

This example shows how to use multiple entry points with a commons chunk.

In this example, you have two (HTML) pages **pageA** and **pageB**. You want to create individual bundles for each page. In addition to this, you want to create a shared bundle that contains all the modules used in both pages (assuming there are many/big modules in common). The pages also use Code Splitting to load a less used part of the features on demand.

You can see how to define multiple entry points via the **entry** option.

You can use

You can see the output files:

- **commons.js** contains:
  - module **common.js** which is used in both pages
- **pageA.js** contains: (**pageB.js** is similar)
  - the module system
  - chunk loading logic
  - the entry point **pageA.js**
  - it would contain any other module that is only used by **pageA**
- **406.js** is an additional chunk which is used by both pages. It contains:
  - module **shared.js**

You can also see the info that is printed to console. It shows among others:

- the generated files
- the chunks with file, name, and id
  - see lines starting with **chunk**
- the modules that are in the chunks
- the reasons why the modules are included
- the reasons why a chunk is created
  - see lines starting with **>**

## pageA.js

```
var common = require("./common");
require(["./shared"], function(shared) {
  shared("This is page A");
});
```

## pageB.js

```
var common = require("./common");
require.ensure(["./shared"], function(require) {
  var shared = require("./shared");
  shared("This is page B");
});
```

## webpack.config.js

```
module.exports = {
  // mode: "development" || "production",
  entry: {
    pageA: "./pageA",
    pageB: "./pageB"
  },
  optimization: {
    splitChunks: {
      cacheGroups: {
        commons: {
          name: "commons",
          chunks: "initial",
          minChunks: 2,
          minSize: 0
        }
      }
    },
    chunkIds: "deterministic" // To keep filename consistent between different modes (f
  }
};
```

## pageA.html

```
<html>
  <head></head>
  <body>
    <script src="js/commons.js" charset="utf-8"></script>
    <script src="js/pageA.bundle.js" charset="utf-8"></script>
  </body>
</html>
```

## dist/commons.js

```
(self["webpackChunk"] = self["webpackChunk"] || []).push([[351], [
/* 0 */,
/* 1 */
/*!*****!\
  *** ./common.js ***!
  *****/
  /*! unknown exports (runtime-defined) */
  /*! runtime requirements: module */
  /*! CommonJS bailout: module.exports is used directly at 1:0-14 */
  /**/ ((module) => {
```



```

/*****/      // Execute the module function
/*****/      __webpack_modules__[moduleId](module, module.exports, __webpack_require__),
/*****/
/*****/      // Return the exports of the module
/*****/      return module.exports;
/*****/    }
/*****/
/*****/      // expose the modules object (__webpack_modules__)
/*****/      __webpack_require__.m = __webpack_modules__;
/*****/
/*****/      *****/
/*****/      /* webpack/runtime/chunk loaded */
/*****/      (() => {
/*****/        var deferred = [];
/*****/        __webpack_require__.O = (result, chunkIds, fn, priority) => {
/*****/          if(chunkIds) {
/*****/            priority = priority || 0;
/*****/            for(var i = deferred.length; i > 0 && deferred[i - 1][2] > priority;
/*****/              deferred[i] = [chunkIds, fn, priority];
/*****/            return;
/*****/          }
/*****/          var notFulfilled = Infinity;
/*****/          for (var i = 0; i < deferred.length; i++) {
/*****/            var [chunkIds, fn, priority] = deferred[i];
/*****/            var fulfilled = true;
/*****/            for (var j = 0; j < chunkIds.length; j++) {
/*****/              if ((priority & 1 === 0 || notFulfilled >= priority) && Object.
/*****/                chunkIds.splice(j--, 1);
/*****/              } else {
/*****/                fulfilled = false;
/*****/                if(priority < notFulfilled) notFulfilled = priority;
/*****/              }
/*****/            }
/*****/            if(fulfilled) {
/*****/              deferred.splice(i--, 1)
/*****/              var r = fn();
/*****/              if (r !== undefined) result = r;
/*****/            }
/*****/          }
/*****/          return result;
/*****/        };
/*****/      })();
/*****/
/*****/      /* webpack/runtime/ensure chunk */
/*****/      (() => {
/*****/        __webpack_require__.f = {};

