



Debunking of a Webpack black box

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*Huge thanks to the Webpack
Core dev team: Lucifer, Satan,
Beelzebub, Baal, Loki and
Sheogorath*

– @TCAMPEZZI



A SIMPLE WEBPACK
PROJECT



INFINUM ❤ WEBPACK

WEBPACK 1 IN A MAJOR PROJECT

Feb 22, 2016

Add webpack build

git master tag v2.4.15 ... 2.2.6

 DarkoKukovec committed on Feb 22, 2016

JOINED WEBPACK

Jul 22, 2016

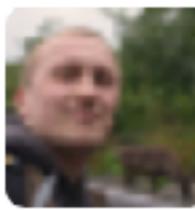


Joined the [webpack](#) organization

on July 22, 2016

WEBPACK 2 IN A MAJOR PROJECT

Jul 30, 2016



Darko Kukovec committed **7234b06**
2016-07-30

Upgrade to Webpack 2

WEBPACK PLUGIN

Oct 2, 2016

chore: Increase version

👤 master 🏷 v1.1.0 v1.0.0



andreicek committed with andreicek on Oct 2, 2016

WHERE ARE WE USING IT?

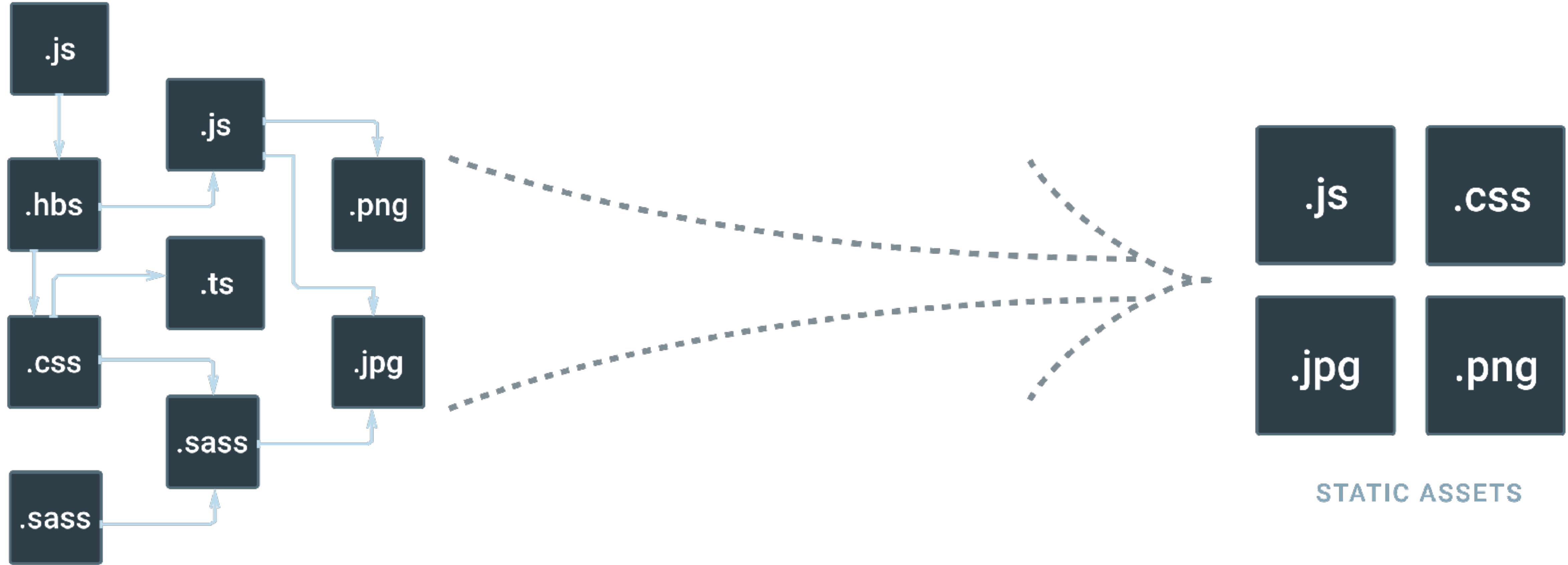
JS applications
react, angular, backbone

Static pages
landing pages, product pages

**Static page
generator**

**Web view slices for
Android/iOS**

CORE CONCEPTS



MODULES WITH DEPENDENCIES

STATIC ASSETS

{ entry }

Your codes starting point.

{ output }

Where to output your compiled code.

```
{ module: { rules } }
```

How Webpack understands your files.

{ plugins }

Modifying and extending Webpack.

