



XLIFF for Acronis software localization case study

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Introduction

Acronis

- Global company with offices in 18 countries
- Data protection and disaster recovery solutions
- Physical, virtual and cloud environments



Acronis localization

- 6 product lines
- 14 languages
- 500K+ source words localized yearly
- Implemented **XLIFF v1.2** for software UI localization in 2009
- Using XLIFF for 2+ years, 50+ projects

Acronis UI Localization before XLIFF

Acronis software platform overview

Internationalization:
[ICU](#)

UI toolkits: [Qt](#) & [FOX](#)

Not using built-in
XLIFF support due to
legacy code

Code: C++

Cross-platform system applications (Windows,
Linux, Web)

Acronis UI text architecture

- Proprietary text-based format with complex markup
- ICU and C++ variables/escape sequences, HTML/XML tags, etc.
- Stored in Subversion (SVN) source code management system

english.txt

```
= TEXT_FORM_OP_COMMON_TITLE
< "<indent value="
TEXT_DEFAULT_INDENT">"
< "Drive letter:\t{4}\':\'\n"
< "{5,choice,0#|0<"
< "Type:\t{6}{8,choice,0#|0<
({7})}\n}"
< "File
system:\t{9}\n{14,choice,0#|0<"
< "Volume label:\t{10}\n}"
< "Size:\t{11}\n{15,choice,0#|0<
{13,choice,0#Block size:\t{12}\n"
< "|1#Cluster size:\t{12}\n"
< "}}</indent>"
```

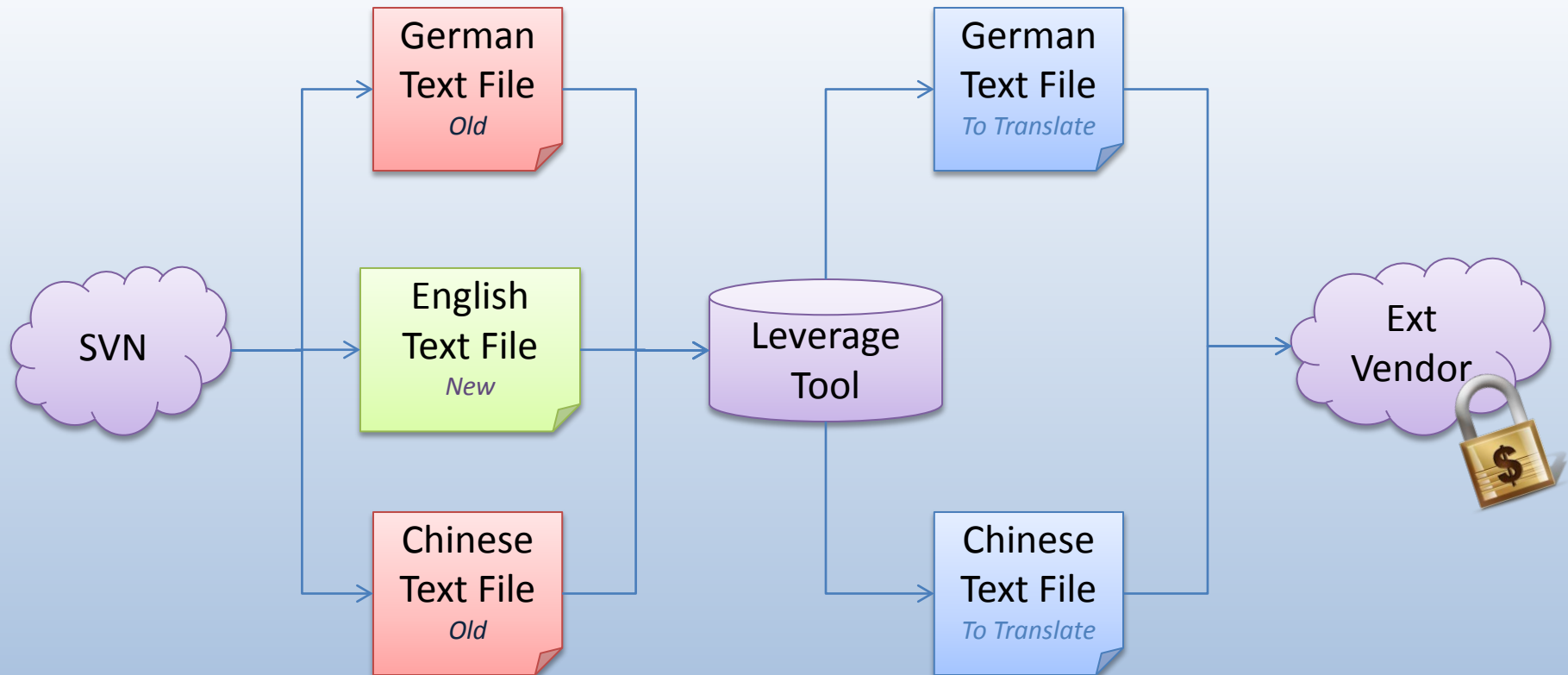
german.txt

```
= TEXT_APPEND_SHORT
< "Incremental backup {0} is
not possible."
> "Inkrementelles Backup ist
nicht möglich."
```

