# Localization at Mozilla

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# **Mozilla**

- Non-profit organization dedicated to keeping the power of the Web in people's hands.
- Global community of users, contributors and developers working to innovate on your behalf
- Dedicated to free and open source software, open standards, user privacy, transparency

# Firefox desktop & mobile

# Thunderbird

Firefox OS

# And much more!

- Persona
- Marketplace
- Webmaker
- Mozilla Popcorn
- Bugzilla
- ...

# Community Snapshot

- 189 locales listed on wiki
- 109 localisations exist in version control
- 94 official Firefox localisations
- 100% volunteer effort
- Median number of committers per locale: 1

# Community Snapshot

# Why I localize

http://youtu.be/1b2yKhA7eDM

# Why I localize

*"I wanted to do something which had an impact on others. This is difficult to do when you are a student and all your work is something which is graded and then forgotten. Contributing to an open source project was my way of having an impact."*

*"Nowadays is easier to find software available in you own language, the real challenge is to deliver a professional quality product and prove that an Open Source community driven by volunteers is capable of doing it."*

*"I was intrigued by the web-style XUL-based UI design and found that I could just edit a couple of text files to change the strings to German, which was fantastic compared to any other software I knew."*

*"Now I also do it to give back to Mozilla."*

*"Minority languages need a presence on the Internet to enhance their raison d'etre and to provide a source of support and pride for their speakers."*

# The Regional L10n Team

- Groups of volunteers sharing common language and common goals.
- Responsible for:
  - Division of labor within the team
  - Tool selection
  - Resource selection/creation
  - Guerilla marketing
  - Community building
  - Hosting Mozilla-sponsored events
  - Delivery commitments
- Mozilla l10n teams are different from your average crowdsource community.

# L10n Drivers

Provide support for adding and maintaining localizations of Mozilla projects by providing volunteer l10n teams with:

- **Tools**
- **Guidance**
- **Infrastructure**
- **Advocacy**
- **Documentation**
- **Recognition**

L10n Drivers serve as both the gatekeeper and communication bridge.

# Rapid Release Process

- New version every six weeks
- Four distinct branches at all times
- Mozilla central: "nightly" builds, unstable
- Mozilla aurora: more stable, string frozen
- Mozilla beta: ready for release
- Official release: stable, most widely used
- "Merge day" every six weeks

# Rapid Release for localizers

- Smaller workload every six weeks (100-300 new strings)
- Generally just one source repo to maintain
- Most locales work on Mozilla Aurora
- A few high-power teams work on Central

# The Dashboard

- Comprehensive info about each locale
- Linked from https://l10n.mozilla.org/teams/
- Each channel of each product
- Signoff for release
- Lists pending issues in bugzilla
- Shows status of web site translations

# Scope

- Firefox: about 37000 words in 7100 strings
- TB: additional 24000 words in 4700 strings
- 385 .dtd files
- 245 .properties files
- Small assortment of others
- Bookmarks, search engine plugins, etc.
- Each new releases will introduce between 100 - 300 new strings.

# Details: .dtd files

```
<!ENTITY newtab.pageTitle "New Tab">
<!ENTITY newtab.undo.removedLabel "Thumbnail removed.">
<!ENTITY newtab.undo.undoButton "Undo.">
<!ENTITY newtab.undo.restoreButton "Restore All.">
<!ENTITY newtab.undo.closeTooltip "Hide">


<!ENTITY newtab.pageTitle "Cluaisín Nua">
<!ENTITY newtab.undo.removedLabel "Baineadh an
mhionsamhail.">
<!ENTITY newtab.undo.undoButton "Cealaigh.">
<!ENTITY newtab.undo.restoreButton "Athchóirigh Uile.">
<!ENTITY newtab.undo.closeTooltip "Folaigh">
```

# Details: .properties files

```
newtab.pin=Pin this site at its current position
newtab.unpin=Unpin this site
newtab.block=Remove this site
newtab.show=Show the new tab page
newtab.hide=Hide the new tab page


newtab.pin=Feistigh an suíomh seo san áit ina bhfuil sé
newtab.unpin=Dífheistigh an suíomh seo
newtab.block=Bain an suíomh seo
newtab.show=Taispeáin an leathanach cluaisín nua
newtab.hide=Folaigh an leathanach cluaisín nua
```