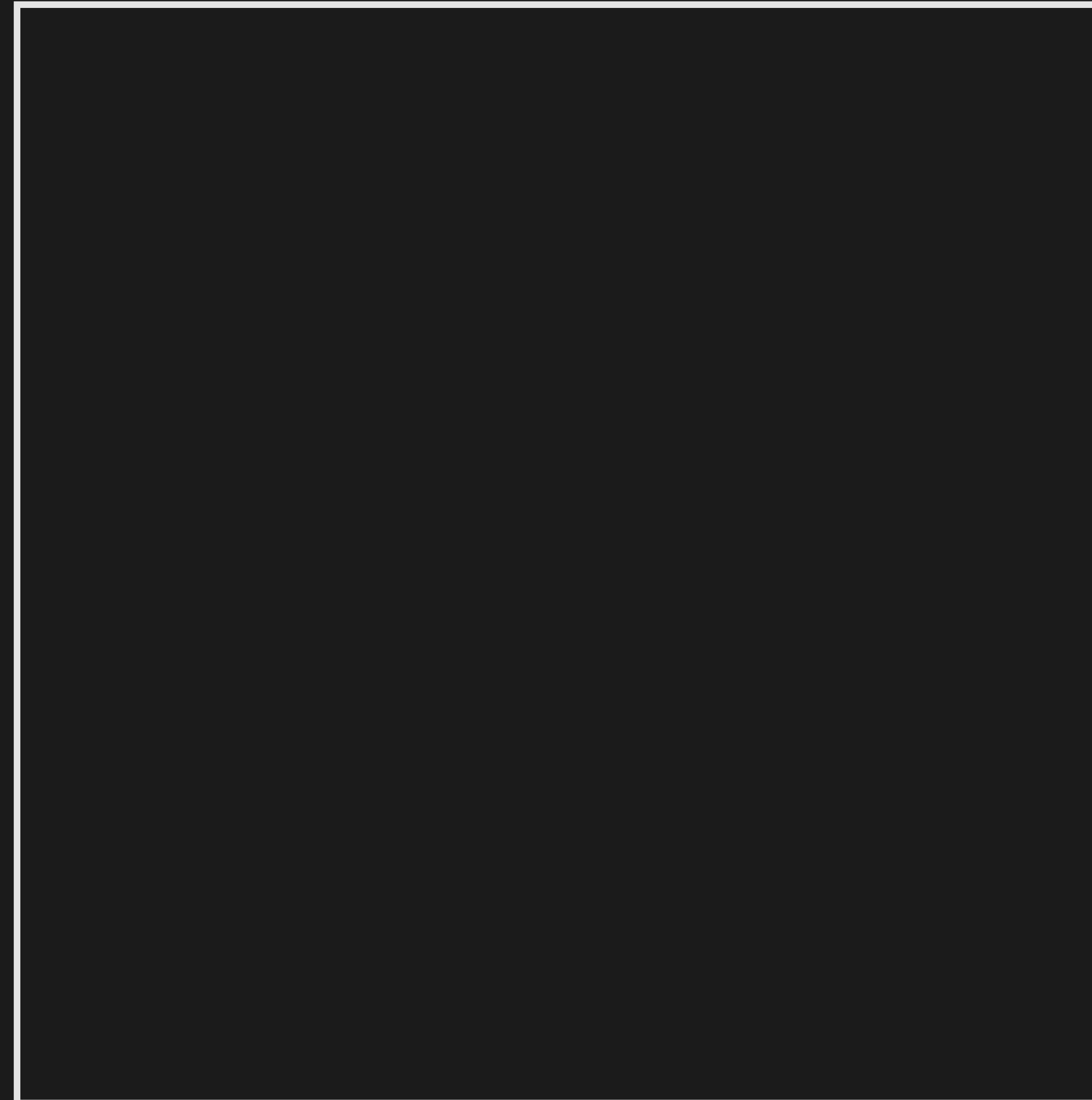


APPLIED USAGE

app/index.js

```
console.log('hello world');
```

app/homepage.js



app/index.js

```
require( './homepage' );  
  
console.log( 'hello world' );
```

app/homepage.js

app/index.js

```
import './homepage';

console.log('hello world');
```

app/homepage.js

```
console.log('homepage');
```

```
const path = require('path');
const appPath = path.resolve(__dirname);

module.exports = {
  entry: `${appPath}/app/index.js`,
  output: {
    path: `${appPath}/dist/`,
    filename: 'script.js'
  }
};
```

```
$ webpack --progress --watch  
0% compiling  
Webpack is watching the files...
```

