Firefox Indic Localization: Tips & Techniques
Presentation to BarcampBangalore7: 2008-09-14

Arjuna Rao Chavala
http://tech4society.blogspot.com
arjunaraoc(at)googlemail(dot)com
Copyleft: GNU FDL
Agenda

- Intro to Firefox
- Intro to Firefox Indic
- Contributing to Firefox
  - Learn Firefox Bugzilla
  - Learn Indic input method & display
  - Learn Config Management tool CVS
- Learn how to translate/update
- Learn IRC Chat
- Learn Wiki
- Learn Mailing list
- Learn Firefox localization process
- Learn to maintain Momentum
Firefox

- An Open source web browser managed by Mozilla foundation a non-profit, public benefit corporation

- Projected Statistics (3.0.2)
  - No of Languages: 57
  - No of countries: 161
  - % of users: 20%; 200 million
Firefox Indic

• Version 3.0
  – Gujarati
  – Punjabi

• Version 3.0.2 (16 Sep)
  – Bengali
  – Hindi
  – Telugu
  – Kannada
  – Marathi
Bugzilla - Key fields

Bug 377126 - Intra-word spaces seen in pages containing telugu text.

Status: UNCONFIRMED
Product: Core
Component: GFX: Thebes
Version: unspecified
Platform: PC Linux

Reported: 2007-04-11 02:05 PDT by Naresh
Modified: 2008-09-06 10:34 PDT (History)
CC List: 3 users including you (edit)

Assigned To: Nobody: OK to take it and work on it
QA Contact: thebes@gfx.bugs

URL: http://eenadu.net
Whiteboard: 
Keywords: 
Flags:

Show dependency tree / graph

Commit
Bugzilla - Tips

- URL: https://bugzilla.mozilla.org/
- Tips
  - Include two letter language code (like [te] for Telugu) in square brackets as first element in Summary field
  - Always enclose screen snapshots highlighting problem, when submitting indic font/display bugs
  - You can add attachment with comments
  - You can mark previous attachments as deleted and add fresh attachments
Telugu Inscript Keyboard Overlay & Display
SCIM Setup

The installed input method services:

<table>
<thead>
<tr>
<th>Name</th>
<th>Enable</th>
<th>Hotkeys</th>
<th>Filters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindi</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kannada</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telugu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>inscript</td>
<td></td>
<td>Control+i</td>
<td></td>
</tr>
<tr>
<td>itrans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pothana</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>apple</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You can enable/disable input methods and set hotkeys for input methods here.
Indic Input method Tips

- Visit wikipedia for help on configuring your system for indic input and display

- On Linux, setup SCIM with hotkeys for toggling SCIM and stepping through selected indic input keymaps

- On Windows, setup hotkeys to toggle between English and selected alternate keymaps

- Be aware of lack of rendering standards of ZWJ and ZWNJ on Windows and Linux. Use vowel endings of words and ZWNJ where no space is required between two word fragments
Config Management

- Firefox used CVS till 3.0 version
- Setup CM tool
  - Linux: Built in
  - Windows: Tortoise CVS client tool
- Instructions for anonymous download as part of language pack creation at http://developer.mozilla.org/en/docs/Creating_en-X-dude
- Commit changes
  - Make a diff file and send to the maintainer or raise a bug for patch submission
CVS account

• Raise a bug requesting CVS account. Select Component as “Account request-CVS”

• Fill up the Agreement form http://mozilla.org/hacking/form.html and mail it or attach to the issue.

• Get someone to vouch for you. If you are the first person for your language, the l10n-driver will vouch for you

• Get l10n-driver to authorize you

• Submit your SSH public key file on the bug

• You will get an email with your account details

• Example https://bugzilla.mozilla.org/show_bug.cgi?id=427984
IRC

- Internet Relay Chat is the best way to get help
- Setup client
  - Linux: Chatzilla
  - Windows: Chatzilla or alternatives
- Basic commands
  - Attach to a server: /attach irc.mozilla.org
  - Join a channel: /join # 110n
Wiki

- Wiki is a very good collaboration tool
- Get account on http://wiki.mozilla.org or on http://mozdev.org/
- Create a page (Ensure you use English text for page/subpages as referring to these will be easier than indic text page titles)
- Create subpages by typing <URL for mainpage>/<subpagename>
- Ensure parent links by using [[[parent page]]]
Mailing Lists

- Setup one on any host like Yahoo or Google
- Check whether an existing list covers the scope of your work before creating a new one
- Promote it in language community like blogs wikipedia, indlinux, indianoss
- Keep the list active by regular updates
- Set approval mechanism for admitting members and approving initial emails to prevent spam
Firefox localization Process

- https://wiki.mozilla.org/L10n:Becoming_an_Official_Localization
Maintaining Momentum

- Keep track of happenings on Mozilla/Firefox
  - http://planet.mozilla.org/
- Participate in community events and share the updates
  - Foss.in
  - Barcampbangalore.org
Translation Tips

- Translation Complexity
  - keys: 842
  - # of Strings: 5132

- Specific issues with zwj, zwnj rendering of foreign words into indic languages: Be aware of differences between linux and Windows

- Use BlueFish or other HTML editor to replace a string that appears in multiple files.

- Watch out for replace errors, when dealing with partial indic strings
Future directions

- Frequently Used Entries for localization (FUEL) https://fedorahosted.org/fuel
Appendix
Telugu Firefox URLs

- Wiki: http://wiki.mozilla.org/Firefox-te (Telugu & English)
- Mailing list: firefox_te@googlegroups.com
  - http://groups.google.co.in/group/firefox_te
- Blogs
  - http://teluginux.blogspot.com
  - http://tech4society.blogspot.com (in English)