



Projektsetup und Buildautomatisierung für Angular

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Inhalt

- npm-Pakte und package.json
- webpack

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NPM und package.json

package.json

```
{  
  "dependencies": {  
    "@angular/common": "2.0.0",  
    [...]  
  },  
  [...]  
}
```

package.json

```
{  
  "dependencies": {  
    "@angular/common": "~2.0.0",  
    [...]  
  },  
  [...]  
}
```

package.json

```
{  
  "dependencies": {  
    "@angular/common": "~2.0.0",  
    [...]  
  },  
  [...]  
}
```

package.json

```
{  
  "dependencies": {  
    "@angular/common": "^2.0.0",  
    [...]  
  },  
  [...]  
}
```

package.json

```
{  
  "dependencies": {  
    "@angular/common": "^2.0.0",  
    [...]  
  },  
  [...]  
}
```

package.json

```
{
  "dependencies": {
    "@angular/common": "^2.0.0",
    [...]
  },
  "devDependencies": {
    "webpack": "^1.12.9",
    "webpack-dev-server": "^1.14.0",
    [...]
  },
  [...]
}
```

package.json

```
{
  "dependencies": {
    "@angular/common": "^2.0.0",
    [...]
  },
  "devDependencies": {
    "webpack": "^1.12.9",
    "webpack-dev-server": "^1.14.0",
    [...]
  },
  "scripts": {
    "webpack": "webpack"
    "start": "webpack-dev-server",
  },
  [...]
}
```

package.json

```
{
  "dependencies": {
    "@angular/common": "^2.0.0",
    [...]
  },
  "devDependencies": {
    "webpack": "^1.12.9",
    "webpack-dev-server": "^1.14.0",
    [...]
  },
  "scripts": {
    "webpack": "webpack",
    "start": "webpack-dev-server",
  },
  [...]
}
```

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package.json

```
{
  "dependencies": {
    "@angular/common": "^2.0.0",
    [...]
  },
  "devDependencies": {
    "webpack": "^1.12.9",
    "webpack-dev-server": "^1.14.0",
    [...]
  },
  "scripts": {
    "webpack": "webpack",
    "start": "webpack-dev-server",
  },
  [...]
}
```

npm install (points to dependencies and devDependencies)

npm run webpack (points to the webpack script)

npm start (points to the start script)

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Pakete per npm installieren

- Option 1
 - Paket in package.json eintragen
 - npm install
- Option 2
 - npm install *bibliothek* --save
 - npm install *bibliothek* --save-dev

DEMO



Webpack

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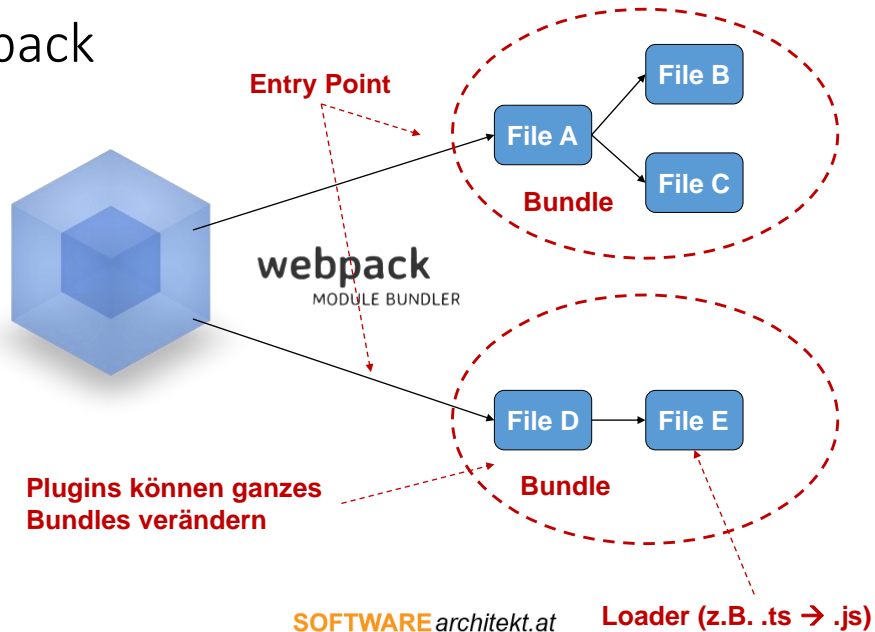
Was ist Webpack?

- Build-Tool, Bundling-Lösung
- Schnell
- De-facto Standard
 - (Angular CLI, React, Angular)
- Deklarativ anstatt imperativ
- Unterstützt Node-Pakete (→ defacto Standard)

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Webpack



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Webpack-Konfiguration

```
module.exports = {
  entry: {
    'vendor': './src/vendor.browser.ts',
    'main': './src/main.browser.ts'
  },
  [...],
}
```

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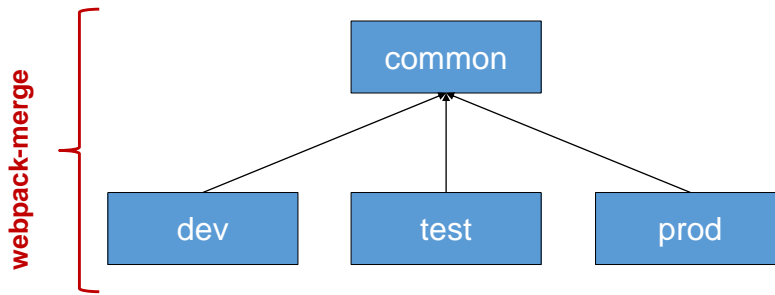
Webpack-Konfiguration

```
module.exports = {
  entry: {
    'vendor': './src/vendor.browser.ts',
    'main': './src/main.browser.ts'
  },
  module: {
    rules: [{
      test: /\.ts$/,
      use: ['typescript-loader', 'angular2-template-loader', ...]
    }]
  },
  [...]
}
```

Webpack-Konfiguration

```
module.exports = {
  entry: {
    'vendor': './src/vendor.browser.ts',
    'main': './src/main.browser.ts'
  },
  module: {
    rules: [{
      test: /\.ts$/,
      use: ['typescript-loader', 'angular2-template-loader', ...]
    }]
  },
  plugins: [
    new CommonsChunkPlugin({ ... }),
    new HtmlWebpackPlugin({ template: 'src/index.html' })
  ]
}
```

Webpack-Konfiguration



webpack.dev.config

```
const commonConfig = require('./webpack.common.js');  
module.exports = webpackMerge(commonConfig, {  
  devtool: 'cheap-module-source-map',  
  plugins: [  
    new DefinePlugin({  
      'ENV': 'development'  
    })  
  ],  
  devServer: {  
    port: METADATA.port,  
  }  
});
```

Angular CLI und Webpack

- Die Angular CLI verwendet Webpack in Hintergrund
- Webpack wird jedoch abgeschirmt
- Aus CLI aussteigen und Webpack-Konfiguration generieren
 - `ng eject`
 - Ist nicht umkehrbar!

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