

WEB development TOOLBOX

TOOLS BEST PRACTICES WORKFLOW

CONTEXT

- CODE QUALITY
- MORE SPEED
- MAINTENANCE
- USABILITY
- COOLNESS

CODE QUALITY

- **STYLE GUIDE & COMMIT HOCKS**
- **JSHINT & JSLINT**
- **TESTING & ANALYSIS**
- **DOCUMENTATION**
- **PAIR PROGRAMMING**

- ▶ JavaScript-Sprachreferenz

- ◀ JavaScript-Grundlagen

- Schreiben von JavaScript-Code

- Variablen (JavaScript)

- Datentypen (JavaScript)

- Operatoren (JavaScript)

- Operatorrangfolge (JavaScript)

- Steuerung des Programmablaufs
(JavaScript)

- Funktionen (JavaScript)

- Objekte und Arrays (JavaScript)**

- Systeminterne Objekte (JavaScript)

- Erstellen von Objekten (JavaScript)

- Berechnen von Datum und Uhrzeit
(JavaScript)

- Zeichenfolgen für Datum und Uhrzeit
(JavaScript)

- Anzeigen von Text auf einer Webseite
(JavaScript)

Objekte und Arrays (JavaScript)

JavaScript-Objekte sind Auflistungen von Eigenschaften und Methoden. Eine Methode ist eine Funktion, die ein Member eines Objekts ist. Eine Eigenschaft ist ein Wert oder ein Satz von Werten (in Form eines Arrays oder eines Objekts), der Member eines Objekts ist. JavaScript unterstützt verschiedene Arten von Objekten: *systeminterne Objekte*, Objekte, die Sie erstellen, Hostobjekte, die vom Host (z. B. `window` und `document` in Internet Explorer) sowie von ActiveX-Objekten bereitgestellt werden.

► Expando-Eigenschaften und -Methoden

Alle Objekte in JavaScript unterstützen "expando"-Eigenschaften- und Methoden oder Eigenschaften, die dynamisch zur Laufzeit hinzugefügt und entfernt werden können. Diese Eigenschaften und Methoden können beliebige Namen haben, einschließlich Zahlen. Wenn der Name der Eigenschaft oder der Methode ein einfacher Bezeichner ist, kann er mit einem Punkt nach dem Objektnamen geschrieben werden, z. B. wie folgt:

JavaScript

```
var myObj = new Object();
myObj.name = "Fred";
myObj.age = 42;

myObj.getAge =
    function () {
        return this.age;
};

document.write(myObj.name);
document.write("<br/>");
document.write(myObj.age);
```

DOCUMENTATION

- MOZILLA DEVELOPER NETWORK
- WEBPLATFORM.ORG
- STACKOVERFLOW
- BLOGS
- SPECS



DOCUMENTATION

IEEE 754 - 7.11 Every NaN shall compare unordered with everything, including itself.

7.11 Details of comparison predicates

For every supported non-storage floating-point format, it shall be possible to compare one floating-point datum to another in that format. Additionally, floating-point data represented in different formats shall be comparable as long as the operands' formats have the same radix.

Comparisons are exact and never overflow or underflow. Four mutually exclusive relations are possible: *less than*, *equal*, *greater than*, and *unordered*. The last case arises when at least one operand is NaN. **Every NaN shall compare *unordered* with everything, including itself.** Comparisons shall ignore the sign of zero (so $+0 = -0$). Infinite operands of the same sign shall compare *equal*.

Languages define how the result of a comparison shall be delivered, in one of two ways: either as a condition code identifying one of the four relations listed above, or as a true-false response to a predicate that names the specific comparison desired.

Table 8, Table 9, and Table 10 exhibit twenty functionally distinct useful predicates and negations with

STYLE GUIDES

- USE CODE STANDARDS
- TAKE THE WINNING STYLE
- NOT WHICH BUT SAME STYLE
- CODE SHOULD BE LOOK LIKE IT
WAS BE WRITTEN BY ONE GUY

