Machine Translation as a translator's tool

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Argonaut Ltd. (Translation Agency)

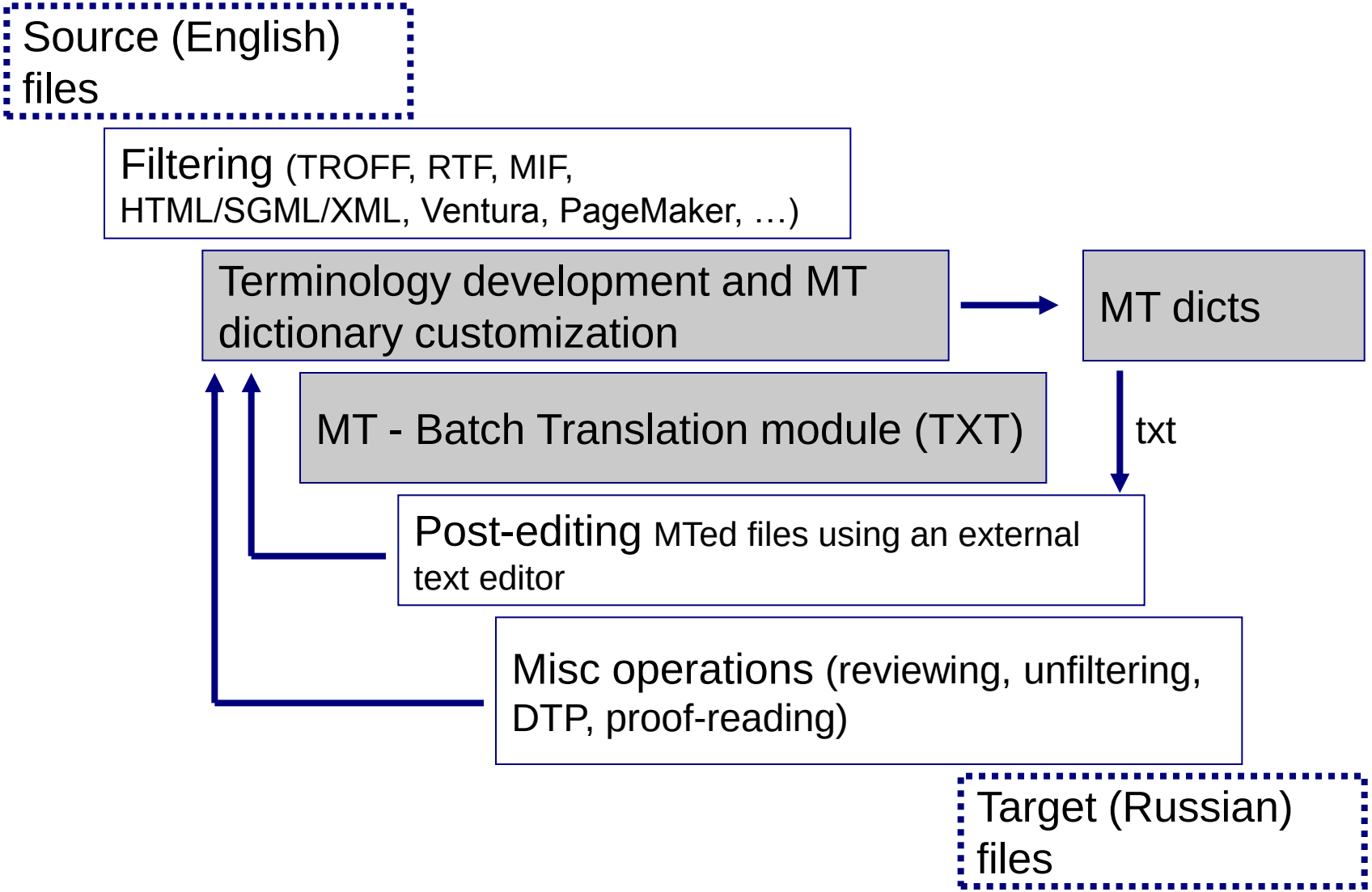
About Argonaut Ltd.

- Documentation translation (Telecom + IT) from English into Russian, since 1992
- Main customers: AT&T, Italtel, Samsung, Ericsson, ZTE, Siemens
- use of Machine Translation (MT) tools, since 1993
- use of Translation Memory (TM) tools, since 1997

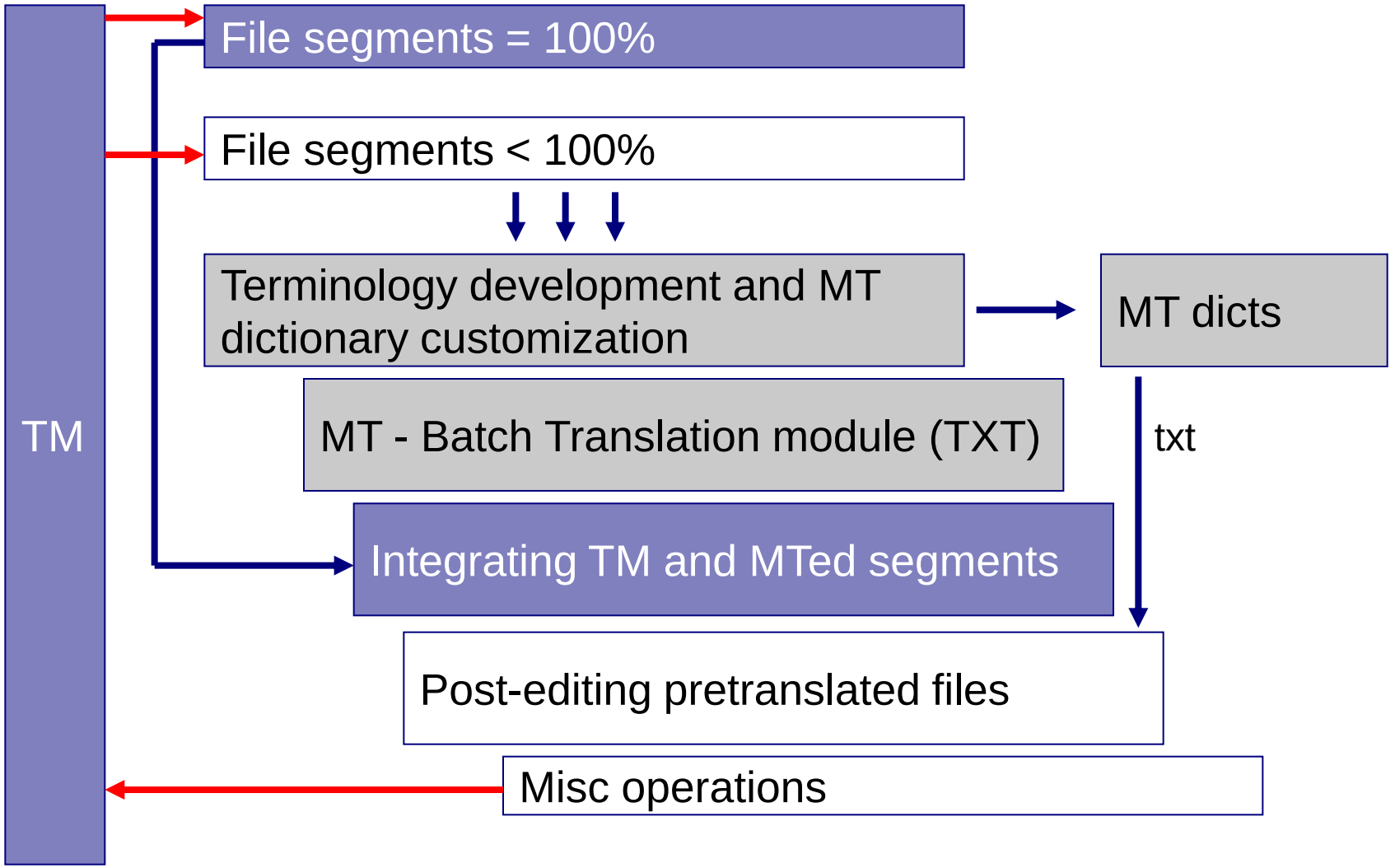
Presentation Structure

1. Integration of a MT system to a corporate translation workflow
2. Development and maintenance of MT dictionaries
3. Management of MT profiles and translation style
4. Benefits of using MT

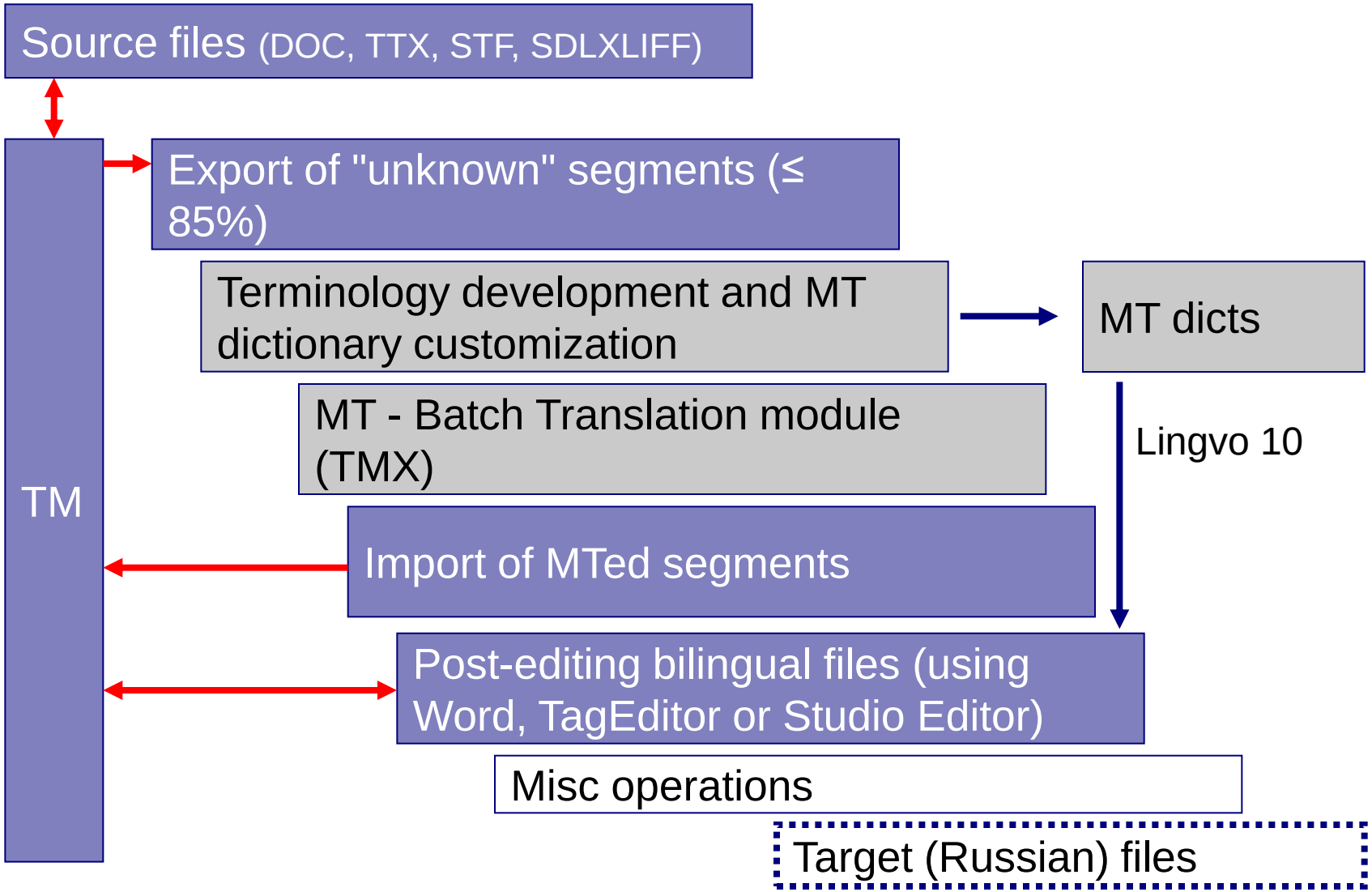
1993 Stylus (DOS) for Software



1997 TM (Star Transit) + MT (ProMT)



Today: TM (SDL Trados) + MT (ProMT)



