



Verbeter je website met
OpenLayers en de
Closure Compiler

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Goede gebruikerservaring: snelheid

Inhoud

- Voorbeelden optimalisatie
- Closure Compiler inzetten
- OpenLayers + jouw applicatie met Closure Compiler
- <https://github.com/borrob/ClosureExamplesOpenLayers>

sneller is beter: minimaliseer javascript

Functienamen en variabelen: 1 letter

```
function startPresentatie(naamPresentatie, presentator) {  
    ...  
}
```

```
function a(a,b){...}
```



Optimaliseer: minder code

```
if (somethingTrueOrFalse) {  
    console.log("TRUE");  
} else {  
    console.log("FALSE");  
}
```



```
somethingTrueOrFalse?console.log("TRUE"):console.log("FALSE");
```

```
return 2 + 4;
```



```
return 6;
```

sneller is beter: minimaliseer javascript

De-granuleer: verminder functieaanroepen

```
function init() {  
    start();  
    setParams();  
    ...  
}
```

```
function a() {  
    <<code uit start()>>  
    <<code uit setParams()>>  
    ...  
}
```

sneller is beter: minimaliseer javascript

Alles in 1 file: verminder aantal requests





html
Javascript
OpenLayers



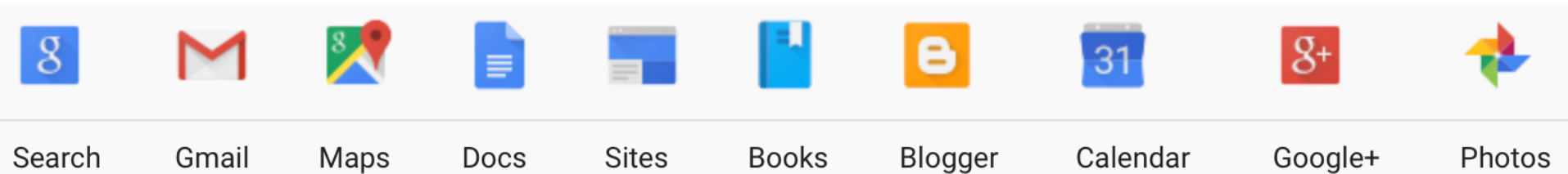
Ontwikkelpoces

- boilerplate / template
- OpenLayers downloaden
- eigen code schrijven
- test & debug
- "compile" productie-versie
- deploy



Closure compiler

<https://developers.google.com/closure/compiler/>

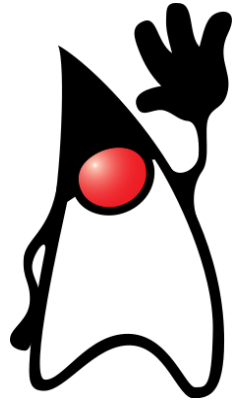


JavaScript in → Javascript uit

Optimaliseert
Minimaliseert
Controleert



Hoe gebruik je de compiler



JAVA standalone program

Webinterface (of API)



Closure compiler: web interface

http://closure-compiler.appspot.com/home

The screenshot shows the Closure Compiler web interface in a browser window. The browser's address bar displays "closure-compiler.appspot.com". The page title is "Closure Compiler". In the top right corner, there are links for "REST API" and "Help", and a "G-1" icon with "1.8k".

On the left side, there is a form for adding a URL. The "Add a URL:" field contains "http://". Below it, an example URL is shown: "Example: http://www.example.com/bigfile.js". The "Optimization:" section has three radio buttons: "Whitespace only", "Simple" (which is selected), and "Advanced". A link "Which optimization is right for my code?" is provided. The "Formatting:" section has two checkboxes: "Pretty print" and "Print input delimiter". There are "Compile" and "Reset" buttons.

The main code editor contains the following JavaScript code:

```
// ==ClosureCompiler==
// @compilation_level SIMPLE_OPTIMIZATIONS
// @output_file_name default.js
// ==/ClosureCompiler==

// ADD YOUR CODE HERE
function hello(name) {
  alert('Hello, ' + name);
}
hello('New user');
```

On the right side, the compilation results are displayed. A green message says "Compilation was a success!". Below this, the "Original Size:" is 102 bytes gzipped (92 bytes uncompressed) and the "Compiled Size:" is 68 bytes gzipped (55 bytes uncompressed). It notes that 33.33% was saved off the gzipped size (40.22% without gzip) and provides a link to "default.js".

At the bottom of the right panel, there are four tabs: "Compiled Code" (which is active), "Warnings", "Errors", and "POST data". The "Compiled Code" tab shows the output:

```
function hello(a){alert("Hello, "+a)}hello("New user");
```

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Whitespace, simple, advanced

{WHITESPACE ONLY} Commentaar, Spatie, regeleinden en te veel aan ; en ()

{SIMPLE} Als whitespace + hernoem lokale variabelen +
optimalisatie binnen functies en expressies.

{ADVANCED} Simple + aggresief hernoemen + dead code

Voorbeeld: hello world

```
function hello(name) {  
  console.log('Hello ' + name);  
}
```

```
hello('ROB');
```



```
console.log("Hello ROB");
```

Voorbeeld

```
function getOutput() {
    var outString = document.getElementById('helloNameInput').value;
    return outString;
}

function setString(str) {
    document.getElementById('output').innerHTML = str;
}

function doAction() {
    var inputString = getOutput();
    setString(inputString);
}

function init() {
    document.getElementById('laatMaarZienButton').addEventListener('click', doAction);
}

window.onload = function() {
    init();
}
```

```
function a()  
{document.getElementById("output").innerHTML=document.getElementById("helloNameInput").value}  
window.onload=function()  
{document.getElementById("laatMaarZienButton").addEventListener("click",a)};
```



419 B



257 B

Namespaces

```
goog.provide( 'App.Main' );  
  
goog.require( 'App.Control' );  
  
window.onload = function() {  
    App.Control.init();  
};
```

OpenLayers



```
goog.provide('App.Map');
```

```
goog.require('ol.Map');
```

```
goog.require('ol.View');
```

```
goog.require('ol.layer.Tile');
```

```
goog.require('ol.source.OSM');
```

```
App.Map.init = function() {  
  App.Map.map = new ol.Map({  
    target: 'map',  
    layers: [new ol.layer.Tile({source: new ol.source.OSM()})],  
    view: new ol.View({center: [620000, 6732600], zoom: 7})  
  });  
}
```

Voordelen

kleinere bestanden



geen dead code

geoptimaliseerd



GJSLINT

- Verouderd
- Stijl javascript

Compiler

- Veel soorten waarschuwingen
- Let niet op stijl javascript

```
Line 8, E:0220: No docs found for member 'App.Map.init'  
Line 9, E:0005: Illegal tab in whitespace before "App.Map.map"  
Line 10, E:0005: Illegal tab in whitespace before "target"
```

Types en docstrings

```
/**
 * Say hello to person a couple of times
 *
 * @param {string} name The name of the person
 * @param {number} times The number of times to say hello
 * @return {string} the hello message
 */
var sayHello = function(name, times) {
    var outString = "Hello " + name + "\n";
    return outString.repeat(times);
};
```

Samenvatting



Optimaliseer



Verbeter code



Minimaliseer



Controleer

Contact



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<https://github.com/borrob/ClosureExamplesOpenLayers>

GEO-ICT

Wilt u weten wat wij voor u op gebied van GEO-ICT kunnen betekenen?
Wij nemen de mogelijkheden graag met u door.



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