PROTOTYPING

- RAPID & ITERATIVE
- ONLINE PLAYGROUNDS
- LOCAL WITH LIVE RELOAD
- DIRECT INBROWSER EDIT
- JS CONSOLE (node, JSC)

onLine PLAYGROUND

- JSFIDDLE, JSBIN, CODEPEN
- LIVE PREVIEW
- JS LIBS INCLUDED
- PREPROCESSORS INCLUDED
- COLLABORATION

SCAFFOLDING

- BOILERPLATES
- FRAMEWORKS
- TOOLS LIKE YEOMAN
- PACKAGE MANAGER

BOILERPLATES

- FASTER DEVELOPMENT
- BEST PRACTICES INCLUDED
- BUT YOU SHOULD LOOK INSIDE
- **HTML5BOILERPLATE,
BOOTSTRAP, SKELETON,
FOUNDATION, 960 GRID SYS**



PACKAGE MANAGER

- NPM
- BOWER (BY TWITTER)
- ENDEr (NPM REGISTRY)
- VOLO (LIKE BOWER)
- component (commonjs)
- JAM (AMD)

ENVIRONMENTS

- SIMPLEHTTPSERVER
- GRUNT
- WAMP & MAMP
- VIRTUAL MACHINE
- VAGRANT
- DOCKER.IO

GRUNT connect

- STATIC web SERVER
- TOOLING WITH JS
- ADD OWN MIDDLEWARE
- WORKS on ALL OS
- FOR FAST TESTING ONLY



VIRTUAL BOX

- REAL web SERVER
- WORKS on ALL OS
- PORTABLE
- OPEN SOURCE



VAGRANT

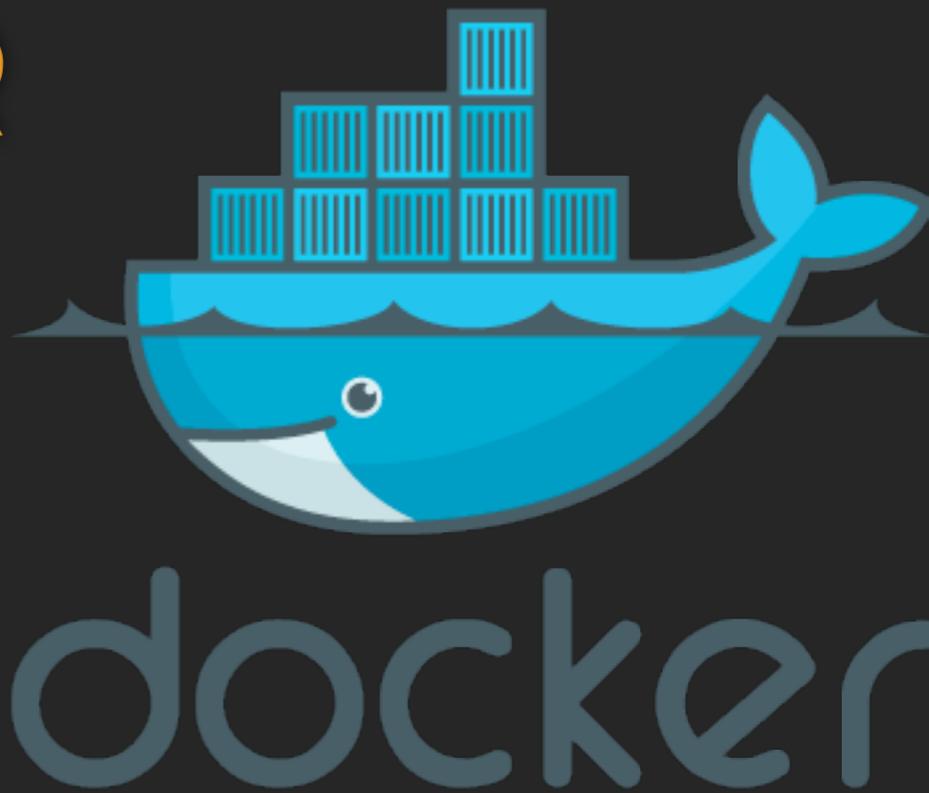
- DEV ENVIRONMENT
- SINGLE FILE CONFIG
- USE CHEF OR PUPPET
- WORKS ON ALL OS



VAGRA

DOCKER

- APPS AS container
- EASY APP DELIVERY
- EASY DEPLOYING
- SCALING SYSTEMS



IDE VS EDITOR

- **onLine TOOLS**
- **IDES FOR BUSINESS WORKFLOW**
- **EDITORS FOR FAST HACKING**
- **DepEndS on YOU**
- **DepEndS on THE COMPANY**

