



## **Unleashing the Power of the Authoring Memory**

The term "Authoring Memory" often brings to mind the cost savings associated with the reuse of content. However, there are also other exciting applications areas, some of which only few are familiar with. This white paper focuses on these application areas. Find out how the power of the Authoring Memory can be unleashed.

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## 1 Introduction

Sooner or later, companies that generate a lot of text will notice that similar content has already been created in the past. Authors can make use of this phenomenon, systematically reusing existing content.

The reuse of content in the context of machine-based author assistance can be achieved with the help of an Authoring Memory.

The term "Authoring Memory" often brings to mind the cost savings associated with the reuse of content. However, there are also other exciting applications areas, some of which only few are familiar with, such as the field of "writing in a non-native language". This white paper describes these application areas. Find out how the power of the Authoring Memory can be unleashed.

## 2 About Authoring Memories

An Authoring Memory is a repository of content that is offered to the author for reuse. The technology is very similar to that of the translation memories used in computer-aided translation (CAT) systems. Some programs even access CAT systems.

Authoring Memories are often used in author assistance tools. Moreover, some content management systems (CMS) are equipped with Authoring Memory modules.

The various Authoring Memory systems that are offered on the market mainly differ in terms of the following features:

- » Stored units: At what level does the reuse take place? Are sentences, paragraphs, or entire text blocks or topics offered for reuse?
- » Batch processing or real-time access: The access to the Authoring Memory has a major impact on the usability. Does the access take place in real time while writing, or does the author need to run a manual search? Ease of use is vital to ensure user acceptance. If the users have to search manually, they will often refrain from doing so.
- » Use in multiple programs: Can content only be reused in the particular CMS, or is this possible in multiple programs?
- » Access to translations: Is the content that is available for reuse stored in a single language or do translations exist as well?
- » Populating the database: How does the content enter the Authoring Memory? If the content is

stored immediately upon creation, is there a special release workflow, or is the database populated only after the content is translated?

» Meta information: Is meta information stored together with the content? If so, what kind of information? Examples: Creator, creation date, subject, product, number of translations, ...

## 3 Saving Costs

Authoring Memory technology has been developed in order to save costs through the reuse of content. Cost savings can be achieved at various levels of reuse.

### 3.1 Authoring

While composing text, content can be reused at the text block, sentence, and word level. An Authoring Memory provides assistance either at the text block level or at the sentence level. In this area, cost savings arise particularly from higher efficiency. Authors can increase their output if they do not need to create everything from scratch, but can reuse existing content with a click.

### 3.2 Review

In the ideal case, a linguistic quality check is conducted before content is added to an Authoring Memory. The use of checked and verified content reduces the review overhead. On the other hand, newly composed variants of existing content must be comprehensively reviewed. This drives up the review overhead—an issue that should be avoided.

### 3.3 Translation

In the field of translation, costs can be saved under the condition that the content existing in the Authoring Memory has already been translated. If the respective content is reused, the translation can be reused as well. Thus, the text does not need to be translated anew, and the translation costs can be reduced considerably.

By contrast, variants whose statement is identical but that differ linguistically need to be translated, which unnecessarily increases the costs.

## 4 How Variants Come about

The optimum situation would be a content lifecycle that involves the reuse of text and optimized writing, review, and translation processes. In most companies, however, the reality looks quite different. Instead of high reuse rates, ever new variants proliferate.

Variants arise when authors compose content that is slightly different from existing sentences. For example, the following may happen:

- » To write faster, authors often use abbreviations of words that had already been spelled out in full in similar sentences.
- » Authors may mistakenly insert an additional space, thereby creating a variant that is otherwise identical to an existing sentence.
- » A punctuation mark may be mistakenly left out or added to a sentence, resulting in a new variant.
- » A spelling error may slip in, causing a deviation from an otherwise identical sentence.

The following table demonstrates the above-mentioned phenomena that result in sentence variants:

Sentence	Variant	Phenomenon
The <b>anti-lock braking system</b> prevents the wheels from blocking.	The <b>ABS</b> prevents the wheels from blocking.	Abbreviations
The anti-lock braking system prevents the wheels from <b>m</b> blocking.	The anti-lock braking system prevents the wheels from <b>b</b> locking.	Spaces
Thus, the ABS makes sure the wheels are not blocked.	Thus the ABS makes sure the wheels are not blocked.	Punctuation
The <b>anti</b> -lock braking system prevents the wheels from blocking.	The <b>Anti</b> -lock braking system prevents the wheels from blocking.	Errors

Depending on the number of sentences, a lot of money can be saved by avoiding such variants. The savings effect can be massive especially if there are many target languages. Experience has revealed a savings potential of about 20 to 80% for sentence variants. For example, If you spend €200,000 a year on translations, you can save at least €40,000 in translation costs by using Congree<sup>1</sup>.