Hash: cbfa4fbe304f3c791bfd

Version: webpack 2.2.0-rc.3

Time: 71ms

Asset	Size	Chunks	Chunk	Names
script.js	2.91 kB	0	[emitted]	main
[0]	./app/homepage.js	24 bytes	{0}	[built]
[1]	./app/index.js	20 bytes	{0}	[built]

app/index.js

```
import './homepage';
import d from './data.json';
console.log('hello world');
```

app/data.json

```
{
  "name": "ivica",
  "last_name": "horvat"
}
```

```
{  
  test: /\.json$/, // regex  
  loader: 'json-loader'  
}
```

```
const path = require('path');
const appPath = path.resolve(__dirname);

module.exports = {
  entry: `${appPath}/app/index.js`,
  output: {
    path: `${appPath}/dist/`,
    filename: 'script.js'
  },
  module: {
    rules: [ {
      test: /\.json$/,
      loader: 'json-loader'
    } ]
  }
};
```

```
$ webpack --progress --watch
0% compiling
Webpack is watching the files...
```

Hash: f47a480caecd3be9d0f4

Version: webpack 2.2.0-rc.3

Time: 113ms

Asset	Size	Chunks	Chunk	Names
script.js	3.33 kB	0	[emitted]	main
[0]	./app/homepage.js	24 bytes	{0}	[built]
[1]	./app/data.json	62 bytes	{0}	[built]
[2]	./app/index.js	77 bytes	{0}	[built]

```
$ webpack --progress --watch
0% compiling
Webpack is watching the files...
```

Hash: f47a480caecd3be9d0f4

Version: webpack 2.2.0-rc.3

Time: 113ms

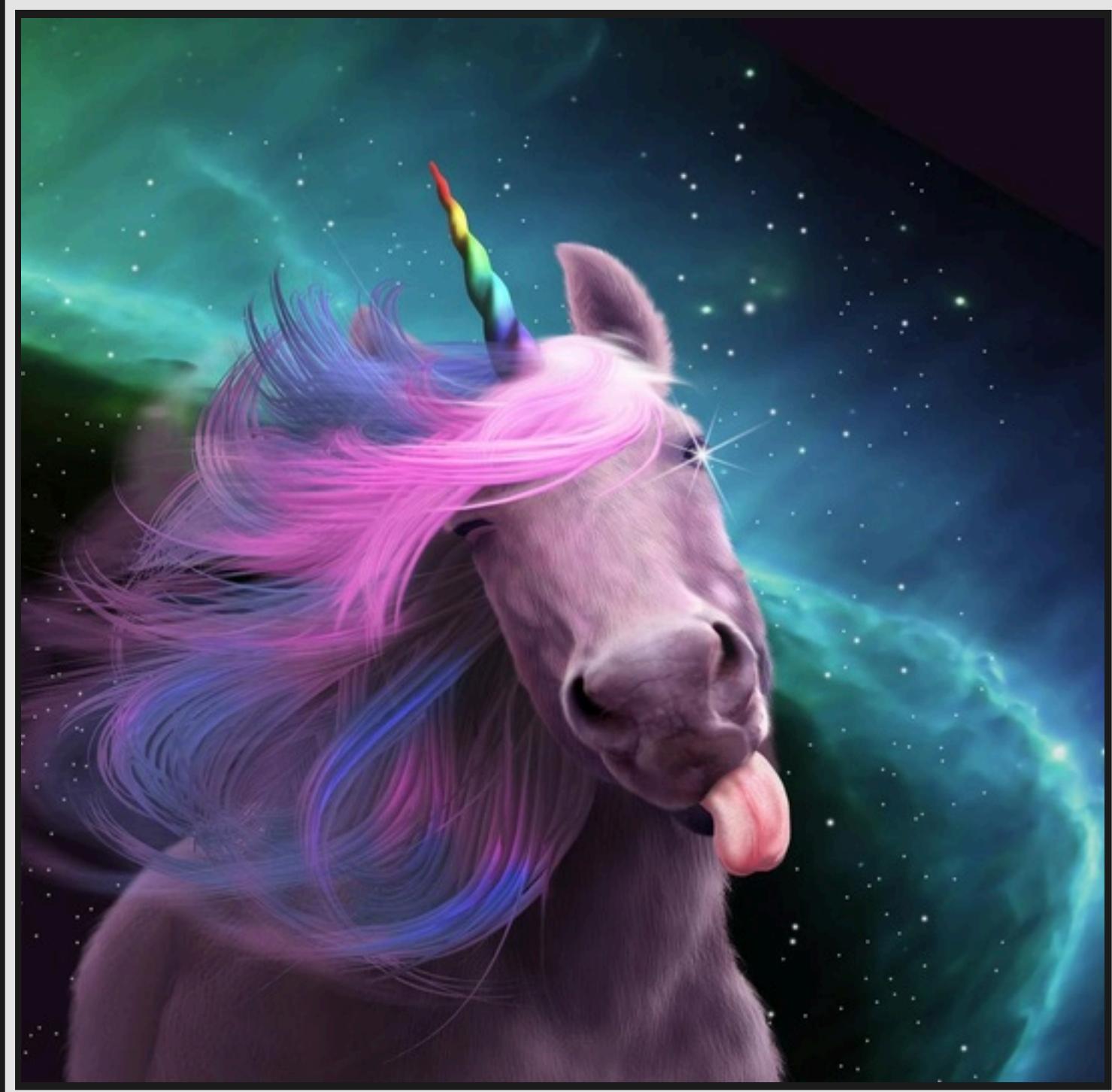
Asset	Size	Chunks	Chunk	Names
script.js	3.33 kB	0	[emitted]	main
[0]	./app/homepage.js	24 bytes	{0}	[built]
[1]	./app/data.json	62 bytes	{0}	[built]
[2]	./app/index.js	77 bytes	{0}	[built]