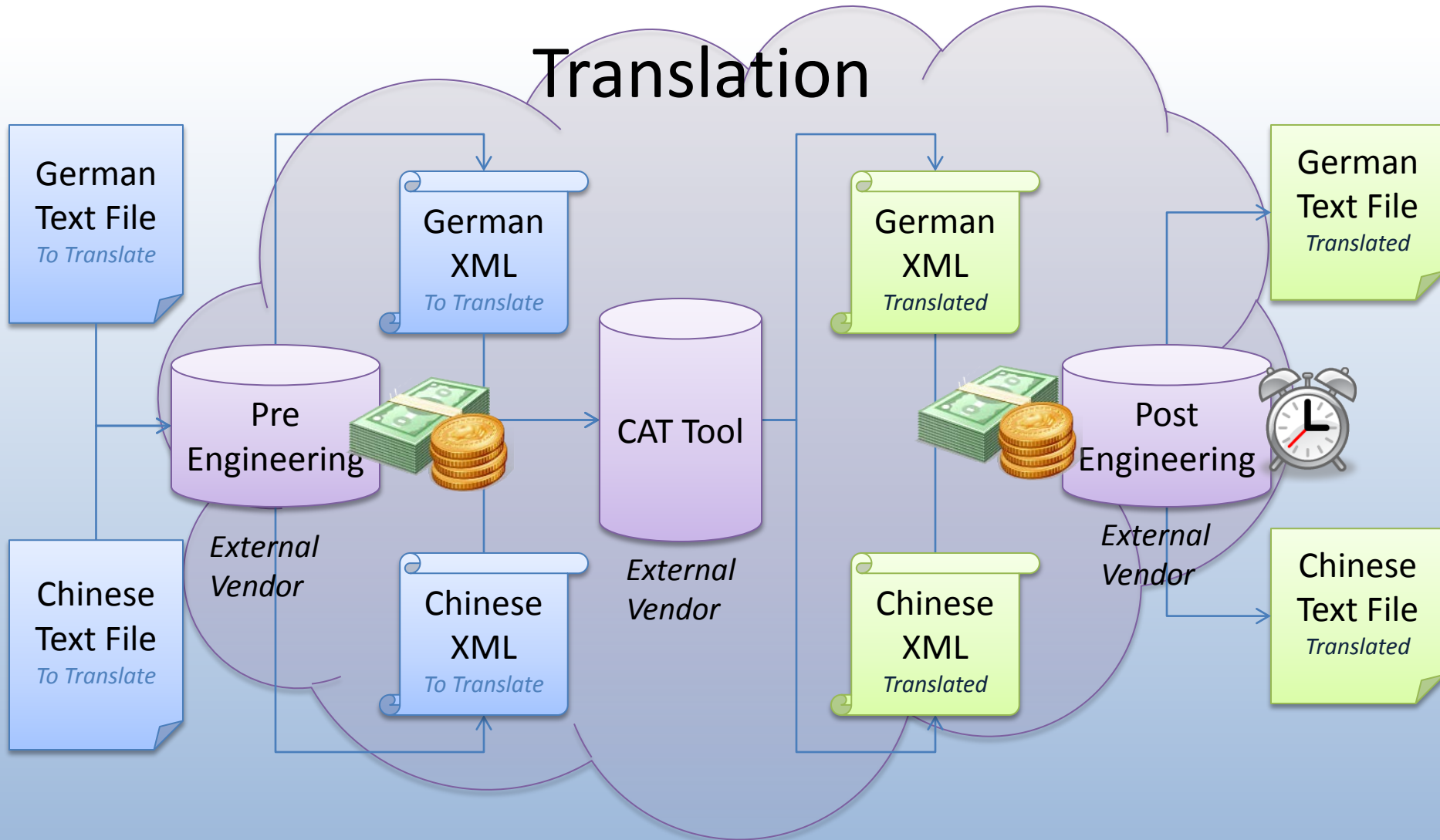
polish.txt

```
= TEXT_APPEND_SHORT
< "Incremental backup {0} is
not possible."
> "Przyrostowa kopia
zapasowa {0} jest
niemożliwa."
```