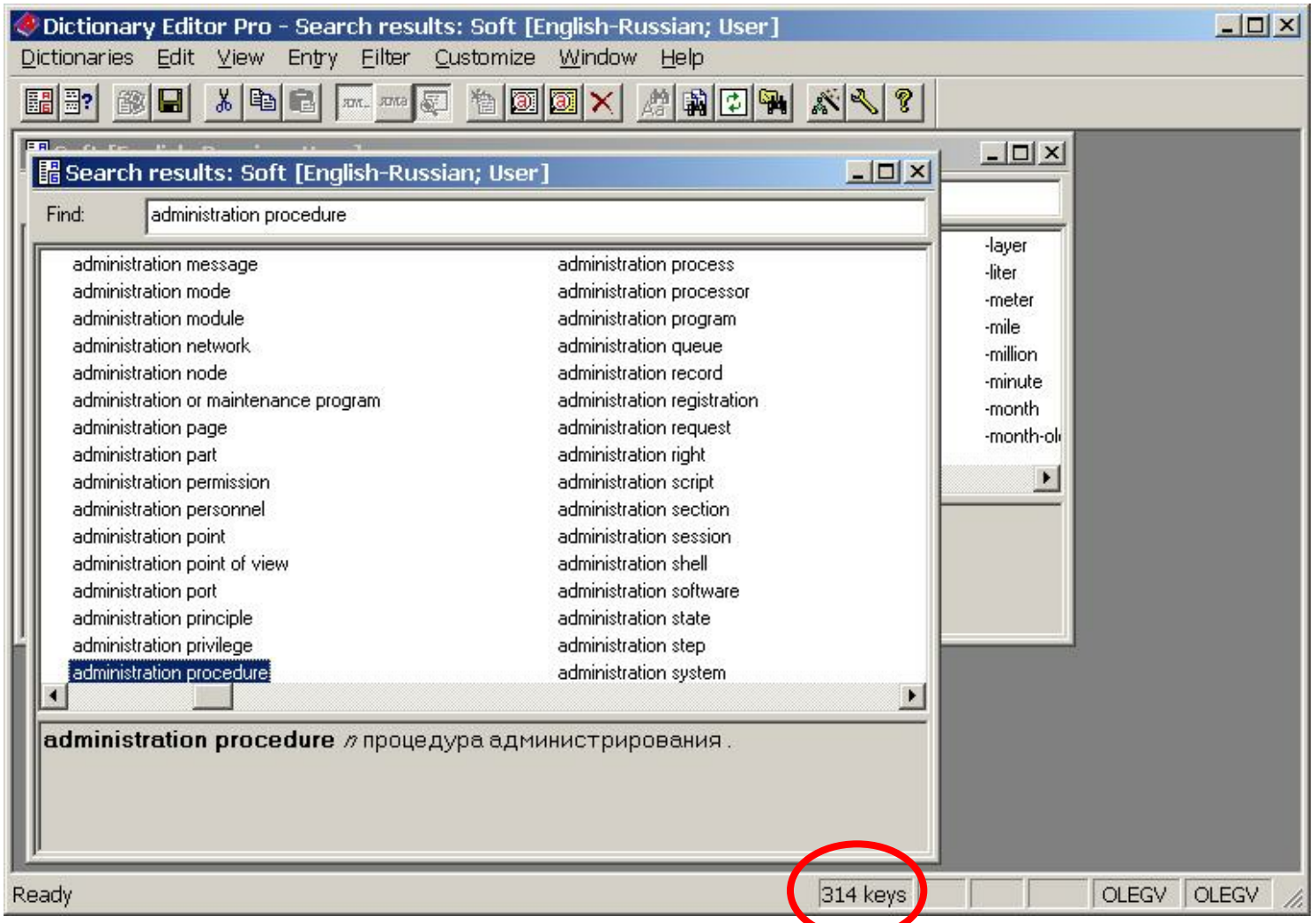
1. Integration of a MT system to a corporate translation workflow
2. **Development and maintenance of MT dictionaries**
3. Management of MT profiles and translation style
4. Benefits of using MT

Lexicon sources and terminology levels for MT dictionaries

- Lexicon sources: documents to be translated, international standards/recommendations/references, published documents (in Internet), public glossaries, patents, etc.
- Terminology levels:
  - Basic lexicon: networks and systems (IN, ISDN, ATM), technologies & protocols in use (SDH, MPLS, GSM), signalling systems, protection, security, charging & billing, power supply, services, etc.
  - "Secondary" lexicon (OEM specific): systems, units, devices & boards, functions, operating modes, states, manuals & guides, applications, solutions, services etc.
  - Standard phrases: “this chapter describes”, “for more information see”, “it should be noted that” etc.

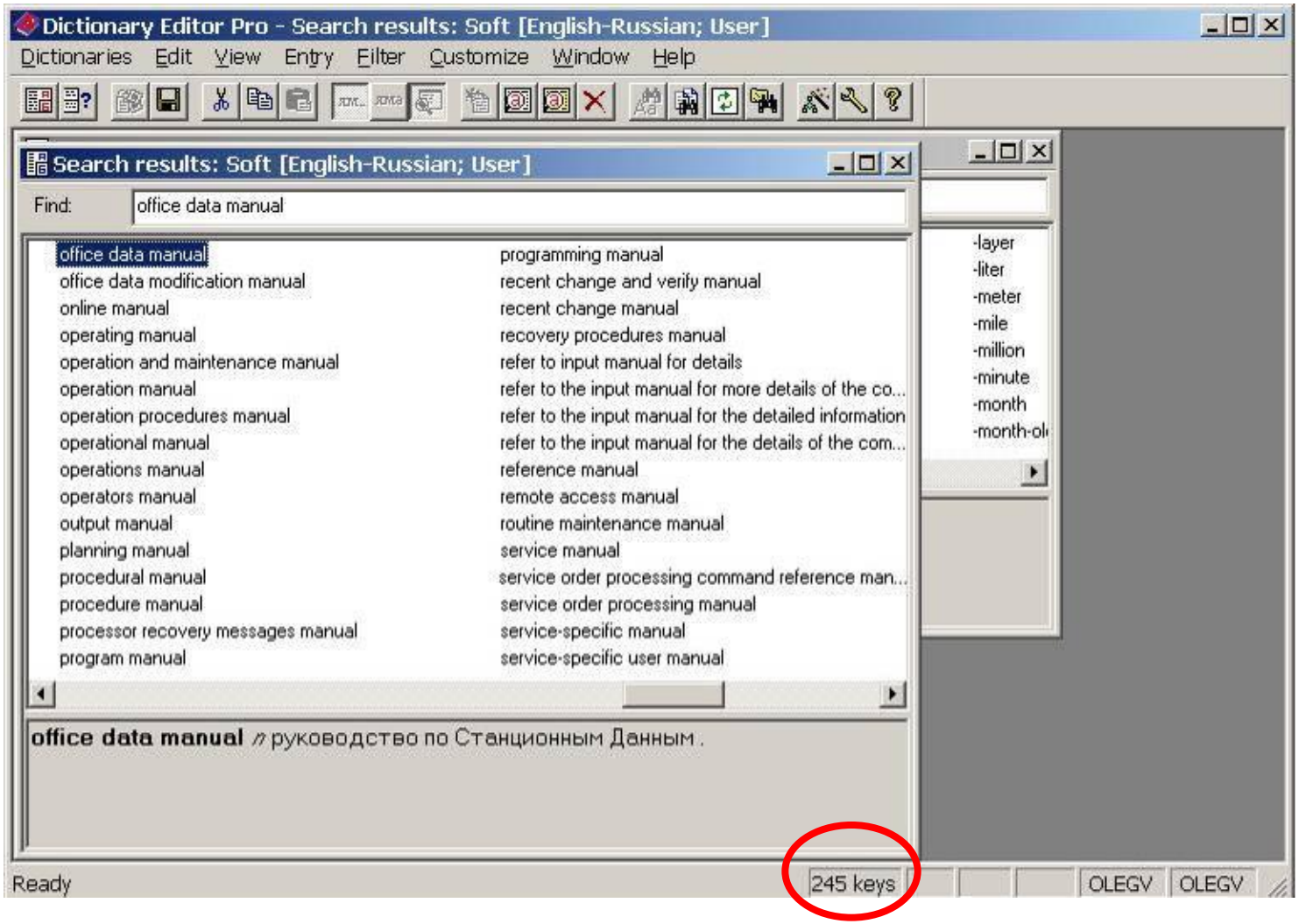
Example

Administration



Example

Manual (document type)



MT dictionary features

- terms (dictionary entries) in singular and plural forms
- collocations with 'root' words
- verbs with insertions
- command words
- "partial" acronym extensions
- entries with conjunctions *and / or*
- collocations with adjectives, e.g., *"… related"*