<sup>1</sup> <https://www.congree.com/wissen/einsparpotenziale/> (last accessed on June 13, 2018, 3.19 p.m.)

A case that demonstrates how variants can be effectively reduced is that of Daimler AG. By purging redundant variants while setting up an Authoring Memory, the initial repository of 750,000 sentences was trimmed down to 122,000 sentences. Use of the Authoring Memory and a corresponding sentence management functionality further reduces the range of variants<sup>2</sup>.

## 5 How Software Provides Assistance

The key question is how software can support the reuse of content.

In a CMS, content is usually reused at the text block level. Reused blocks are locked by the system. In this way, the reused blocks are processed as locked content in the Translation Memory System. The translator cannot edit these texts and is not paid for this context information. This saves translation costs.

While a CMS supports the reuse of text blocks or topics, an author assistance tool enables the reuse of sentences. As sentences are repeated more frequently than text blocks, the potential for content reuse and cost savings is higher than when using a CMS alone. Through the reuse at sentence level, a 100% match may be found in the Translation Memory System. Depending on the agreement, the translator will receive less money or no money at all for such sentences. Accordingly, translation costs are saved.

In their day-to-day work, authors do not need to choose between modular reuse of text blocks/topics and sentence reuse. Modern author assistance tools also operate in the context of a CMS. In this way, the use at text block level can be supplemented with the reuse of sentences.

## 6 System Migration

Many enterprises are currently switching from the conventional creation of documentation to topic-based documentation. The question arises how the wealth of content that has accumulated over the years can be migrated efficiently from one system to the other.

This challenge can be mastered with the help of Authoring Memory technology. If the new system is attached to the Authoring Memory, the content will automatically be offered in the new system. In this way, the content can easily be taken over. There is no need for a time-consuming data migration. Bosch Automotive has performed a system migration in this way<sup>3</sup>.

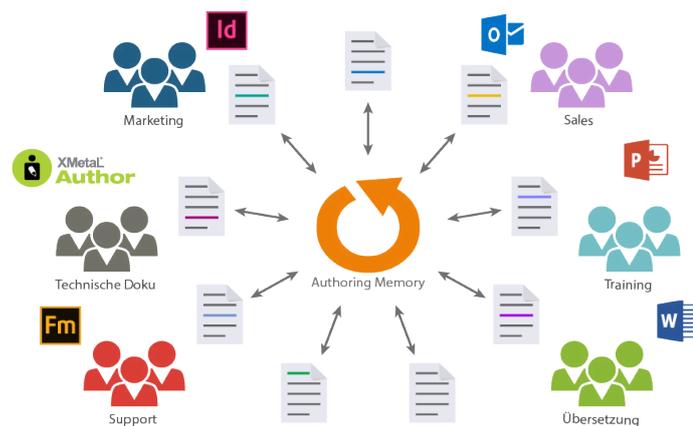
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<sup>2</sup> <https://www.congree.com/wissen/halbzeit-ohne-verschnaufpause/> (last accessed on June 5, 2018, 3.19 p.m.)

<sup>3</sup> <https://www.congree.com/wissen/von-der-dokumentationserstellung-zum-topic-basierten-content-management/> (last accessed on June 6, 2018, 8.15 a.m.)

## 7 Company-Wide Access

Authoring Memory technology can also support the collaboration between departments. Often, various departments—such as technical documentation, training, or support—work with different tools, but would actually like to be able to access content of another department. Joint access is possible with Authoring Memory software that can be used in various text composition programs.



To speak a common language across departments is becoming increasingly important. Key factors include the tone of voice and the terminology. The ideal assumption is that the sentences in the Authoring Memory meet the respective company's linguistic requirements. Through the reuse of these sentences, the corporate communication can thus be standardized and aligned with guidelines.

The cost savings that arise from the reuse of content (see above) are even greater if all departments can access an Authoring Memory. For example, authors can use sentences that have already been corrected in other departments or even sentences that have already been translated elsewhere in the company. The positive aspects are thus multiplied.