```

```

/*****/      // This file contains only the entry chunk.
/*****/      // The chunk loading function for additional chunks
/*****/      __webpack_require__.e = (chunkId) => {
/*****/          return Promise.all(Object.keys(__webpack_require__.f).reduce((promises,
/*****/              __webpack_require__.f[key](chunkId, promises);
/*****/              return promises;
/*****/          }, []));
/*****/      };
/*****/      }());
/*****/
/*****/      /* webpack/runtime/get javascript chunk filename */
/*****/      (() => {
/*****/          // This function allow to reference async chunks
/*****/          __webpack_require__.u = (chunkId) => {
/*****/              // return url for filenames based on template
/*****/              return "" + chunkId + ".js";
/*****/          };
/*****/      }());
/*****/
/*****/      /* webpack/runtime/hasOwnProperty shorthand */
/*****/      (() => {
/*****/          __webpack_require__.o = (obj, prop) => (Object.prototype.hasOwnProperty.call
/*****/      }());
/*****/
/*****/      /* webpack/runtime/load script */
/*****/      (() => {
/*****/          var inProgress = {};
/*****/          // data-webpack is not used as build has no uniqueName
/*****/          // loadScript function to load a script via script tag
/*****/          __webpack_require__.l = (url, done, key, chunkId) => {
/*****/              if(inProgress[url]) { inProgress[url].push(done); return; }
/*****/              var script, needAttach;
/*****/              if(key !== undefined) {
/*****/                  var scripts = document.getElementsByTagName("script");
/*****/                  for(var i = 0; i < scripts.length; i++) {
/*****/                      var s = scripts[i];
/*****/                      if(s.getAttribute("src") == url) { script = s; break; }
/*****/                  }
/*****/              }
/*****/              if(!script) {
/*****/                  needAttach = true;
/*****/                  script = document.createElement('script');
/*****/
/*****/                  script.charset = 'utf-8';
/*****/                  script.timeout = 120;
/*****/                  if (__webpack_require__.nc) {

```



```

/******/
/******/     if(installedChunkData) {
/******/         promises.push(installedChunkData[2]);
/******/     } else {
/******/         if(true) { // all chunks have JS
/******/             // setup Promise in chunk cache
/******/             var promise = new Promise((resolve, reject) => (install
/******/             promises.push(installedChunkData[2] = promise);
/******/
/******/             // start chunk loading
/******/             var url = __webpack_require___.p + __webpack_require___.u
/******/             // create error before stack unwound to get useful stac
/******/             var error = new Error();
/******/             var loadingEnded = (event) => {
/******/                 if(__webpack_require___.o(installedChunks, chunkId))
/******/                     installedChunkData = installedChunks[chunkId];
/******/                 if(installedChunkData !== 0) installedChunks[ch
/******/                 if(installedChunkData) {
/******/                     var errorType = event && (event.type === 'l
/******/                     var realSrc = event && event.target && even
/******/                     error.message = 'Loading chunk ' + chunkId
/******/                     error.name = 'ChunkLoadError';
/******/                     error.type = errorType;
/******/                     error.request = realSrc;
/******/                     installedChunkData[1](error);
/******/                 }
/******/             }
/******/         };
/******/         __webpack_require___.l(url, loadingEnded, "chunk-" + chu
/******/     } else installedChunks[chunkId] = 0;
/******/ }
/******/
/******/ };
/******/
/******/ // no prefetching
/******/
/******/ // no preloaded
/******/
/******/ // no HMR
/******/
/******/ // no HMR manifest
/******/
/******/ __webpack_require___.O.j = (chunkId) => (installedChunks[chunkId] === 0);
/******/
/******/ // install a JSONP callback for chunk loading
/******/ var webpackJsonpCallback = (parentChunkLoadingFunction, data) => {
/******/     var [chunkIds, moreModules, runtime] = data;

```





```

/*!*****!*\
  *** ./pageB.js ***
  \***** */
/*! unknown exports (runtime-defined) */
/*! runtime requirements: __webpack_require__, __webpack_require__.e, __webpack_require__.*
***/ ((__unused_webpack_module, __unused_webpack_exports, __webpack_require__) => {

var common = __webpack_require__(/*! ./common */ 1);
__webpack_require__.e(/*! require.ensure */ 52).then((function(require) {
  var shared = __webpack_require__(/*! ./shared */ 3);
  shared("This is page B");
}).bind(null, __webpack_require__)).catch(__webpack_require__.oe);

/**/ })

/****/    });

/* webpack runtime code */

/*****/
/*****/    // The module cache
/*****/    var __webpack_module_cache__ = {};
/*****/
/*****/    // The require function
/*****/    function __webpack_require__(moduleId) {
/*****/        // Check if module is in cache
/*****/        var cachedModule = __webpack_module_cache__[moduleId];
/*****/        if (cachedModule !== undefined) {
/*****/            return cachedModule.exports;
/*****/        }
/*****/        // Create a new module (and put it into the cache)
/*****/        var module = __webpack_module_cache__[moduleId] = {
/*****/            // no module.id needed
/*****/            // no module.loaded needed
/*****/            exports: {}
/*****/        };
/*****/
/*****/        // Execute the module function
/*****/        __webpack_modules__[moduleId](module, module.exports, __webpack_require__);
/*****/
/*****/        // Return the exports of the module
/*****/        return module.exports;
/*****/    }
/*****/
/*****/    // expose the modules object (__webpack_modules__)
/*****/    __webpack_require__.m = __webpack_modules__;
/*****/

