

Challenges of Harmonizing Technical Writing Styles

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Abstract

Harmonizing technical documentation content is one of the main goals of technical writers. However, harmonizing technical writing styles is one of the most difficult tasks to implement in companies. In most cases, information models, style guides and editorial styles are used to structure and guide the editorial writing process. But these editorial best practices are not sufficient to provide optimal and long-lasting editorial consistency. Indeed, in a company, it is common to find inconsistencies within a document and across several documents making up a document set. This article deals with both cases.

First, we will present the current state of the art in this domain. Then, we will focus on the writing tools and guidelines used by four software editors: Dassault Systèmes (3D Software), HR Access (Human Resources), KXEN (Knowledge Extraction Engine) and SAP (Systems, Application and Products for data processing). In the third part of the article, we will analyze the strengths and weaknesses of the tools and guidelines previously presented. Finally, we will propose solutions to improve the job of technical writers and editors in their challenge to implement a unified writing style.

Introduction

In an essay called *Self Reliance*, Ralph Waldo Emerson wrote “A foolish consistency is the hobgoblin of little minds, adored by statesmen, philosophers, divines and editors”. This raises questions about the concept of consistency. Does the fact of being “foolishly consistent” really apply to

technical writers and editors? Is a “foolish consistency” not a smart consistency in technical writing? In the context of technical writing, consistency involves developing similar content across different types of documents within one company. Harmonizing technical documents has become a major issue for companies as the job of technical writer is increasingly widespread, which implies as many writing styles as there are technical writers.

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Furthermore, documentation tends to be considered more and more as an essential part of the “Idea-to-Market”¹ process and no longer as the last link in the chain of a development process. Thus documentation represents the company and is one of the main links between the company and the users. Consequently, it is important to keep documentation consistent in order to ease the user's experience.

1. State of the art

As previously mentioned, consistency is important in documentation in order to deliver proper information to the users. Nevertheless, it is difficult to find articles about such a subject on the internet. Does it mean that consistency is still not considered an important principle in technical writing?

Regarding the existing tools that could help consistency, articles, books, excerpts and workshops do insist on the importance of terminological consistency. As a matter of fact, already in the 90's, Sue E. Right and Richard A. Strehlow cited technical documentation as an example in which standardized and harmonized terminology needed to be applied (*Standardizing and harmonizing terminology*, Theory and Practice, Issue 1223). Later, in 2006, the European Union led the EuroTermBank Consortium, dealing with the “consolidation of European terminology resources”. This report can easily be applied to the scale of a company. Indeed, this report underlines the lack of consistency due to the lack of communication between countries (in our case, between writers or between internal departments) and a difficult access to terminological databases. At last, in 2012, the Terminology and Knowledge Engineering conference planned a workshop on creation, harmonization and application of terminology resources. Once again, it focused on these terminology

databases that could be used by technical writers.

In 2012, the “WritersUA User Assistance Tools Survey” was conducted by WritersUA in order to know which automatic tools were used by technical authors. This survey was completed mainly by American writers. Regarding tools that can help harmonize the structure of the documents, Author-It and DITA ranked in the top ten results.

Another “tool” that can be particularly useful concerns the job of editor. As well as the job of technical writer, editing started in the US and gained from development in France. According to Jean Hollis Weber, the role of an editor in a company enables simplification of the job of the technical writer by reviewing, rewriting, fixing problems in layouts and, more generally, by assisting technical writers.

2. Context in our companies

2.1. Observations of inconsistencies

We have noticed a lack of consistency in the guides of our companies, either within one guide, or across several documents making up a document set.

The more obvious example of inconsistencies concerns titles. Indeed, they must have the same structure in a guide because it helps the user know if the section is conceptual or procedural. A title written as a question or as a gerund typically contains a procedure while a title beginning with “about” is used for concepts. However, in one guide, we can sometimes find titles with different structures, and these structures do not reflect any particular type of section. This problem may reflect the fact that style guides are not consulted enough, and that technical writers do not communicate enough with each other. Writers can write sections without keeping in mind the objective of a global, standardized document, and tend not to pay attention to sections previously written. If technical writers want to harmonize content, they need to either stick to the

¹ The whole process that brings a product from the creation to the release on the market.

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existing style of the document, even if it differs from their own style, or keep their own style and rewrite the whole guide.

