

# bundle-visualizer

The `bundle-visualizer` package is an analysis tool which provides a visual representation within the web browser showing what is included in the initial client bundle. The initial client bundle is the primary package of code downloaded and executed by the browser to run a Meteor application and includes packages which have been added via `meteor add <package>` or Node modules included in the `node_modules` directory and used in an application.

This visualization can uncover details about which files or packages are occupying space within the initial client bundle. This can be useful in determining which imports might be candidates for being converted to dynamic `import()` statements (which are excluded from the initial client bundle), or for identifying packages which have been inadvertently included in a project.

## How it works

This package utilizes the `<hash>.stats.json` files which are written alongside file bundles when the application is ran with the `--production` flag. The specific details for the minified file sizes is added by the minifier package and therefore it's important to review the minifier requirements below.

## Requirements

This package requires data provided by the project's minifier. For this reason, it is necessary to use the official `standard-minifier-js` package or a minifier which includes file-size details obtained during minification.

## Usage

Since bundle analysis is only truly accurate on a minified bundle and minification does not take place during development (as it is a complex and CPU-intensive process which would substantially slow down normal development) this package must be used in conjunction with the `--production` flag to the `meteor` tool to simulate production bundling and enable minification.

**IMPORTANT:** Since this package is active in production mode, it is critical to only add this package temporarily. This can be easily accomplished using the `--extra-packages` option to `meteor`.

### Enabling

```
$ cd app/  
$ meteor --extra-packages bundle-visualizer --production
```

### Viewing

Once enabled, view the application in a web-browser as usual (e.g. `http://localhost:3000/`) and the chart will be displayed on top of the application.

### Disabling

If you used `--extra-packages`, simply remove `bundle-visualizer` from the list of included packages and run `meteor` as normal.

If you've added `bundle-visualizer` permanently with `meteor add`, it is important to remove this package prior to bundling or deploying to production with `meteor remove bundle-visualizer`.