

### 29 Oct 2014 Up-to-date MT with Product-Specific Terminology

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### **Rule-based vs. Statistical**

- Rule-based MT is significantly impaired when processing new content
  - pre-processing new terminology is a must
  - caveat: hybrid systems with statistical post-processing
- Statistical MT is expected to robustly handle new content
  - still, it can only handle with confidence text similar to what it was trained on
  - pre-processing new terminology is beneficial



### Legacy Glossaries

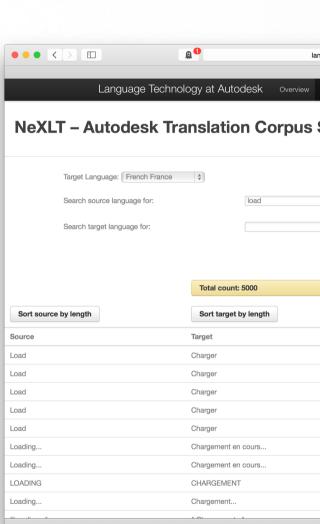
- Manually created and maintained glossaries
- Individual glossaries for different geographical language groups
  - FIGS, EEUR, APAC
  - different levels of coverage
- Conflicting translations
- Built by humans for humans
  - comments inline with terms
- Untranslated terms

# d glossaries t



### NeXLT

- Enables translators to query all segments that have been translated/postedited at Autodesk to date
- Main use: provide guidance when translators are unsure about how to translate a particular term or phrase
- Search results are sortable and filterable by product (ACD, REVIT, ...) and origin (software, documentation)



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Autodesk Ne	XLT			+
Corpus Search	- Terminology	Productivity	人 AUTOD	ESK.
Search				About
		Search corpus	on Autodesk websites	
	Filter: All 123D 360NXS 3DSMAX		Filter: All Terminology Software Screenshots	
	Sort by produc	ot		Sort by release
	Product		Resource	Release
	123D		Software	2013
	123D			
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### Handling New Content

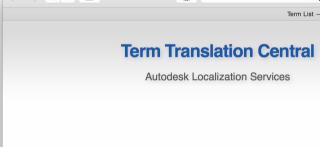
- When a new feature is developed for one of our products
  - new UI strings are generated
  - technical writers document the feature producing new documentation content
  - the new content (UI and documentation) is translated
- This new content may contain terminology related to the new product feature that is yet unknown
  - to our MT engines
  - to our translators

# is translated



### **Term Translation Central**

- Identify terms that haven't been translated yet in new content
- Simplifying assumption: Every noun phrase is a term
- New content is submitted to the Term Translation Central as soon as it is available
- Previously unknown NPs are extracted: they can be
  - new to all Autodesk content; or
  - new to this product's content



		Term Tra	nslation	Ce	ntral						TO	
Autodesk Localization Services									F	٩U	IU	DESK
												login
		ogy translation fo										Current Job
Auto	CAL	Map 3D, Russian										Quick Access
ranslat	ion instr	uctions										<b>TBX Export</b>
ranslate	the full '	term string" as it would need to be	translated in at leas	st one of t	he contex	ts on the right.	Don't skip word	ds that don't a	ppear to be p	art of the tern	n. French Exampl	le: Latest Jobs
		$s^{*} \Rightarrow$ "liste les éléments PObject" are lowercased, as this is how they	are used by the sys	tom The	proper og	iso can bo soo	n in the context	evamples S	kin terme that	are obvioue		Autodesk LangTe
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### **Term Identification**

- 1. New translation job start autor comes in
- Part-of-speech tagging



- 4. Manual Translation auto
- Store translation and make it available to MT engines



