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History



sokra updated examples

Latest commit 75c6416 May 7, 2018

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node_modules	rename side-effects to sideEffects in example	Nov 21, 2017
README.md	updated examples	May 7, 2018
build.js	rename `pure-module` to `side-effects`	Sep 14, 2017
example.js	rename `pure-module` to `side-effects`	Sep 14, 2017
template.md	change output from examples for js/ to dist/	Jan 4, 2018

README.md

This example shows how the `sideEffects` flag for library authors works.

The example contains a large library, `big-module`. `big-module` contains multiple child modules: `a`, `b` and `c`. The exports from the child modules are re-exported in the entry module (`index.js`) of the library. A consumer uses **some** of the exports, importing them from the library via `import { a, b } from "big-module"`. According to the EcmaScript spec, all child modules *must* be evaluated because they could contain side effects.

The `"sideEffects": false` flag in `big-module`'s `package.json` indicates that the package's modules have no side effects (on evaluation) and only expose exports. This allows tools like webpack to optimize re-exports. In the case `import { a, b } from "big-module-with-flag"` is rewritten to `import { a } from "big-module-with-flag/a"; import { b } from "big-module-with-flag/b"`.

The example contains two variants of `big-module`. `big-module` has no `sideEffects` flag and `big-module-with-flag` has the `sideEffects` flag. The example client imports `a` and `b` from each of the variants.

After being built by webpack, the output bundle contains `index.js`, `a.js`, `b.js`, `c.js` from `big-module`, but only `a.js` and `b.js` from `big-module-with-flag`.

Advantages:

- Smaller bundles
- Faster bootstrap

example.js

```
import { a as a1, b as b1 } from "big-module";
import { a as a2, b as b2 } from "big-module-with-flag";

console.log(
  a1,
  b1,
  a2,
  b2
);
```

node_modules/big-module/package.json

```
{
  "name": "big-module"
}
```

node_modules/big-module-with-flag/package.json

```
{
  "name": "big-module-with-flag",
  "sideEffects": false
}
```

node_modules/big-module(-with-flag)/index.js

```
export { a } from "./a";
export { b } from "./b";
export { c } from "./c";
```

dist/output.js

► /*****/ (function(modules) { /* webpackBootstrap */ })

```
/******/ ([
/* 0 */
/*!*****!\
!*** ./example.js ***!
\*****/
/*! no exports provided */
/***/ (function(module, __webpack_exports__, __webpack_require__) {

"use strict";
__webpack_require__.r(__webpack_exports__);
/* harmony import */ var big_module__WEBPACK_IMPORTED_MODULE_0__ = __webpack_require__(/*! big-module */
/* harmony import */ var big_module_with_flag__WEBPACK_IMPORTED_MODULE_1__ = __webpack_require__(/*! big

console.log(
  big_module__WEBPACK_IMPORTED_MODULE_0__["a"],
  big_module__WEBPACK_IMPORTED_MODULE_0__["b"],
  big_module_with_flag__WEBPACK_IMPORTED_MODULE_1__["a"],
  big_module_with_flag__WEBPACK_IMPORTED_MODULE_1__["b"]
);

/***/ }),
/* 1 */
/*!*****!\
!*** ./node_modules/big-module/index.js ***!
\*****/
/*! exports provided: a, b, c */
```

```

/***/ (function(module, __webpack_exports__, __webpack_require__) {

"use strict";
__webpack_require__.r(__webpack_exports__);
/* harmony import */ var _a__WEBPACK_IMPORTED_MODULE_0__ = __webpack_require__(/*! ./a */ 2);
/* harmony reexport (safe) */ __webpack_require__.d(__webpack_exports__, "a", function() { return _a__WE

/* harmony import */ var _b__WEBPACK_IMPORTED_MODULE_1__ = __webpack_require__(/*! ./b */ 3);
/* harmony reexport (safe) */ __webpack_require__.d(__webpack_exports__, "b", function() { return _b__WE

/* harmony import */ var _c__WEBPACK_IMPORTED_MODULE_2__ = __webpack_require__(/*! ./c */ 4);
/* harmony reexport (safe) */ __webpack_require__.d(__webpack_exports__, "c", function() { return _c__WE

/***/ }),
/* 2 */
/*!*****!\
!*** ./node_modules/big-module/a.js ***!
\******/
/*! exports provided: a */
/***/ (function(module, __webpack_exports__, __webpack_require__) {

"use strict";
__webpack_require__.r(__webpack_exports__);
/* harmony export (binding) */ __webpack_require__.d(__webpack_exports__, "a", function() { return a; })
const a = "a";

/***/ }),
/* 3 */
/*!*****!\
!*** ./node_modules/big-module/b.js ***!
\******/
/*! exports provided: b */
/***/ (function(module, __webpack_exports__, __webpack_require__) {

"use strict";
__webpack_require__.r(__webpack_exports__);
/* harmony export (binding) */ __webpack_require__.d(__webpack_exports__, "b", function() { return b; })
const b = "b";

/***/ }),
/* 4 */
/*!*****!\
!*** ./node_modules/big-module/c.js ***!
\******/
/*! exports provided: c */
/***/ (function(module, __webpack_exports__, __webpack_require__) {

"use strict";
__webpack_require__.r(__webpack_exports__);
/* harmony export (binding) */ __webpack_require__.d(__webpack_exports__, "c", function() { return c; })
const c = "c";

/***/ }),
/* 5 */
/*!*****!\
!*** ./node_modules/big-module-with-flag/index.js ***!
\******/
/*! exports provided: a, b, c */
/***/ (function(module, __webpack_exports__, __webpack_require__) {

"use strict";
__webpack_require__.r(__webpack_exports__);
/* harmony import */ var _a__WEBPACK_IMPORTED_MODULE_0__ = __webpack_require__(/*! ./a */ 6);
/* harmony reexport (safe) */ __webpack_require__.d(__webpack_exports__, "a", function() { return _a__WE

/* harmony import */ var _b__WEBPACK_IMPORTED_MODULE_1__ = __webpack_require__(/*! ./b */ 7);
/* harmony reexport (safe) */ __webpack_require__.d(__webpack_exports__, "b", function() { return _b__WE