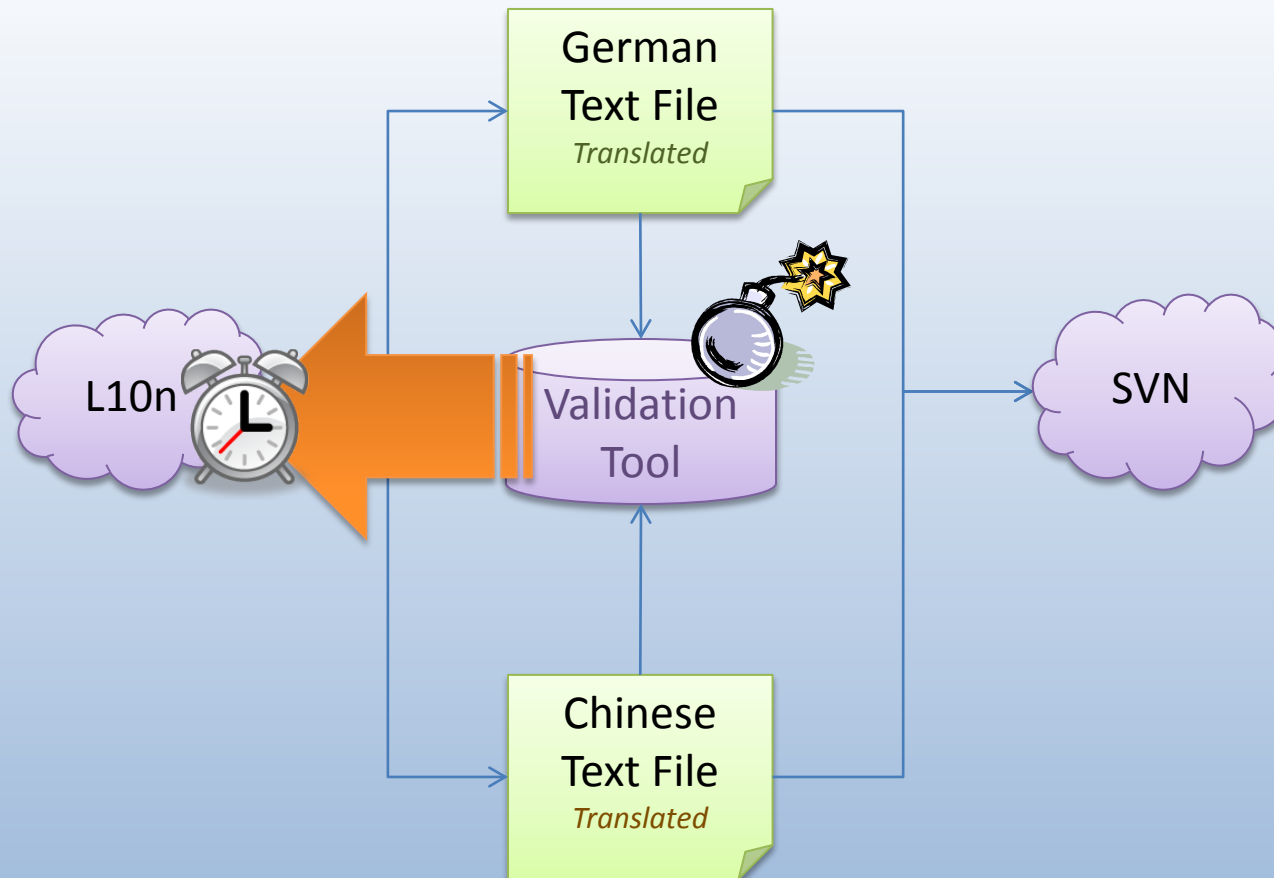
Pre-translation



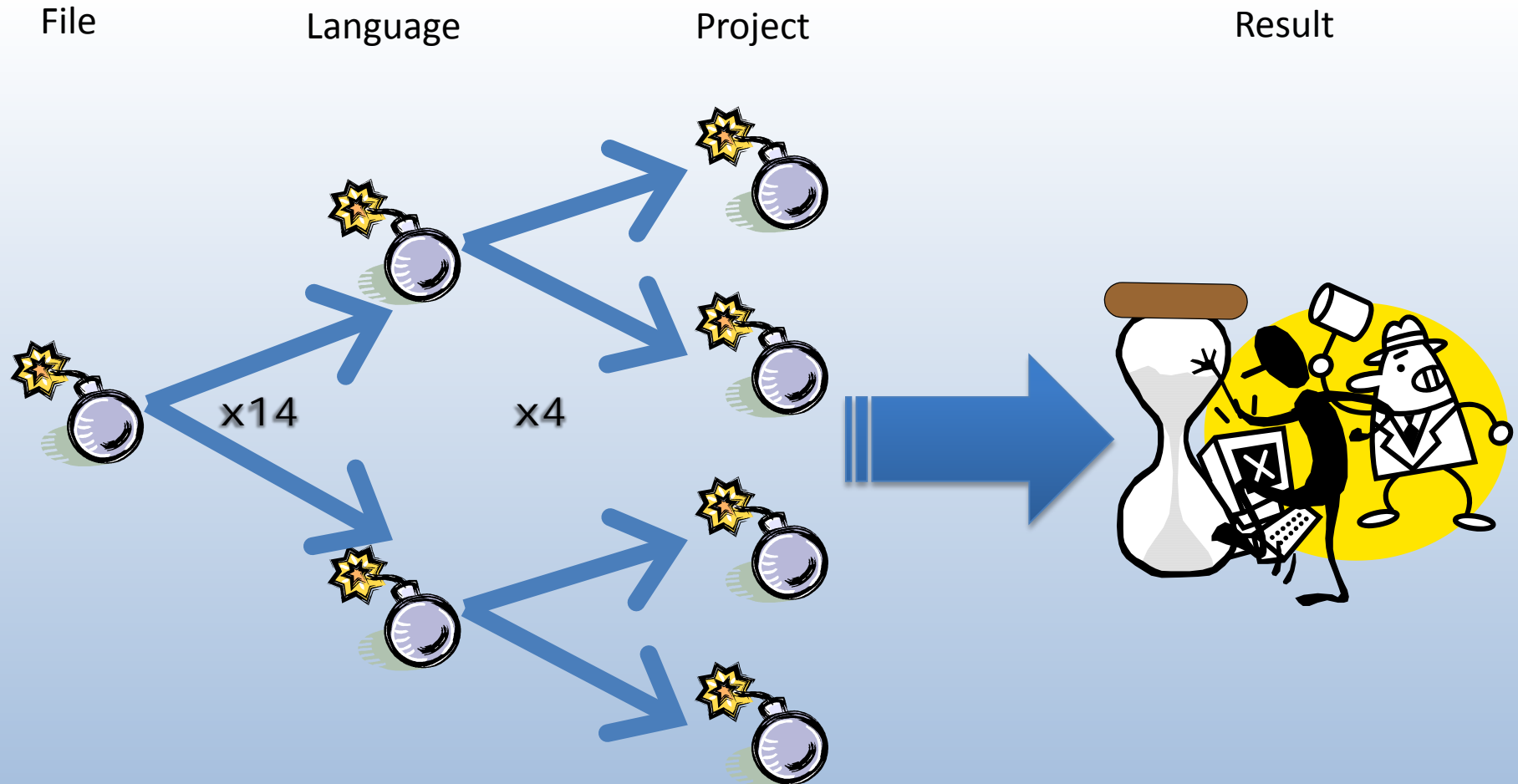
Acronis pre-XLIFF UI localization process (2)



