TRANSLATION MEMORY 101

The What, Why, and How

CSOFT

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Introduction

Your business is going global and you are naturally considering translation as a strategic investment. Now that numerous language service providers are approaching you and the better ones tell you that "translation memory" can save you time and money on your projects. You must be intrigued by the acclaimed benefits.

{ **This paper will walk you through the basics of translation memory: what it is, how exactly does it work, what benefits there, and how to give it a jump-start to optimize your company's long-term translation plans.**

Translation Memory: Definition and Working Mechanism

Since its first commercial appearance in the early 1990s to increase translation productivity, translation memory (TM) quickly gained popularity and has now become a widely accepted and deployed translation technology in the industry.

Translation memory systems basically consist of a database that stores manageable bite sized chunks called "segments" which can be sentences, paragraphs or sentence-like units that have previously been translated which are used to aid linguists. The source segment combined with the corresponding translated segment is called a translation memory "unit". When you open a new document for translation, the TM system analyzes the document's source segments against your TM's translation memory units. Any match with the TM is given a percentage score expressing the similarity between the source text in the document and in the TM database. **This process enables linguists to translate documents more efficiently and consistently across each project.**
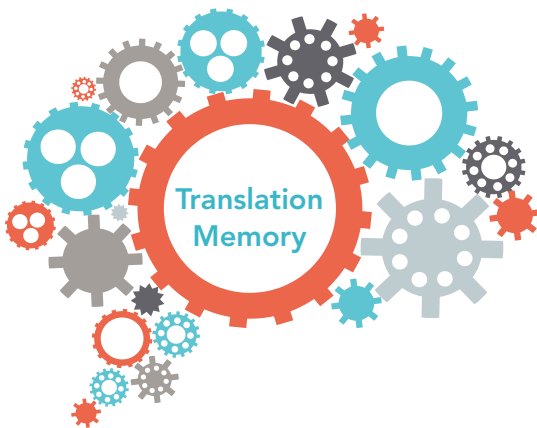
The matching level can be divided into three categories:

100% EXACT MATCH

100% match and In Context Exact Match: A 100% match means the new source segment is identical to a segment in the TM database in all aspects of text: characters, punctuation and formatting. In a 100% exact match, the text surrounding the source segment might be different from the text surrounding the entry in a translation memory. This means that linguists still need to spend some time to review them. An ICE match (In Context Exact match) is a type of exact match that is also a complete context match, meaning that the text surrounding the new source segment is the same as the text surrounding the entry in a translation memory. It completely frees the linguists to work on other segments of the document.

75% - 99% FUZZY MATCH
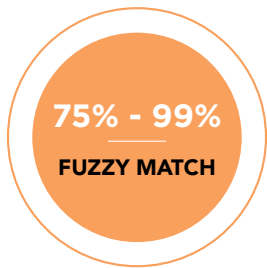
This refers to segments with the match value below 100% and above a user-definable percentage (usually 75%). The compared segments might contain some differences, such as different words, number, and grammar. It can be further divided into three match levels, 95%-99%, 85%-94%, and 75%-84%.

0% - 74% NO MATCH
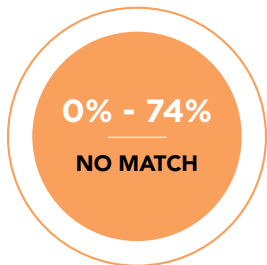
If the match value falls below 75% (industry norm), a new translation must be done for that text. All words in that segment are considered "new words."

In addition to the above, **repetition** is another category often presented in TM analysis. When you have a new document to translate, and there is a segment that is new (not included in your TM) but it is repeated in the new document, the first instance of it will be a no match, and the remaining ones will be repetitions. Therefore, a repetition can be found in the analysis even when the analysis has been done against a brand new, fresh TM.

