

# OPAL Enable: Revolutionizing Localization Through Advanced AI

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## Abstract

This paper discusses the capabilities and benefits of OPAL Enable, an advanced AI suite designed to modernize localization processes. The suite comprises Machine Translation (MT), AI Post-Editing (AIPE), and AI Quality Estimation (AIQE) tools, integrated into renowned Translation Management Systems (TMS). The paper provides an in-depth analysis of these features, detailing their procedural order and the time and cost savings they offer. It emphasizes the customization potential of OPAL Enable to meet client-specific requirements, increase scalability, and expedite workflows.

## 1 Introduction

OPAL Enable<sup>1</sup>, globally available since the third quarter of 2024, is an advanced suite of AI tools designed to modernize the localization process, accelerate the time-to-market for our clients and deliver significant savings. The AI tools that constitute OPAL Enable are MT, AIPE and AIQE. The OPAL Enable suite is accessible via proprietary API endpoints and can be integrated into the TMS. We currently support XTM<sup>2</sup> and Phrase<sup>3</sup>. The following offers an overview of the AI features that construct OPAL Enable, accompanied by a description of the procedural order these attributes follow. To conclude the paper, we present the time and cost savings that can be achieved.

## 2 Customizing MT and leveraging clients' TMs

As part of OPAL Enable configuration, our AI Enablement team fine-tunes MT engines with clients'

specific translation memories (TMs) and glossaries. Different MT engines are trained (from different MT services providers<sup>4</sup>) and the best performing engine per language and content type is selected based on the results of automatic scoring and human evaluations. By customizing MT, we align with specific client requirements, therefore minimizing the risk of errors in domain and client-specific terminology, as well as brand voice. This results in a raw MT output that exhibits superior quality compared to the output from generic engines. The client's TM is also leveraged in production: in the TMS, MT is applied only to those segments that do not have a high fuzzy TM match, typically those below 75%. Fuzzy matches and MT suggestions are then submitted to AIPE for review, while 100% matches skip AIPE going directly to AIQE. ICE (In Context Exact)<sup>5</sup> matches are locked and go directly to delivery.

## 3 AIPE

At the heart of OPAL Enable lies the AIPE feature, which enhances MT output and TM fuzzy matches following language-specific conventions and critically selected historical human-approved translations. Acting as a human post-editor, AIPE edits MT output and TM fuzzy matches as needed by correcting errors, restructuring sentences, and refining linguistic flow and style. Our AIPE feature utilizes state-of-the-art technology, incorporating secure publicly available Large Language Models (LLMs) as well as a refined, augmented retrieval strategy that selectively uses human-reviewed segments from past projects and language-specific

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<sup>1</sup>Operating Platform for AI-enabled Language Services. <https://www.welocalize.com/platform/>

<sup>2</sup><https://xtm.cloud/>

<sup>3</sup><https://phrase.com/>

<sup>4</sup>Providers of MT models that can be customized such as Google, Microsoft, Systran.

<sup>5</sup>An ICE match is a 100% match where the preceding and the following segments that are in the TM are the same as the previous and next segment in the translation. Since the segment matched as well as the segments before and after that match are identical to the earlier translation, the translation quality has already been verified.

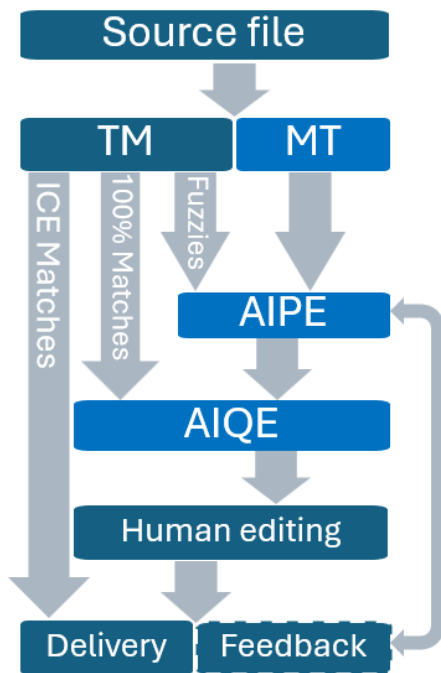


Figure 1: OPAL Enable workflow

rules into the prompt for each segment. This ensures that translations are not only accurate but also maintain the client’s style and brand voice, appropriately applying terminology in a contextually-aware fashion.

#### 4 AIQE

At this point, the AIQE feature, based on open-source software which we have modified to incorporate locale-specific knowledge, detects and locks the translated segments that meet a predefined quality threshold, thereby safely reducing the scope of the human review. The acceptability threshold is adjusted in accordance with client’s quality requirements: the higher the threshold, the stricter the quality requirements, and therefore the smaller the number of segments that are locked and approved without human review. Finally, the Human in the Loop (HITL) reviews the translated text, only focusing on the segments below the established AIQE threshold and refining text for consistency, fluency, and accuracy. The key strength of the system is the ability to provide adaptable quality thresholds for each combination of language and content type, according to the needs of the client. After human editing, OPAL Enable ensures the expected translation quality is met through automated Quality Assurance checks via TMS, while internal quality audits are run in line with ISO specifications. The final post-edited output is collected and utilized to

feed and improve the models for the next projects.

#### 5 Why OPAL Enable?

By reducing the number of segments that need human review (thanks to AIPE and AIQE), clients can benefit from reduced turnaround time and costs, which allows them to send more volumes for translation. However, OPAL Enable’s unique strength lies in its unparalleled adaptability: while AIPE and AIQE features are commonly found among competitors, our distinctive edge is our ability to extensively customize solutions to align with each client’s specific needs. Indeed, every one of our AI features can be personalized to meet the client’s requirements: we customize MT using the client’s TMs and glossaries, we meticulously adjust the AIPE feature to ensure translations align with the client’s historical translations and locale conventions, while the quality threshold of the AIQE feature can be elevated or lowered based on the client’s quality expectations. This tailored approach guarantees delivery of superior results that transcend the capabilities of standard offerings, ensuring our solutions are not just effective, but also personalized to clients’ unique business needs.

#### 6 Costs and time savings

In terms of time savings and productivity, post-edit throughput in the OPAL Enable environment has been observed to increase by up to 60% compared to traditional post-editing thanks to an improved base translation, and up to 99% compared to human-only workflow. In terms of cost reduction, OPAL Enable offers approximately 35% cost savings compared to a human-only workflow with traditional word rate models.

#### 7 Availability and fees

OPAL Enable is readily accessible to clients globally, and it can be deployed in XTM and Phrase. It is currently available for 21 languages<sup>6</sup> but it is constantly expanding. The licensing model is designed to cater to businesses of varying sizes, and consists of standard elements (annual product licensing fee, data usage fee) plus elements that vary per client (number of languages used, volumes, use of other services, etc.). The annual product licensing fee includes feature configuration and customization

<sup>6</sup>ar, pt-BR, zh-CN, zh-TW, nl, fr-CA, fr-FR, de, id, it, ja, ko, es-419, no, pl, pt-PT, ru, es-ES, sv, th, tr (with en-US or en-UK as the source).

of MT engines. The data usage fee is based on the actual number of words processed.

## **8 Conclusion**

In conclusion, OPAL Enable is a cutting-edge AI solution that streamlines the localization process, enhancing productivity, reducing costs, and ultimately speeding up the time-to-market for our clients without jeopardizing quality.