app/index.js

```
import './homepage';
import data from './data.json';
import photo from './unicorn.jpg';

console.log(data.name, photo);
```

app/unicorn.jpg



```
{  
  test: /\.jpg$/, // regex  
  loader: 'file-loader'  
}
```

```
$ webpack --progress --watch
0% compiling
Webpack is watching the files...
```

Hash: 9df9a8db9da137b0cae4

Version: webpack 2.2.0-rc.3

Time: 132ms

Names	Asset	Size	Chunks	Chunk
296474f58122f1d35d4de76d10fd4494.jpg		81 kB		[emitted]
	script.js	3.78 kB	0	[emitted] main
[0]	./app/homepage.js	24 bytes	{0}	[built]
[1]	./app/unicorn.jpg	82 bytes	{0}	[built]
[2]	./app/data.json	62 bytes	{0}	[built]
[3]	./app/index.js	119 bytes	{0}	[built]

```
{  
  test: /\.jpg$/, // regex  
  loader: 'file-loader',  
  options: {  
    name: '[name]-[hash].[ext]'  
  }  
}
```

```
$ webpack --progress --watch
 0% compiling
Webpack is watching the files...
```

Hash: dc96cfab8e1de9819c4a

Version: webpack 2.2.0-rc.3

Time: 133ms

Names	Asset	Size	Chunks	Chunk
unicorn-296474f58122f1d35d4de76d10fd4494.jpg		81 kB		[emitted]
	script.js	3.79 kB	0	[emitted] main
[0] ./app/homepage.js	24 bytes	{0}	[built]	
[1] ./app/unicorn.jpg	90 bytes	{0}	[built]	
[2] ./app/data.json	62 bytes	{0}	[built]	
[3] ./app/index.js	119 bytes	{0}	[built]	

COMPLEX CONFIGURATION

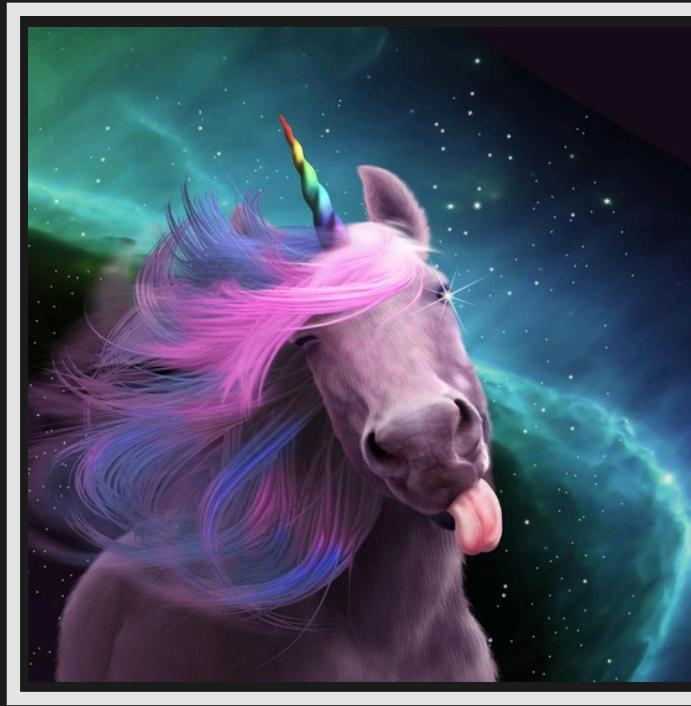
```
.
├── app
│   ├── index.js
│   ├── index.scss
│   └── unicorn.jpg
└── package.json
└── webpack.config.js
```

```
app/unicorn.jpg
```



```
.
├── app
│   ├── index.js
│   ├── index.scss
│   └── unicorn.jpg
├── package.json
└── webpack.config.js
```