EDITOR

- SMALLER
- FASTER
- EXTENDABLE
- FOR SINGLE PROGRAMMER
- SUBLIME, BRACKETS, VI

SUBLIME TEXT 2/3

- CLEAN & FUNCTIONAL
- FAST CODE EDITOR
- PLUGINS, SNIPPETS
- PACKAGE CONTROL
- SUBLIMELINTER, CODEINTEL

(SYNC SUBLIME WITH DROPBOX)

IDE

- FOR PROJECTS (.SETTINGS)
- MAYBE SLOWER
- WORKFLOW INTEGRATED
- FOR COMPANY WORKERS
- WEBSTORM, VISUAL STUDIO

WEBSTORM

- GOOD JS / node SUPPORT
- REFACTORING
- DEBUGGING
- UNIT TESTING
- ZEN CODING, EMMET

BROWSER TOOLS

- DEVELOPER TOOLS
- EXTENSIONS / PLUGINS
- BOOKMARKLETS
- DEV TOOL SNIPPETS

CHROME CANARY

- newest experiments
- CHROME DEVTOOLS
- SOURCE MAPS
- LIVE EDITING
- DEBUGGING
- PROFILING



CHROME CANARY

The screenshot shows the experimental flags page of the Chrome Canary browser. The URL in the address bar is `chrome://flags`. At the top left is a blue icon with a radiation symbol. To its right, the text **Vorsichtig, diese Experimente können gefährlich sein!** (Warning: These experiments can be dangerous!) is displayed in bold black font. Below this, a **Warnung** (Warning) message in red states: "Diese experimentellen Funktionen können sich jederzeit ändern und die Folgen der Aktivierung eines dieser Experimente. Es ist sehr gefährlich, Ihr Browser alle Ihre Daten löscht. Möglicherweise werden Ihnen aktivierten Experimente werden für alle Nutzer aktiviert." (These experimental features can change at any time and activating one of these experiments can have dangerous consequences. It is very dangerous to delete all your data. Activated experiments may be activated for all users.)

Experimente

Tab-Übersicht Mac
Streichen Sie mit drei Fingern über das Touchpad und halten Sie fest. Dies funktioniert am besten im Vollbildmodus. [#expose-for-tabs](#)
[Aktivieren](#)

Software-Rendering-Liste überschreiben Mac, Windows, Linux
Überschreibt die integrierte Software-Rendering-Liste und aktiviert es für alle Seiten. [#force-software-renderer](#)
[Aktivieren](#)

GPU-Compositing auf allen Seiten Mac, Linux
Verwendet GPU Accelerated Compositing auf allen Seiten und nicht nur auf dem Desktop. [#force-gpu-compositing](#)
[Standardeinstellung](#)

Aufbau mit Thread Mac, Linux
Verwendet einen sekundären Thread zum Aufbau von Webseiten. Dies kann zu Problemen führen, wenn der primäre Thread nicht mehr verfügbare Arbeit hat. [#use-second-thread](#)
[Standardeinstellung](#)

