

Choosing a JavaScript library

Intro

We need a library to provide common, reusable functionality and save us from writing lots of repetitive code. We do not want to write one ourselves because it saves time to use an existing one, plus these libraries are more likely to contain fewer bugs because of the significant user base.

Javascript Library requirements

1. base for client-side restletport
2. cross-browser issues:
 - syntax
 - DOM model
 - event model
3. dynamic loading of js-files
4. event binding
5. unit testing
6. (widgets, effects)
7. integration of external widgets (Simile)
8. size, stability, maturity
9. compression
10. i18n

The contestants

	Latest (non-beta) release	Size	the good	the bad	Licence	Browser compatibility
Dojo ¹	1.0.2 (12/15/07)	50kb+	<ul style="list-style-type: none">• OOP• CSS3• buildsystem with compression• unittest• widgets (Dijit)	<ul style="list-style-type: none">• buggy• ugly code• big	modified BSD or Academic Free 2.1	Safari 3.0.x Opera 9.0+ IE 6.0+ FF1.5+ Konqueror 3.5+
Prototype ²	1.6.0.2 (01/25/08)	~120kb	<ul style="list-style-type: none">• support• Script.aculo.us³ for UI• OOP	<ul style="list-style-type: none">• poor documentation• extends Object.prototype (here⁴ and here⁵)	MIT	IE 6.0+ FF1.0+/ Mozilla 1.7+ Safari 1.2+

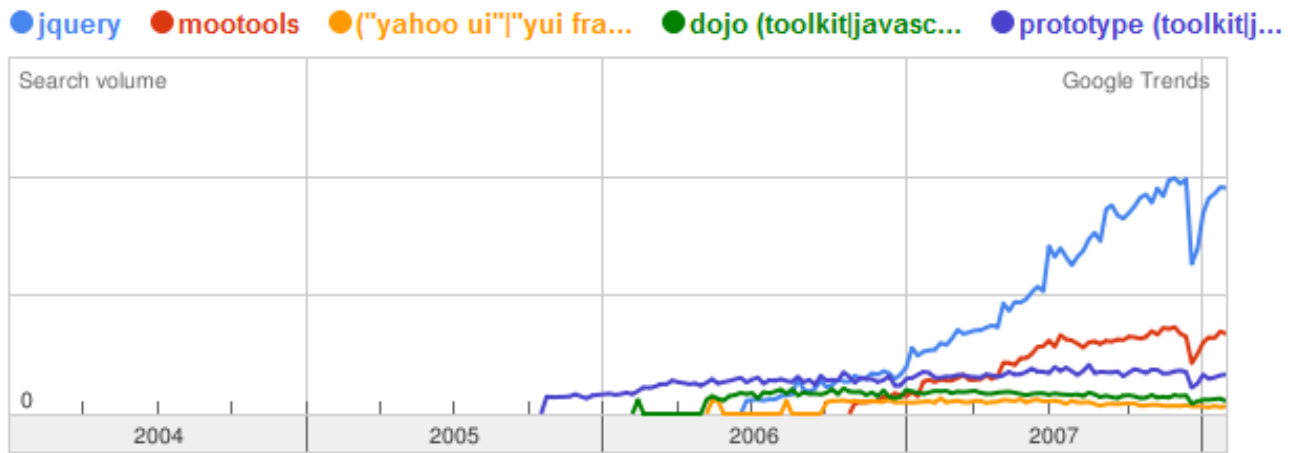
jQuery ⁶	1.2.2 (01/14/08)	~26kb	<ul style="list-style-type: none"> • documentation only • easy to use • fast • CSS 1-3, basic xpath • CSS selector • lightweight • chainable • plugins • namespaced • jQuery UI for widgets 	<ul style="list-style-type: none"> • selector +effects +some-XHR • only for simple and small projects 	MIT or GPL	FF1.5+ IE 6+ Safari 2.0.2+ Opera 9+
Ext JS ⁷	2.0.1 (01/23/08)	500kb	<ul style="list-style-type: none"> • support • good collection of widgets • UI-centric (+ or -) • on top of jquery/yui/prototype or standalone • fast 	<ul style="list-style-type: none"> • big⁸ 	LGPL 3.0	IE 6+ FF1.5+ Safari 2+ Opera 9+
Yahoo UI Library ⁹	2.4.1 (12/19/07)	29kb+	<ul style="list-style-type: none"> • history manager • documentation • modular • event driven • namespaced • CSS framework 	<ul style="list-style-type: none"> • slow • big • complex 	BSD	IE 6+ FF1.5+ Safari 2+ Opera 9+