Terms (dictionary entries) in singular and plural forms

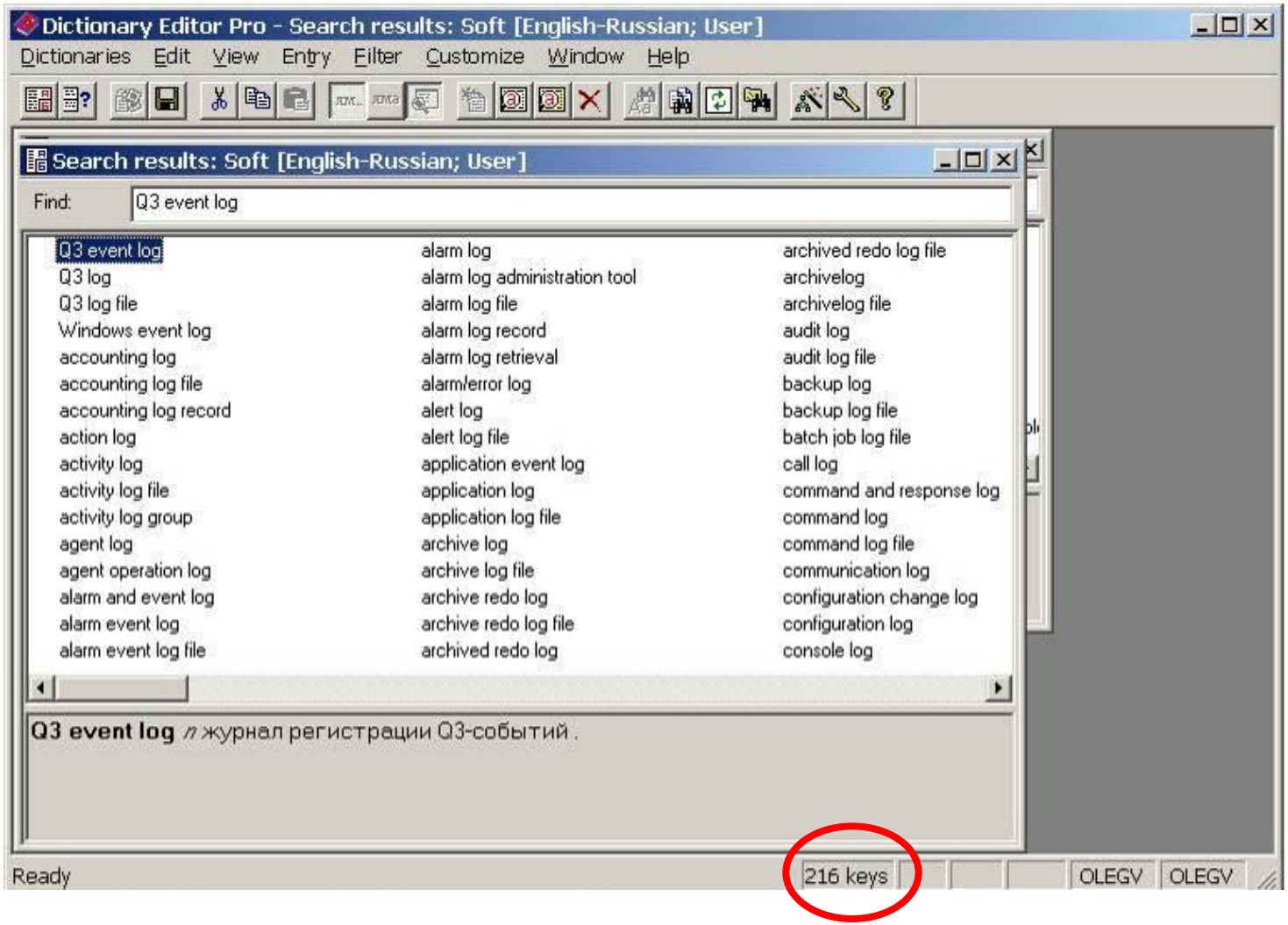
IP address	IP-адрес
port name	имя порта
port names	именА портОВ
parameter value	значение параметра
parameter values	значениЯ параметрОВ

Collocations with 'root' words

'Root' word	Sample dictionary entry	Translation	Number of dictionary entries
… list	event list	список событий	411
… table	status table	таблица состояний	295
… range	value range	диапазон значений	96
… monitoring	transaction monitoring	текущий контроль транзакций	227
… management	fault management	обработка отказов	592
… log	error log	журнал регистрации ошибок	216

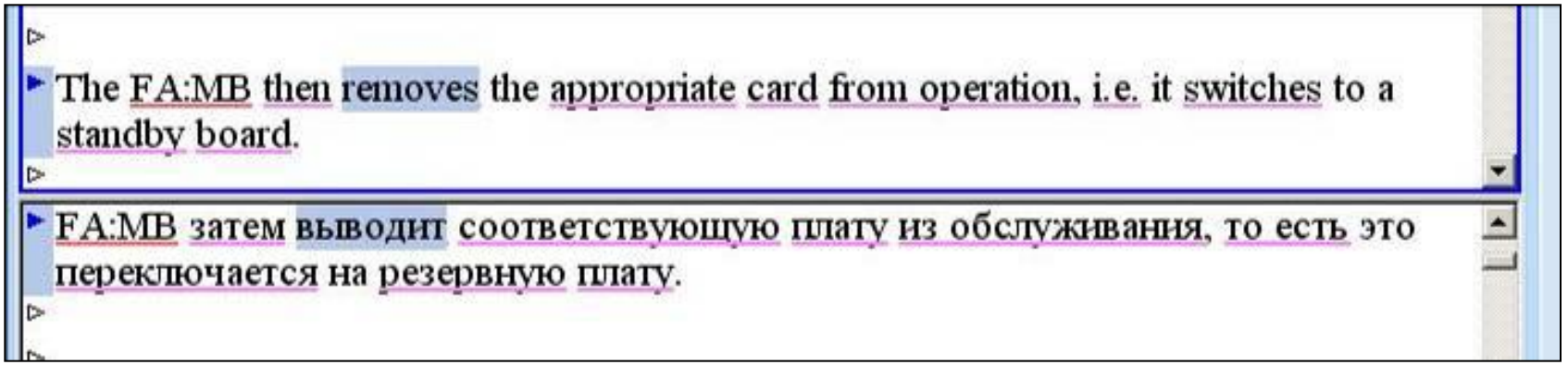
Example

Log


Dictionary Editor Pro - Search results: Soft [English-Russian; User]
Dictionaries Edit View Entry Filter Customize Window Help
Search results: Soft [English-Russian; User]
Find: Q3 event log
Q3 event log
Q3 log
Q3 log file
Windows event log
accounting log
accounting log file
accounting log record
action log
activity log
activity log file
activity log group
agent log
agent operation log
alarm and event log
alarm event log
alarm event log file
alarm log
alarm log administration tool
alarm log file
alarm log record
alarm log retrieval
alarm/error log
alert log
alert log file
application event log
application log
application log file
archive log
archive log file
archive redo log
archive redo log file
archived redo log
archived redo log file
archivelog
archivelog file
audit log
audit log file
backup log
backup log file
batch job log file
call log
command and response log
command log
command log file
communication log
configuration change log
configuration log
console log
Q3 event log // журнал регистрации Q3-событий .
Ready
216 keys
OLEGV
OLEGV

Verbs with insertions

- to clear = очищать
- to clear … alarm = сбрасывать (НЕКИЙ) аварийный сигнал
- to remove = удалять
- to remove … from service = выводить (ЧТО-ТО) из обслуживания



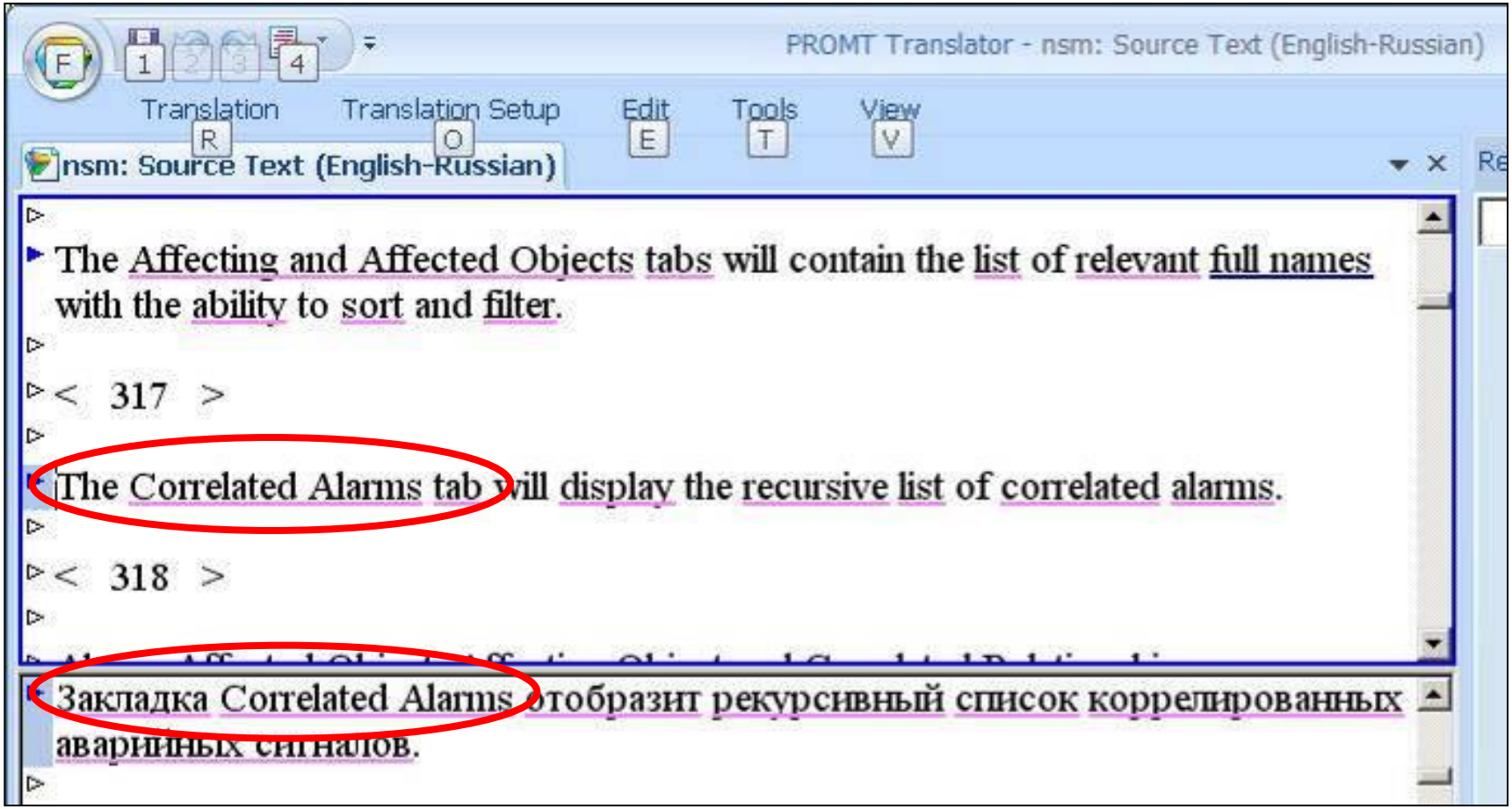
Command words

- Menu, menu item, window, screen, tab, button, option, check box ...
- A text prior to such "comand words" is handled as a GUI element (option). This text can be saved "as in source", translated into Russian, etc. (there are 5 settings).

