Translation of OpenSolaris

Aleš Černošek, Jan Lána
EMEA Globalization Center
Sun Microsystems
Agenda

- Introduction
- OpenSolaris and Locale Data Objects
- DEMO: Creating a new locale
- Translation of OpenSolaris
Software Globalization Today

internationalization (i18n):
- the process of designing software so that it can be adapted (localized) to various languages and regions
- preparing software application for global market

localization (l10n):
- is a process of adapting software for specific languages and regions
- translation of software resources

globalization (g11n):
- internationalization + localization
OpenSolaris Locale Support

• What is Locale?
  – library containing data specific to each language and territory (date, time formats, sorting rules, currency…) - e.g. de_DE.UTF-8
  – Utilities, functions change their behavior according to current locale setup
  – `locale; locale -ck LC_ALL; localedef; ...`

• Why is it important?
  – Basic component for internationalizing applications, including application translations, …
  – Developer/User – no need to take care of locale customs, data

• Data Source
  – CLDR project (Unicode consortium): http://cldr.unicode.org
  – Ensures the latest data; ver. 1.7.1 (OSo build 125)
Locale Coverage in OpenSolaris

OpenSolaris 2008.05 has visited 33% of the countries in the world!

OpenSolaris 2010.02 has visited 47% of the countries in the world!
Locale Coverage in OpenSolaris

Approach

• new locales based on UTF-8 only
  `SUNWlang-XX{aa}`
• sustain non-UTF-8 based locales
  (IPS repo)
  `SUNWlang-XX-extra`
• enable to create/modify locale
  and contribute back to
  OpenSolaris

Coverage

• ~ 50% of all countries
• 80% of population

<table>
<thead>
<tr>
<th>version</th>
<th># UTF-8</th>
<th># non-UTF-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>S9 UR8</td>
<td>37</td>
<td>162</td>
</tr>
<tr>
<td>S10 FCS</td>
<td>41</td>
<td>166</td>
</tr>
<tr>
<td>OS 2008.05</td>
<td>93 (17)</td>
<td>126</td>
</tr>
<tr>
<td>OS 2009.06</td>
<td>101 (17)</td>
<td>126</td>
</tr>
<tr>
<td>OS 2010.03 b125</td>
<td>~50 (117)</td>
<td>126</td>
</tr>
</tbody>
</table>
New Locale Creation – is it difficult?

S10

SXCE

OSo
New Locale Creation Process in OpenSolaris

Requirements

- sstudio (cc); ant; gmake; hg
- [local IPS server]
- g11n-locale WS

Process

- **IN:**
  spec – locale spec. files (./locale dir)

- **OUT:**
  SUNWlang-XX pkg (IPS repo)
DEMO: How to Create New Locale in 5 minutes?
DEMO: Creation of oc_FR.UTF-8 locale

Requirements:
- pfexec pkg install SUNWmercurial SUNWgmake SUNWant sunstudio
- export CC=/opt/sunstudio12.1/bin/cc
- pfexec svccfg -s application/pkg/server setprop
  pkg/inst_root=/export/home/tester/repository
  pkg/port=10000
  IPS server configuration
- pfexec svcadm [enable|restart] pkg/server - IPS server enable/startup

Clone G11n locale repository:
- hg clone ssh://anon@hg.opensolaris.org/hg/nv-g11n/locale

Create a new spec. file:
- touch ./locale/oc_FR.UTF-8.spec

Build:
- gmake – creates all existing locales (for locale/*)
- gmake PKG_REPO=http://localhost:80 PKGS=SUNWlang-xx ips
- gmake ips
DEMO: Changing the currency for oc_FR.UTF-8

Modify spec. file:
- cat ./locale/oc_FR.UTF-8.spec

  cldr_variant oc_FR@currency=FRF
  pkg_name this_is_my_package

Build:
- gmake PKG_REPO=http://localhost:80 ips
- gmake doc - see ./build/report_diff.html
Translation of OpenSolaris
Translation of OpenSolaris

• Our Focus
  – SW components
  – Documentation
  – Help pages
  – Wikis (e.g. opensolaris.org) and other materials (like Newsletters, etc.)

