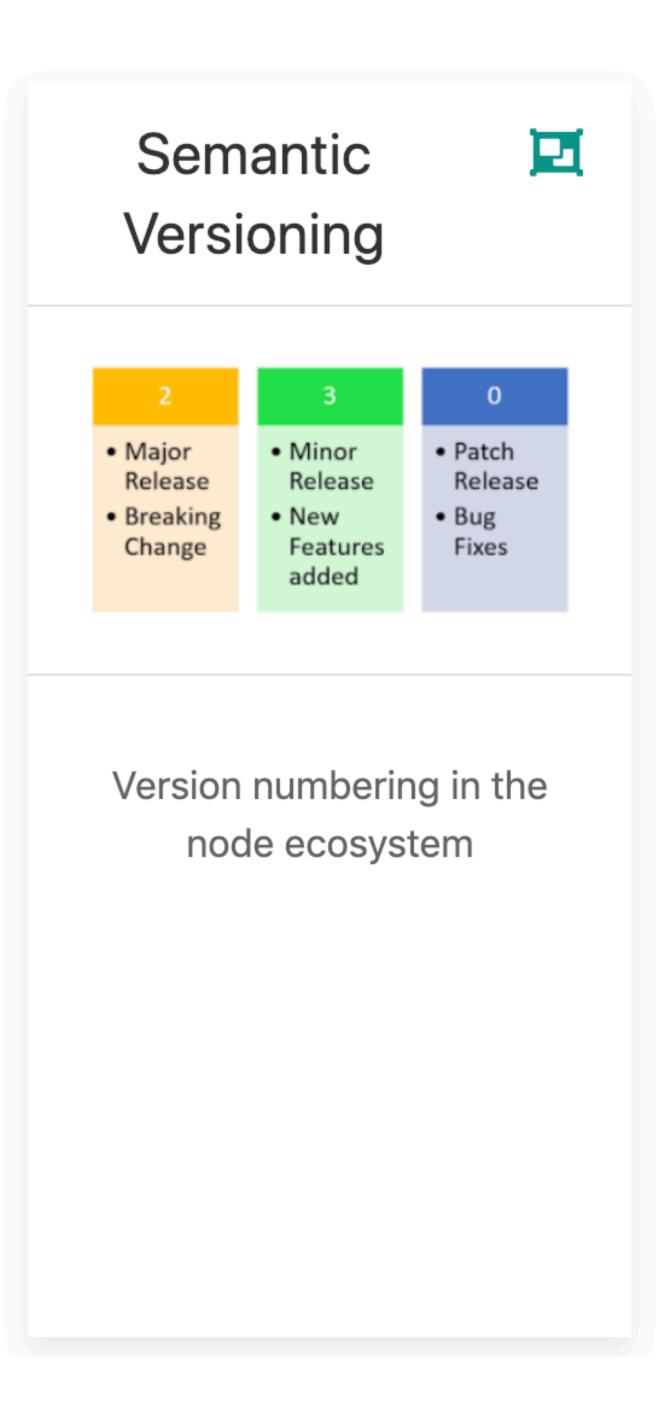
# Semantic Versioning



## https://semver.org/

# Semantic Versioning 2.0.0

#### Summary

Given a version number MAJOR.MINOR.PATCH, increment the:

- 1. MAJOR version when you make incompatible API changes,
- 2. MINOR version when you add functionality in a backwards-compatible manner, and
- 3. PATCH version when you make backwards-compatible bug fixes.

Additional labels for pre-release and build metadata are available as extensions to the MAJOR.MINOR.PATCH format.

- Semantic versioning is a standard node projects use to communicate what kinds of changes are in a new release.
- Communicate what kinds of changes are in a release because sometimes those changes will break the code that depends on the package.

Semantic
Versioning of
Packages

```
"dependencies": {
    "boom": "^7.3.0",
    "dotenv": "^6.2.0",
    "handlebars": "^4.0.12",
    "hapi": "^18.0.0",
    "hapi-auth-cookie": "^9.1.0",
    "inert": "^5.1.2",
    "joi": "^14.3.1",
    "mongoose": "^5.4.7",
    "vision": "^5.4.4"
},
```

- 3-component system in the format of x.y.z where:
  - x stands for a major version
  - y stands for a minor version
  - z stands for a patch
- Major.Minor.Patch.