MT input	MT output
the Edit menu	меню Edit
the "Save As" menu item	пункт меню "Save As"
the "Advanced Properties" dialog window	диалоговое окно "Advanced Properties"

Example

Tab

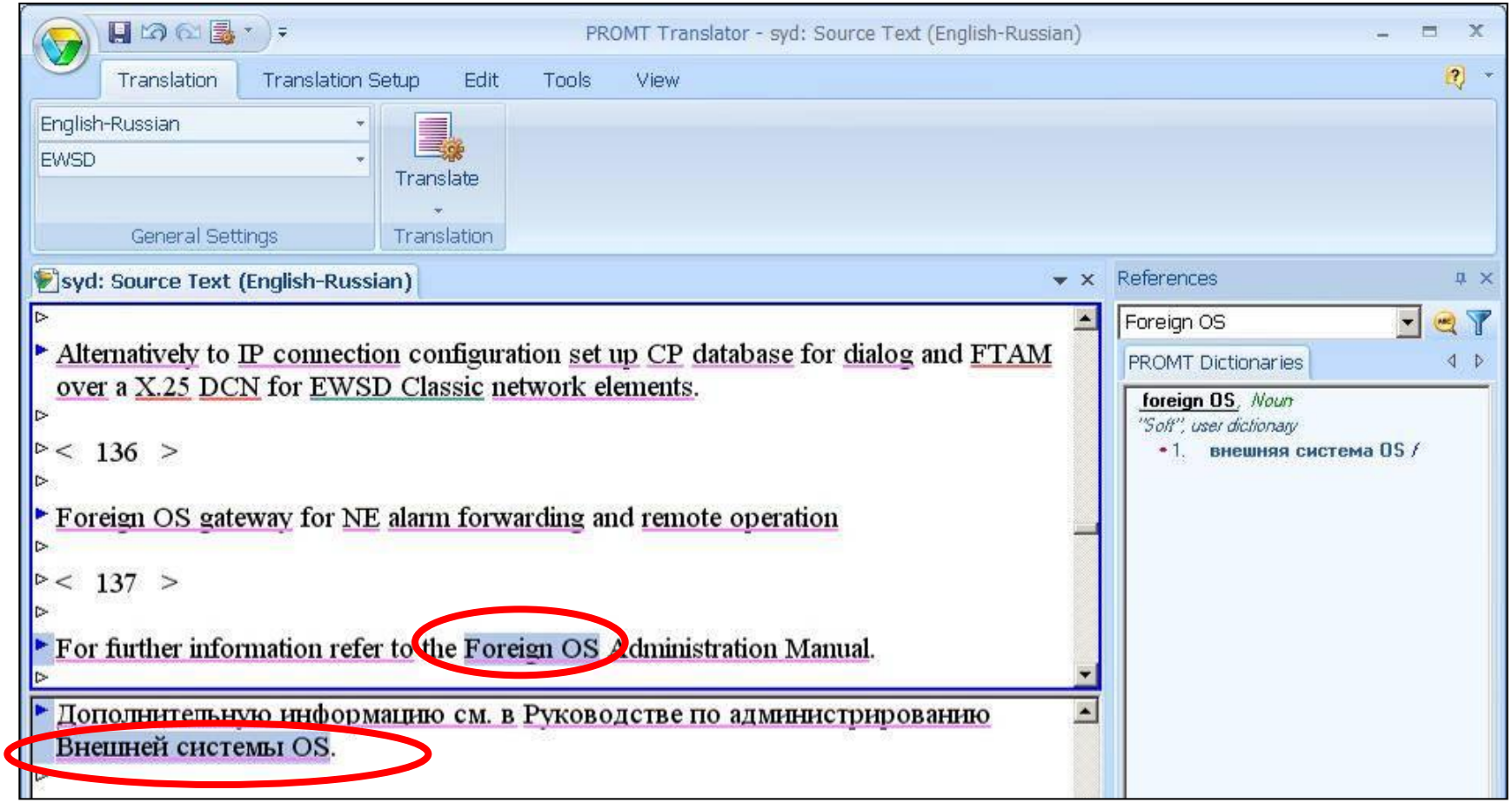

PROMT Translator - nsm: Source Text (English-Russian)
Translation
Translation Setup
Edit
Tools
View
nsm: Source Text (English-Russian)
The Affecting and Affected Objects tabs will contain the list of relevant full names with the ability to sort and filter.
< 317 >
The Correlated Alarms tab will display the recursive list of correlated alarms.
< 318 >
Закладка Correlated Alarms отобразит рекурсивный список коррелированных аварийных сигналов.

(Partial) Expanding some acronyms

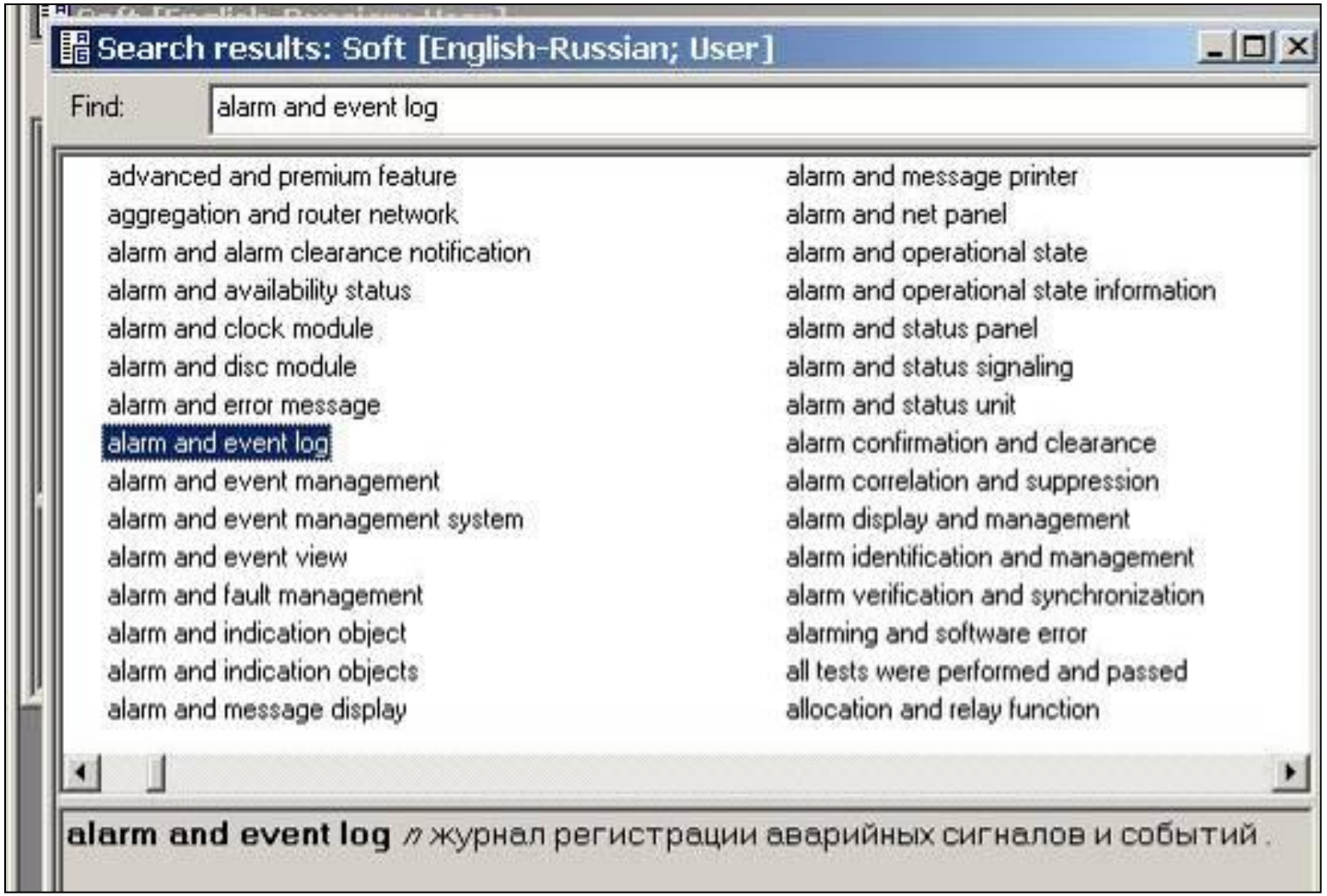
OSs	системы OS
backup OS	резервная система OS
export OS	экспортирующая система OS
foreign OS	внешняя система OS
higher OS	система OS более высокого порядка