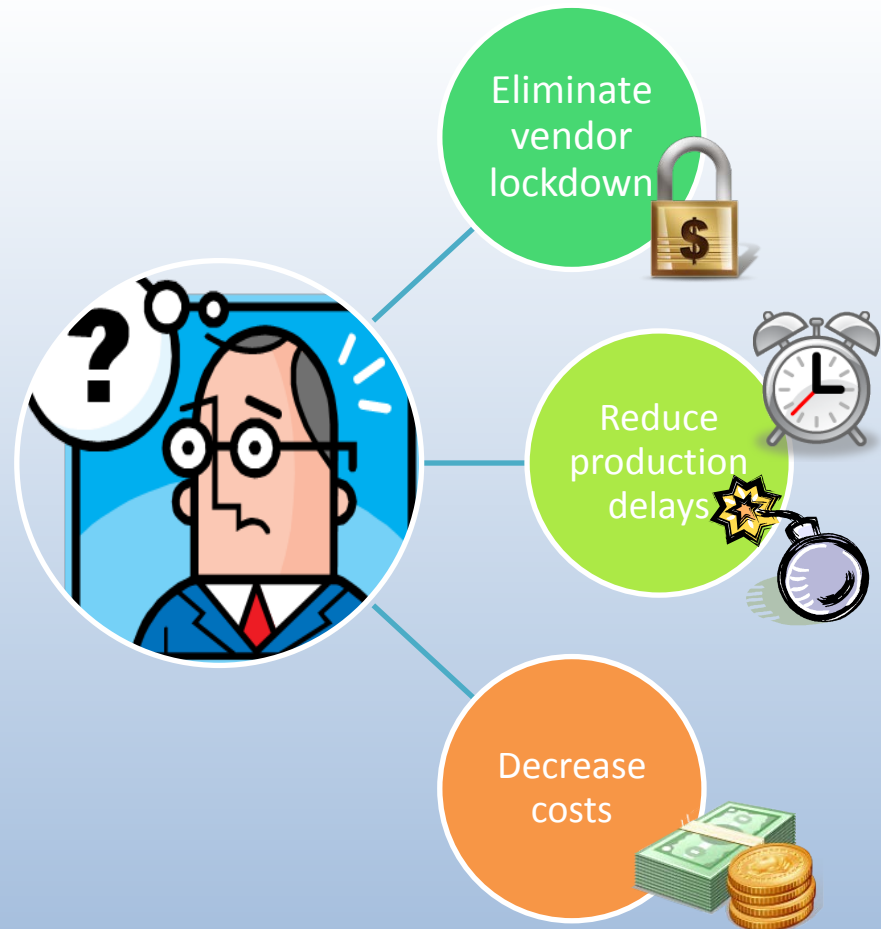
Post-translation



Acronis pre-XLIFF UI localization process issues



What did we want to improve?



Adoption of XLIFF for Acronis UI localization

XLIFF Alternatives

Binary-based software
localization tools

- Didn't work
- Reason: non-standard resource format in binaries

Changing backend
resource format to XML

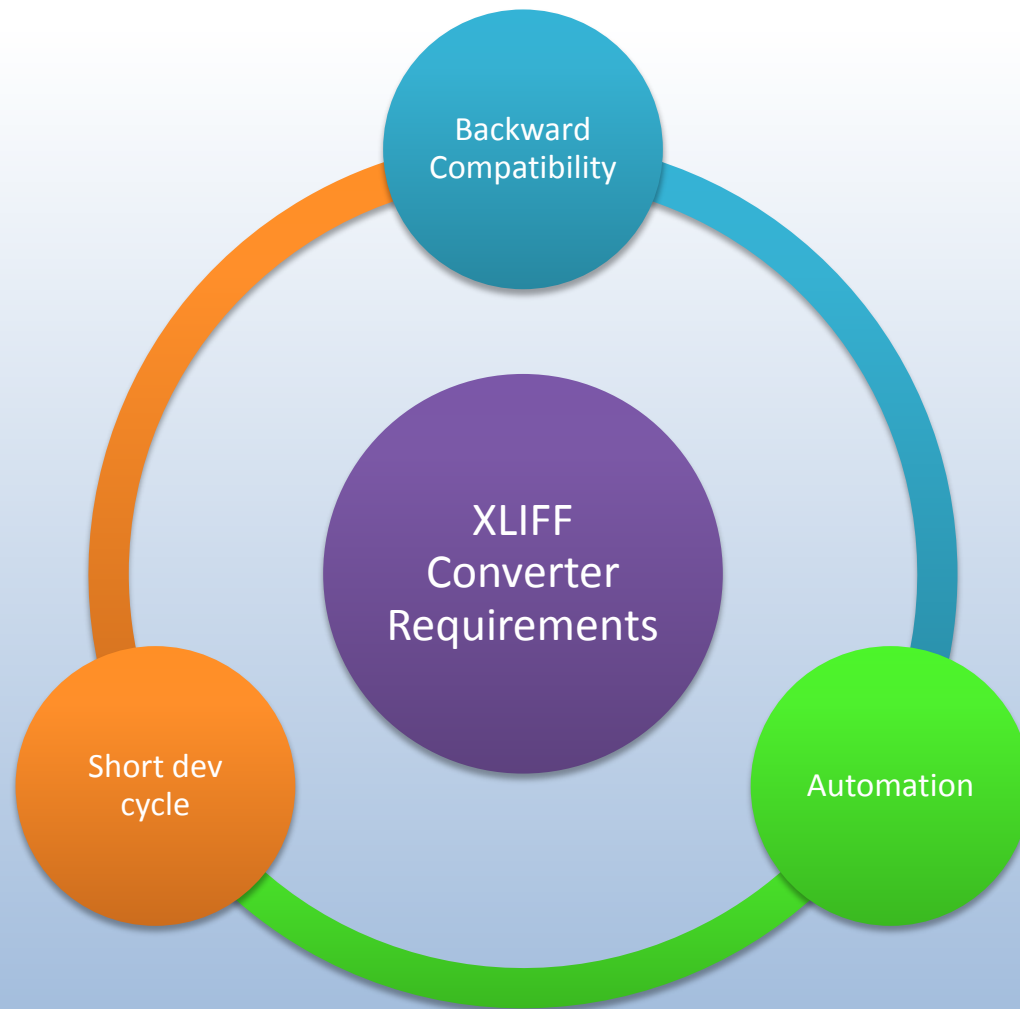
- Didn't work
- Reason: too much legacy code that needs to be updated