Among other inconsistencies we noticed, we can list:

- images which do not always have a legend
- use of both passive and active voices within the same section
- use of different verbs to express a unique action within the same section.

2.2. Examples of inconsistencies

The examples on page 4 illustrate inconsistencies in Dassault Systèmes and SAP documentation.

In the example from Dassault Systèmes, the main problem concerns the terminology. Different verbs are used to describe a same action within one procedure (*Fig. 1*). Moreover, the style guide states that the passive voice is to be avoided, which was not respected in this procedure (*Fig. 2*).

In the examples from two different guides at SAP, we can observe that:

- titles are slightly different
- the first writer uses an infinitive (*Fig. 3*) while the second writer uses a gerund (*Fig. 4*)
- the first writer uses interface items as pictures (*Fig. 3*), whereas the second writer names these interface items, for example “Chart button” (*Fig. 4*)
- the first writer starts the short description with an infinitive (*Fig. 3*), whereas the second writer starts the short description with a general statement (*Fig. 4*).

2.3. Consequences

Because of inconsistencies, the user wastes time looking for information and does not always understand the procedure as he should because guides and their topics use different words to describe a same concept. Besides, in case of a badly written

documentation, its translated versions may not make sense. Inconsistencies also make the reuse of content difficult and sometimes impossible. Indeed, in single sourcing, one of the main rules is to have homogeneous content that can be reused for different purposes and in different contexts. Since translation and single sourcing are linked, inconsistencies can be a major issue for companies.

3. Existing tools

To achieve content harmonization, a wide range of tools has been developed that can be separated into two categories: automatic tools and manual tools.

3.1. Automatic tools

When we think about automatic tools in technical writing, the two first things that come to mind are XML editors and information models. An XML editor is a software that uses, for example, XML formatting and tags to structure content and create relations between pieces of a document. XML editors work together with information models, XML data models for authoring, such as DITA or S1000D. The combination of these two tools is used by many companies to structure, reuse and harmonize the content of large documents. But these tools also have drawbacks. Using an XML editor with an information model can be inflexible for writers. As a result, the writing style is restricted by a fixed structure and pre-defined tags.

Content Management Systems, another kind of automatic tools, are used to store XML files that writers can edit in XML editors. They work in favor of the centralization of resources.

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1. Double-click the flat cable.
The **Branch Definition** dialog box opens.
2. Click **Segment Definition**
The **Segment Definition** dialog box is displayed.

Figure 1 - Procedure from a User Guide at Dassault Systèmes

Avoid passive voice except when necessary to avoid a wordy or awkward construction or:



- When the subject is unknown or not the focus of the sentence
- In error messages and troubleshooting descriptions when the user is the subject and might feel blamed for the error if the active voice is used
- To refer to yourself (as the writer) or to the DS product.

Figure 2 - Recommendation from the Style Guide of Dassault Systèmes

2.1 Insert new fields

To generate data, you can import existing data model or create a new data model.

To create a new data model you can insert a new field by choosing one of the following options:

- Press the “Insert” key.
- Right-click on the fields list and select the menu option “Insert”.
- Click the  button in the toolbar.
- Click the  button in the toolbar to add the field into a group of fields, see Section [Group/ungroup fields](#).

Once you have inserted a field, the field editor is automatically displayed (see Section [Field Editor](#)).

Figure 3 - Procedure from a User Guide (a) at SAP

4.5.1 Changing the chart type

You change a chart by selecting a new chart in an Analysis type. Analysis types are grouped in a pane at the bottom left of the visualization pane. Depending on the type of data in your information space, not all analysis types may be available.

1. Click the Chart button to ensure that the chart view is active.
The visualization changes to the default analysis type.
2. Click the down arrow on an analysis type that contains charts applicable to your data.
A list of available chart icons appears.
3. Click a chart type.
Your data is plotted on the new chart.

Figure 4 - Procedure from a User Guide (b) at SAP

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3.2. Manual tools

A style guide is the typical harmonization tool. It provides guidelines on how to write for a company. It gives information about how to write a correct title, how to structure lists, or how to use punctuation marks. Considering the accuracy and the completeness of style guides, we should expect a total harmonization of content among technical writers of a same company. Why is the result completely different?