Example

Foreign OS

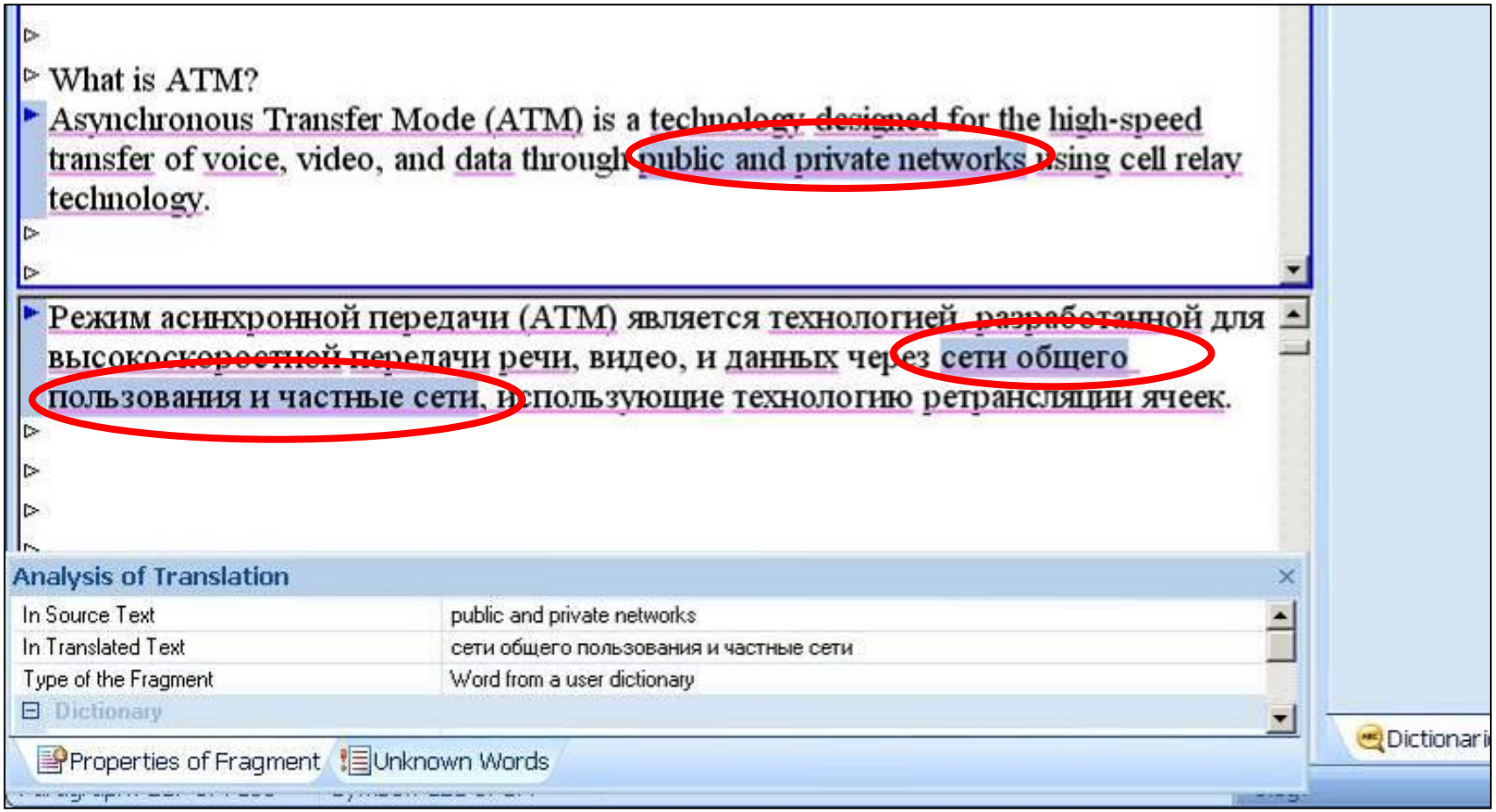


Entries with conjunctions *and / or*

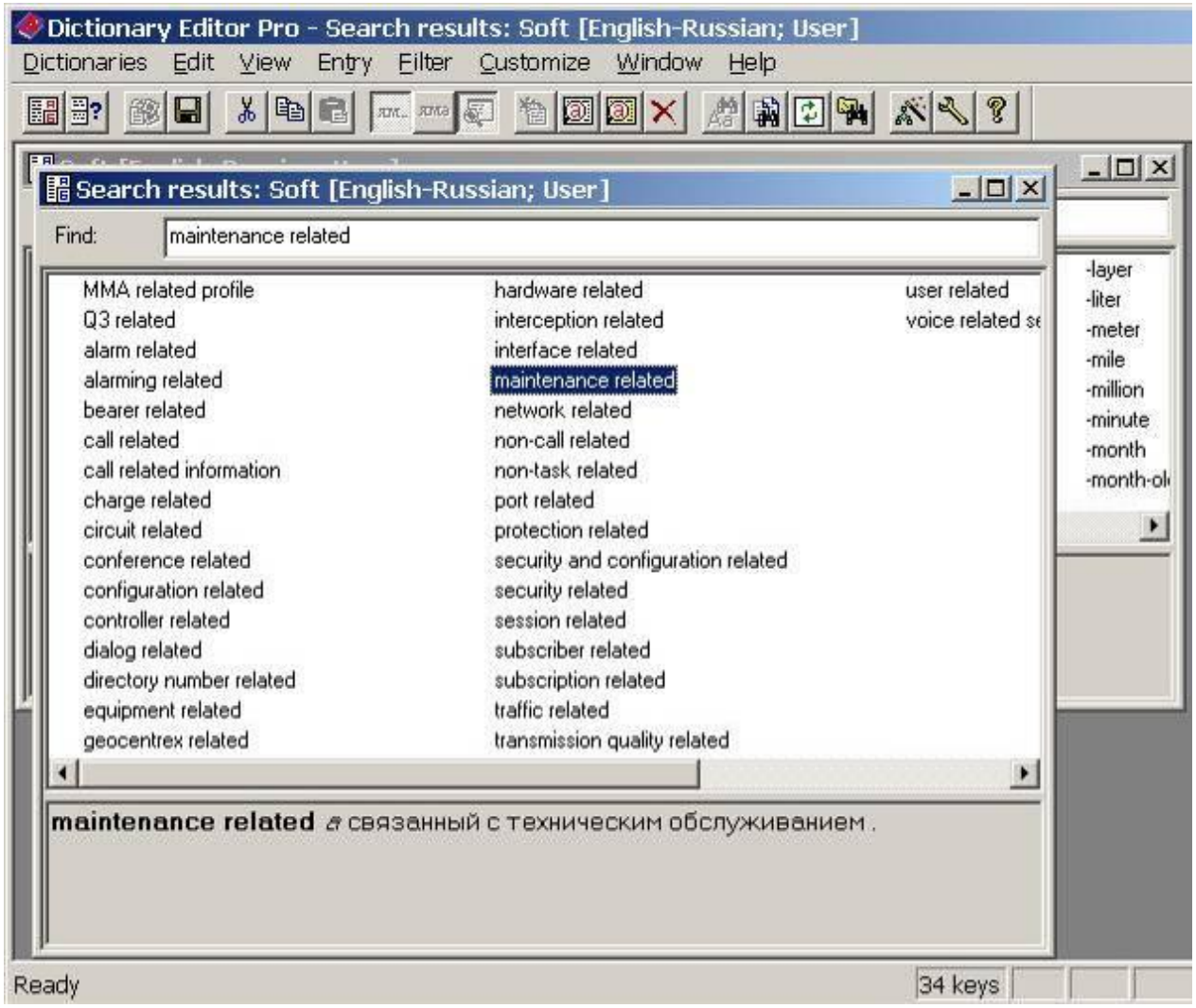


Example

Public and private networks

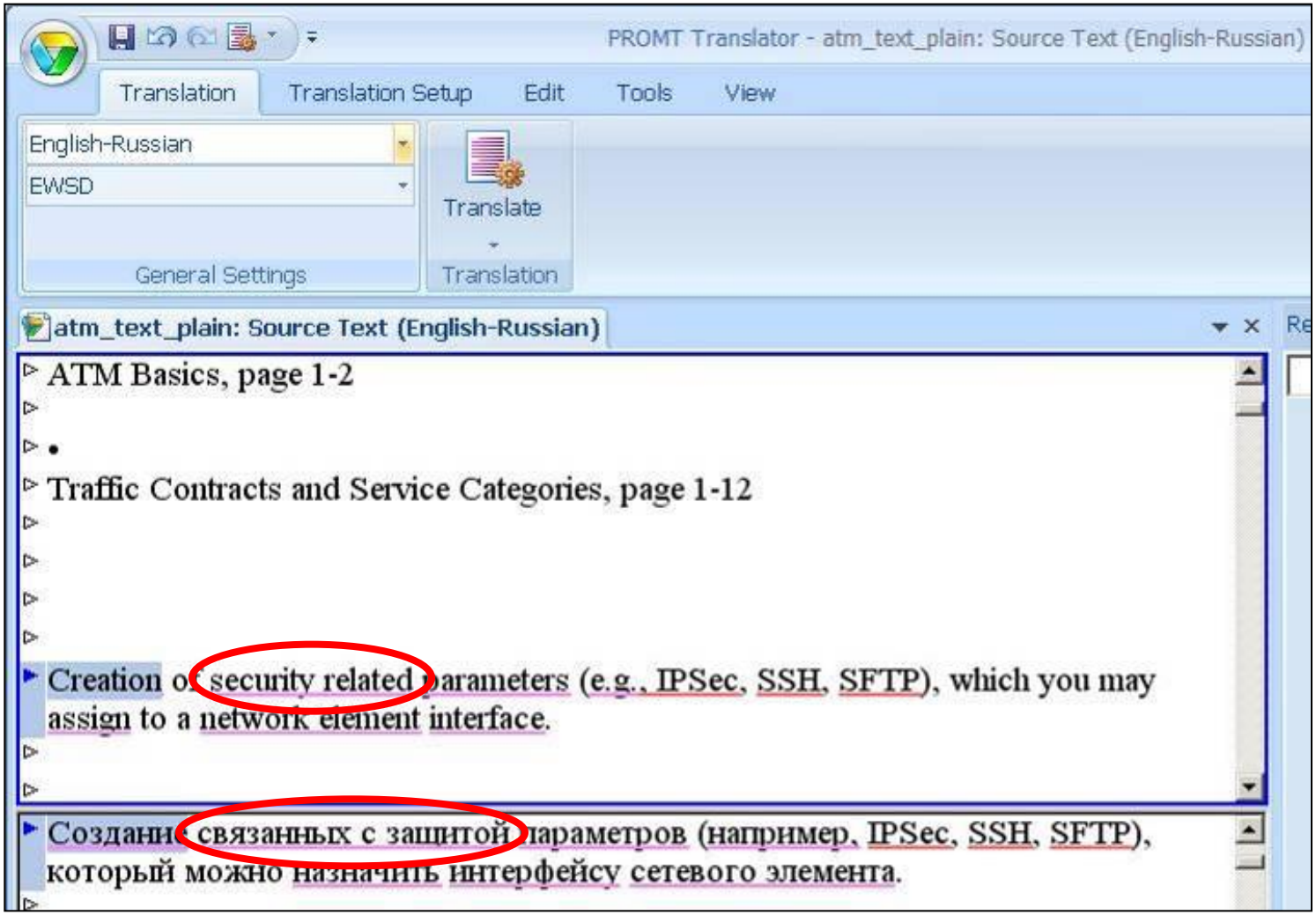


Collocations with adjectives, e.g., *"… related"*



Example

Security related



Basic User Dictionary contains more 65.000 entries

Number of words in a dictionary entry	Number of dictionary entries	%
1	14 377	21.7
2	34 813	52.7
3	12 726	19.2
4	3 245	4.9
5	616	<1
> 5	280	<1

Part of speech	Number of dictionary entries	%
Noun	57 208	88.0
Verb	2 811	< 1
Adjective	3 914	< 1
Adverb	1 925	< 1
Preposition	169	< 1

