

Updating the Fedora 14 JavaScript Shell

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For those who are not familiar with a JavaScript shell, it is a command line interface to a JavaScript engine. Similar to Python or Ruby, the JavaScript shell has two modes of operation. You can use it as an interactive shell, in which you type JavaScript code at a prompt and get instant results, or you can invoke a JavaScript program.

The easiest way that I know of to build a JavaScript shell on Fedora is to download and build either the [SpiderMonkey](#) or [TraceMonkey](#) JavaScript engine, both of which come with a JavaScript Shell. TraceMonkey recently replaced SpiderMonkey in the Firefox browser. TraceMonkey added native-code compilation to SpiderMonkey based on a technique developed at UC Irvine called “trace trees”, and building on code and ideas shared with the [Tamarin](#) project. The result was a significant speed increase both in the browser chrome and page content.

Another JavaScript engine is Rhino. However, Rhino is written using the Java language whereas SpiderMonkey and TraceMonkey are pure C language implementations which conforms to ECMA-262 Edition 3. Source code for all three JavaScript engines is readily available on the Mozilla website.

Fedora 14 comes with the `js-1..70-12` package.

```
# rpm -ql js
/usr/bin/js
/usr/lib64/libjs.so.1
/usr/share/doc/js-1.70
/usr/share/doc/js-1.70/README.html
```

This is an old version (1.7) of the SpiderMonkey engine which was released in October 2007. SpiderMonkey 1.8 was released in March 2009 but evidently the package was not updated to reflect the new release nor was it updated when TraceMonkey replaced SpiderMonkey as the Firefox JavaScript engine in June 2009.

This post describes how to build the latest version of TraceMonkey on Fedora 14.

To build TraceMonkey the GNU Compiler C++ toolchain must be installed. In addition, you require [autoconf](#) 2.13 and the