule and every new word is made available automatically.

5.6 Adjustments at Sentence Level

Introduce meaningful mechanisms that enable quick adaptation of existing topics to a slightly changed or similar situation. Considering a topic as a whole, it can be further broken down into building blocks, namely the sentences it consists of. If only one sentence is unsuitable, it must be as easy as possible to store, check, and release a variant of an existing topic. A full review and translation of the entire topic should not be necessary in the event of changes at sentence level.

Here too, authoring assistance tools that operate, not only at topic or paragraph level, but also at sentence level, can be beneficial. The sentence level is also where the editorial guide is applied, the dictionary is taken into consideration, and optimum reuse of sentences is ensured.

5.7 Migrate Existing Documentation

Instead of dumping any existing documentation, consider migrating it to the world of building blocks. Depending on the structure of your documentation, it might be possible to transfer sentences, paragraphs, or even entire building blocks. This can be evaluated and planned by internal or external specialists. Be sure to investigate this possibility, take a look at standard solutions that would be able to do the job, and solicit quotations. Should you opt for an author assistance tool, you will often find that these systems come with built-in mechanisms for transferring content from various sources to the world of building blocks.

5.8 Work on the Subject with as Many Departments as Possible

Do not shrink back from addressing the subject of documentation on the basis of building blocks across multiple departments. The cost of involving additional departments will increase only marginally, while the benefits will fully multiply. Many of the arguments that seem to speak against a collaboration are simply not valid.

1. **Department X works with editor Y and is unable to switch:** When composing texts, building blocks can be accessed regardless of the content management system or editor. Author assistance tools can be embedded in all common editors and feature building blocks. Thus, building blocks can even be used in applications such as Microsoft Word or Adobe® InDesign®, and even if they originate from an entirely different content management system.
2. **Department X has different permitted words and a different terminology system:** This is an argument that we are often faced with. And though it is a pity that an enterprise needs to keep multiple word lists, it is no problem. The same basic mechanisms can be used with different department-specific word lists and editorial guides. In such a case, it is only important to make sure that the authors are not offered topics with conflicting rules. Technically, however, it is possible to draw clear demarcation lines, so that multiple departments can benefit from the infrastructure without accessing the same contents.
3. **Department X fees that the benefits would not justify the participation in such a project:** It must be examined what this assumption is based on. Are there any reliable figures that substantiate this claim? Or would it not be more beneficial for the company as a whole to use building blocks?

6 Conclusion

Of course, it would be difficult to switch to topic-oriented documentation overnight. However, in view of the long history of this approach and thanks to the availability of common industry standards, this subject area is no rocket science. Take a look at the providers on the market and be open to alternatives. Try to get an overall view of the solution paths before you make your final decision. Determine which points are particularly significant to your business, which ones you want to handle internally, and for which ones external assistance would be more efficient.

If you carefully plan the subject in advance and know how to avoid or overcome any stumbling blocks, you are ready to start working with topic-oriented documentation. You will surely fall in love with the building block!

About Us

Our author assistance tool focuses on consistency, comprehensibility, and translation-oriented writing. But that is not all: Based on the concentrated expertise that we have gained from our research and practical experience, we develop products that are designed to make users fall in love at first sight. We pursue this approach with a competent team that knows exactly what is required in order to deliver user-friendly software.

**Congree Language
Technologies GmbH**

Im Stoeckmaedle 13
76307 Karlsbad
Germany
www.congree.com

congree