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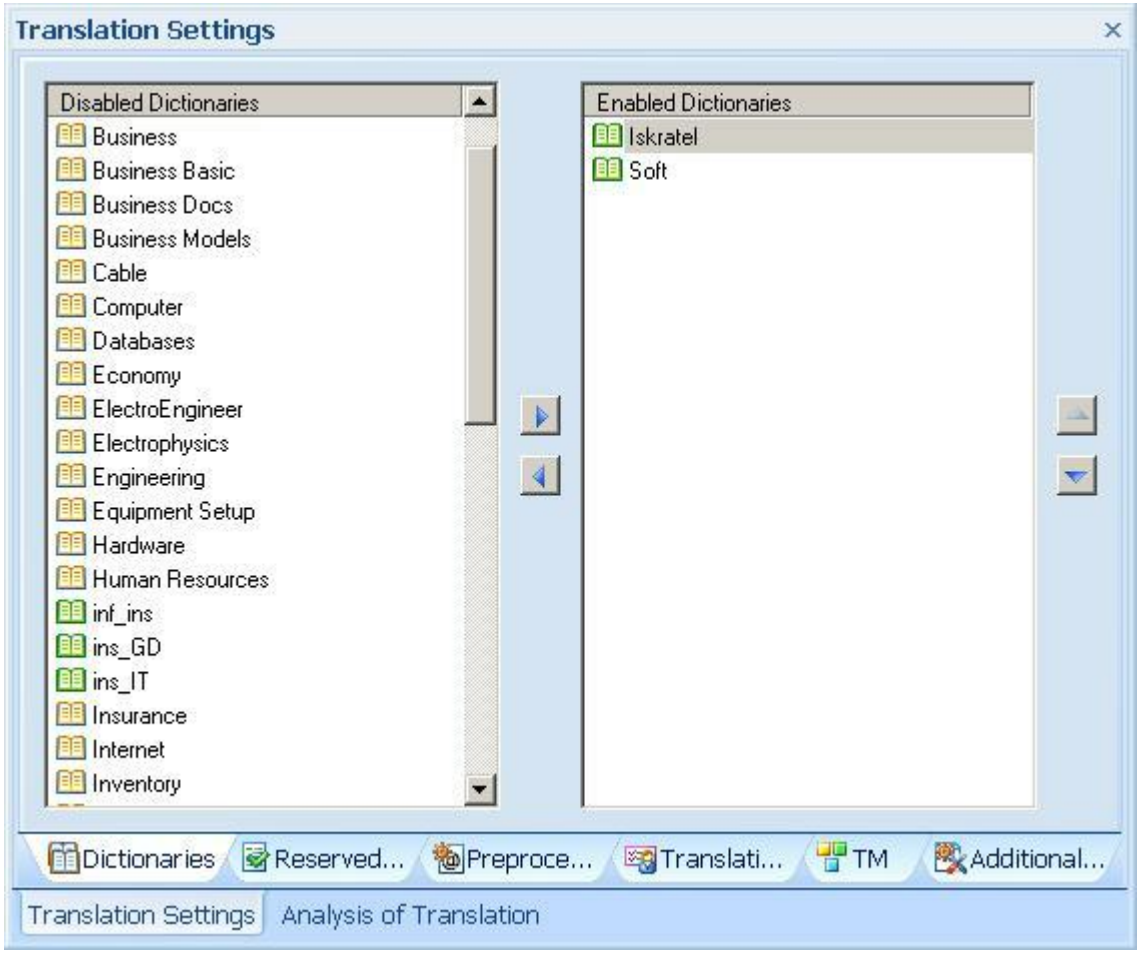
Profiles (templates)

Profile

- Dictionaries
- DoNotTranslate list
- Translation rules



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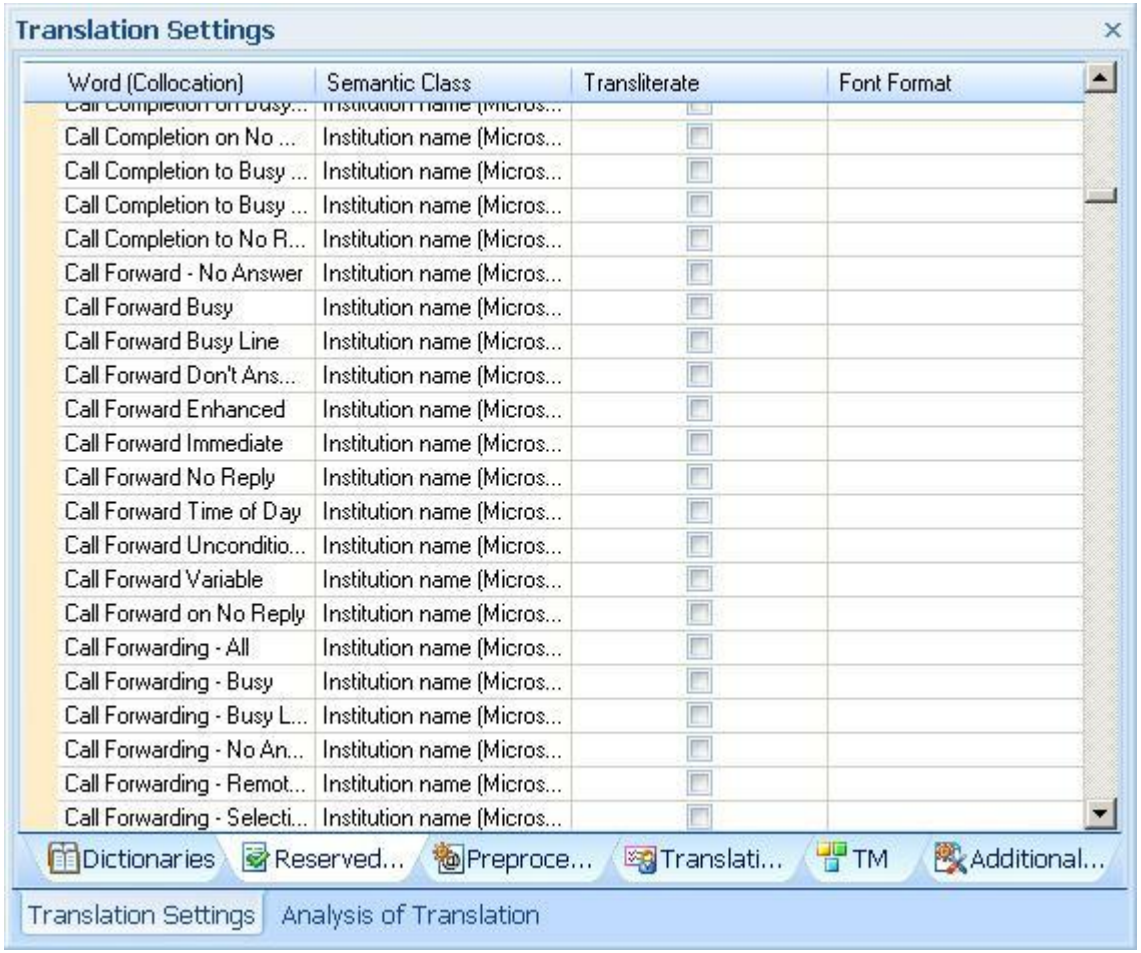


DoNotTranslate list

- commands, system names, messages

Access Integrator Monitor
Access- Request
Access-Accept

- states

Availability Status= degraded
Availability Status=failed / degraded

- software products and modules

Microsoft Windows NT4.0
Microsoft Windows Server 2003

- service names

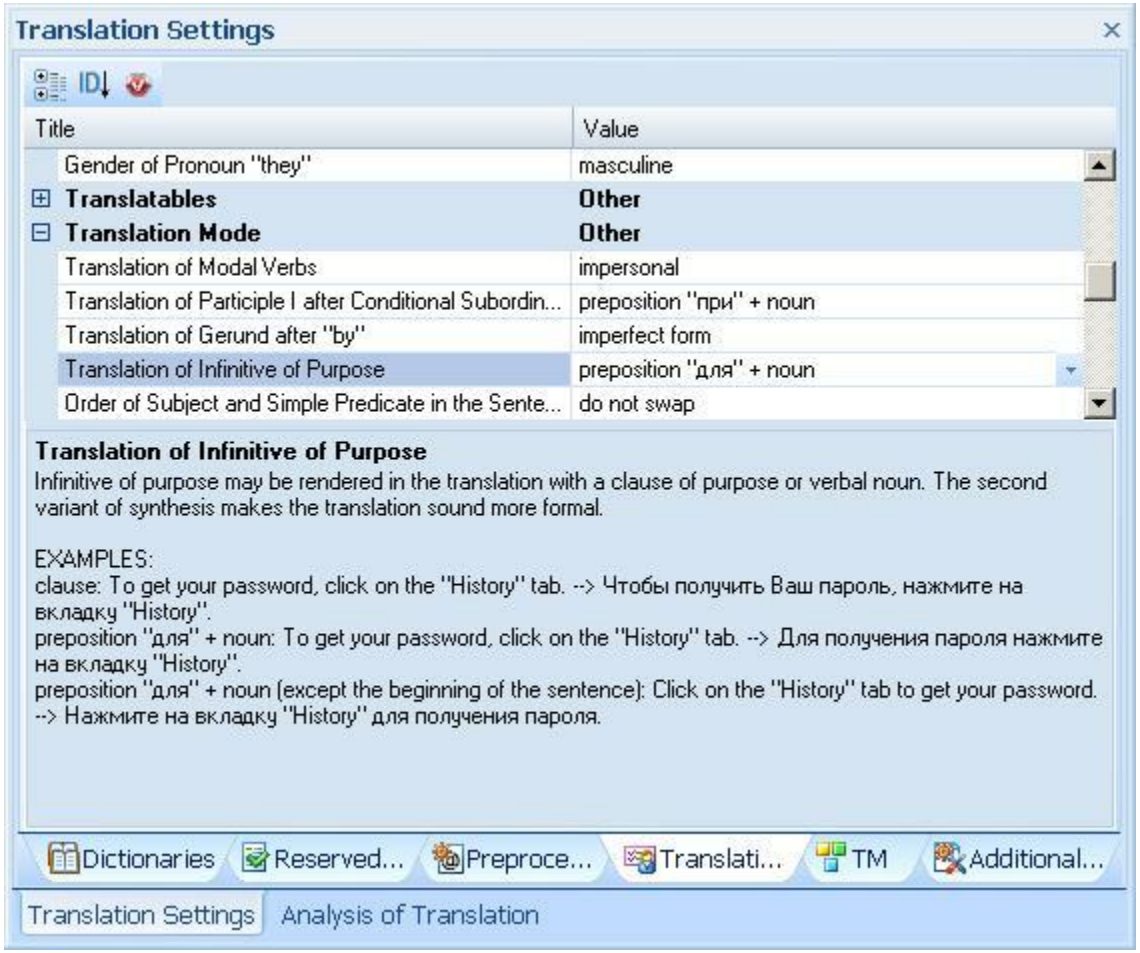
Call Completion to No Reply
Call Forward - No Answer
Call Forward Busy

- More than 3.500 list entries

Profiles (templates)

