

Run-a-Prog - A toolbar for firefox

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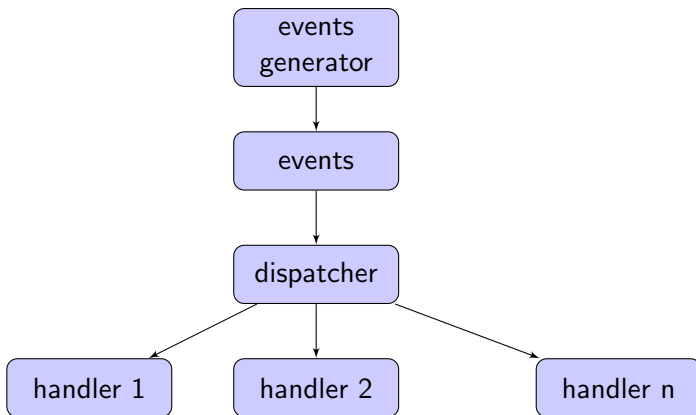
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Problem Definition

- A firefox toolbar to run custom applications on selected text.
- It provides the ability to block images, flash or text selectively, thus functioning as a preview of application input and also as a blocker.
- Using our application, we can also save the selected text to a file at the click of a button.

Event driven approach



Document Object Model

- The Document Object Model (DOM) is an API for HTML and XML documents.
- It provides a structural representation of the document, enabling you to modify its content and visual presentation.
- Essentially, it connects web pages to scripts or programming languages and also can be used to implement dynamic webpages.

Running custom applications on selected text

- Add Programs

- ▶ This option allows other programs to take selected text as input.
- ▶ Press the button “Add Program” from the toolbar.
- ▶ Select the application which needs to be run.
- ▶ A button is created dynamically on the toolbar.
- ▶ The selected application runs on clicking the button, with selected text as input.

Running custom applications on selected text

- Simplicity

- ▶ The applications for our toolbar have to take a file name as argument.
- ▶ Added programs can be removed at any time with just 2 clicks.
- ▶ Pre-built feature to save selected text, allowing user to take notes while surfing the net.

Blocking

- Image Blocker
 - ▶ Blocks the images
 - ▶ Achieved by accessing the “IMG” tag and then making the HTML DOM visibility property to “hidden”
- Text Blocker
 - ▶ Removes the entire text content from the webpage
 - ▶ Achieved by accessing the text elements inside the body of the page (using the text DOM function) and then setting each text elements to empty string
- Flash Blocker
 - ▶ Removes the flash content from the webpage
 - ▶ Achieved by accessing the “embed” tag, then checking whether the embedded object is a flash object and if so, remove the object.

Screencast

DEMO

Testing

- Tested it on Firefox 2.0 and 3.0 and made appropriate changes to ensure correct working.
- Tested it on Ubuntu, Fedora Core, Windows XP and Windows Vista, and fixed problems to make it truly cross platform.

Challenges

- No proper tutorials available, we had to read the specifications to implement some features.
- Searching was irritating because the search engines always returned links to popular firefox addons, while what we wanted was code snippets.
- Making it cross-platform.
- Lack of javascript debugger in firefox.

Learning

- Yet another scripting language, but domain specific.
- XUL, Extensible User Interface language.
- Viewing a web page as an object - DOM.
- Division of work, and working as a team.

Enhancements

- Make programs run on selected images also.
- Improve blockers to block asynchronously loaded (through AJAX) content.
- UI improvements.

Goal

Submit our toolbar to *mozdev.org*, receive feedback and improve the toolbar.