

Making a gap in translation quality with MT Neural Fuzzy Adaptation

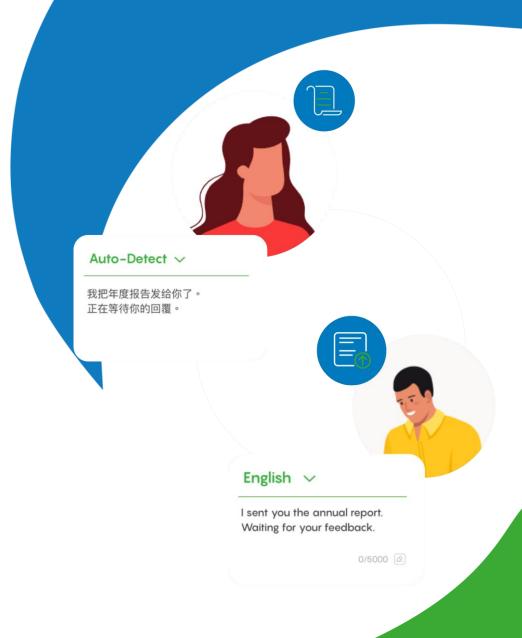
that transforms TM Fuzzy matches to the perfect match



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Agenda

- I. About SYSTRAN
- II. NFA introduction
- III. How NFA works
- IV. How to get started
- V. Conclusion and Q&A









About SYSTRAN





Who are we?



Established in 1968, <u>SYSTRAN</u> is a pure player and pioneer in the machine translation industry.

Always at the forefront of innovation, it helps more hundreds of corporates and public organizations to enhance multinational collaboration, localize content, understand multilingual resources, in a faster and cheaper way to accelerate their global business.

Offices
Paris
(headquarters)
San Diego
Seoul
Tokyo

Partners ecosystem

Worlwide employees

20 M€



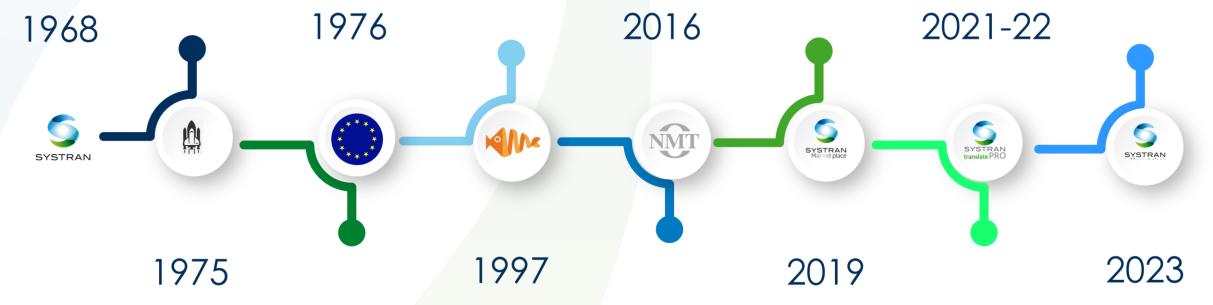


+50 years of innovation in translation technologies

SYSTRAN deploys automatic translation on the Apollo Soyuz mission to translate flight instructions from Russian to English.

SYSTRAN develops for Alta Vista Babel Fish: the first online translation site and equips all the following portals: Google, Yahoo!, Lycos, Wanadoo, Free... Launch of SYSTRAN
Marketplace, the first
platform combining the
best of NMT &
a community of experts

ASR Speech SYSTRAN launch the new Speech-to-Text Feature and a new major release of its flagship Enterprise Product (S2)



Creating SYSTRAN:
"SYS"tem
"TRAN"slation

SYSTRAN is chosen by the European Commission to improve the productivity of translation of texts and regulations.

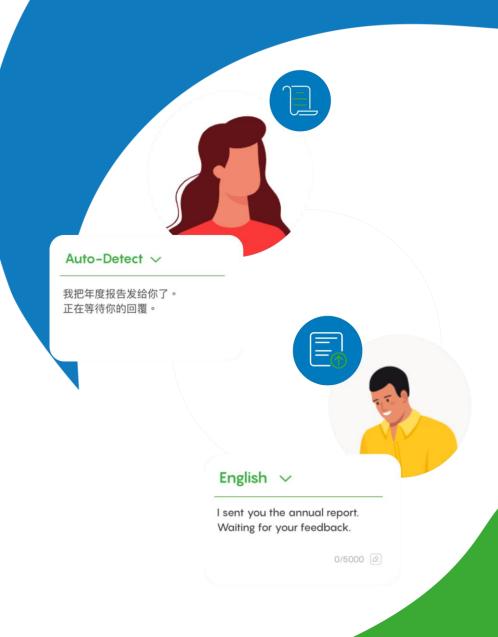
SYSTRAN launches the first neural translation engine and opens its technology in OpenNMT. Today, it is one of the leading translation technologies with Google, Microsoft, Facebook and Amazon.