# Access Keys

```
<!ENTITY portrait.label "Portráid">
<!ENTITY portrait.accesskey "P">
<!ENTITY landscape.label "Tírdhreach">
<!ENTITY landscape.accesskey "T">
```

# Entities, Window Sizing

```
<!ENTITY safeModeDialog.title "Mód Sábháilteachta &brandShortName;">
<!ENTITY window.maxWidth "400">

<!ENTITY startSafeMode.label "Tosaigh sa Mhód Sábháilteachta">
<!ENTITY resetProfile.label "Athshocraigh &brandShortName;">
```

# Plural Handling

```
addonsInstalledNeedsRestart=Beidh #1 suiteáilte tar éis
duit #3 a atosú.;Beidh #2 bhreiseán suiteáilte tar éis
duit #3 a atosú;Beidh #2 bhreiseán suiteáilte tar éis duit
#3 a atosú;Beidh #2 mbreiseán suiteáilte tar éis duit #3 a
atosú;Beidh #2 breiseán suiteáilte tar éis duit #3 a atosú


popupWarning.message=Níor lig #1 don suíomh seo
preabfhuinneog a oscailt.;Níor lig #1 don suíomh seo #2
phreabfhuinneog a oscailt.;Níor lig #1 don suíomh seo #2
phreabfhuinneog a oscailt.;Níor lig #1 don suíomh seo #2
bpreabfhuinneog a oscailt.;Níor lig #1 don suíomh seo #2
preabfhuinneog a oscailt.
```

# Tools Philosophy

Aim: Allow localizers the liberty to use the l10n tools and resources of their choice when participating in Mozilla l10n, but promoting the use of tools that fit the following criteria:

**L10n tools must allow (for):**

> **cooperation** (sharing and distributing a workload among various independent contributors),
> **collaboration** (multiple contributors engaging in solving a problem),
> **attribution** (giving credit where it's due),
> **interoperability** (contributing to a L10n effort with one tool without blocking the ability to contribute through use of another tool),
> **discoverability** (finding contributions to a L10n effort),
> **federation** (receiving contributions from independent tool installations).
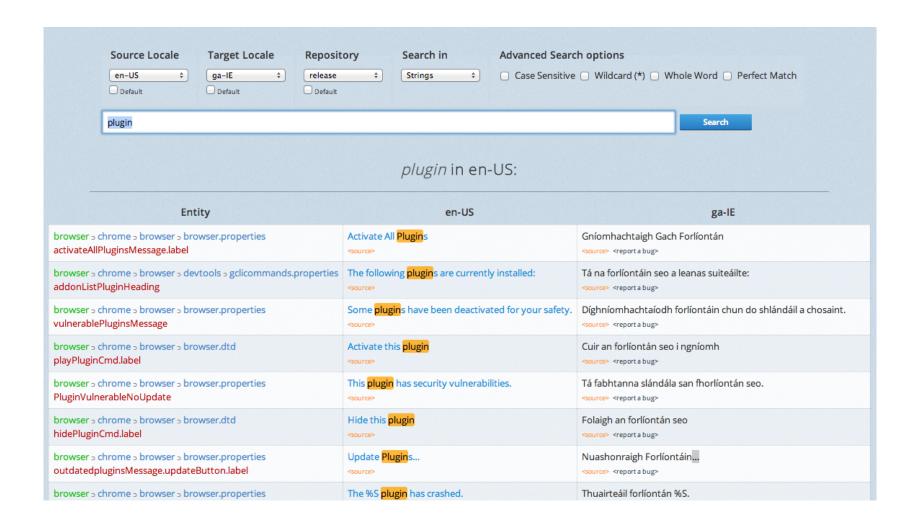
# Tools

- In practice, these file format details are hidden from localizers
- Mozilla Translator (offline editor)
- Narro (web-based)
- Pootle (web-based; demo later)
- translate-toolkit (roundtrip to PO format)