```

```

/* harmony reexport (safe) */ __webpack_require__.d(__webpack_exports__, "b", function() { return __WE

/* harmony import */ var _c__WEBPACK_IMPORTED_MODULE_2__ = __webpack_require__(/*! ./c */ 8);
/* harmony reexport (safe) */ __webpack_require__.d(__webpack_exports__, "c", function() { return _c__WE

/***/ }),
/* 6 */
/*!*****!\
!*** ./node_modules/big-module-with-flag/a.js ***!
\*****/
/*! exports provided: a */
/***/ (function(module, __webpack_exports__, __webpack_require__) {

"use strict";
__webpack_require__.r(__webpack_exports__);
/* harmony export (binding) */ __webpack_require__.d(__webpack_exports__, "a", function() { return a; })
const a = "a";

/***/ }),
/* 7 */
/*!*****!\
!*** ./node_modules/big-module-with-flag/b.js ***!
\*****/
/*! exports provided: b */
/***/ (function(module, __webpack_exports__, __webpack_require__) {

"use strict";
__webpack_require__.r(__webpack_exports__);
/* harmony export (binding) */ __webpack_require__.d(__webpack_exports__, "b", function() { return b; })
const b = "b";

/***/ }),
/* 8 */
/*!*****!\
!*** ./node_modules/big-module-with-flag/c.js ***!
\*****/
/*! exports provided: c */
/***/ (function(module, __webpack_exports__, __webpack_require__) {

"use strict";
__webpack_require__.r(__webpack_exports__);
/* harmony export (binding) */ __webpack_require__.d(__webpack_exports__, "c", function() { return c; })
const c = "c";

/***/ })
/***/ }]);

```

Info

Unoptimized

```
Hash: 0a1b2c3d4e5f6a7b8c9d
Version: webpack 4.8.0
   Asset      Size  Chunks             Chunk Names
output.js  7.89 KiB       0  [emitted]  main
Entrypoint main = output.js
chunk      {0} output.js (main) 422 bytes [entry] [rendered]
  > ./example.js main
[0] ./example.js 140 bytes {0} [built]
    [no exports]
    single entry ./example.js  main
    + 8 hidden modules
```

Production mode

```
Hash: 0a1b2c3d4e5f6a7b8c9d
Version: webpack 4.8.0
   Asset      Size  Chunks             Chunk Names
output.js   600 bytes       0  [emitted]  main
Entrypoint main = output.js
chunk      {0} output.js (main) 325 bytes [entry] [rendered]
  > ./example.js main
[0] ./example.js + 6 modules 325 bytes {0} [built]
    [no exports]
    single entry ./example.js  main
    | ./example.js 140 bytes [built]
    |   [no exports]
    |   single entry ./example.js  main
    |   + 6 hidden modules
```

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