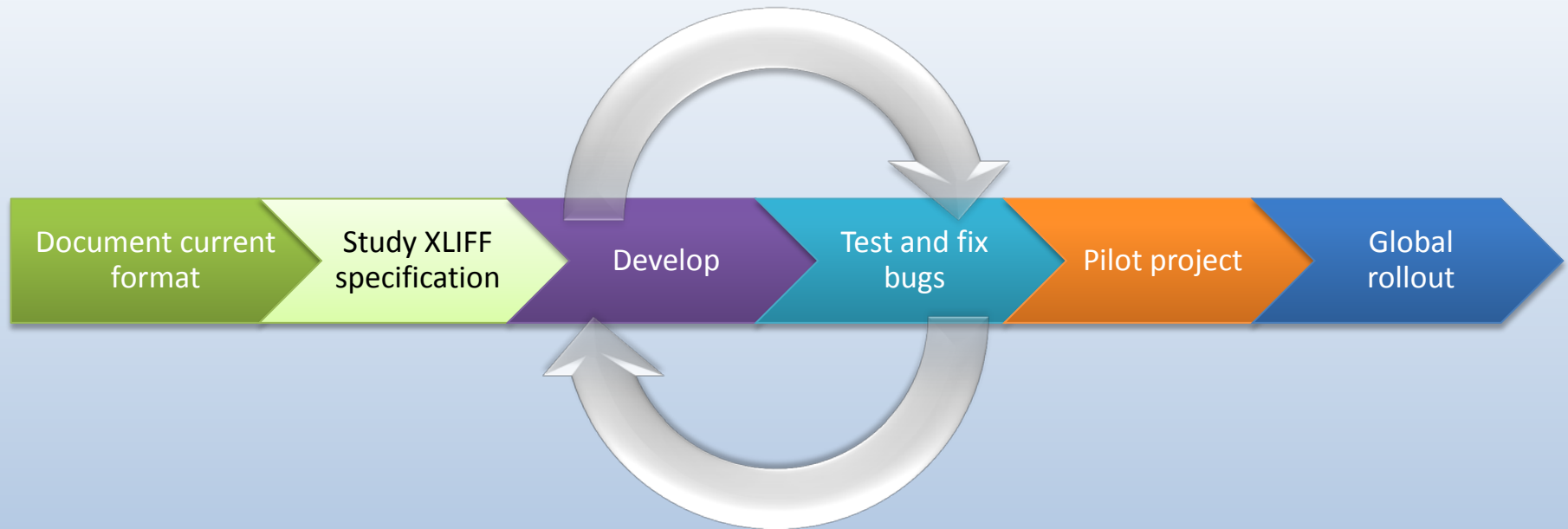
**XLIFF (XML Localization
Interchange File Format)**