# Translation Memory

- Diversity of tools ⇒ diversity of TMs
- Built into web-based tools
- PO compendia (e.g. Irish)
- Or nothing at all :(
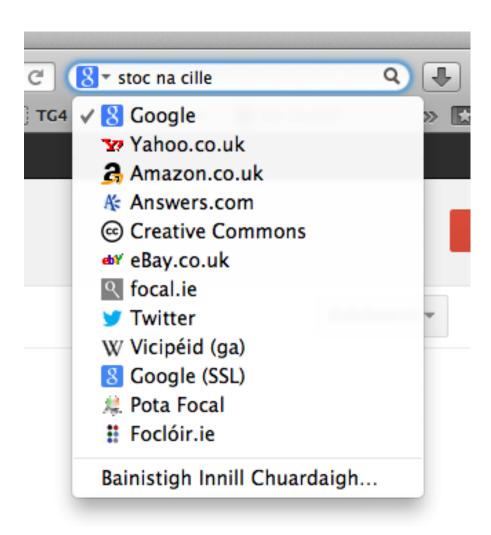
# transvision.mozfr.org

# Version Control

- Mozilla uses mercurial (hg) for most products
- Test drive TortoiseHg client for Windows
- Read-only clone (replace "fr" with your lang)

```
http://hg.mozilla.org/releases/l10n/mozilla-central/fr/
http://hg.mozilla.org/releases/l10n/mozilla-aurora/fr/
http://hg.mozilla.org/releases/l10n/mozilla-beta/fr/
```
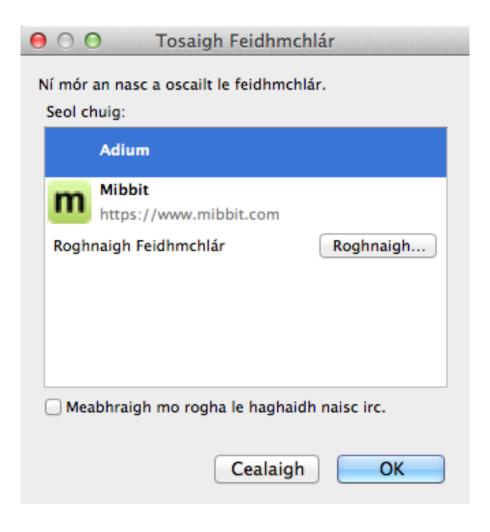
# Productization

- l10n is more than just translation
- Goal: provide users with useful and relevant content in their language or for their region
- Goal: demonstrate product features

# Productization: Search Plugins
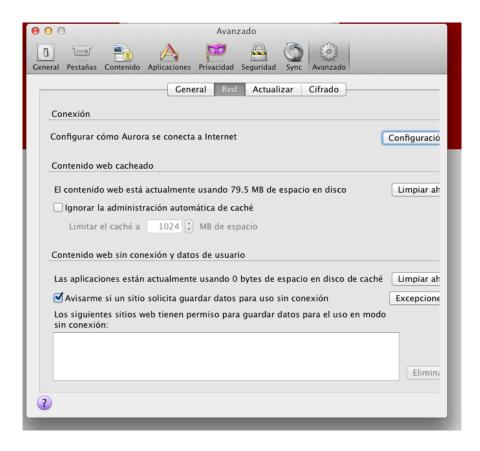
# Productization: Protocol Handlers

# L10n Quality Assurance

- Community testers
- Rapid release channels: "powers of 10"
- Dedicated testers, proofreaders on I10 teams
- Language-specific resources (e.g. for Irish)

