Shorter time to market, increasingly complex products, and a growing variety of languages are challenges that enterprises which operate on an international scale are faced with in connection with their documentation process. The objective is to ensure easy maintainability, a clear structure, and modular reuse of the technical documentation. In this way, the cost of creation and of the subsequent translation can be kept as low as possible. This white paper describes how enterprises can achieve this with the help of software.
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Saving Potential in Technical Documentation

During the design and implementation of a machine or system, the Technical Documentation unit receives a lot of information that is generated in various departments. For technical writers, it is important to receive such as soon as possible, not only just shortly before the shipment deadline. Therefore, the internal information flow should be coordinated efficiently, especially between the writers and the development and product management in order to minimize the time input for corrections from the outset. The good news: Usually, newly designed machines or systems consist of previously documented components (keyword: diversity). For this reason, it makes sense to reuse pre-existing and translated descriptions and to structure the documentation in modular form. Reference material, editorial guides, and style guides help the writer to convert the data into informative, clearly structured, transparent documentation. These resources define the setup, structure, and design elements and contribute to the visual and linguistic standardization of the records. Another important purpose of the technical documentation is to prevent faulty handling of the product, thereby reducing the liability risk. Moreover, it must fulfill statutory requirements, e.g. the EU directive concerning machinery. Nevertheless, technical documentation should not be considered as a necessary evil, but rather as a useful instrument for boosting the customer satisfaction.

Cost Optimization Begins Prior to the Translation

Maximum efficiency in the creation of multilingual contents starts with the source text. If the source text is entered in an editorial system in modular form, contents can be produced for various types of media with little effort, and sections can be reused. An authoring assistance plugin can also contribute to a well-prepared translation-oriented source document. For example, it can define how the elements of the underlying document type definition (DTD) are to be treated in the downstream linguistic check. Moreover, it can check the spelling, terminology, grammar, and style requirements such as maximum sentence lengths on the basis of rules, thereby assuring and improving the text quality. Moreover, the authoring assistance allows writers to reuse wording for which translations already exist.

Uniform wording can be ensured with the help of a terminology system in which a company’s entire specialized vocabulary is defined and maintained. Other details such as additional information on the use of a term can also be stored here. Apart from optimizing the text quality, this drastically reduces the subsequent translation overhead. Through the system-based standardization of the wording used, enterprises and organizations that operate on an international scale can establish the preconditions for quick and inexpensive translation into the respective target languages even while preparing manuals, marketing documents, etc. Besides the use of suitable technology, writers can minimize the workload of subsequent translations and optimize the documents for computer-aided translation by applying some simple rules:

» Avoid hard line breaks (paragraph marks) within sentences, as supporting systems always interpret these marks as the end of a segment. Otherwise, no suggestions can be offered for reuse. Soft and manual line breaks (Ctrl+Enter) should also be avoided, as they will not be identified as the end of the segment and would thus necessitate manual reworking by the translator.
Moreover, avoid using page breaks in the source text. After all, the length of the translated text is not foreseeable. If possible, the final page layout should be formatted only after the translation. Furthermore, indenting should be done but with tabs or indents, not with spaces.

If possible, use consistent wording and correct abbreviations. The entire specialized vocabulary of an enterprise can be maintained and other details such as additional information on the use of a term can be stored in a terminology system.

Terminology Management – Using the Same Term Consistently

"Wrench" or "spanner"? “Sneaker" or “tennis shoe”? Selecting the right word often poses a challenge. Due to the widespread use of terminology in all company units – from sales and marketing to product documentation to the board of directors – there is a lot of potential for terminological diversity. Using the same word for the same concept has a significant impact on the external image of an enterprise and its products and increasingly represents a cost factor, especially in view of the growing number of languages translated into. For example, if only 2 variants are used for 100 technical terms, translations into 20 languages would result in 4,000 terms instead of the needed 2,000 terms. Standardized terminology for the technical documentation thus delivers the following benefits to enterprises:

The technical documentation is not the only area that benefits from standardized terminology. General benefits:

- Simplified, clear communication – both internally and externally
- Consistent translations
- Usability of the terminology also for marketing/sales and contracts
- Fewer inquiries and reduced need for support
- Easier service and maintenance work
- Improved product acceptance
- Long-term resource and cost savings

Seamlessly Connecting the Editorial and Translation Management Systems

As already mentioned above, newly developed products usually consist of pre-existing components. The development engineer supplements these with additional variants. The technical documentation, too, should embrace this principle. A modular documentation structure is necessary for this to happen. For this reason, editorial systems that are used for the creation of technical documentation are built in such a way that individual descriptions, alerts, and other elements are stored independently and can be accessed by the author. The scope of these "text blocks" depends on the respective products and may comprise individual sentences or entire paragraphs. This modularization is a central aspect that enables reuse of previously translated texts. Only new or changed text passages need to be translated. For the systematic structuring and cross-platform exchange of contents, XML has become indispensable in the field of technical documentation. The media-independent data format serves as the underlying technology for single source publishing and as the basis for industry standards such as DITA. The con-
tents from diverse sources and for diverse media – such as webpages, catalog data, and pre-sales and after-sales literature – are stored in XML.

The interaction of the two worlds will become faster and better if the editorial system and the translation management system are integrated. The translation filter in the editorial system can identify contents that are not yet available in the target language. Subsequently, these are handed over to the translation management system along with the context information and metadata, such as information on target languages and subject areas. In this way, the processing workflow is triggered automatically. The responsible translators receive the texts and associated information – such as any reference and context material as well as information on the target languages, deadlines, and quality assurance criteria – directly via the system. The reviewers can already be involved at this stage and be informed about the upcoming correction cycle. The project manager can query the current status at any time by generating a translation report showing the progress of the project. Through the seamless connection, the writer can also see status information of the project in the respective editorial environment. These possibilities ensure maximum transparency over the entire project duration. Subsequently, the translated texts can automatically be returned to the editorial system.

**Conclusion**

The points of contact of editorial systems and translation management systems are as versatile as the options for integrating the two worlds. The spectrum ranges from seamless data exchange to cross-system process and workflow control to translation-oriented authoring of source texts. The smooth interaction of the components has a positive impact on the workload and translation costs as well as on the flow times and quality of the results. A basic precondition for this is that the tools deployed on both sides have open interfaces. For example, the Across Language Server is a leading TMS that offers interfaces to numerous editorial systems. At any rate, it would be worthwhile to review the technical documentation for saving potential.