Converter design considerations

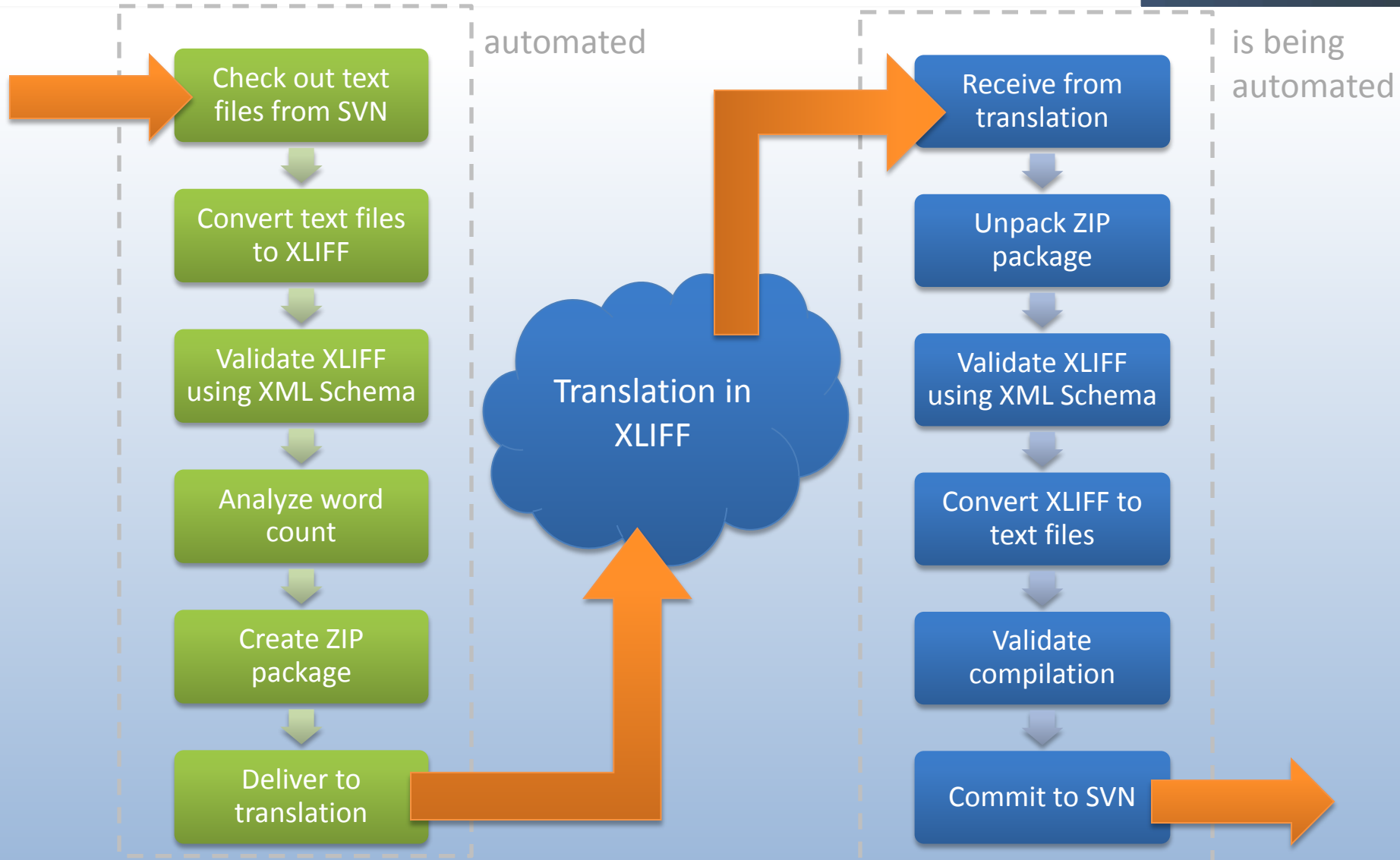


Initial project: ~ 3 months



Maintenance: ongoing

New XLIFF-based process



Acronis XLIFF Sample

```
<trans-unit id="TEXT_ALERT_LICENSEING_FAILED_TO_CHECK_LICENSE_DESCRIPTION" resname=
"TEXT_ALERT_LICENSEING_FAILED_TO_CHECK_LICENSE_DESCRIPTION" translate="yes" xml:space="preserve">
<source>'<ph id="0" ctype="x-placeholder">{0}</ph>': Failed to check the license for '<ph id="1" ctype="x-placeholder">{1}</ph>
'</source>
<!--! 0 - machine name
! 1 - license name
-->
<target>'<ph id="0" ctype="x-placeholder">{0}</ph>': Failed to check the license for '<ph id="1" ctype="x-placeholder">{1}</ph>
'</target>
<note from="author" annotates="source">! 0 - machine name
! 1 - license name
</note>
</trans-unit>
<trans-unit id="TEXT_ALERT_LICENSEING_FAILED_TO_CHECK_LICENSE_HINT" resname="TEXT_ALERT_LICENSEING_FAILED_TO_CHECK_LICENSE_HINT"
translate="yes" xml:space="preserve">
<source>Please check the connection to <ph id="0" ctype="x-ref"> TEXT_BRAND_NAME</ph> License Server. Make sure you have a
valid license on the server. The <bpt id="1" rid="0" ctype="x-tag">&lt;bold&gt;</bpt>Fix the issue<ept id="2" rid="0">&lt;/bold
&gt;</ept> action will navigate you to the <bpt id="3" rid="1" ctype="x-tag">&lt;bold&gt;</bpt>Licenses<ept id="4" rid="1">&lt;
/bold&gt;</ept> view.</source>
<target>Please check the connection to <ph id="0" ctype="x-ref"> TEXT_BRAND_NAME</ph> License Server. Make sure you have a
valid license on the server. The <bpt id="1" rid="0" ctype="x-tag">&lt;bold&gt;</bpt>Fix the issue<ept id="2" rid="0">&lt;/bold
&gt;</ept> action will navigate you to the <bpt id="3" rid="1" ctype="x-tag">&lt;bold&gt;</bpt>Licenses<ept id="4" rid="1">&lt;
/bold&gt;</ept> view.</target>
</trans-unit>
<trans-unit id="TEXT_ALERT_VAULTS_VAULT_WITH_LOW_FREE_SPACE_TITLE" resname="TEXT_ALERT_VAULTS_VAULT_WITH_LOW_FREE_SPACE_TITLE"
translate="yes" xml:space="preserve">
<source>There is a vault with low free space: '<ph id="0" ctype="x-placeholder">{0}</ph>'</source>
<!--! 0 - vault's name
-->
<target>There is a vault with low free space: '<ph id="0" ctype="x-placeholder">{0}</ph>'</target>
<note from="author" annotates="source">! 0 - vault's name
</note>
</trans-unit>
```