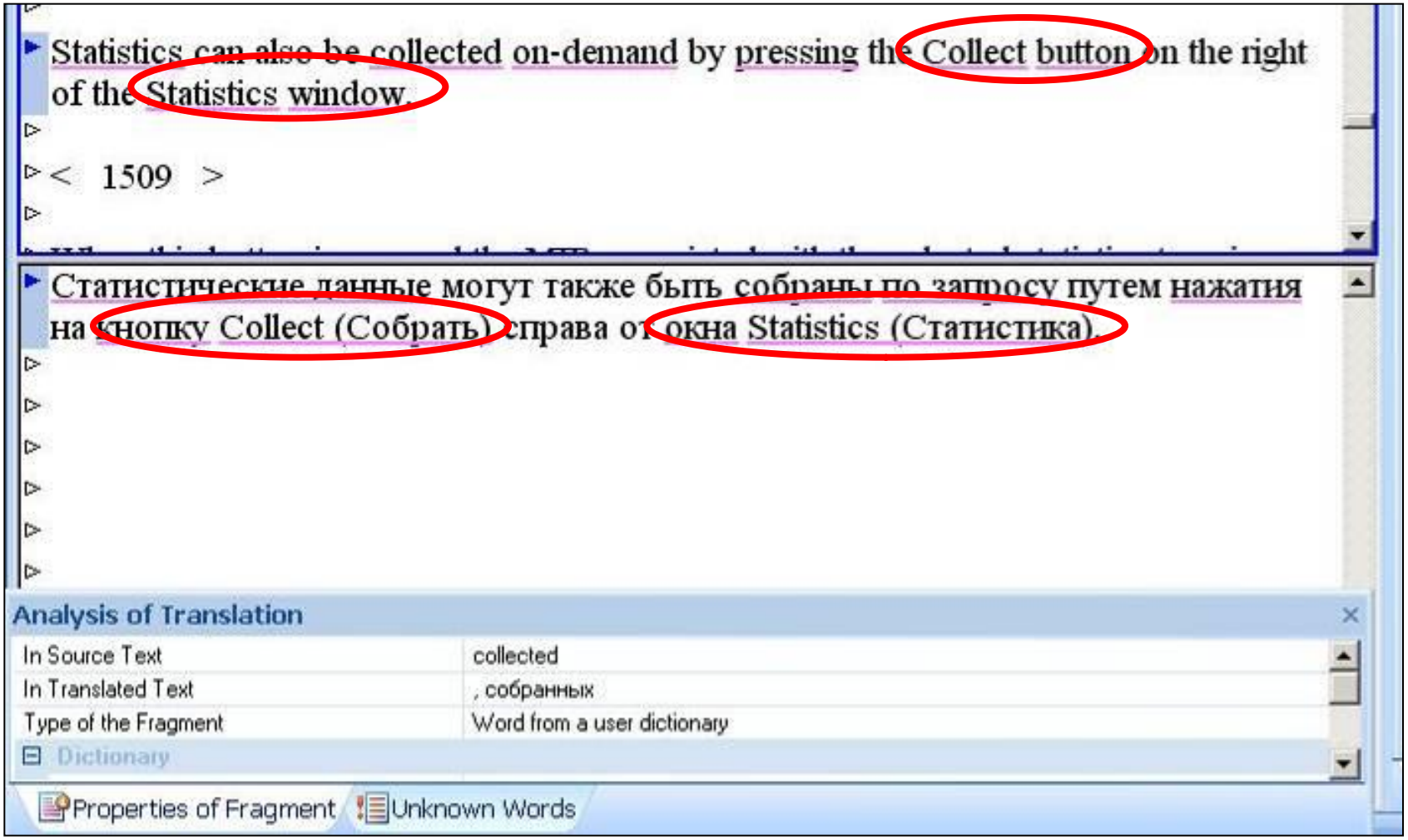
Profile

- Dictionaries
- DoNotTranslate list
- Translation rules



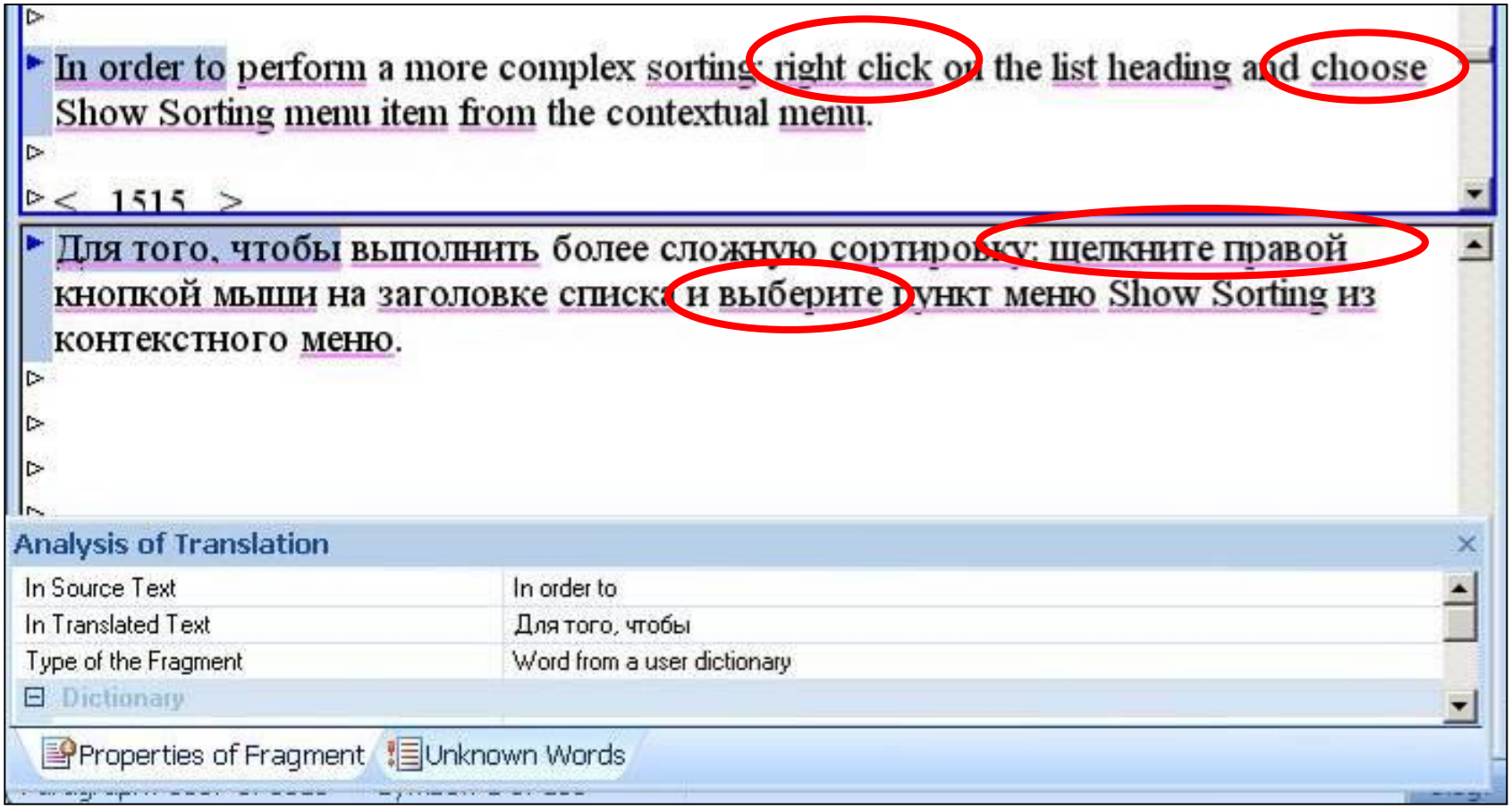
Example

Translation rules



Example

Translation rules



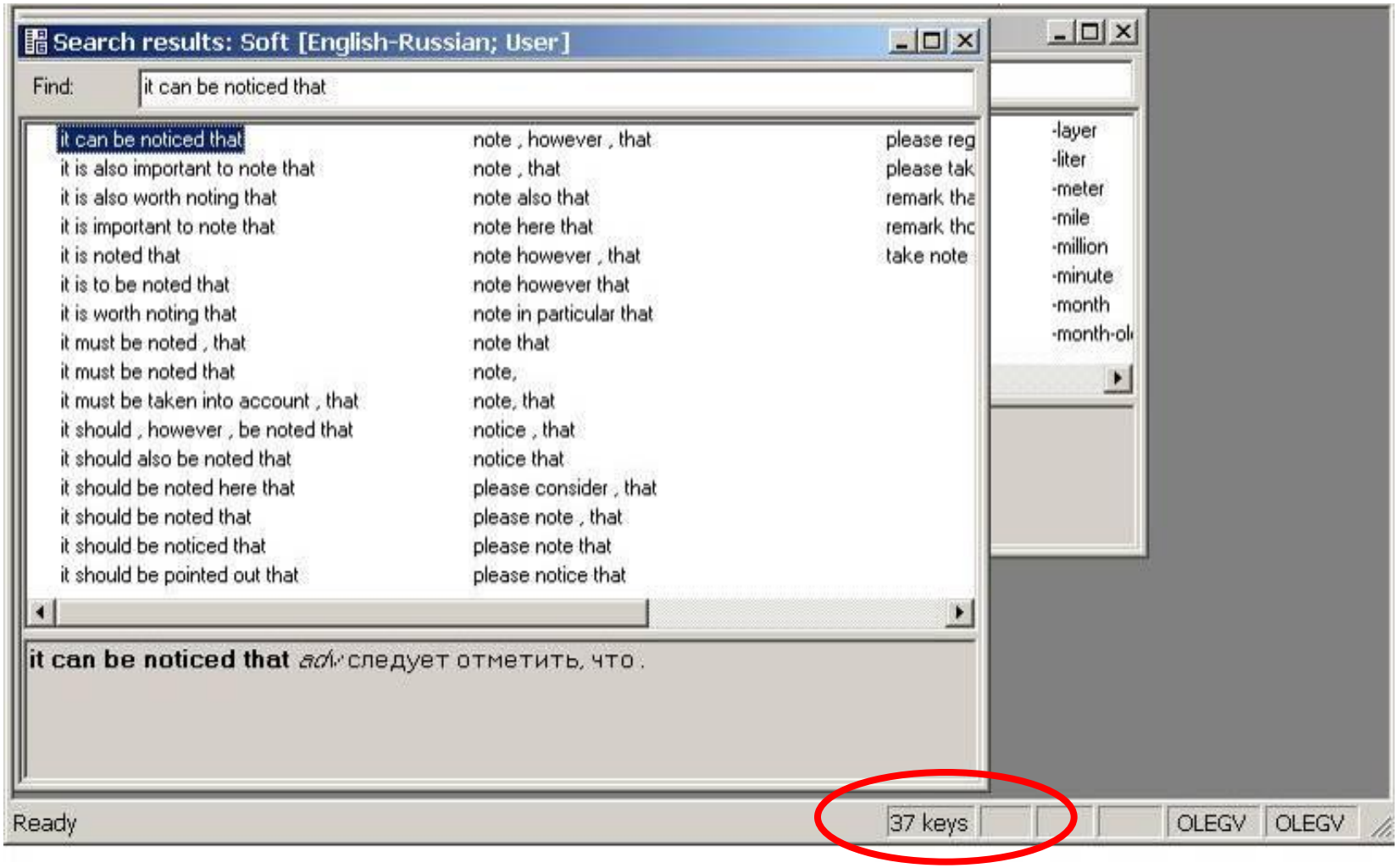
Consistency management (style elements)

- Standard phrases (e.g., “*it should be noted that*”)
- Frequent phrases

this chapter describes	в этой главе приводится описание (кого-чего)
this command deletes	эта команда позволяет удалить (кого-что)
this manual covers	в этом руководстве приводится описание (кого-чего)