As ICE match needs no more translation effort from linguists, it's typically counted as no charge in translation projects. As translating 100% matches and repetitions takes significantly less effort than translating a fuzzy match, translation services providers typically offer a significant discount for translation 100% matches and repetitions and less discounts for fuzzy matches depending on the degree of matching.

Business Benefits of Applying Translation Memory

The main business benefits for your business to avail from Translation Memory tools are:

FASTER TIME-TO-MARKET

When the TM recognizes the new source segment as an exact or fuzzy match, the translation can be completed more quickly, avoiding unnecessary re-typing of existing translations, or adjusting only parts of text, thus increasing the project's overall productivity. This is especially prominent for documentations which contain highly repetitive texts, such as software updates or documentation for new products that differ only slightly from previous models. A quicker translation turnaround means faster time-to-market and greater growth potential for your business.

INCREASED TRANSLATION SAVINGS

In addition to seeing faster turnaround times on projects, due to TM's recyclability, most language service providers will pass on the efficiency gains to you in the form of translation discounts, saving you a significant amount of money in the long run. According to a 2004 Microsoft research report, using translation memory (TM) tools, its localization community realized substantial savings in translating product documentation, which is often highly repetitive, "recycling" anywhere from 20% to 80% of translated sentences. Company-wise savings across all types of documentation is around 40%.

IMPROVED CUSTOMER SATISFACTION

Clear communication is vital for businesses. This is especially critical in highly regulated industries, such as life sciences, heavy machinery, banking, etc. To achieve better customer satisfaction in global markets, your products and services need to be properly localized delivering a consistent message for better brand recognition and stable business operations. By applying translation memory, previously translated, validated text is suggested to the translator or automatically applied to the new document. Glossaries containing your approved key terminologies can also be imported into the translation memory system. Therefore, translation memory can help to standardize terminologies and style to ensure consistent and high quality translations across all deliverables and in all languages.

ENHANCED BUSINESS PLANNING

For any business, it is crucial to forecast project timelines accurately, more so on a global scale. For large translation projects, in particular, the analysis feature of the translation memory helps to estimate the total time needed for the complete translation work, allowing you to plan and budget your next venture. When using a translation memory system, the quotation is based on the word count of the source text, allowing the cost to be precisely calculated before translation starts.

To give you a better illustration, featured below are two scenarios comparing translation cost and speed with and without applying TM.

|	SCENARIO **1** Translation without TM	SCENARIO **2** Translation with TM
Volume to translate	50,000 words	50,000 words
Translation cost per word	$0.20 / word	$0.20 / word
TM leverage	Not applicable	40%
Translation cost	50,000 x $0.20 = $10,000	50,000 x $0.20 x 40% = $4,000
Translation daily output per linguist (new words)	2500 new words	2500 new words
Project schedule	50,000 /2500 = 20 DAYS	50,000 x (1% ~40%) / 2500 = 12 DAYS

Implementing TM into Your Translation Process

Depending on your translation status, you can start implementing translation memory into your process in the following ways:

NEW TO TRANSLATION MEMORY WITH EXISTING TRANSLATIONS

You have done some translations on an ad-hoc basis in the past with your internal employees, collaborating distributors, or a language service provider; however, you don't have a clear clue on translation memory. If you choose to outsource your translation projects to a language service provider, you can get started by creating a translation memory from existing translations. This is especially useful if you are to translate an updated documentation or a similar one you translated before.

For a certain fee, a good translation vendor can help you analyze the potential savings obtained by leveraging existing translations. What you have to provide are three documents: your new document for translation, the source language document, and the target language document associated with your existing translation. If the translation savings outweigh the engineering processing cost, instead of translating from scratch, you can ask your provider to start the actual process of "TM Alignment". The alignment tool will assign segments in the source and target languages to each other from existing translations and save them in the translation memory. This translation memory can then be used as a basis for future translations.