BROWSER PLUGINS

- WEB DEVELOPER
- EDIT THIS COOKIE
- PAGE SPEED
- FIREBUG
- YSLow
- CLEAR CACHE

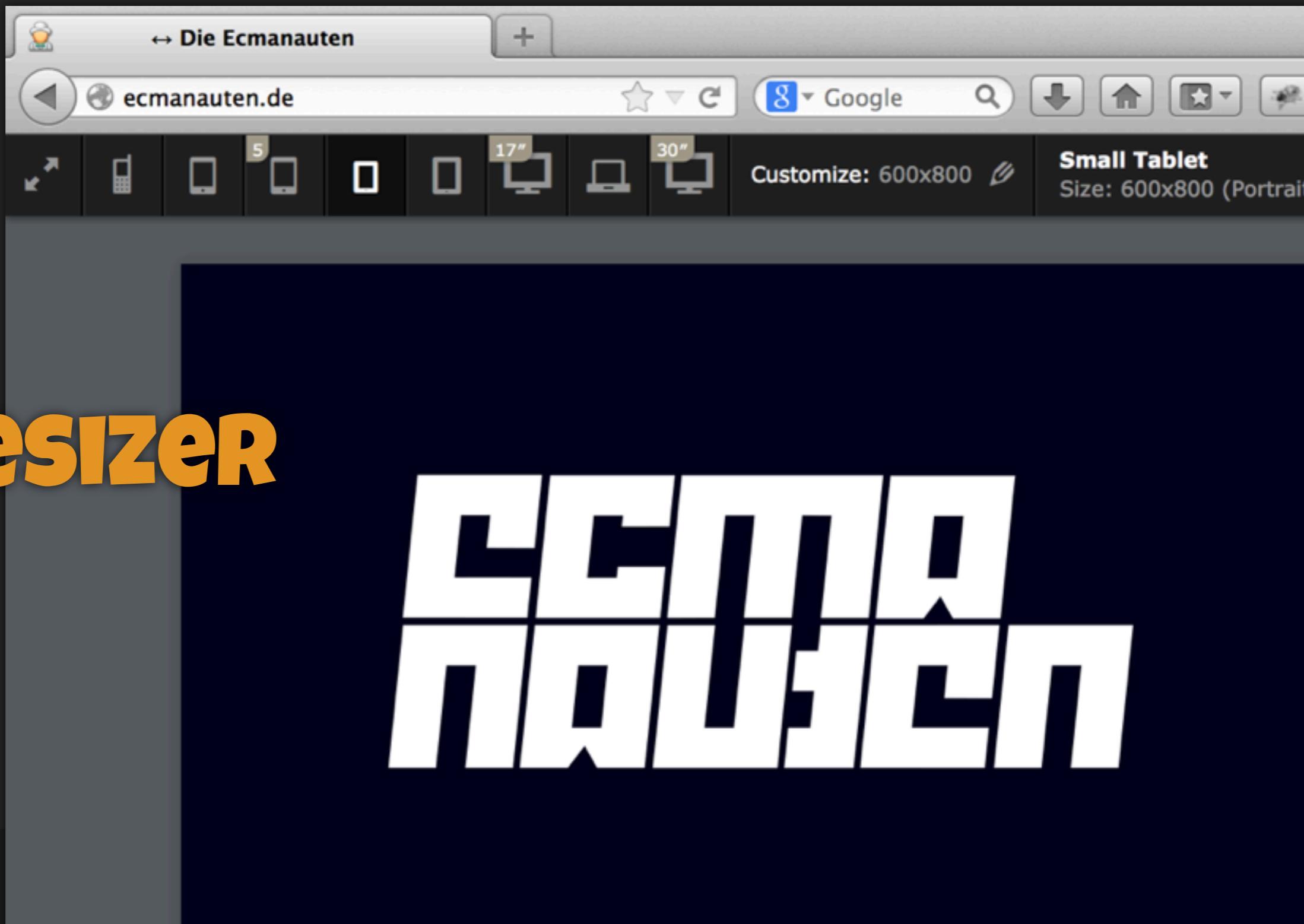


BOOKMARKLETS

- JAVASCRIPT SNIPPETS
- EASY INSTALLATION
- LIGHTER THEN PLUGINS
- CROSS BROWSER
- NO UPDATES

BOOKMARKLETS

↔ Resizer



DEVTOOL SNIPPETS

← → ⌂ bgrins.github.io/devtools-snippets/

DevTools Snippets

[VIEW OR CONTINUE](#)

A collection of helpful snippets to use inside of browser devtools

Instructions: The snippets can be used in any browser console. Chrome provides a '[snippets](#)' feature that can be used to manage them. Firefox has a '[scratchpad](#)' feature that lets you run, edit, and save chunks of JavaScript.

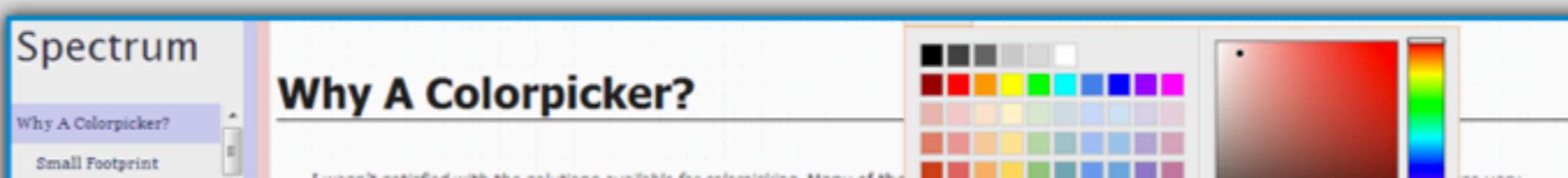
View the [devtools-snippets project page](#). For more information about using them in your favorite browser, check out the [README](#) or [about snippets](#) detailing why you might use them and additional features that would be nice.