```

```

/*****
/*****/  /* webpack/runtime/chunk loaded */
/*****/
/*****/  (() => {
/*****/      var deferred = [];
/*****/      __webpack_require__.0 = (result, chunkIds, fn, priority) => {
/*****/          if(chunkIds) {
/*****/              priority = priority || 0;
/*****/              for(var i = deferred.length; i > 0 && deferred[i - 1][2] > priority
/*****/                  deferred[i] = [chunkIds, fn, priority];
/*****/              return;
/*****/          }
/*****/          var notFulfilled = Infinity;
/*****/          for (var i = 0; i < deferred.length; i++) {
/*****/              var [chunkIds, fn, priority] = deferred[i];
/*****/              var fulfilled = true;
/*****/              for (var j = 0; j < chunkIds.length; j++) {
/*****/                  if ((priority & 1 === 0 || notFulfilled >= priority) && Object.
/*****/                      chunkIds.splice(j--, 1);
/*****/                  } else {
/*****/                      fulfilled = false;
/*****/                      if(priority < notFulfilled) notFulfilled = priority;
/*****/                  }
/*****/              }
/*****/              if(fulfilled) {
/*****/                  deferred.splice(i--, 1)
/*****/                  var r = fn();
/*****/                  if (r !== undefined) result = r;
/*****/              }
/*****/          }
/*****/          return result;
/*****/      };
/*****/  })();
/*****/
/*****/  /* webpack/runtime/ensure chunk */
/*****/
/*****/  (() => {
/*****/      __webpack_require__.f = {};
/*****/      // This file contains only the entry chunk.
/*****/      // The chunk loading function for additional chunks
/*****/      __webpack_require__.e = (chunkId) => {
/*****/          return Promise.all(Object.keys(__webpack_require__.f).reduce((promises,
/*****/              __webpack_require__.f[key](chunkId, promises);
/*****/          return promises;
/*****/      }, []));
/*****/  });
/*****/  })();
/*****/

```

```

/*****/ /* webpack/runtime/get javascript chunk filename */
/*****/ (() => {
/*****/ // This function allow to reference async chunks
/*****/ __webpack_require__.u = (chunkId) => {
/*****/ // return url for filenames based on template
/*****/ return "" + chunkId + ".js";
/*****/ };
/*****/ })();
/*****/
/*****/ /* webpack/runtime/hasOwnProperty shorthand */
/*****/ (() => {
/*****/ __webpack_require__.o = (obj, prop) => (Object.prototype.hasOwnProperty.call
/*****/ })(obj, prop);
/*****/
/*****/ /* webpack/runtime/load script */
/*****/ (() => {
/*****/ var inProgress = {};
/*****/ // data-webpack is not used as build has no uniqueName
/*****/ // loadScript function to load a script via script tag
/*****/ __webpack_require__.l = (url, done, key, chunkId) => {
/*****/ if(inProgress[url]) { inProgress[url].push(done); return; }
/*****/ var script, needAttach;
/*****/ if(key !== undefined) {
/*****/     var scripts = document.getElementsByTagName("script");
/*****/     for(var i = 0; i < scripts.length; i++) {
/*****/         var s = scripts[i];
/*****/         if(s.getAttribute("src") == url) { script = s; break; }
/*****/     }
/*****/ }
/*****/ if(!script) {
/*****/     needAttach = true;
/*****/     script = document.createElement('script');
/*****/
/*****/     script.charset = 'utf-8';
/*****/     script.timeout = 120;
/*****/     if (__webpack_require__.nc) {
/*****/         script.setAttribute("nonce", __webpack_require__.nc);
/*****/     }
/*****/
/*****/     script.src = url;
/*****/ }
/*****/ inProgress[url] = [done];
/*****/ var onScriptComplete = (prev, event) => {
/*****/     // avoid mem leaks in IE.
/*****/     script.onerror = script.onload = null;
/*****/     clearTimeout(timeout);

