

MICHIGAN STATE

UNIVERSITY

Beta Presentation

No More Yellow Screen of Death

The Capstone Experience

Team Mozilla

Riley Byrd

Artem Salniker

Julian Shomali

Kevin Yan

Lifan Zeng



From Students...
...to Professionals

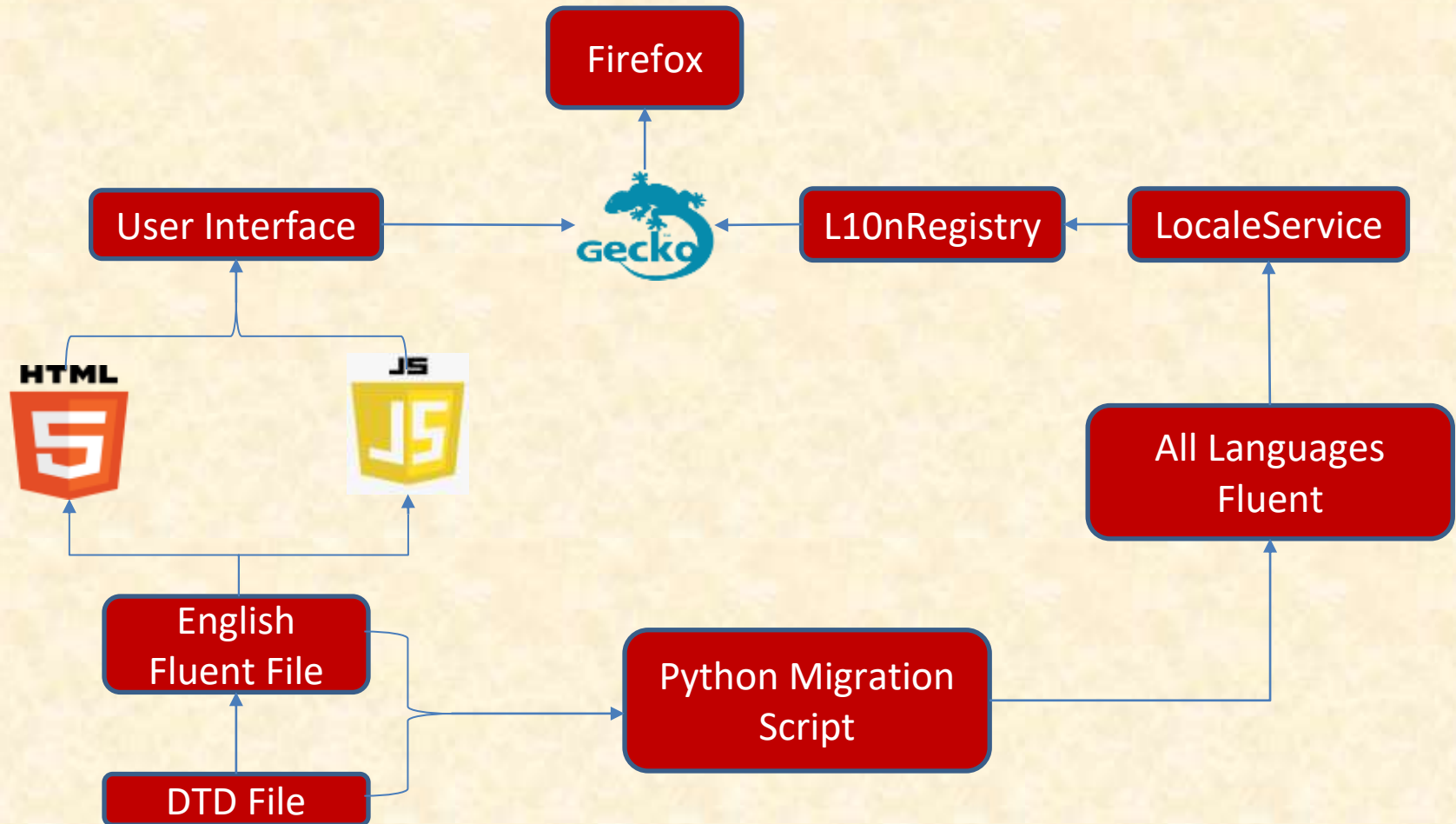
Department of Computer Science and Engineering
Michigan State University
Spring 2020

Project Overview

- Eliminate Yellow Screen of Death
- Convert Firefox's strings from DTD -> Fluent
- Natural sounding translations
- Maintain Firefox's support of 100+ languages



System Architecture



Yellow Screen of Death

XML Parsing Error: mismatched tag. Expected: </p>.