For example, if a set of English product datasheets are available with Japanese translated version and the plan is to use translation memory to translate a new version of the documents, you can create a translation memory by aligning the English and Japanese datasheets.
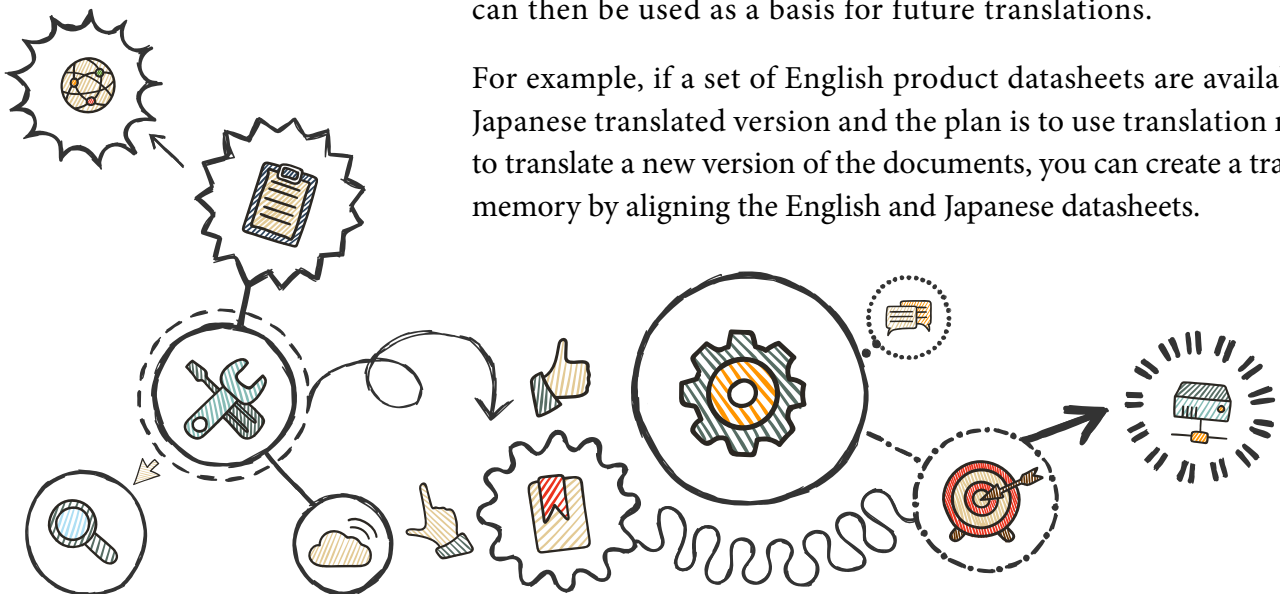
NEW TO BOTH TRANSLATION AND TRANSLATION MEMORY

You have a clean slate. This is exciting as you can get a jump-start into proper translation management without any legacy headaches to worry about. The first step is to **find a language service provider who talks the talk and walks the walk.** Ask the provider to start creating translation memory for you with your first translation project as it's free. Most importantly, request TM files to be delivered to you after each project or on a periodic basis because it is an essential part of your intellectual property. Owning it from early on will allow you to freely switch providers if needed without losing all the translation savings you can obtain in the long run. This will also let you start proactively maintaining your translation memory to maximize its potential benefits before it gets overly crowded.

Conclusion

If you plan on globalizing your business, everything from corporate documentation to websites and logos need to be localized. Cost-effective translations without compromising quality is one of the most common concerns among businesses. Implementing translation memory into your translation process will allow you to significantly enhance both quality and proficiency. The greater part of your past translations can be put away for future use so that the same sentence will never be translated twice. Moreover, the acceleration of project fulfillment will imply that you have the capacity to acknowledge more work and increase your revenue, laying the foundation for streamlined market diversification in the future. For those who are unfamiliar with translation memory, integrating it into your business may seem overly complex. Overall, the efforts will pay for themselves over time and the benefits will be more than monetary.