app/unicorn.jpg



```
.
├── app
│   ├── index.js
│   ├── index.scss
│   └── unicorn.jpg
├── package.json
└── webpack.config.js
```

app/index.scss

```
body {
  background-url: url('./unicorn.jpg');
}
```

```
.
├── app
│   ├── index.js
│   ├── index.scss
│   └── unicorn.jpg
├── package.json
└── webpack.config.js
```

app/unicorn.jpg



app/index.js

```
import './index.scss';
```

app/index.scss

```
body {
  background-url: url('./unicorn.jpg');
}
```

{ loaders }

Chaining loaders.

```
{  
  test: /\.scss$/,  
  loaders: [ ]  
}
```

```
{  
  test: /\.scss$/,
  loaders: [ 'css-loader', 'sass-loader' ]
}
```

```
{  
  test: /\.scss$/ ,  
  use: [ {  
    loader: 'css-loader'  
  } , {  
    loader: 'sass-loader'  
  } ]  
}
```

```
{  
  test: /\.scss$/ ,  
  use: [ {  
    loader: 'style-loader'  
  } , {  
    loader: 'css-loader'  
  } , {  
    loader: 'sass-loader'  
  } ]  
}
```





andreicek 7:31 PM

as far as I can see there is no way to use `use` property with it...



sean.larkin 7:31 PM

Yes that is correct. We need some PR's to get that fixed.

```
{  
  test: /\.scss$/,
  loaders: [ 'css-loader', 'sass-loader' ]
}
```

```
plugins: [
  new ExtractTextPlugin('style.css')
]
```

```
{  
  test: /\.scss$/,
  loader: ExtractTextPlugin.extract({
    loader: [ 'css-loader', 'sass-loader' ]
  })
}
```

```
$ webpack --progress --watch
0% compiling
Webpack is watching the files...
```

Hash: 94d47df25ef5eeaca5b64

Version: webpack 2.2.0-rc.3

Time: 695ms

	Asset	Size	Chunks	Chunk Names
296474f58122f1d35d4de76d10fd4494.jpg	81 kB		[emitted]	
	script.js	2.96 kB	0	[emitted] main
	style.css	72 bytes	0	[emitted] main

[0] ./app/index.scss 41 bytes {0} [built]

[1] ./app/index.js 51 bytes {0} [built]

[2] ./~/css-loader/lib/css-base.js 1.51 kB [built]

[3] ./app/unicorn.jpg 82 bytes [built]

Child extract-text-webpack-plugin:

[0] ./~/css-loader/lib/css-base.js 1.51 kB {0} [built]

[1] ./app/unicorn.jpg 82 bytes {0} [built]

[2] ./~/css-loader!./~/sass-loader!./app/index.scss 226 bytes {0} [built]

```
body {  
  background-image: url(296474f58122f1d35d4de76d10fd4494.jpg); }
```

EXPLORER



webpack.config.js x

- app
 - index.js
 - index.scss
 - unicorn.jpg
- dist
- node_modules
- .gitignore
- package.json
- webpack.config.js
- yarn.lock

```
1  const path = require('path');
2  const ExtractTextPlugin = require('extract-text-webpack-plugin');
3
4  const ctx = path.resolve(__dirname);
5
6  module.exports = {
7    entry: `${ctx}/app/index.js`,
8    output: {
9      path: `${ctx}/dist/`,
10     filename: 'script.js'
11   },
12   module: {
13     rules: [
14       {
15         test: /\.jpg$/,
16         loader: 'file-loader'
17       },
18       {
19         test: /\.scss$/,
20         loader: ExtractTextPlugin.extract({
21           loader: ['css-loader', 'sass-loader']
22         })
23       }
24     },
25     plugins: [
26       new ExtractTextPlugin('style.css')
27     ]
28   }
29 }
```

```
{  
  test: /\.js$/ ,  
  loader: 'babel-loader' ,  
  options: {  
    presets: [ 'latest' ]  
  }  
}
```