Location: file:///C:/index.xhtml

Line Number 9, Column 5:

```
</body>  
-----^
```

XML Parsing Error: undefined entity

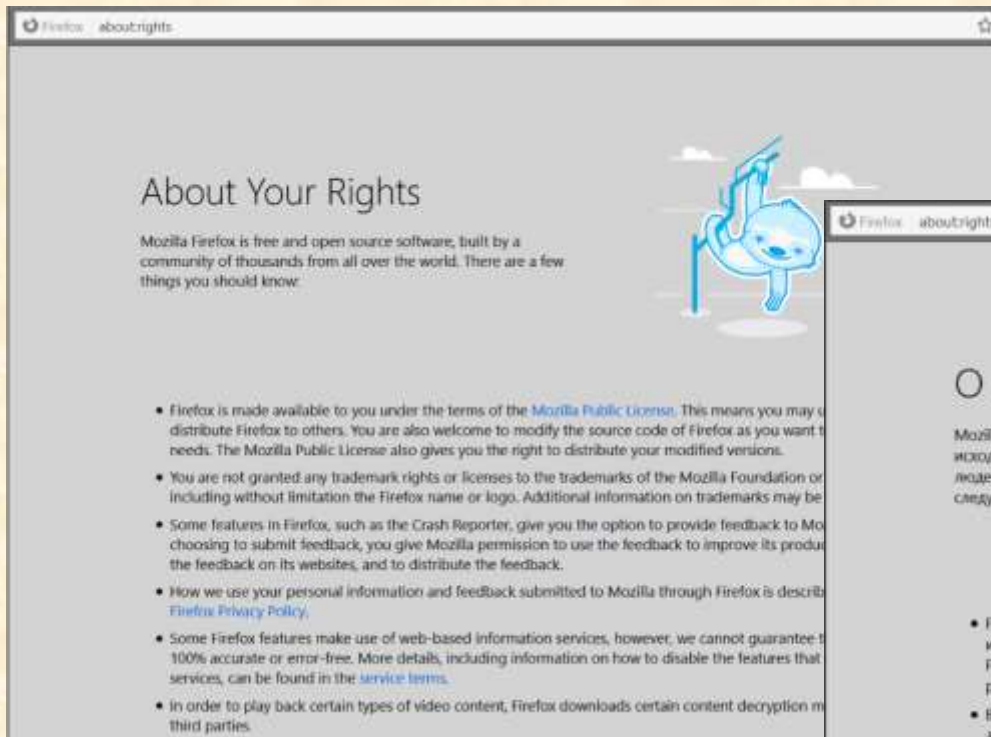
Location: about:downloads

Line Number 66, Column 3:

```
<description id="downloadsListEmptyDescription"  
--^
```