### automatische Lastengenerierung

CHUNK: { (<NN\* | VBN>\*) (<JJ\* | VBN>\*) (<NN\* | VBN>) (<NN\*>+) }

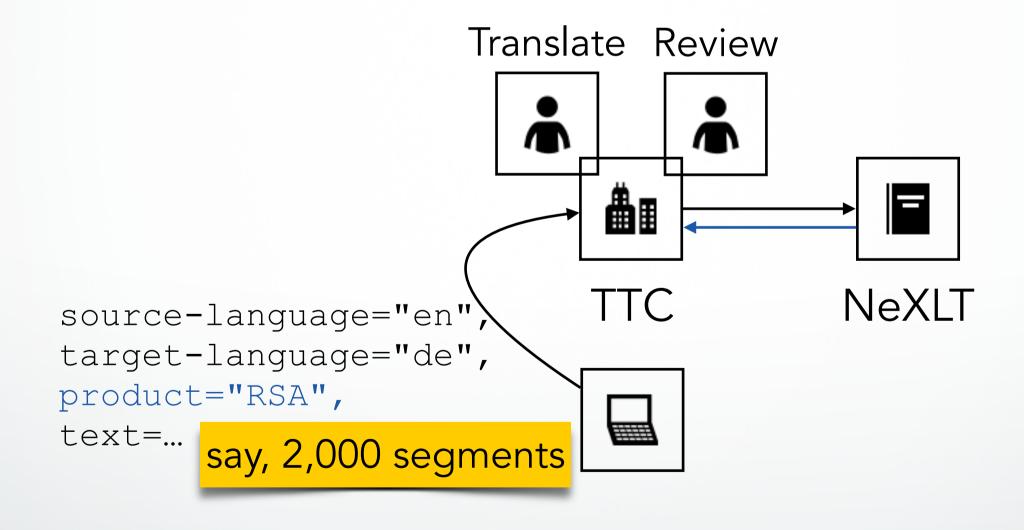


JJ

VB

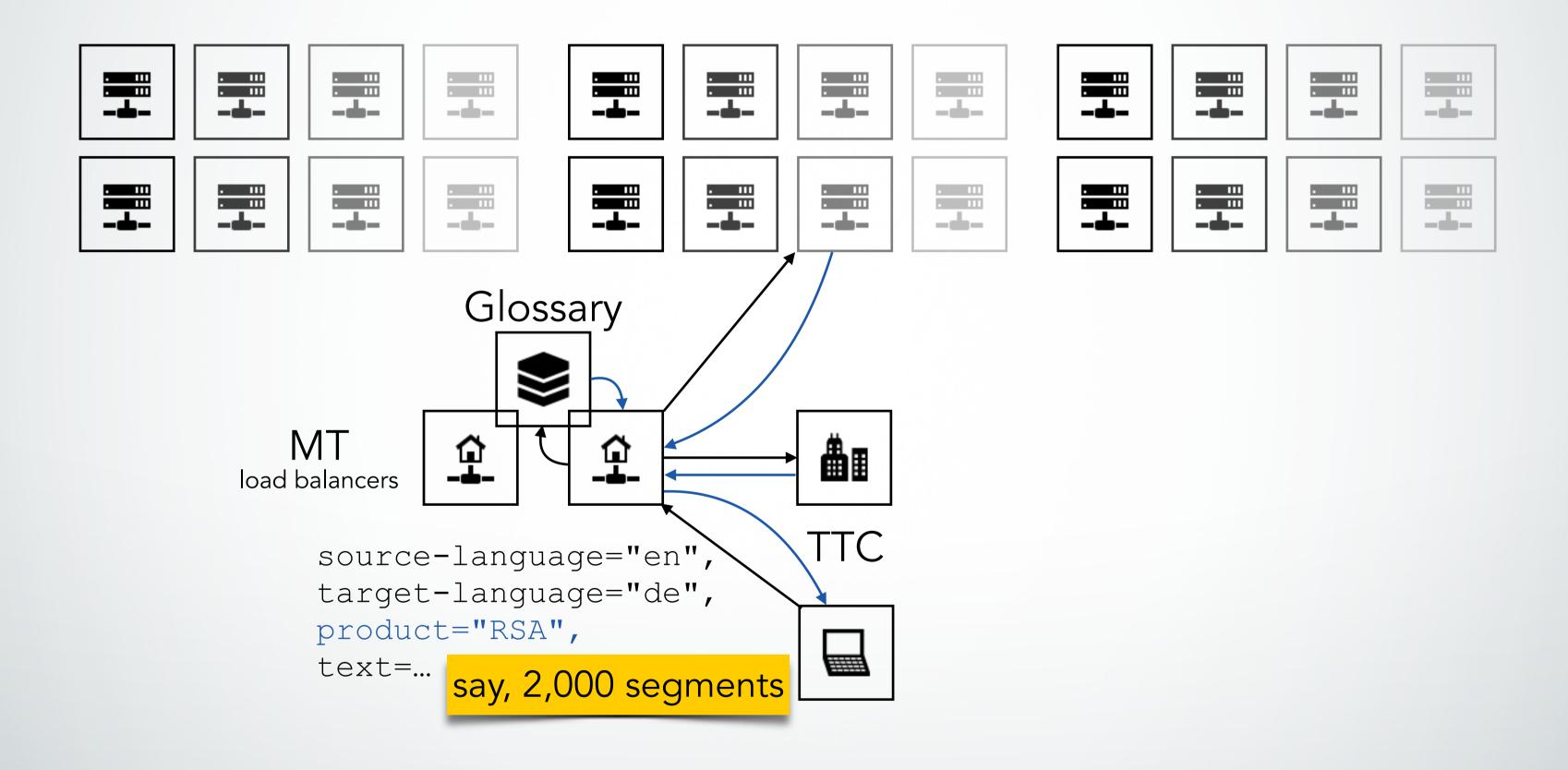
start automatic loads generation .

