

# Develop for an international audience

**Speaker:** Ratnadeep Debnath

**Slides:** [https://github.com/rtnpro/fsmk\\_l10n\\_talk/](https://github.com/rtnpro/fsmk_l10n_talk/)

# About me

- Worked at [www.transifex.com](http://www.transifex.com).
- Contributes to Mozilla, Fedora, etc.
- [rtnpro@gmail.com](mailto:rtnpro@gmail.com)
- @rtnpro at Freenode, Twitter
- <https://github.com/rtnpro>
- <http://ratnadeepdebnath.wordpress.com>

# Goals

- Introduction to localization.
- Why is it needed?
- Quick start your FOSS contribution.
- Some details
- Know your tools
- Where to start?

# What?

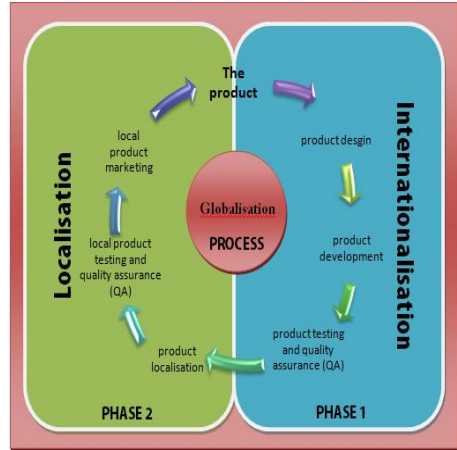
**Localization** the process of translating a product into different languages or adapting a product for a specific country or region.

# Why?

- Preserve our cultural heritage
- 95% people on the Earth with native language other than English
- 50% internet users speak no English at all
- Around 120 published languages on `wordpress.com`
- 4X chances to buy from a website in native language
- \$25 additional revenue per \$1 spent on localization

# Keep of with the terms ;)

- i18n: Internationalization
- l10n: Localization



# Get your feet wet

- Localization: A good way to start contributing.
- Know the tools
- Make friends
- Learn from them

# Let's get into details

- Basic steps for i18n and l10n
- i18n formats
- Python and Gettext



# Basic steps for i18n and l10n

- Mark translation strings
- Extract them (PO files)
- Translate them
- Compile them (MO files)
- Load them in application

# i18n formats

- Gettext (\*.po, \*.pot files)
- Qt (\*.ts files)
- XLIFF (\*.xliiff, \*.xml files)
- YAML (\*.yaml files)
- and lots more... **Gettext is the most popular one :)**

# Python & Gettext

```
from gettext import gettext as _  
  
string = _(u'A sentence to translate')
```

Simple! Isn't it?

Let's take a look at an example from

[https://github.com/rtnpro/pycon\\_india\\_2012\\_i18n\\_and\\_l10n/tree/master/examples/python](https://github.com/rtnpro/pycon_india_2012_i18n_and_l10n/tree/master/examples/python)

## Initialize

```
import gettext  
  
# Set up message catalog access  
t = gettext.translation('myapplication', 'locale', fallback=True)  
_ = t.ugettext
```

# Usage

```
def greet_user(user):  
    print _(u'Hello, %s.') % user
```

# Extract

```
xgettext -d myapplication -o app.pot ll0n.py  
vim app.pot
```

# PO file headers

```
# MyApplication
# Copyright (C) 2012 Apostolis Bessas
# This file is distributed under the same license as the MyApplication package.
# Apostolis Bessas <mpessas@transifex.com>, 2012.
#
#, fuzzy
msgid ""
msgstr ""
"Project-Id-Version: 0.1\n"
"Report-Msgid-Bugs-To: http://github.com/mpessas/going\_international/issues\n"
"POT-Creation-Date: 2012-06-30 09:45+0300\n"
"PO-Revision-Date: YEAR-MO-DA HO:MI+ZONE\n"
"Last-Translator: FULL NAME <EMAIL@ADDRESS>\n"
"Language-Team: LANGUAGE <LL@li.org>\n"
"Language: \n"
"MIME-Version: 1.0\n"
"Content-Type: text/plain; charset=UTF-8\n"
"Content-Transfer-Encoding: 8bit\n"
"Plural-Forms: nplurals=INTEGER; plural=EXPRESSION;\n"
```

# POT file content

```
#: 110n.py:10
#, python-format
msgid "Hello, %s."
msgstr ""
```

```
#: 110n.py:17
#, python-format
msgid "You have %s child"
msgid_plural "You have %s children"
msgstr[0] ""
msgstr[1] ""
```

# PO files

```
mkdir -p locale/en/LC_MESSAGES/  
msginit -i app.pot -o locale/en/LC_MESSAGES/en.po -l en  
msgfmt locale/en/LC_MESSAGES/en.po -o \  
    locale/en/LC_MESSAGES/myapplication.mo
```

```
mkdir -p locale/it/LC_MESSAGES/  
msginit -i app.pot -o locale/it/LC_MESSAGES/it.po -l it  
msgfmt locale/it/LC_MESSAGES/it.po -o \  
    locale/it/LC_MESSAGES/myapplication.mo
```

```
mkdir -p locale/el/LC_MESSAGES/  
msginit -i app.pot -o locale/en/LC_MESSAGES/el.po -l el  
msgfmt locale/el/LC_MESSAGES/el.po -o \  
    locale/el/LC_MESSAGES/myapplication.mo
```

