

# Mozilla Test Day Sprint

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# Intro to Mozilla QA and Testing

- Overview
  - Community
  - Tools
  - Process
- Project
  - Testing Font Rendering Improvements

# Community

- 17 full time QA Engineers
- 6,000+ active in bugzilla in the last month
- 20,000 Nightly build testers
- 100,000 active daily alpha/beta testers
- 120+ bugs filed per day
- 99,499 people have filed at least one bug
- Join the fun!

# Tons of QA Tools

- Organizing Tools
- Communication Tools
- Feedback System Tools
- Automation Testing Tools

# Organizational Tools

- <http://wiki.mozilla.org/QA>
- QMO – <http://quality.mozilla.org/>  
announcements, events, community organizing, reference to QA resources
- Litmus - <https://litmus.mozilla.org>
  - Test case repository, test result feedback and tracking. 3000+ test cases

# Communication Tools

- IRC, <irc://irc.mozilla.org/qa>
- Newsgroups -  
<http://groups.google.com/group/mozilla.dev.quality/topics>
- e-mail, <http://groups.google.com/group/mozilla.dev.quality/subscribe>
- conference calls
- Bugzilla for tracking all changes to the code
  - Its also our project tracking system
  - More on bugzilla later...

# Feedback System Tools

- Hendrix – user comments - “feedback”
- Reporter – broken websites
- talkback/breakpad – crash reports
- Harvest info from forums, blog comments, user conversations
- Help turn all this feedback into bugs

# Automation Testing Tools

- Buildbot
- Talos – Performance Test Automation
- Unit Test harness -  
[http://wiki.mozilla.org/QA#Test\\_Suites\\_and\\_Test\\_Tools](http://wiki.mozilla.org/QA#Test_Suites_and_Test_Tools)
- Minotaur – Preference Testing

# Process

- Test early and often
- More eyeballs & more use make bugs shallow
- File Bugs!
- Use “nightlies” & run tests!
- Help keep the bug system up-to-date and in good shape!
- Advanced work to help create test cases, test frameworks, automation systems?

# File Bugs!

- Problems don't exist if they are not in the bug system.
- Best way to find bugs...
  - Use nightly builds as “dogfood”
  - Join test days and activities
  - Leverage feedback systems
- filing good bugs

# Care and Feeding of Bugzilla

- <http://wiki.mozilla.org/MozillaQualityAssurance:Triage>
- Getting to Reproducible, Reduced, Precise, & Concise Bug Content
- Guiding bugs to a good home
  - Finding Dups and Confirming
  - Finding regression range & Platform/OS extent
  - Escalating with keywords, nomination flags & developer contact

# Get Involved!

- Need more testing than ever on Firefox 3
- 20,000 changes in the last 2 years
- Lots of new features and new locales

# Improving Presentation of Indic Fonts in Firefox

# Indic Fonts in Firefox

- Font system basics
- What's new in Firefox 3 font rendering
- Where to help test and provide feedback
- Evangelizing Sites in India
- More areas to help testing

# Font systems 101

- Uniscribe on Windows
- ATSUI on Mac (coretext in the future - available in 10.5)
- Pango on Linux
- Each has slightly different features and is advancing at different pace.

# Whats new?

- Windows historically has required non-default language settings – registry settings plus downloaded extra fonts
- Firefox not relying on these settings now
  - directly using the Windows Uniscribe Library.
- Added support for shaping and combining of complex script and support for ligatures

# Glyph Shaping

- Soft-hyphens in HTML
- Kerning and ligatures across DOM trees

Affluent fishing

Done

```
Affluent f<a href="...">ishing</a>
```

- Correct glyph shaping

– Kannada

- Old
- New

ಮುಖ್ಯಯ ಪುಟ  
ಮುಖ್ಯ ಪುಟ

– Arabic with vowel markings

- Old
- New

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ  
بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

# Where to Test?

- Testing so far is mostly on font demonstration pages on Wikipedia, BBC Hindi pages, etc...
- Where can we test to find bugs?
- What fonts are most often used and expected in Indian web content?

# Evangelising Sites

- some pages will render better than others depending on available fonts, how the native os font system works, and how the browser uses both..
- In web content specify the font you want. Take the guess work out of browser logic
- Use UTF-8, not custom char sets.
- Other ideas?

# Testing Areas

- No way to improve translations and web content rendering without your help.
- Lots of old bugs need retesting and closing because of the new improvements
- Search for bugs with "hindi" in the title
- Other search categories...

# More areas to help

- Overcome the problem of non-native language developers trying to test and detect problems
- Find broken sites
- Reducing to isolated test cases
- Linux and Mac need some extra testing and bug fixing focus

Thank you

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