JavaScript and Gulpfiles

Gulp allows you to use existing JavaScript knowledge to write gulpfiles or to use your experience with gulpfiles to write plain JavaScript. Although a few utilities are provided to simplify working with the filesystem and command line, everything else you write is pure JavaScript.

Gulpfile explained

A gulpfile is a file in your project directory titled gulpfile.js (or capitalized as Gulpfile.js, like Makefile), that automatically loads when you run the gulp command. Within this file, you'll often see gulp APIs, like src(), dest(), series(), or parallel() but any vanilla JavaScript or Node modules can be used. Any exported functions will be registered into gulp's task system.

Transpilation

You can write a gulpfile using a language that requires transpilation, like TypeScript or Babel, by changing the extension on your gulpfile.js to indicate the language and install the matching transpiler module.

For TypeScript, rename to gulpfile.ts and install the ts-nodemodule.

For Babel, rename to gulpfile.babel.js and install the @babel/register module.

Most new versions of node support most features that TypeScript or Babel provide, except the import/export syntax. When only that syntax is desired, rename to gulpfile.esm.js and install the esm module.

For a more advanced dive into this topic and the full list of supported extensions, see our gulpfile transpilation documentation.

Splitting a gulpfile

Many users start by adding all logic to a gulpfile. If it ever grows too big, it can be refactored into separate files.

Each task can be split into its own file, then imported into your gulpfile for composition. Not only does this keep things organized, but it allows you to test each task independently or vary composition based on conditions.

Node's module resolution allows you to replace your gulpfile.jsfile with a directory named gulpfile.js that contains an index.jsfile which is treated as a gulpfile.js. This directory could then contain your individual modules for tasks. If you are using a transpiler, name the folder and file accordingly.