# Mozmill: Automated UI Tests
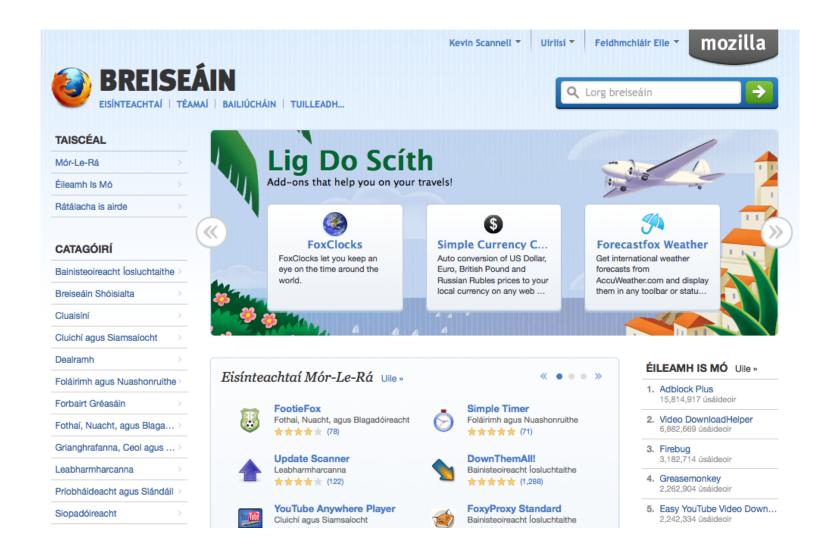
- e.g. cut-off text in windows

# Transvision: Access Key Conflicts

## 8 potential accesskey errors

| Label entity | Label value | Access key | Access key entity |
|---|---|---|---|
| calendar ⊐ chrome ⊐ calendar ⊐ calendar-event-dialog.dtd<br>task.from.label | Tosach: | B | calendar ⊐ chrome ⊐ calendar ⊐ calendar-event-dialog.dtd<br>task.from.accesskey |
| mail ⊐ chrome ⊐ messenger ⊐ chat.properties<br>buddy.authRequest.allow.label | Ceadaigh | W | mail ⊐ chrome ⊐ messenger ⊐ chat.properties<br>buddy.authRequest.allow.accesskey |
| mail ⊐ chrome ⊐ messenger ⊐ addressbook ⊐ abCardOverlay.dtd<br>AIM.label | AIM: | r | mail ⊐ chrome ⊐ messenger ⊐ addressbook ⊐ abCardOverlay.dtd<br>AIM.accesskey |
| mail ⊐ chrome ⊐ messenger ⊐ messenger.dtd<br>sortByFromCmd.label | Ó | F | mail ⊐ chrome ⊐ messenger ⊐ messenger.dtd<br>sortByFromCmd.accesskey |
| mail ⊐ chrome ⊐ messenger ⊐ messengercompose ⊐ messengercompose.dtd<br>fromAddr.label | Ó: | r | mail ⊐ chrome ⊐ messenger ⊐ messengercompose ⊐ messengercompose.dtd<br>fromAddr.accesskey |
| mail ⊐ chrome ⊐ messenger ⊐ messengercompose ⊐ composeMsgs.properties<br>learnMore.label | Tuilleadh Eolais... | m | mail ⊐ chrome ⊐ messenger ⊐ messengercompose ⊐ composeMsgs.properties<br>learnMore.accesskey |
| mail ⊐ chrome ⊐ messenger ⊐ messengercompose ⊐ composeMsgs.properties<br>bigFileShare.label | Nasc | l | mail ⊐ chrome ⊐ messenger ⊐ messengercompose ⊐ composeMsgs.properties<br>bigFileShare.accesskey |
| toolkit ⊐ chrome ⊐ global ⊐ printdialog.dtd<br>frompageInput.label | ó | r | toolkit ⊐ chrome ⊐ global ⊐ printdialog.dtd<br>frompageInput.accesskey |

# How you can get involved

- Contact the l10n team for your language
- Start a new team!
- Download and test Mozilla Aurora
- Translate products
- Translate web sites
- Provide localized help pages

# addons.mozilla.org

# L20n: Next Generation Localization

- New l10n architecture developed at Mozilla
- Libraries for developers
- Flexible and powerful file format for localizers
- Walkthrough: http://l20n.org/

# Pontoon

- https://pontoon-dev.mozillalabs.com/
- Web-based WYSIWYG editor.
- Aimed at web l10n.
- Django hooks enable use outside of Mozilla.

# Firefox OS Localization

- Presents new opportunities and challenges.
- Spreads linguistic presence of more languages into the mobile realm.
- Firefox OS aimed at developing markets.
- Challenges