Have a snippet you'd like to share with the world? Contributing is easy, there is a [guide explaining more](#).

[allcolors](#) [cachebuster](#) [console-save](#) [cssprettifier](#) [cssreload](#) [dataurl](#) [formcontrols](#) [hashlink](#) [html_i18n_content](#) [log](#) [log-globals](#) [performance](#) [plainforms](#) [querystringvalues](#) [showheaders](#) [wrapelement](#)

[allcolors.js](#)

Print out all colors from computed styles used in elements on the page. *Uses styled console.log calls to visualize each color.*



The screenshot shows the 'allcolors' snippet code and a color picker interface. The snippet code uses the Spectrum color picker library to log color swatches to the browser console. The color picker interface includes a color wheel, a color palette grid, and a color bar.

Spectrum
Why A Colorpicker?
Small Footprint

Why A Colorpicker?

COMMAND LINE

- SETTINGS
- BINDINGS
- SHELL SCRIPTS
- COLORING

COMMAND LINE

- BOURNe, BASH, ZSH
- THEMES, TOOLS, PLUGINS
- ALIAS, PATH, GIT
- OH-MY-ZSH, PREZTO
- VI, GREP, PIPES

```
Aborted due to warnings.  
~/D/p/F/w/w/g/example02 git:master >>> grunt  
Running "jshint:src" (jshint) task  
Linting app/src/app.js ...ERROR  
[L16:C3] W117: 'window' is not defined.  
}(window,jQuery));  
[L16:C10] W117: 'jQuery' is not defined.  
}(window,jQuery));  
Linting app/src/lib.js ...ERROR  
[L16:C3] W117: 'window' is not defined.  
}(window,jQuery));  
[L16:C10] W117: 'jQuery' is not defined.  
}(window,jQuery));  
  
Warning: Task "jshint:src" failed. Use --force to continue.  
  
Aborted due to warnings.  
~/D/p/F/w/w/g/example02 git:master >>> grunt  
Running "concat:build" (concat) task  
File "app/build/app.js" created.  
  
Running "uglify:build" (uglify) task  
File "app/build/app.min.js" created.
```

.DOTFILES

- GIT CONFIG / GIT IGNORE
- SHELL CONFIG
- EDITORCONFIG.ORG
- DOTFILES.GITHUB.IO
- SYNC OVER DROPBOX

TESTING

- USABILITY TESTING
- DEVICE TESTING
- BROWSER TESTING
- FUNCTIONAL TESTING
- UNIT TESTING

BROWSER TESTING

- GRADED BROWSER SUPPORT
- PIXEL PERFECT IS DEAD
- USER FIRST
- SMALLEST DEVICE FIRST

BROWSER TESTING & DEVICE

- modern.ie**
- BROWSeRSTACK**
- SAUCELABS**
- VIRTUAL MACHINE**
- OPENDEVICELAB**

TESTING TOOLS FOR WEB DEVELOPERS FROM MICROSOFT

Test your site on IE6-11 using free virtual machines for Windows, Mac and Linux



Tool

Test your site on browsers hosted by BrowserStack free for three months



Tool

Run a compatibility scan on any URL

[Scan Now](#)[Download offline version](#)

Categories

[Articles](#)[HTML 5](#)[CSS 3](#)[Javascript](#)[Tools](#)[Performance](#)[Demos](#)[Tutorials](#)[Gaming](#)[Mobile](#)

Resources

More ways to test-drive your site



DEVICE TESTING

- RESPONSIVE
- OS GUI & THEME
- SCREENSHOTS
- FUNCTIONAL TESTING
- UNIT TESTING

SYNCHRONIZED CROSS DEVICE TESTING

- ADOBE eDGe INSPECT CC
- GRUNT + LIVE RELOAD
- GHOSTLAB (mAC)
- Remote Preview (JS)
- emmet LIVeSTYLe (PLUGIn)