MooTools ¹⁰	1.1 (05/07/07)	9kb+	<ul style="list-style-type: none"> • lightweight • fast • easy • modular • Object Oriented • chainable 		MIT	IE 6+ FF Safari Opera Camino
qooxdoo ¹¹	0.7.3 (01/14/08)		<ul style="list-style-type: none"> • buildsystem for optimazing and packaging • namespace • event binding • cross-browser back button support • bookmarkability • AOP 	• non-CSS-based styling	LGPL or EPL	IE 5.5+ FF 1.0+/ Mozilla 1.3+ Opera 8+ Safari 3
Rico ¹²	2.0rc (01/29/08)		<ul style="list-style-type: none"> • based on prototype 	• few features	Apache 2.0	IE 5.5+ FF 1.0/Win Camino/Mac Firefox 1.5x/ Mac Safari 2.0.3
GWT ¹³	1.4.61 (11/03/07)		<ul style="list-style-type: none"> • browser history • JUnit • i18n 	• Java compiled to javascript	Apache 2.0	IE Firefox Mozilla Safari Opera

Disqualified:

- **MochiKit**¹⁴: seems to be deserted

Popularity (by number of searches)



The other frameworks (qooxdoo, Rico, Ext js) didn't have enough search volume to show up on the graph. The seeming popularity of Prototype is caused by the added searches for the prototype object of JavaScript.

Test 1: GWT

Test 2: Simile

Test 3: i18n support

- Dojo: has a specific i18n module (*¹⁵).
- jQuery: no built-in i18n support. Localization is available for the datepicker-widget
- Prototype: no built-in i18n support.
- ExtJS: localization support (*¹⁶, *¹⁷).
- YUI: no built-in i18n support, there is however an internationalization plugin (*¹⁸).
- MooTools: no built-in i18n support.
- qooxdoo: i18n and L10n are fully supported (*¹⁹).
- GWT: internationalization support (*²⁰).

Test 4: Unit test

Test 5: Custom widget

The first 4 losers

1. Rico:
 - small community
 - low support

Links

JavaScript Frameworks Compared

<http://www.zenperfect.com/2007/08/11/javascript-frameworks-compared/>

Top 5 javascript frameworks

<http://www.whenpenguinsattack.com/2007/04/24/top-5-javascript-frameworks/>

JavaScript Libraries By Comparison

<http://javascriptant.com/articles/24/javascript-libraries-by-comparison>

Javascript Toolkit Comparison

<http://www.ja-sig.org/wiki/display/UP3/Javascript+Toolkit+Comparison>

Why I'm moving from jQuery to ExtJs

<http://coderseye.com/2007/why-im-moving-from-jquery-to-extjs.html>

2007 Ajax Tools Usage Survey Results

[http://www.surveymonkey.com/sr.aspx?
sm=fXLiKcnKID6cO5bRe961aBB6NCCWytRyY3rParAYmwA_3d](http://www.surveymonkey.com/sr.aspx?sm=fXLiKcnKID6cO5bRe961aBB6NCCWytRyY3rParAYmwA_3d)

A Mootools Tutorial

<http://clientside.cnet.com/wiki/mootorial>

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<http://www.b-list.org/weblog/2007/jan/22/choosing-javascript-library/>

Prototype and jQuery: A code comparison

<http://ajaxian.com/archives/prototype-and-jquery-a-code-comparison>