### Term Translation (Step 1)



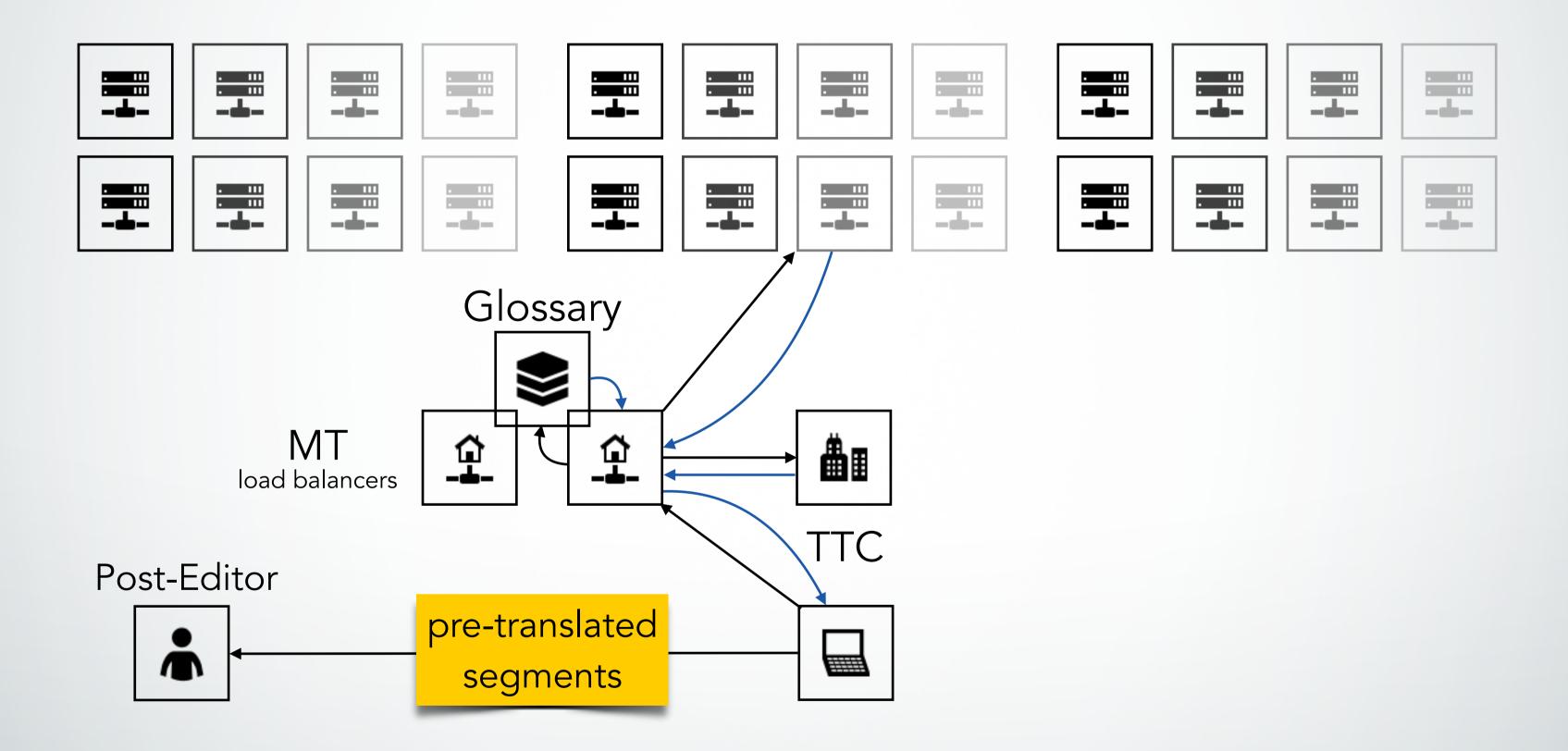


### Machine Translation (Step 2)





## **Post-Editing (Step 3)**





### **Process Benefits**

- MT output contains pre-audited translations for new content, per product/language combination
  - which helps improve consistency
  - but not necessarily reduce post-editing
- Translator pain is reduced
  - need to consult reference materials less frequently
  - but still need to correct morphological agreement



### **To Conclude**

 Your MT is always up-to-date and ready for processing new content You have the added benefit of your MT producing the correct terminology for each of your products, without involved domain-adaptation work