Public Cloud Self Training of translation models





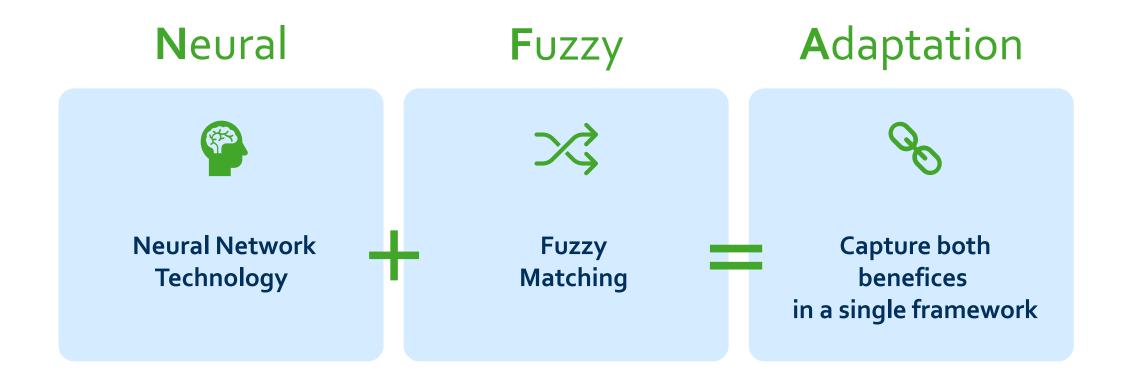
What does NFA mean?







NFAMeaning









Inspiration



Inspiration from the sample fuzzy

(not a fuzzy repair)

Rate



High Fuzzy
=
High improvement
potential

Quantity



More fuzzy = More quality





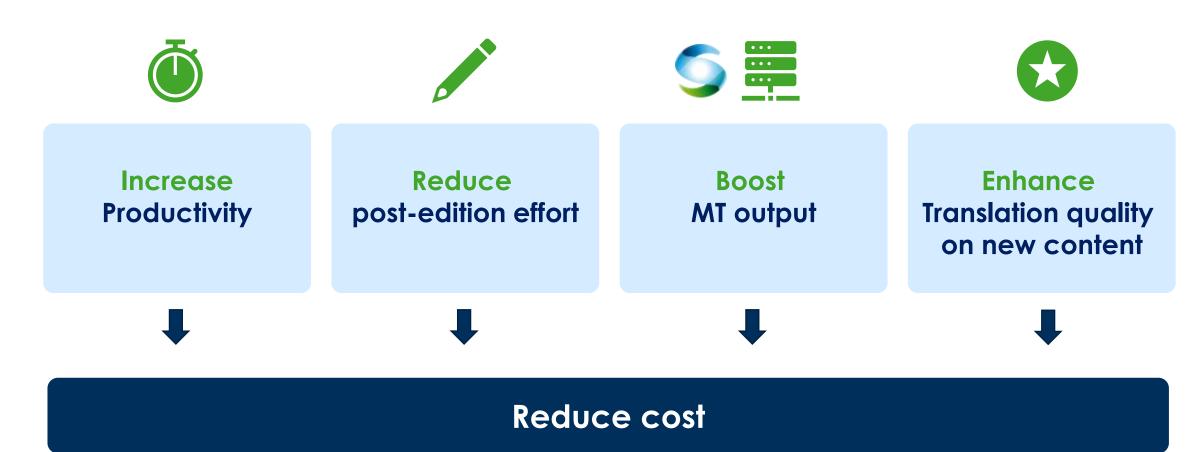


NFA significantly <u>improves</u> MT quality by customizing output in <u>real time</u> while offering <u>consistency</u> with previous translations



NFA

A significant improvement in MT quality!







NFA

A significant improvement in MT quality!

66

Adaptation to Author style

&

consistent brand voice

Which means, a better...