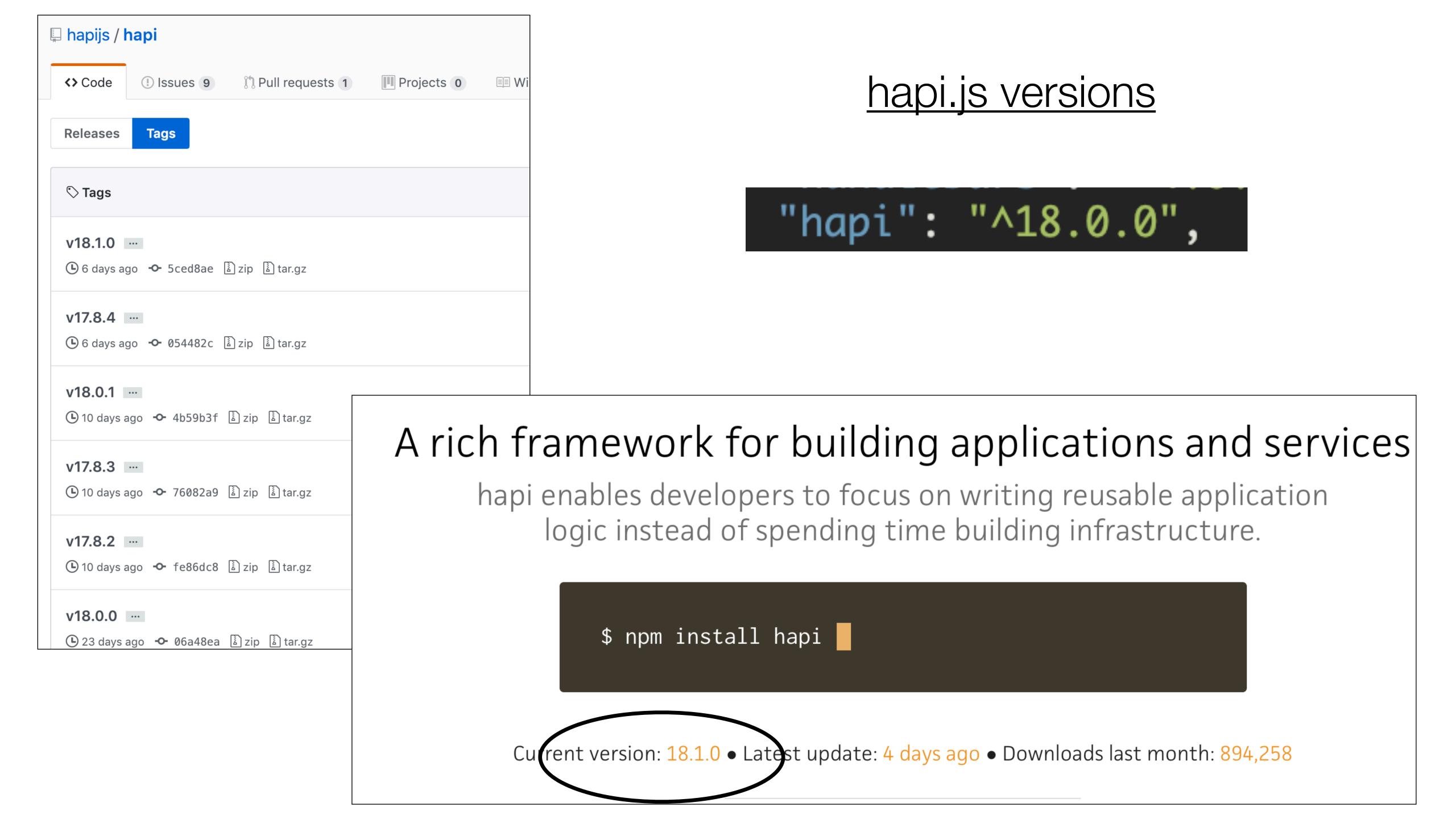
## <u> ^ Symbol</u>

- The caret ^ range specifier permits automatic upgrades to minor version increments of a package
- So if 'npm install' is invoked, the actual version downloaded and installed may be more recent that the one enumerated in package.json
- For caret ranges, only major version must match. Any minor or patch version greater than or equal to the minimum is valid.

```
"dependencies": {
    "boom": "^7.3.0",
    "dotenv": "^6.2.0",
    "handlebars": "^4.0.12",
    "hapi": "^18.0.0",
    "hapi-auth-cookie": "^9.1.0",
    "inert": "^5.1.2",
    "joi": "^14.3.1",
    "mongoose": "^5.4.7",
    "vision": "^5.4.4"
},
```

#### Example

• ^1.2.3 permits versions from 1.2.3 all the way up to, but not including, the next major version, 2.0.0.



#### <u>Updating all Dependencies</u>



Find newer versions of dependencies than what your package.json or bower.json allows

```
npm package 2.8.5 build passing dependencies up-to-date
```

npm-check-updates is a command-line tool that allows you to upgrade your package.json or bower.json dependencies to the latest versions, regardless of existing version constraints.

\$ npm install npm-check-updates -g

## Report on Dependency Status (no change)

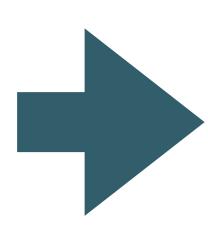
\$ ncu

```
"dependencies": {
    "handlebars": "^4.0.5",
    "hapi": "^14.1.0",
    "hapi-auth-cookie": "^6.1.1",
    "inert": "^4.0.1",
    "joi": "^9.0.4",
    "mongoose": "^4.5.8",
    "vision": "^4.1.0"
}
```

#### Force upgrade all dependencies

```
$ ncu -u
```

```
"dependencies": {
    "handlebars": "^4.0.5",
    "hapi": "^14.1.0",
    "hapi-auth-cookie": "^6.1.1",
    "inert": "^4.0.1",
    "joi": "^9.0.4",
    "mongoose": "^4.5.8",
    "vision": "^4.1.0"
}
```



```
"dependencies": {
    "handlebars": "^4.0.5",
    "hapi": "^15.1.1",
    "hapi-auth-cookie": "^6.1.1",
    "inert": "^4.0.1",
    "joi": "^9.0.4",
    "mongoose": "^4.5.8",
    "vision": "^4.1.0"
}
```