

JAVASCRIPT FOR BEGINNERS



Copyright © 2012 Jerry Stratton

Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License, Version 1.1. A copy of the license is included in the section entitled “GNU Free Documentation License”

March 15, 2012

What is JavaScript?	1	Wait for idle time	23
What is that cover?	1	Dates	25
Intercepting Clicks	3	Greater than	25
Block all links	3	Else	25
Functions	4	Current version	26
Objects and events	4	Animation	27
Block external links	4	Parent node	27
Properties	5	Fade out	27
Variables	5	-=	28
Methods	6	<=	29
Strings	6	Fade in	29
What element are we clicking on?	6	Idle	31
Find the A tag	7	Always advance	32
Comments	7	Extra credit	33
While loops	7	Random integers	33
Only manage valid links	8	Randomly change from the current image.	34
Compound conditionals	9	Control the slide show	35
If statements	9	Menu form	37
Block external links	9	Customer name required	37
String methods	10	Form inputs and values	38
Conditionals in the wild	11	onsubmit	38
Pop external links	11	Order required	38
Dangerous links	12	Radio buttons	39
Highlight the relevant link	13	For loops	39
An image gallery	15	40
Block that click	15	Display all required fields	40
Events in tags	15	Array.push and Array.join	41
This	15	\n	41
Switch on click	16	Today's special	41
Find any element by ID	16	Favorite drink	42
Setting the src attribute	16	Create a known date	44
Captions	16	Greenwich Mean Time	44
innerHTML	17	escape and unescape	44
String replace	17	Split a string	44
Random image	18	JavaScript Issues	45
Find all subsidiary elements by tag name	19	It might not be there	45
Math.random and Math.floor	20	Trusting JavaScript	45
Random starting image	20	Different Versions	46
Prepare a slide show	20	Managing Your Script Files	46
What is this?	21	Programming Tips	47
Creating objects	21	Describe Your Goal	47
++	22	Test Often	47
An endless slide show	22	Write cleanly	47
Greater than or equal to	22	Find a good text editor	48
Start the slide show	22	Centralize Your Code	48
Timers	23	Avoid the Hammer Syndrome	49
		More Information	51
		GNU Free Documentation License	51

WHAT IS JAVASCRIPT?

JavaScript allows you to create ‘dynamic, interactive’ web pages: web pages that do things in response to what your readers do, without having a separate page for each possible response. In this tutorial, I’m going to cover some of the very basics of using JavaScript in your web pages. I’m going to assume that you know a little bit about HTML, but nothing about programming or JavaScript. If you aren’t familiar with HTML, you’ll want to go over the Web Writing Guide at http://www.hoboes.com/NetLife/Web_Writing/ first.

First, JavaScript has nothing to do with Java. Java is a separate programming language. JavaScript is a language for scripting web browsers and web servers, although it is seeing other uses as it becomes popular. Java was created by Sun and is designed for complete software applications, while JavaScript was created separately by Netscape Corporation and was later standardized as the ECMAScript standard. It is designed for modifying (and “scripting”) web pages.

WHAT IS THAT COVER?

The cover image is a tracing, done in Inkscape, of Mount Semeru and Mount Bromo on the Isle of Java. Java may mean “beyond”, but it might also mean “home”. Java was created through volcanic activity and still contains many active volcanoes. Despite these dangers, it is the most populous island in Indonesia. Volcanic activity ensures a rich soil throughout the island.

Whether any of this relates to JavaScript is left to your imagination.

INTERCEPTING CLICKS

JavaScript turns every web page into a collection of objects that you can modify and interact with. JavaScript turns everything that the visitor does into events that you can modify and intercept.

Go to http://www.hoboes.com/NetLife/Web_Scripting/Web_Scripting_Resources/ to download the resource zip archive and uncompress it. Open the file “1941.html” in your favorite text editor. There are several links on that page; some of the links are local (they go to hoboes.com) and some of them are not local (they go to Wikipedia and Amazon). We’re going to make the non-local ones open in a new window (or tab, depending on the visitor’s preferences).

Look in the HTML’s “head” area for a comment that says “put your scripts.js here”. Underneath that line, add this:

```
<script type="text/javascript" src="scripts.js"></script>
```

This line tells the browser to look for some scripts in the file “scripts.js”. We’re going to put our JavaScript code there. The syntax for the `<script>` tag is very similar to the syntax for the `` tag.

The `<script>` tag can go anywhere in your document, but you’ll usually put it in the `<head>` area when you’re using it to include a file containing JavaScript. We’ll use it for other purposes later in this tutorial.

BLOCK ALL LINKS

Our first version will do nothing—literally. It will block all links on this page. Put this into your `scripts.js` file:

```
function manageLinks(event) {  
    return false;  
}  
  
document.onclick=manageLinks;
```

Save `scripts.js` into the same folder as `1941.html`. Reload `1941.html` in your browser. Try clicking on some of the links: none of them should work.

If the links do work, you’re going to need to track down the error. In Firefox or in Safari, you have an error console that will display any errors in your page, as well as the line those errors occurred on. If you’re not already using one of those browsers, you’ll need to download the latest version and use it for testing your scripts.

[Click here to download full PDF material](#)