- Style
- → Formulation
- → Lexical choice
- In-context entity formatting

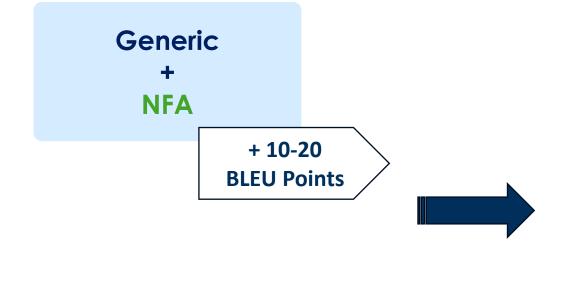




NFA BLEU Score Potential Gain



The more fuzzy matches are found between your text and your TM, the higher the expected gain with NFA.



Specialized model + NFA

> + 30-40 BLEU Points

Generic
+
Specialization
+ 25-35
BLEU Points





How does NFA work?

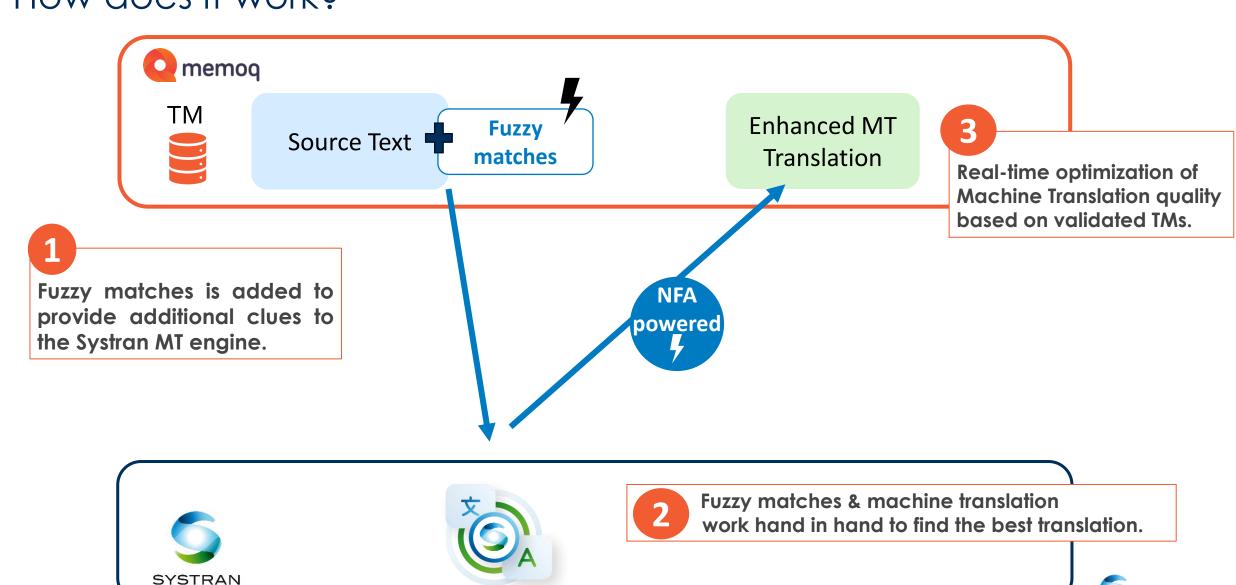






NFA How does it work?





NFA



Example in context

Source

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Indiquer par sélection
I'usage de la notation
binaire pour des nombres
octaux.



MT Translation

Specify by selection the use of binary notation for octal numbers.

Enhanced MT

Translation

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Select to use binary notation for octal numbers.







Select to use binary notation for Hexadecimal Numbers.





How to get started





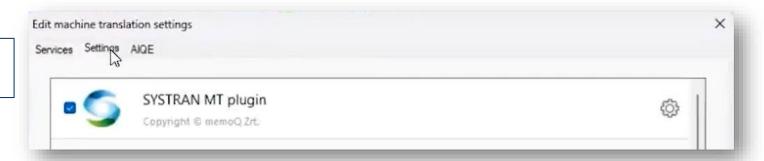


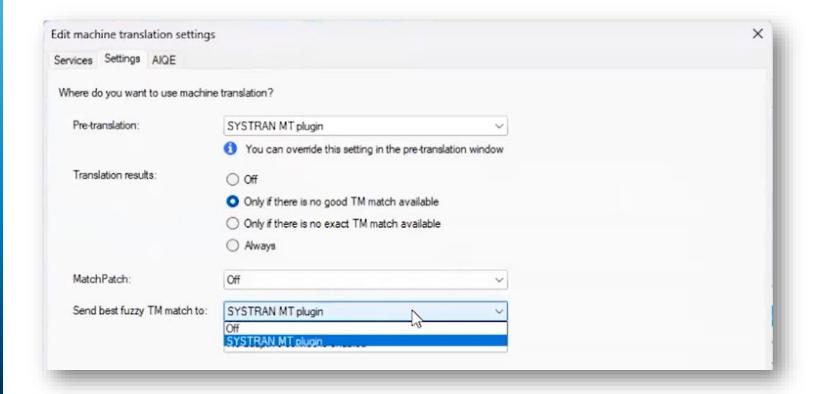
NFA



Configure SYSTRAN MT and NFA in MemoQ

Select SYSTRAN MT in your Machine Translation Settings.