# Running

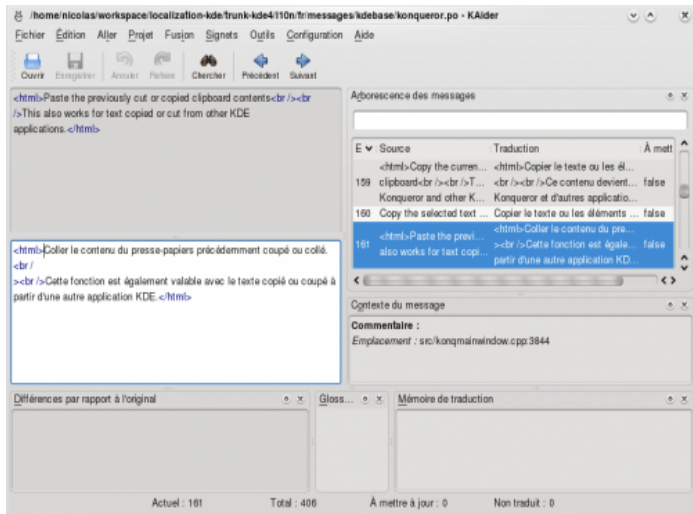
```
bash> LANG=it python l10n.py  
Ciao, John  
You have 1 child  
Ciao, Mary.  
You have 3 children
```



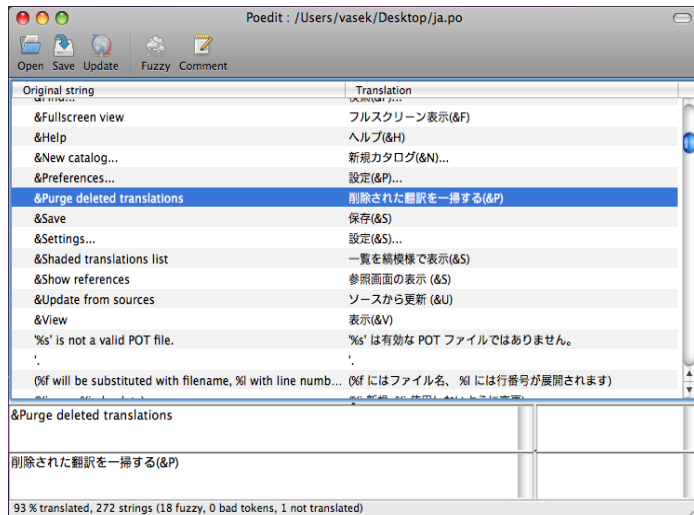
# Traditional I10n tools

- Lokalize
- PoEdit

# Lokalize



# Poedit



# Workflow

- Mark translate strings, export
- Release string freeze
- Translator: VCS checkout
- Translate w/ specialized tools
- Get 'em files back: SSH, email, tickets
- For every friggin release

# Challenges

- Too darn hard
- Community isolation
- Quality
- Scalability
- Always more languages, more users

# Modern solutions

- Localization workflow management tools on the cloud, e.g., **Transifex**
- **Pontoon**: A tool from Mozilla for live website localization

# Transifex

Transifex

DASHBOARDEXPLOREHELP

rtnpro147

Transifex

English → Hindi (hi)

Q

1686 strings  
11481 words

1-100

Search for a username or leave it blank

User

Action type

Action time

log entry

log entries

DATETIME\_FORMAT

Source file URL

Untranslated 393

Unreviewed 1238

Submit

✓

👍

✕

Search for a username or leave it blank

उपयोगकर्ता का खोजें या खाली छोड़ दें

by diegobz, 7 months ago

Suggestions

History

Glossary

Details

3 suggestions available

Suggest

100%

उपयोगकर्ता का खोजें या खाली छोड़ दें

Search for a username or leave it blank

70%

एक उपयोगकर्ता नाम के लिए खोजें

Search for a username

60%

एक संसाधन के लिए खोजें

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SEND FEEDBACK

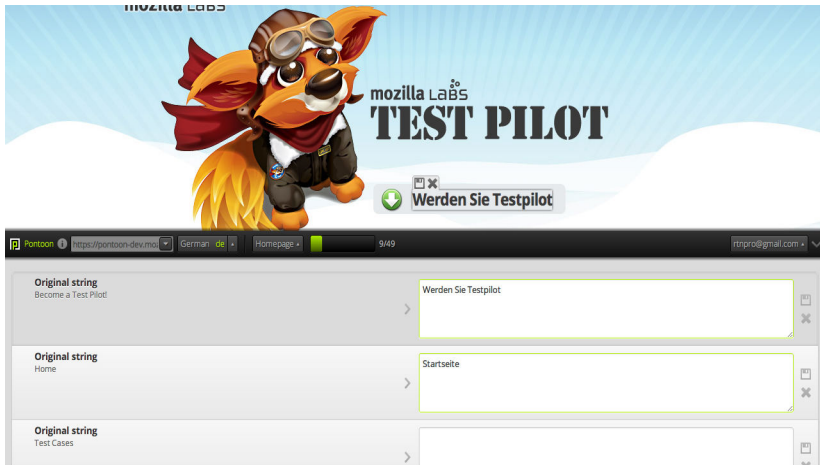
# Pontoon



- Live website localization
- Configurable with various backends like Transifex, Pootle, etc.
- Very intuitive
- Support for various web frameworks: **PHP**, **Django** (others will follow)
- Helps localize non i18n-ized websites
- Open Source
- Contribute: <https://github.com/mathjazz/pontoon>



# Pontoon



# Where to start?

- Fedora <https://translate.fedoraproject.org/>
- Gnome <https://live.gnome.org/TranslationProject>
- KDE <http://l10n.kde.org/docs/translation-howto/>
- Mozilla <https://wiki.mozilla.org/L10n>
- or any other project that interests you, e.g, VLC.

**Questions?**

**Thanks :)**