classes

import

array spread

object spread

arrow functions

static

const/let

decorators

function shorthand

Observable

generators

Array.from

async/await

object destructuring

JSX

EXPLORER



webpack.config.js x

```
1  const path = require('path');
2  const ExtractTextPlugin = require('extract-text-webpack-plugin');
3
4  const ctx = path.resolve(__dirname);
5
6  module.exports = {
7    entry: `${ctx}/app/index.js`,
8    output: {
9      path: `${ctx}/dist/`,
10     filename: 'script.js'
11   },
12   module: {
13     rules: [
14       {
15         test: /\.js$/,
16         loader: 'babel-loader',
17         options: {
18           presets: ['latest']
19         }
20       },
21       {
22         test: /\.jpg$/,
23         loader: 'file-loader'
24       },
25       {
26         test: /\.scss$/,
27         loader: ExtractTextPlugin.extract({
28           loader: ['css-loader', 'sass-loader']
29         })
30       }
31     ],
32     plugins: [
33       new ExtractTextPlugin('style.css')
34     ]
35   }
36 }
```



```
$ webpack --progress --watch
0% compiling
Webpack is watching the files...
```

Hash: 94d47df25ef5eeeca5b64

Version: webpack 2.2.0-rc.3

Time: 745ms

	Asset	Size	Chunks	Chunk Names
296474f58122f1d35d4de76d10fd4494.jpg	81 kB		[emitted]	
	script.js	2.96 kB	0	[emitted] main
	style.css	72 bytes	0	[emitted] main

[0] ./app/index.scss 41 bytes {0} [built]

[1] ./app/index.js 51 bytes {0} [built]

[2] ./~/css-loader/lib/css-base.js 1.51 kB [built]

[3] ./app/unicorn.jpg 82 bytes [built]

Child extract-text-webpack-plugin:

[0] ./~/css-loader/lib/css-base.js 1.51 kB {0} [built]

[1] ./app/unicorn.jpg 82 bytes {0} [built]

[2] ./~/css-loader!./~/sass-loader!./app/index.scss 226 bytes {0} [built]

CONCLUSION

CONCEPTS

- entry point – where Webpack starts

CONCEPTS

- entry point – where Webpack starts
- output – where the files are in the end

CONCEPTS

- entry point – where Webpack starts
- output – where the files are in the end
- rules – how they get to there

CONCEPTS

- entry point – where Webpack starts
- output – where the files are in the end
- rules – how they get to there
- plugins – modifying how Webpack works



Kent C. Dodds

@kentcdodds



Following

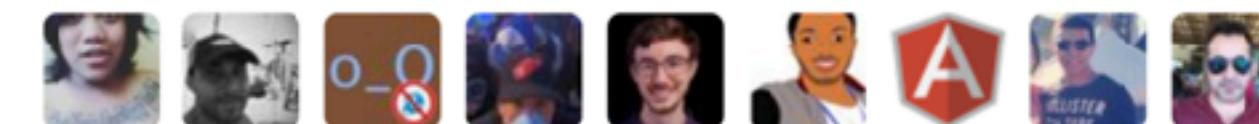
PSA: webpack 2 has been ready for production use for months. Docs are holding up official release. And they're already pretty good.

RETWEETS

18

LIKES

67



5:41 PM - 19 Oct 2016

6

18

67

...