• Expectations ('Ideal' process)
  – Easy to access, easy to start
  – Focus on Translation, not to deal with technical aspects (file formats, integration date, …)
  – Ensure good quality and translation consistency
  – Possibility to test translations before delivery into WS
History

• Previous Challenges
  - Many different projects (GNOME, OO.o, Mozilla.org)
  - Distributed WS for OS.o (JDS, G11n, SFW, ...)
  - Various File formats

• Translation with CTI (Community Translation Interface)
  - One central tool for OS.o translations (all parts: SW, Doc, ...)
  - Just Web-browser (online editing)
  - Leveraging Rich Functionalities (like TM, TD, ...)
  - No on-demand translation
  - http://cti.sunvirtuallab.com
  - http(s)://translate.sun.com/cti
WE ARE ALL READERS. YOU ARE THE AUTHOR.

Now it is the time to show some creativity. Words can have various meanings and it is up to you to understand the context and pick the correct translation. Translator are authors as well and we thank them for providing us with the valuable content in our language.

Go ahead and prove your translation skills!

Translation Projects

A translation project is a set of files from the source code available for translation to a specified language. The following translation projects are now running. Click on a translation project name to see the detailed view.

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Target Language</th>
<th>Wordcount</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS.org-Registration page</td>
<td>ar_SA</td>
<td>2354</td>
<td>100 %</td>
</tr>
<tr>
<td>OS.org-Registration page</td>
<td>asm_IN</td>
<td>2354</td>
<td>0 %</td>
</tr>
<tr>
<td>OS.org-Registration page</td>
<td>ben_BD</td>
<td>2354</td>
<td>0 %</td>
</tr>
<tr>
<td>OS.org-Registration page</td>
<td>pt_BR</td>
<td>2354</td>
<td>95 %</td>
</tr>
</tbody>
</table>
OS.o L10n Teams

http://www.opensolaris.org/os/community/int_localization/

• 27 l10n groups under l10n/i18n OSo community

• Arabic, Bulgarian, Catalan, Traditional & Simplifies Chinese, Czech, Dutch, French, German, Greek, Hungarian, Indian, Indonesian, Italian, Japanese, Korean, Malayalam, Polish, Brazilian, Russian, Slovak, Spanish, Serbian, Tamil, Turkish, Vietnamese

• 10 'supported' languages by Sun

<table>
<thead>
<tr>
<th>Area</th>
<th>OS2009.06</th>
<th>OS2008.11</th>
<th>OS2008.05</th>
</tr>
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<tbody>
<tr>
<td># New languages</td>
<td>19</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td># Contributors</td>
<td>46</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td># Open CTI Projects</td>
<td>10</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td># Open Languages</td>
<td>20</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>
What next?

Future

- Improve **Quality** of Translations
  - tools
  - community education
- Improve CTI usability and features
- Try to increase the number of contributors
- Different content than SW messages and OLH
  - Documentation
  - Wiki content
    (e.g. Auth. module for OS.org sites)
Announcement
Sun OpenCTI
http(s)://translate.sun.com/opencti

- starting 11/2009 (Beta)
- based on OpenCTI project (http://kenail.com/projects/cti)
- developed by student team (local Technical University)
Sun OpenCTI

CTI -vs- Sun OpenCTI

- Operating on the same data (user accounts, translation projects)
- New Sun OpenCTI provides more & enhanced features
  - Fuzzy matches
  - Terminology & Glossary available
  - New Glossary terms /Changes proposals
  - Project Infrastructure (Bug Tracking, Discussion forums, ...)
  - Possibility to contribute back to editor
  - ...

Resources

• Tools:
  - http(s)://translate.sun.com/cti
  - http(s)://translate.sun.com/opencti

• Blogs:

• Community:
  - http://www.opensolaris.org/os/community/int_localization

• Sun Software Globalization Home:
  - http://developers.sun.com/global
Thank you!

Aleš Černošek, Jan Lána
ales.cernosek@sun.com
jan.lana@sun.com

http://blogs.sun.com/cti
http://blogs.sun.com/sunwg11nprg

“open” artwork and icons by chandan:
http://blogs.sun.com/chandan