XLIFF is a standard that
any vendor can support



Time for UI engineering
significantly shortened



XLIFF

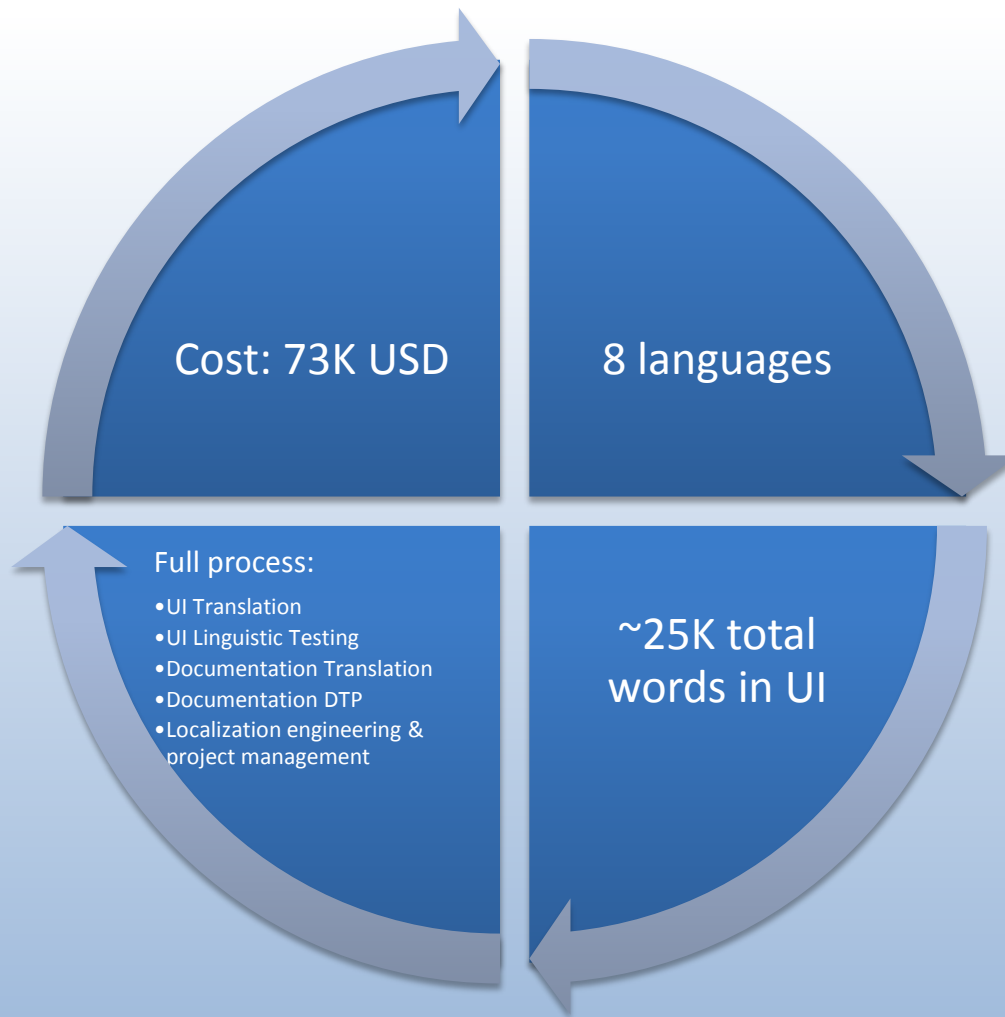
Amount of validation
issues decreased
almost to 0



Significant cost
savings...



Financial benefits of XLIFF: real-life example



A real-life project

This was before
XLIFF...

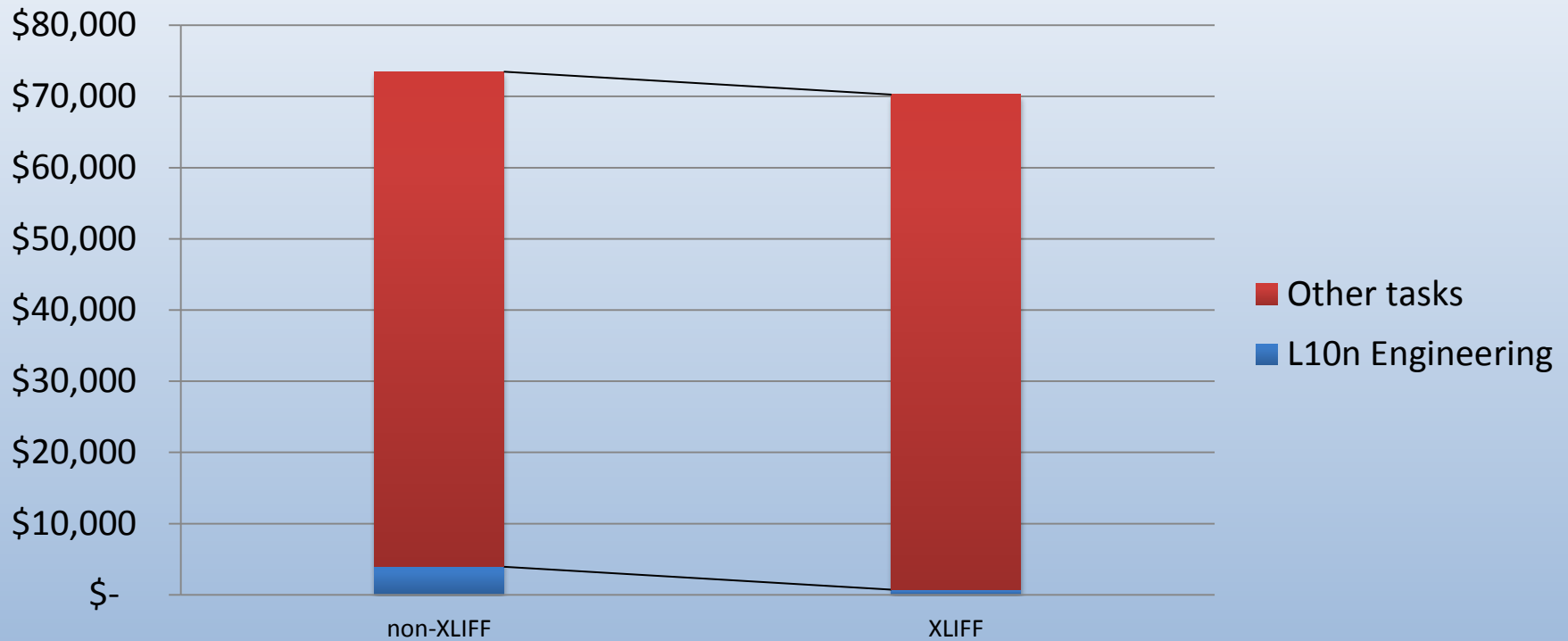
Let's see what XLIFF
has changed!

