Webpack Basics

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Agenda

- Overview
- Basic tools
- Configuration
- Loaders
- Plugins
- Resources

Overview

- Webpack was created to handle the problem of bundling various assets.

- Actually a pipeline/plugin processor.

- Identifies dependencies, converts all assets to JavaScript using loaders, applies plugins at various stages.

- Processing defined by configuration file (or command line, but why?)

- Config file is a Node.js input file that exports a configuration object.

Basic Tools

- node/npm (https://nodejs.org/en/)
- webpack (e.g. npm install webpack --saveDev)
- webpack-merge
- webpack-dev-server
- webpack-dev-middleware

Configuration

- context: points to source file root, defaults to CWD.

- target: tells webpack which of its internal plugins to load, defaults to 'web' which is what is used most often.

- entry: defines the root(s) of dependency trees.

- output: defines where the bundles will be written.

- resolve: tells webpack what to look for and where.

- module: contains values pertinent to the build, most notably loaders.

- plugins: defines additional processing pieces applied at various times during the build.

- devServer: sets properties for webpack-dev-server cli when it is run instead of the webpack cli.

Loaders

- Loaders convert non-JavaScript assets such as css, images and fonts to JavaScript.

- Common Loaders:
    - css-loader
    - style-loader
    - scss-loader
    - babel-loader
    - file-loader
    - url-loader

Plugins

Common Plugins:

- html-webpack-plugin

- webpack.ProvidePlugin

- extract-text-webpack-plugin

- clean-webpack-plugin

- copy-webpack-plugin

- npm-install-webpack-plugin

Resources

https://webpack.github.io/docs/

http://www.pshrmn.com/tutorials/#webpack (great overview)

http://survivejs.com/webpack/introduction/

https://k94n.com/webpack-ftw

https://github.com/webpack/tapable (plugin class used throughout Webpack)