English-to-Russian



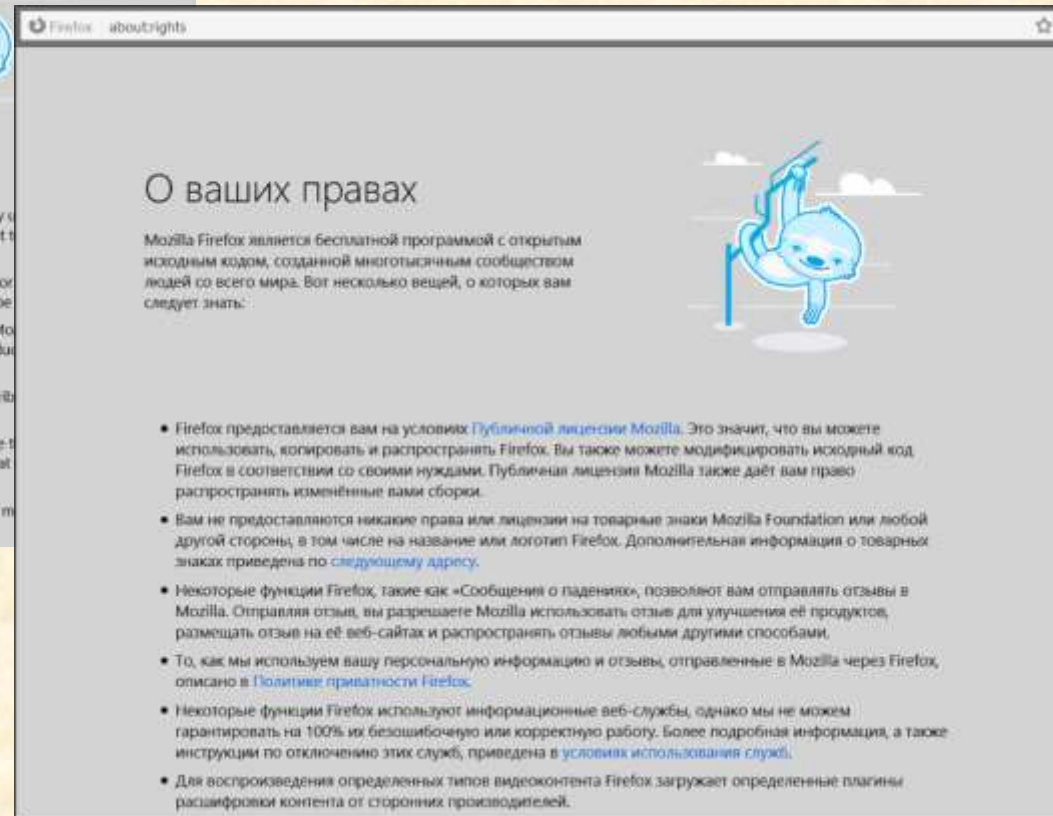
Firefox aboutrights

About Your Rights

Mozilla Firefox is free and open source software, built by a community of thousands from all over the world. There are a few things you should know:




- Firefox is made available to you under the terms of the [Mozilla Public License](#). This means you may distribute Firefox to others. You are also welcome to modify the source code of Firefox as you want it needs. The Mozilla Public License also gives you the right to distribute your modified versions.
- You are not granted any trademark rights or licenses to the trademarks of the Mozilla Foundation or including without limitation the Firefox name or logo. Additional information on trademarks may be found in the [trademark policy](#).
- Some features in Firefox, such as the Crash Reporter, give you the option to provide feedback to Mozilla. When you choose to submit feedback, you give Mozilla permission to use the feedback to improve its product and to distribute the feedback on its websites, and to distribute the feedback.
- How we use your personal information and feedback submitted to Mozilla through Firefox is described in the [Firefox Privacy Policy](#).
- Some Firefox features make use of web-based information services, however, we cannot guarantee that these services are 100% accurate or error-free. More details, including information on how to disable the features that use these services, can be found in the [service terms](#).
- In order to play back certain types of video content, Firefox downloads certain content decryption modules from third parties.



Firefox aboutrights

О ваших правах

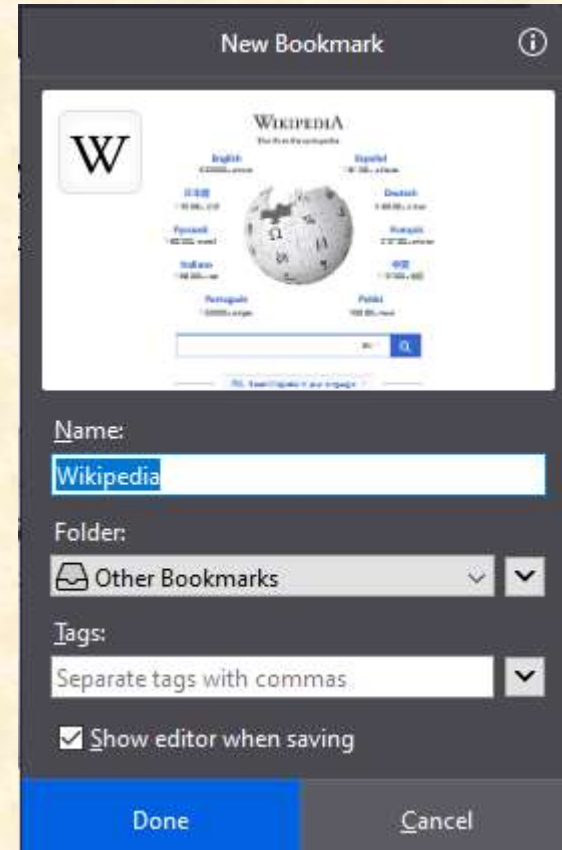
Mozilla Firefox является бесплатной программой с открытым исходным кодом, созданной многотысячным сообществом людей со всего мира. Вот несколько вещей, о которых вам следует знать:



- Firefox предоставляется вам на условиях [Публичной лицензии Mozilla](#). Это значит, что вы можете использовать, копировать и распространять Firefox. Вы также можете модифицировать исходный код Firefox в соответствии со своими нуждами. Публичная лицензия Mozilla также даёт вам право распространять изменённые вами сборки.
- Вам не предоставляются никакие права или лицензии на товарные знаки Mozilla Foundation или любой другой стороны, в том числе на название или логотип Firefox. Дополнительная информация о товарных знаках приведена по [следующему адресу](#).
- Некоторые функции Firefox, такие как «Сообщения о падениях», позволяют вам отправлять отзывы в Mozilla. Отправляя отзыв, вы разрешаете Mozilla использовать отзыв для улучшения её продуктов, размещать отзыв на её веб-сайтах и распространять отзывы любыми другими способами.
- То, как мы используем вашу персональную информацию и отзывы, отправленные в Mozilla через Firefox, описано в [Политике приватности Firefox](#).
- Некоторые функции Firefox используют информационные веб-службы, однако мы не можем гарантировать на 100% их безошибочную или корректную работу. Более подробная информация, а также инструкции по отключению этих служб, приведена в [условиях использования служб](#).
- Для воспроизведения определенных типов видеоконтента Firefox загружает определенные плагины расшифровки контента от сторонних производителей.



Bookmark Overlay



Add-On

The screenshot shows a Firefox browser window with a search page. A dialog box titled "Add-ons may be causing problems" is displayed, stating: "Nightly has determined that the following add-ons are known to cause stability or security problems:". The dialog has "Restart Nightly" and "Cancel" buttons. In the background, the Multiprocess Browser Toolbox is open, showing the Console tab with a list of error messages. The errors are all warnings from Toolkit.Telemetry, indicating an issue with finding the size of ping data. The console also shows some JavaScript code from Services.uw.openWindow.

Search the Web

Add-ons may be causing problems

Nightly has determined that the following add-ons are known to cause stability or security problems:

Restart Nightly Cancel

contingentmagazine.org
The Trouble with Triscuits

mentalfloss.com
What Ever Happened To

Messages from Firefox

Our brains are not meant to hold so many passwords. That's science. Manage your passwords