## 8 Non-Native Speakers

Authoring Memory systems that have access to translations can assist non-native speakers in composing texts in foreign languages. In addition to offering similar sentences, the system shows suitable translation pairs.

These translation pairs can be used in two different ways:

1. The author writes in his own (foreign) language. Similar sentences are displayed in the Authoring Memory. Based on the translations, the author can easily decide which sentences he would like to use.
2. The author knows what he wants to express, but he is not sure about the correct wording. For this scenario, modern author assistance software enables searching for a sentence in the Authoring Memory in the native language. This sentences can be applied to the text in the document language.

For example, the Congree Authoring Server offers such non-native authoring functionality.

### Vorwort

Herzlichen Glückwunsch, dass Sie sich für das ContentGrasp SX Headset entschieden haben. Dieses revolutionäre Gerät wird die Qualität Ihrer technischen Dokumenten zusätzlicher Arbeitsschritt entsteht. **Beim normalen Lektorat wird bei den Lektoren oder Probanden gemessen:**

- Wie verständlich einzelne Passagen waren
- Wie aufmerksam einzelne Passagen gelesen wurden
- Welche Passagen wiederholt gelesen werden mussten

Diese Informationen werden vom Lektorat zur Verfügung gestellt.

Das Resultat erlaubt eine detaillierte Analyse der Textqualität.

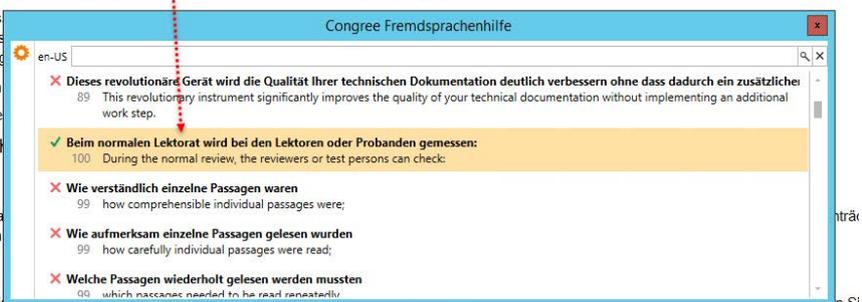
**Beachten Sie die Sicherheitshinweise.**

### Funkstörungen

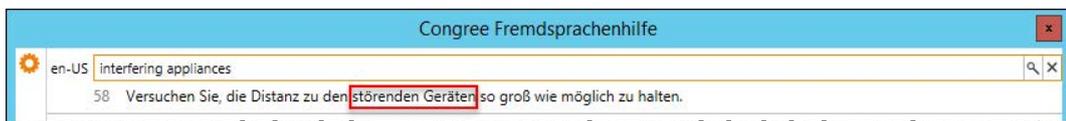
Unter Einwirkung von starken statischen Feldern können unregelmäßige Ergebnisse kommen. Versuchen Sie, die Distanz zu den störenden Geräten so groß wie möglich zu halten.

### Kopfschmerzen

In extrem seltenen Fällen kann ein Kopfschmerz auftreten. Bitte machen Sie regelmäßige Pausen ein.



» Possibility 1: The non-native authoring functionality shows translations of sentences in the editor.



» Possibility 2: The non-native authoring functionality can be used to systematically search for native-language content. This content can then be inserted in the text in the foreign language.

## 9 Conclusion

Regardless of which Authoring Memory technology is ultimately opted for, the main goal is to reuse content in order to boost the efficiency and cut costs. Redundant text variants should be avoided. The positive aspects benefit the text composition, review, and translation stages.

Modern Authoring Memory systems also offer other benefits.

When changing the documentation system, the Authoring Memory can serve as a storage system for the text repository. The sentence reuse in the new system eliminates the need for a time-consuming data migration.

Cross-department access to the Authoring Memory enables the efficient use of synergies between the various departments. The proliferation of redundant variants due to the use of similar texts with slight changes is kept under control.

Moreover, by displaying translation pairs, an Authoring Memory can help to use the correct content when composing a text in a foreign language. In this way, the technology provides non-native authoring assistance for non-native authors.

Authoring Memories can be used in various ways. Use of such technology can be rewarding at several levels. As sentences have the greatest potential for reuse, systems that support sentence reuse are ideal.

## 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 immediately catch attention. 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](http://www.congree.com)

**congree**

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