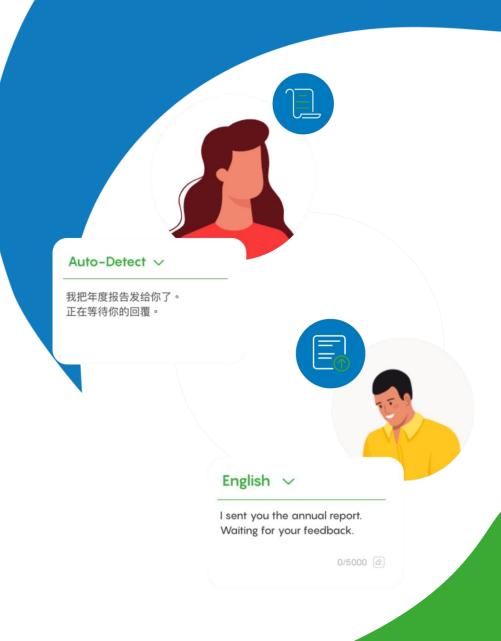


Activate "Send best fuzzy TM match to SYSTRAN MT Plugin"





Conclusion and Q&A







Language Catalog

+140

LANGUAGE PAIRS



WESTERN EUROPE

Danish

Dutch

English

Finnish

French

German

Greek

Icelandic

Italian

Norwegian

Portuguese

Spanish

Swedish

CENTRAL EUROPE & EASTERN

Albanian

Bulgarian

Croatian

Czech

Estonian

Hungarian

Latvian

Lithuanian

Polish

Romanian

Russian

Serbian

Slovak

Slovenian

Ukrainian

MIDDLE EAST & AFRICA

Arabic

Dari

Farsi (Persian)

Hebrew

Pashto

Somali

Tajik

Turkish

Urdu





Chinese (Simplified)

Chinese (Traditional)

Hindi

Indonesian

Japanese

Korean

Malay

Punjabi

Tagalog

Tamil

Thai

Vietnamese



NORTH AMERICA

American English
Canadian French

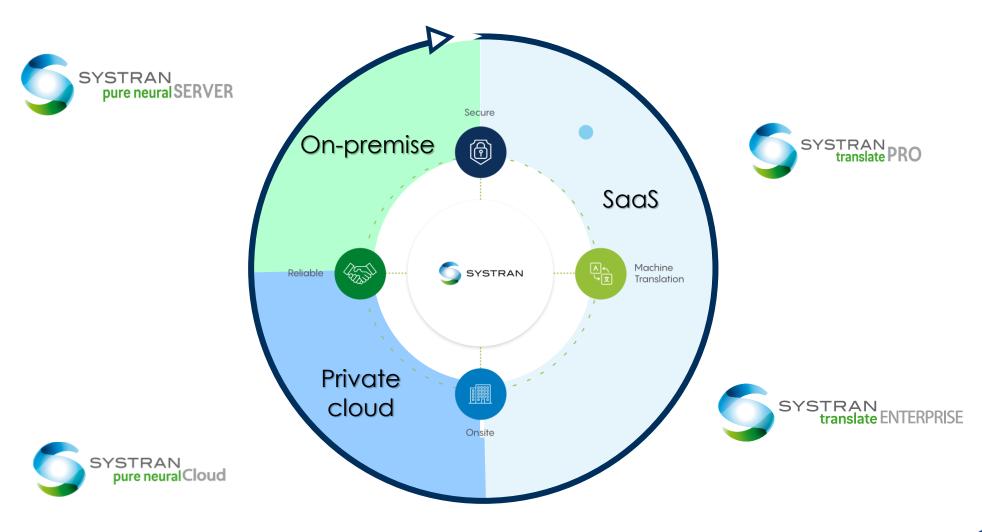


SOUTH AMERICA

Brazilian Portuguese Latin-American Spanish



360 SYSTRAN product range to meet all requirements







Thank you!

Websites:

https://www.systransoft.com/

https://blog.systransoft.com/

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