DEBUGGING

- CONSOLE API
- BREAKPOINTS
- DEBUGGER STATEMENT
- CHROME CANARY DEV TOOLS
- REMOTE DEBUGGING

PROFILING

- MEMORY LEAKS
- RENDER SPEED
- DOM REFLOW
- NETWORK SPEED
- SOURCE ANALYSIS
- CODE COMPLEXITY

version management

- **GIT WORKFLOWS**
- **VISUAL MERGING TOOLS**
- **PRE COMMIT HOCKS**

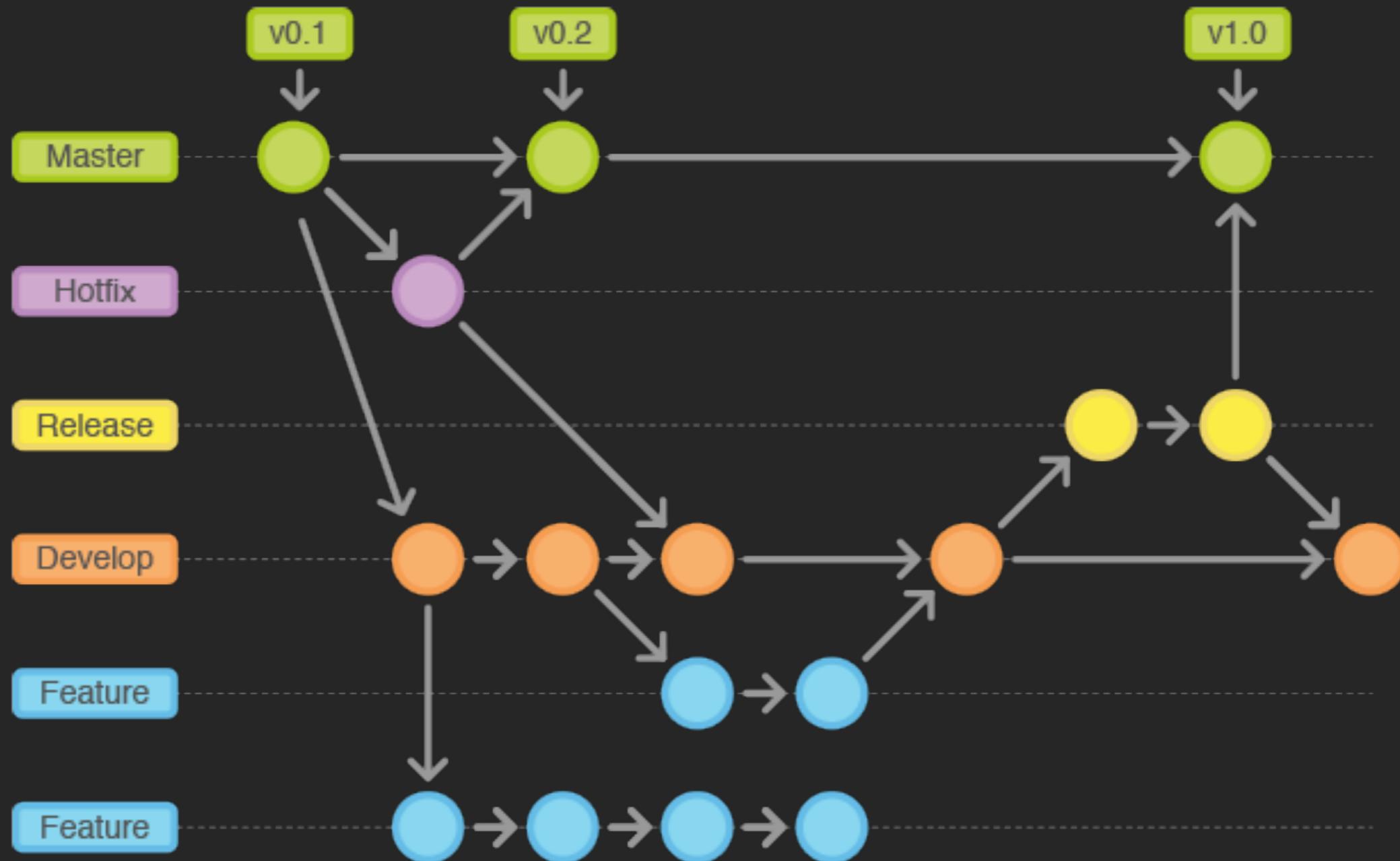


GIT WORKFLOW

- **CENTRALIZED WORKFLOW**
- **FEATURE BRANCH WORKFLOW**
- **GITFLOW WORKFLOW**
- **FORKING WORKFLOW**

<http://www.atlassian.com/git/workflows>

GITFLOW WORKFLOW



DEPLOYMENT

- VERSION CHECKOUT
- BUILD PROZESS
- TESTING
- SERVER DISTRIBUTION
- CACHE BUSTER, CDN PURGE
- CONTINUOUS DEPLOYMENT

THE end