Financial benefits of XLIFF: bottom-line

Engineering cost before XLIFF : 4 000 USD

Engineering cost **with XLIFF** : 700 USD (80% less)

Bottom-line savings (1 project): > **3 000 USD**



Financial benefits of XLIFF: bottom-line



60K USD

- Savings in 1 yr (20 projects)



120K USD

- Savings in 2 yrs



And growing!

- Along with number of projects...

Financial benefits of XLIFF: top-line



Production delays eliminated: approx. 10-15 workdays



Helped decrease time-to-market by 2 months (with other measures)

Sales worldwide can start 2 months earlier



Hundreds K USD of potential revenue



Limitations and opportunities for XLIFF in Acronis

Challenges and limitations of our XLIFF process

Limited support in currently used CAT tools

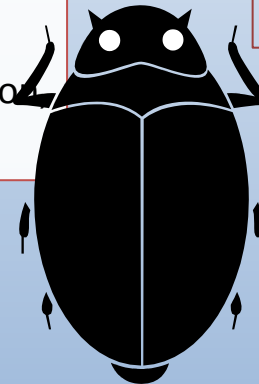
Translators can't set status, add comments, etc.

Segmentation change

We changed from paragraph segmentation to sentence segmentation but at a price

Backend is still using the proprietary text format

Sometimes breaks the conversion process



Features of XLIFF that Acronis is not using

Approval states

- new, translated, approved, signed-off, final, ...

Segmentation

- seg-source, mrk, ...

Phases

- phase, ...

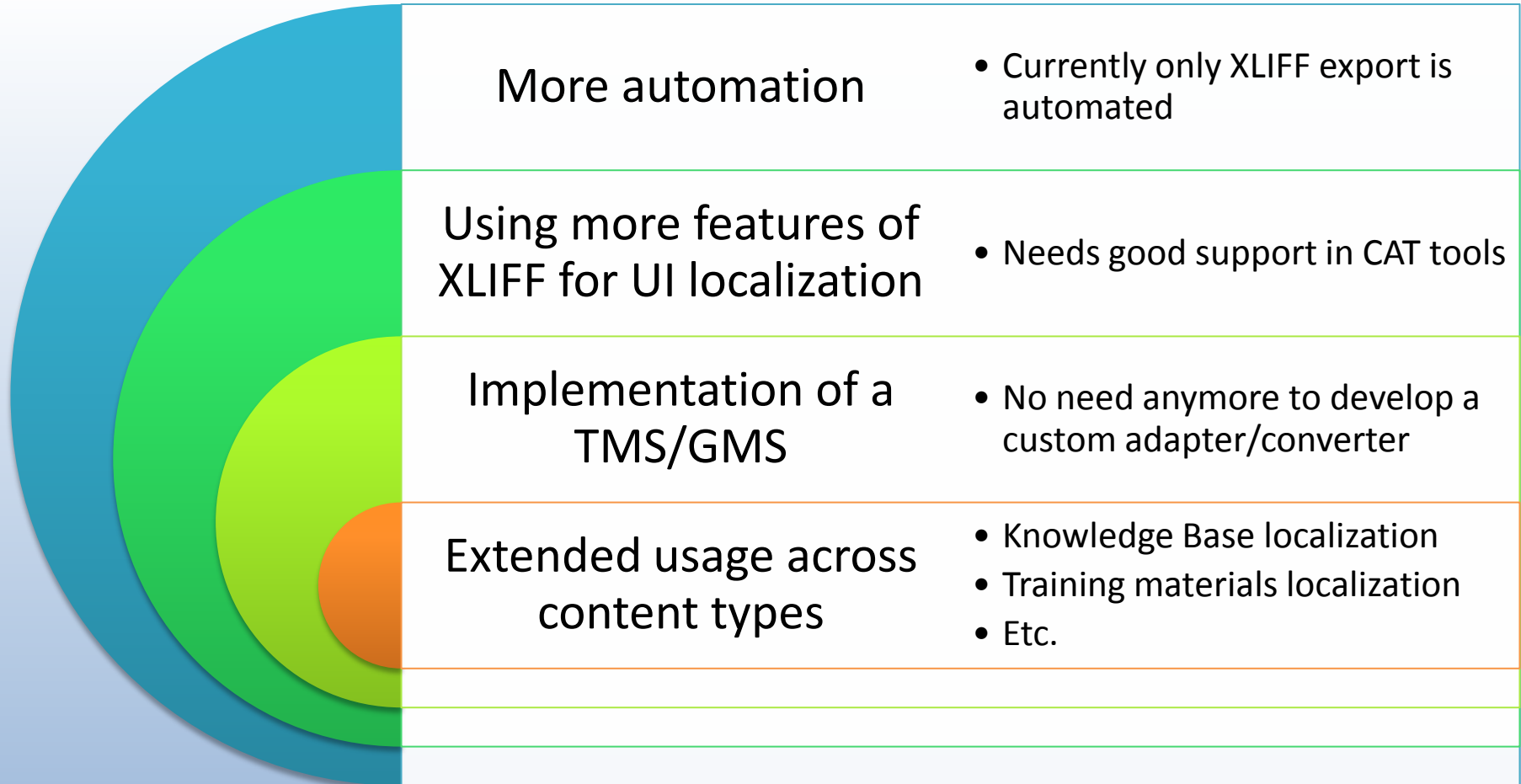
Grouping

- context-group, group, context, ...

Resource details

- restype, help-id, menu, coord, font, css-style, maxwidth, ...

Future of XLIFF in Acronis



Thank you!
Questions?