Multiprocess Browser Toolbox

Inspector Console Debugger Network Style Editor Memory FIS

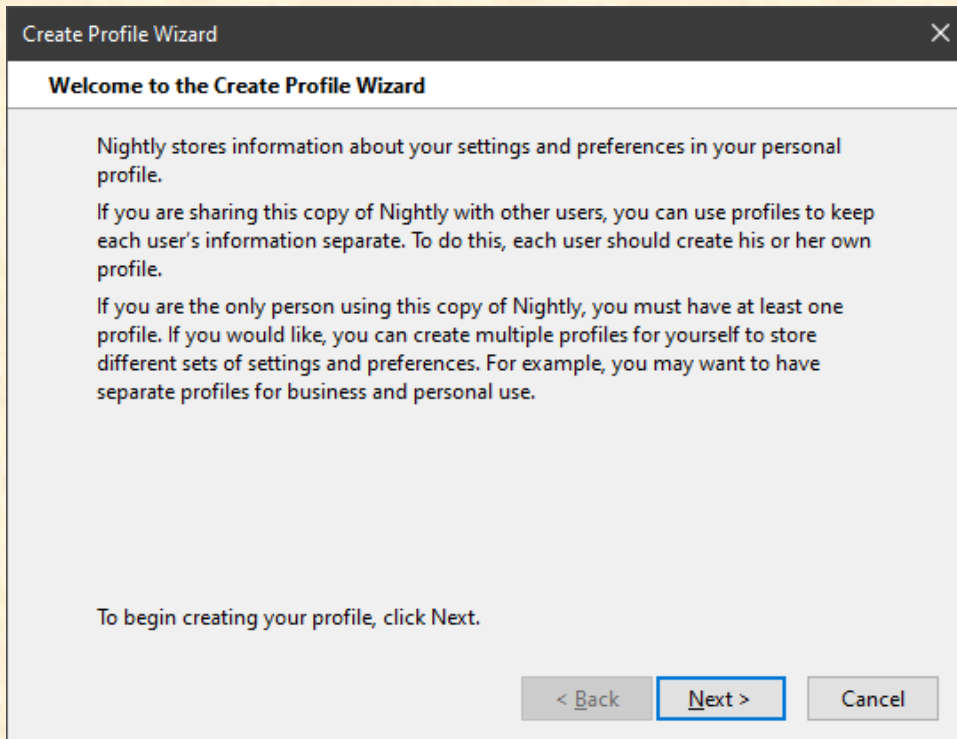
Filter Output Errors Warnings Logs Info Debug CSS XHR Requests

```
1585814122772 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping c634b699-1975-4be5-9bf8-8754924dc1ae
1585814122774 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping ada5c558-5ef8-424e-86fd-55093ebd25b3
1585814122778 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping c948121d-f28b-4c46-b2cc-9f476fbaa1fe
1585814122778 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping 6c9df924-8f4b-41e4-9bc7-edfb7aa5ee5b
1585814122780 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping 4b9df42b-633e-4135-baff-8545f82591c5
1585814122781 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping a992f769-cab5-4235-be49-297e8b2a18c8
1585814122783 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping d623354b-6592-4b23-ae11-a5880fb8e983
1585814122785 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping 41c8ee55-e8fd-4137-ad8b-dcce052bc134
1585814122786 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping b5f32ab7-61e8-4114-ab83-27d6cd8e8386
1585814122787 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping 8be17f4-8e17-899d-95e3-316d88ab4082
1585814122789 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping 7d241044-ad48-49e2-9bc8-91816ffff410
1585814122790 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping 71abf84c-a42e-4be8-9a22-c5167a78e34b
1585814122792 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping aa704948-bb8c-4ab7-8794-b36fe4e44cea
1585814122794 Toolkit.Telemetry WARN TelemetryStorage::_enforceArchiveQuota - Unable to find the size of ping 6e88a44-182e-4b47-a81e-06d68080774

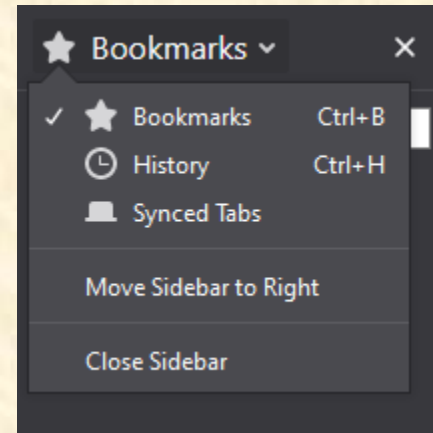
DebuggeeBuildRun: debuggee "resource://devtools/shared/base-loader.js:373" would run
DebuggeeBuildRun: debuggee "resource://devtools/shared/base-loader.js:373" would run

>> Services.uw.openWindow()
  null,
  "chrome://mozapps/content/extensions/blocklist.xhtml",
  --,
  "chrome:centerscreen,dialog,titlebar",
  null
};
```

More Pages



Create Profile Wizard



Sidebar Menu



What's left to do?

- Convert remaining en-US DTD strings to Fluent
- Write migration scripts to translate to other languages
- Work on underlying issues in codebase



Questions?

?

?

?

?

?

?

?

?

?