```







```
};

/***/ })

});
```

## Info

### Unoptimized

```
asset pageA.js 10.7 KiB [emitted] (name: pageA)
asset pageB.js 10.7 KiB [emitted] (name: pageB)
asset 52.js 506 bytes [emitted]
asset commons.js 364 bytes [emitted] (name: commons) (id hint: commons)
Entrypoint pageA 11.1 KiB = commons.js 364 bytes pageA.js 10.7 KiB
Entrypoint pageB 11 KiB = commons.js 364 bytes pageB.js 10.7 KiB
chunk (runtime: pageA, pageB) 52.js 88 bytes [rendered]
  > ./shared ./pageA.js 2:0-4:2
  > ./pageB.js 2:0-5:2
  ./shared.js 88 bytes [built] [code generated]
    [used exports unknown]
    from origin ./pageB.js
      require.ensure item ./shared ./pageB.js 2:0-5:2
      cjs require ./shared ./pageB.js 3:14-33
      and require ./shared ./pageA.js 2:0-4:2
      cjs self exports reference ./shared.js 2:0-14
chunk (runtime: pageB) pageB.js (pageB) 148 bytes (javascript) 5.92 KiB (runtime) [entry] [r
  > ./pageB pageB
  runtime modules 5.92 KiB 7 modules
  ./pageB.js 148 bytes [built] [code generated]
    [used exports unknown]
    entry ./pageB pageB
chunk (runtime: pageA, pageB) commons.js (commons) (id hint: commons) 26 bytes [initial] [r
  > ./pageA pageA
  > ./pageB pageB
  ./common.js 26 bytes [built] [code generated]
    [used exports unknown]
    cjs self exports reference ./common.js 1:0-14
    cjs require ./common ./pageA.js 1:13-32
    cjs require ./common ./pageB.js 1:13-32
    cjs require ./common ./shared.js 1:13-32
chunk (runtime: pageA) pageA.js (pageA) 105 bytes (javascript) 5.92 KiB (runtime) [entry] [r
  > ./pageA pageA
  runtime modules 5.92 KiB 7 modules
  ./pageA.js 105 bytes [built] [code generated]
```

```
    [used exports unknown]
    entry ./pageA pageA
webpack 5.51.1 compiled successfully
```

## Production mode

```
asset pageA.js 2.16 KiB [emitted] [minimized] (name: pageA)
asset pageB.js 2.13 KiB [emitted] [minimized] (name: pageB)
asset 52.js 116 bytes [emitted] [minimized]
asset commons.js 86 bytes [emitted] [minimized] (name: commons) (id hint: commons)
Entrypoint pageA 2.24 KiB = commons.js 86 bytes pageA.js 2.16 KiB
Entrypoint pageB 2.22 KiB = commons.js 86 bytes pageB.js 2.13 KiB
chunk (runtime: pageA, pageB) 52.js 88 bytes [rendered]
  > ./shared ./pageA.js 2:0-4:2
  > ./pageB.js 2:0-5:2
  ./shared.js 88 bytes [built] [code generated]
    [used exports unknown]
    from origin ./pageB.js
      require.ensure item ./shared ./pageB.js 2:0-5:2
      cjs require ./shared ./pageB.js 3:14-33
      amd require ./shared ./pageA.js 2:0-4:2
      cjs self exports reference ./shared.js 2:0-14
chunk (runtime: pageB) pageB.js (pageB) 148 bytes (javascript) 5.92 KiB (runtime) [entry] [rendered]
  > ./pageB pageB
  runtime modules 5.92 KiB 7 modules
  ./pageB.js 148 bytes [built] [code generated]
    [no exports used]
    entry ./pageB pageB
chunk (runtime: pageA, pageB) commons.js (commons) (id hint: commons) 26 bytes [initial] [rendered]
  > ./pageA pageA
  > ./pageB pageB
  ./common.js 26 bytes [built] [code generated]
    [used exports unknown]
    cjs self exports reference ./common.js 1:0-14
    cjs require ./common ./pageA.js 1:13-32
    cjs require ./common ./pageB.js 1:13-32
    cjs require ./common ./shared.js 1:13-32
chunk (runtime: pageA) pageA.js (pageA) 105 bytes (javascript) 5.92 KiB (runtime) [entry] [rendered]
  > ./pageA pageA
  runtime modules 5.92 KiB 7 modules
  ./pageA.js 105 bytes [built] [code generated]
    [no exports used]
    entry ./pageA pageA
webpack 5.51.1 compiled successfully
```