The first reason is related to the availability and the visibility of the style guides. Not only should they be mentioned when a new writer arrives in a company, but also when the writer has been working in this company for many years and may have forgotten that such guides exist, or thinks that these guides do not change. Furthermore, are the guides easy to access? Is there more than one place where writers can find them? Are there different types of guides for the same company? A company that has recently bought another one can end up with two style guides: a standardized guide and a guide that refers to the other company's products, including naming differences, sentence formulations or writing tone. The second reason is related to the complexity of such guides. They can be badly structured or too hard to understand. The result is that writers are reluctant to use them.

Terminological databases can be used to provide naming guidelines, approved product names and definitions. If they are well-designed, they can be very useful for a writer who wants to know quickly which name he has to use or the meaning of a word in different contexts or different products. On the contrary, austere and badly-designed terminological databases can result in a lack of consistency and difference in style. A number of other ways to search for terminology have appeared in companies, such as collaborative terminological spaces.

Wikis are collaborative workspaces peculiar to each company. Writers can use them to track improvements and updates, raise issues and contribute to the body of knowledge. At SAP, a wiki page called "DITA champions" provides information about its information model. Writers can find the name of "champions" who are experts in their field and ask them questions. However, the proliferation of information, pages and links can become an impediment for an efficient search.

Editors are another way to bring harmonization on the documentation.

At Dassault Systèmes, the role of the editor is new and still limited. To improve existing guides, writers have to review someone else's guide and correct wrong terms, punctuation or unclear procedures. The editor then provides the writers with the list of recurrent errors. At SAP, the function of an editor is more developed. It is structured around three main themes: language editing, copy editing and developmental editing. Language editing is available for writers whose native language is not English. The editor corrects grammar, spelling and expressions. With copy editing, the editor checks that the *SAP Standards and Guidelines* for writing are adhered to. Developmental editing can help writers to structure their documents. The editor makes recommendations on how to organize the document content and also what type of content is appropriate for the document and audience.

If we take a closer look at the drawbacks, we understand that writers are sensitive about their work and do not always agree with proposed edits. Editors are not always careful about how they present these edits.

4. Potential solutions

To improve the consistency of technical guides, several solutions are worth considering.

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First of all, companies should plan training for new employees. Even if style guides exist, they are not necessarily read by technical writers, who can have other priorities when they start their new job. The style guide may be consulted later on when the technical writer has a specific question or problem, but the writer may not read the entire guide. At SAP, for instance, this problem is exacerbated by the fact that several style guides exist as a result of several company acquisitions by SAP, which have been kept and are still to be used. Training for new employees would reinforce the main rules. This way, the employees clearly know what style they need to adopt. Small companies which have few employees, as it is the case for KXEN, may not be able to organize training sessions; however it is still important that a technical writer who has several years of experience explains the correct style to new technical writers.

Secondly, generalizing the profession of editor can be another solution. This role could be improved if combined with other editing solutions, such as automatic software editing functionalities. At SAP, an automatic editorial validation process has been integrated into one of the DITA Content Management Systems. This process is based on a workflow that involves both the writer and the editor. When an author writes a section in the XML editor, he sets the topic status as "Review" and assigns it to a physical editor. The editor offers suggestions to improve the topic, and changes the status to "Revise". Finally, the writer implements the changes and sets the topic to "done". The entire process is automatic, as it works through a system of notifications within the DITA Content Management System. Even if this kind of tool is still being developed it can be an efficient solution to harmonize content. It is important to bear in mind that all these solutions are efficient but costly.

Finally, we think that the centralization of style-related resources is important. For

instance, a central server could gather style guides, wikis, terminological databases, fields experts, and all other guidelines that could be helpful in the harmonization of styles.

Conclusion

The harmonization of styles is essential in technical writing because it provides a consistency that helps users understand the company's products. It also helps them become familiar with the guides of a company. Moreover, an homogeneous content is more likely to be reused and saves time for the writers. It also saves money, in particular when it comes to translation. Beyond these considerations, we can ask if all these style concerns will still be useful in the future. Social networks have impacted language style used in instructional learning materials. For example, the "People Centric Language", is a more user-friendly and less formal style mainly used for mobile devices. With the development of new medias such as video tutorials, or concepts like gamification, companies have a will to propose alternative ways of learning to use an application. This raises additional challenges for maintaining up to date information regarding writing guidelines.

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