Pre-release

v2.2.0-rc.3

↪ v2.2.0-rc.3

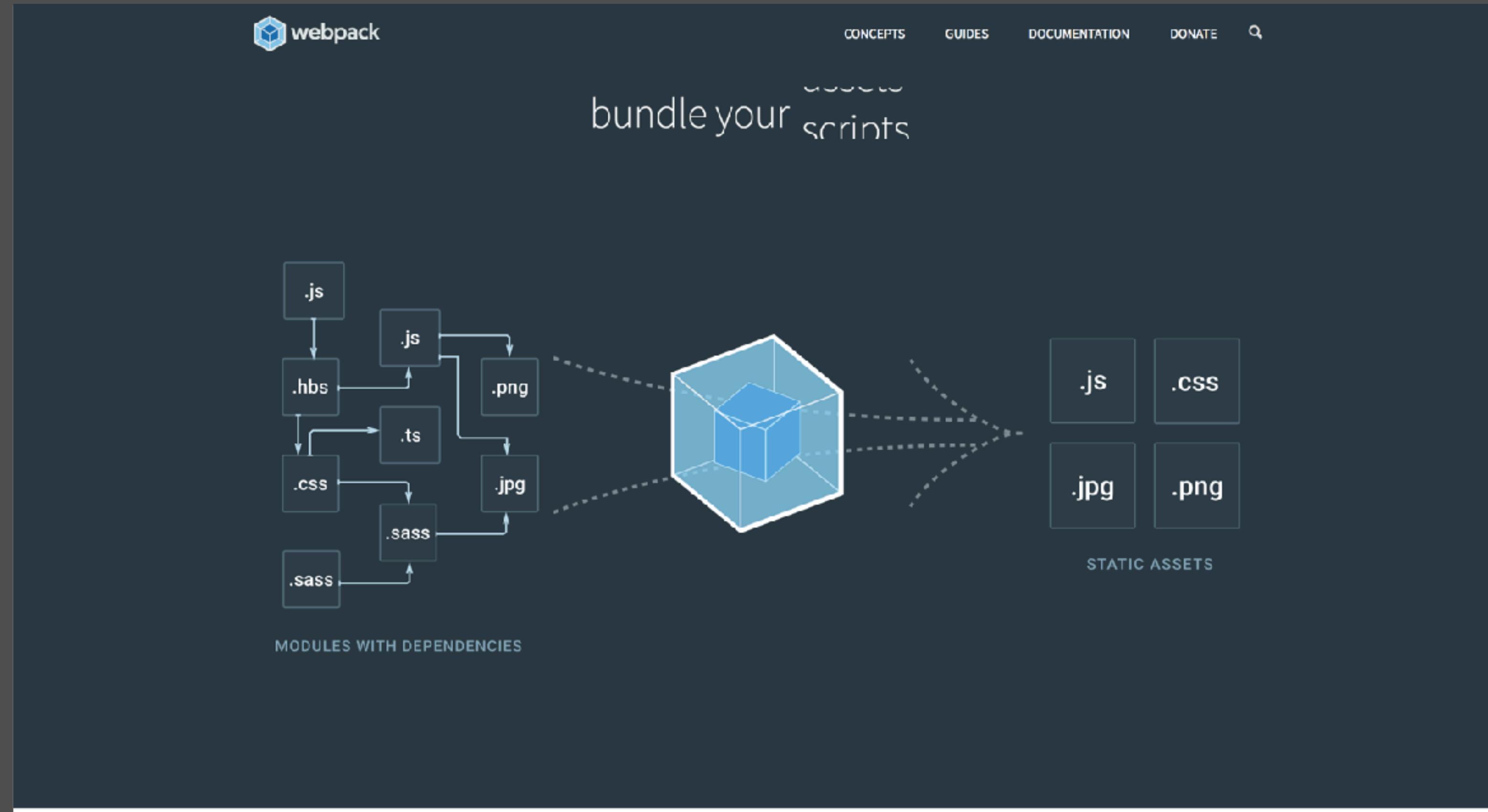
→ 92a8be2



sokra released this 12 days ago · 201 commits to master since this release

Read the documentation!

webpack.js.org



webpack
Write your code.

app.js

```
import bar from './bar';
bar();
```

Experiment in a browser

webpackbin.com

The screenshot shows the webpackbin.com interface. At the top, there are navigation buttons: 'Save', 'Log', 'Live', 'Download', 'Configure', 'Boilerplates', and 'Info'. On the left, a code editor window titled 'index.html' contains the following HTML code:

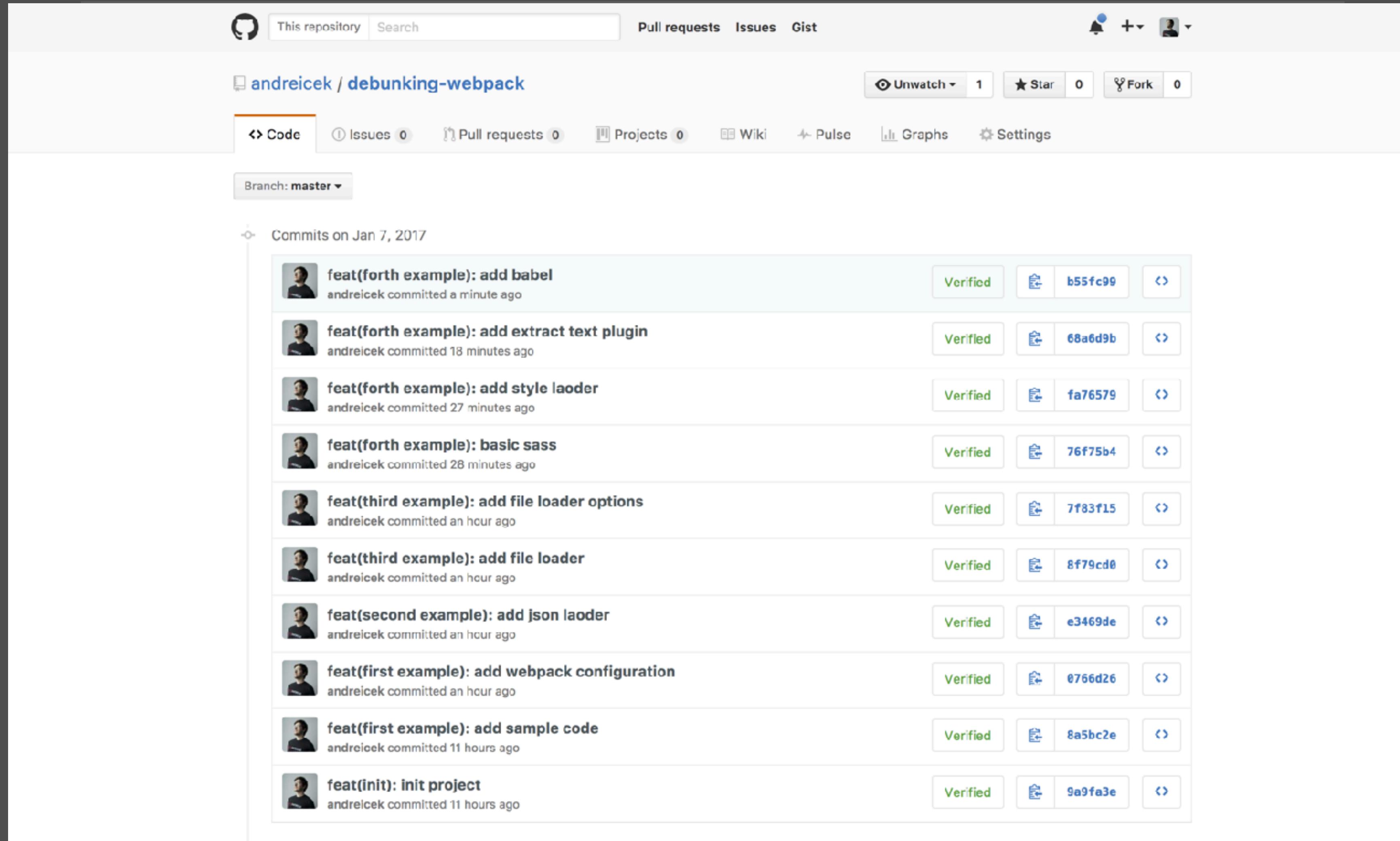
```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <meta charset="utf-8"/>
5   </head>
6   <body>
7
8   </body>
9 </html>
```

Below the code editor are three sections: 'Quick start', 'Add NPM package', and 'Loaders'.

- Quick start:** Contains links to 'Simple' (ES2015 entry point), 'Simple with CSS' (ES2015 entry point with CSS), and 'TypeScript' (TypeScript entry point with CSS).
- Add NPM package:** A text input field with placeholder 'Type name of package...' and a note: 'You can assign specific version with "@", ex. "react@0.14.7"'.
- Loaders:** A list of loaders with descriptions:
 - babel**: This loader allows you to write modern JavaScript not implemented yet for the browser.
 - css**
 - typescript**
 - coffeescript**
 - raw**
 - json**
 - jade**
 - handlebars**
 - vue**

Take a look at my example code!

github.com/andreicek/debunking-webpack



The screenshot shows a GitHub repository page for the user `andreicek` with the repository name `debunking-webpack`. The page displays a list of commits made on January 7, 2017. The commits are as follows:

- feat(forth example): add babel** (Verified, [b55fc99](#))
- feat(forth example): add extract text plugin** (Verified, [68a6d9b](#))
- feat(forth example): add style loader** (Verified, [fa76579](#))
- feat(forth example): basic sass** (Verified, [76f75b4](#))
- feat(third example): add file loader options** (Verified, [7f83f15](#))
- feat(third example): add file loader** (Verified, [8f79cd0](#))
- feat(second example): add json loader** (Verified, [e3469de](#))
- feat(first example): add webpack configuration** (Verified, [0766d26](#))
- feat(first example): add sample code** (Verified, [8a5bc2e](#))
- feat(init): init project** (Verified, [9a9fa3e](#))

Each commit includes the author's name (`andreicek`), the commit message, the date and time of the commit, a `Verified` badge, a copy icon, a link to the commit hash, and a copy icon.



Any questions?

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@ANDREICEK

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