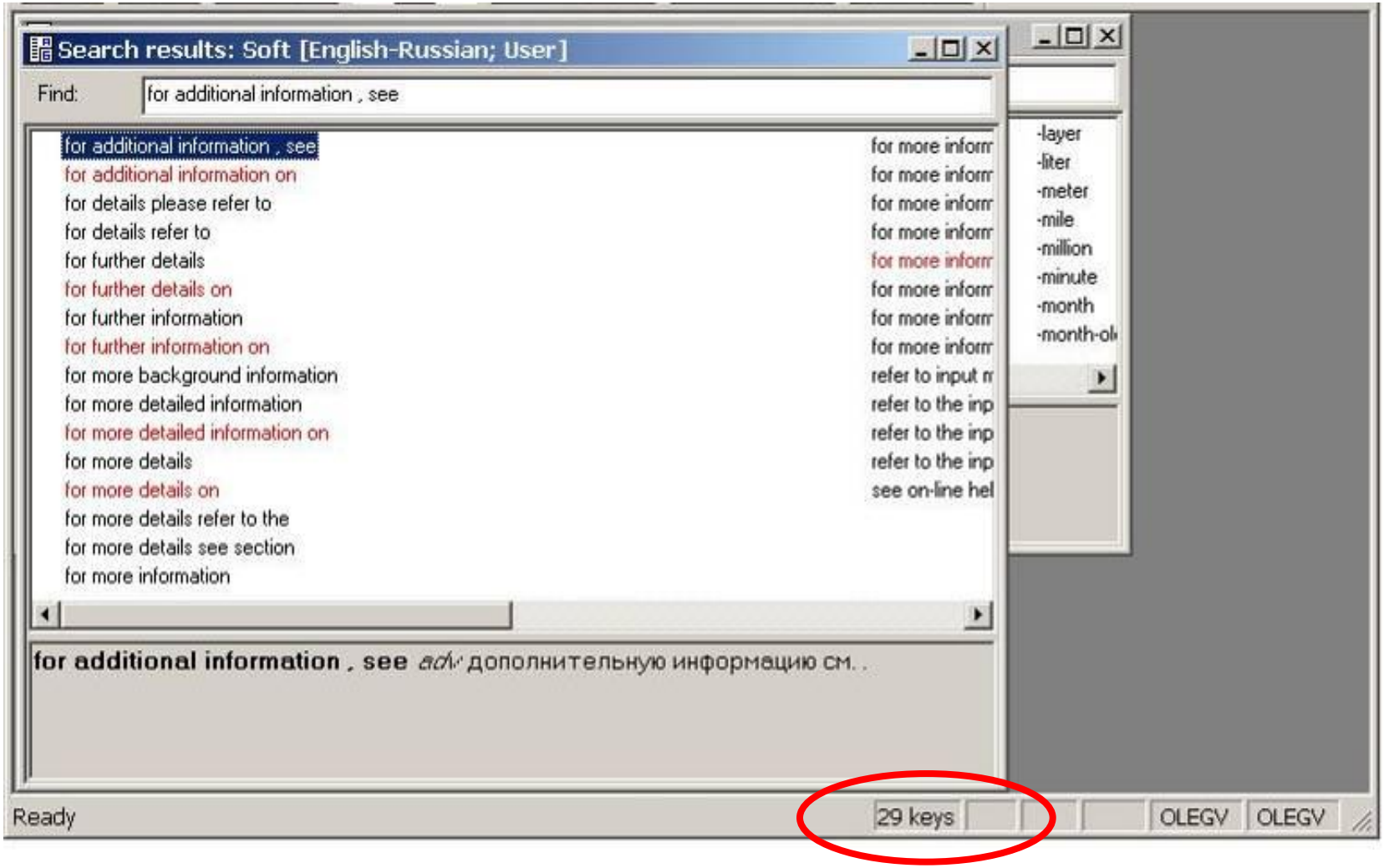
Example

Следует отметить, что



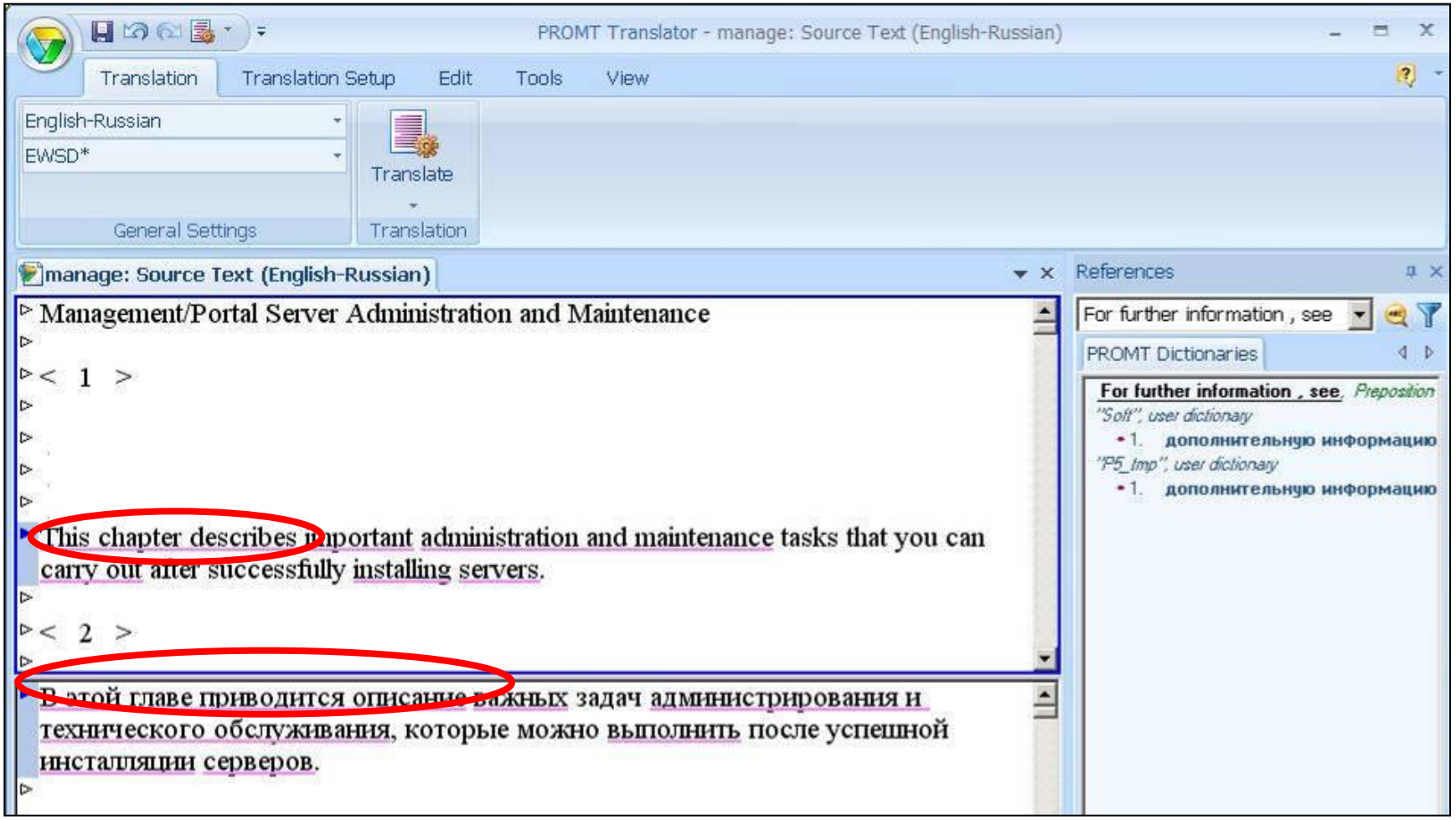
Example

Дополнительную информацию см.



Example

This chapter describes



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Benefits of using a customized MT

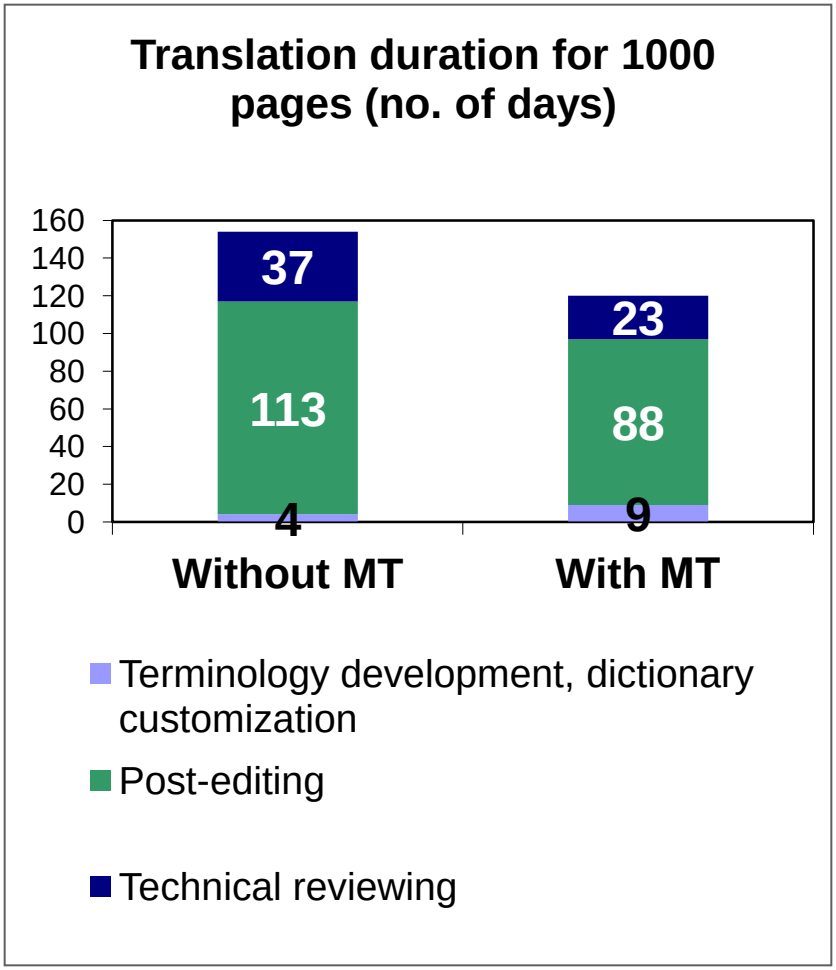
- **Translation automation.** An MT dictionary is not only a reference base, but a tool which allows you to force an automatic source translation and pre-customized term substitution.
- **Translation capacity.** An MT allows you to minimize a routine keyboard typing process. A translator's capacity is increased.
- **Quality.** The translation quality is improved due to term and style consistency management (at earliest translation process stages).
- **Staff training.** New translators/post-editors become familiar with terminology & style requirements in a more fast and proactive way.
- **Diversification of translation services.** You are able to provide a good-quality, customized gist MT output (with no further post-editing), which is understandable, quick and cheap.

- **Improving a translation agency' efficiency thanks to optimizing corporate processes**

Efficiency of using MT

- Terminology development and dictionary customization takes more time (at least, twice)
- Translation (post-editing) capacity is 25 to 30% higher, that of reviewing is 60-70% higher
- **Example:** while translating 1.000 pages using a customized MT, you save 34 days (22%). If you have a full translation load during this time, your extra revenue can be more than USD 4.400.*

*if a translation price for a single conditional page is USD 15.



Thank you for your attention!

- My contacts are:

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  oleg.vigodsky@gmail.com

- Free MT trial (Telecom + IT)
  - up to 50 pages (please contact me in advance).
  - TXT, RTF, TMX