



Linux Ubuntu 26.04 Manual Pages on command 'npm-install.1'

\$ man npm-install.1

NPM-INSTALL(1)

General Commands Manual

NPM-INSTALL(1)

NAME

npm-install

Synopsis

<!-- AUTOGENERATED USAGE DESCRIPTIONS -->

Description

This command installs a package and any packages that it depends on. If the package has a package-lock, or an npm shrinkwrap file, or a yarn lock file, the installation of dependencies will be driven by that, respecting the following order of precedence:

? npm-shrinkwrap.json

? package-lock.json

? yarn.lock

See package-lock.json and

npm shrinkwrap.

A package is:

? a) a folder containing a program described by a package.json file

? b) a gzipped tarball containing (a)

? c) a url that resolves to (b)

? d) a <name>@<version> that is published on the registry (see registry) with (c)

? e) a <name>@<tag> (see npm dist-tag) that

points to (d)

? f) a <name> that has a "latest" tag satisfying (e)

? g) a <git remote url> that resolves to (a)

Even if you never publish your package, you can still get a lot of benefits of using npm if you just want to write a node program (a), and perhaps if you also want to be able to easily install it elsewhere after packing it up into a tarball (b).

? npm install (in a package directory, no arguments):

Install the dependencies to the local node_modules folder.

In global mode (ie, with -g or --global appended to the command), it installs the current package context (ie, the current working directory) as a global package.

By default, npm install will install all modules listed as dependencies in package.json.

With the --production flag (or when the NODE_ENV environment variable is set to production), npm will not install modules listed in devDependencies. To install all modules listed in both dependencies and devDependencies when NODE_ENV environment variable is set to production, you can use --production=false.

NOTE: The --production flag has no particular meaning when adding a dependency to a project.

? npm install <folder>:

If <folder> sits inside the root of your project, its dependencies will be installed and may be hoisted to the top-level node_modules as they would for other types of dependencies. If <folder> sits outside the root of your project, npm will not install the package dependencies in the directory <folder>, but it will create a symlink to <folder>.

NOTE: If you want to install the content of a directory like a package from the registry instead of creating a link, you would need to use the --install-links option.

Example:

npm install ../../other-package --install-links

`npm install ./sub-package`

? `npm install <tarball file>`:

Install a package that is sitting on the filesystem. Note: if you just want to link a dev directory into your npm root, you can do this more easily by using `npm link`.

Tarball requirements:

? The filename must use `.tar`, `.tar.gz`, or `.tgz` as the extension.

? The package contents should reside in a subfolder inside the tarball (usually it is called `package/`). npm strips one directory layer when installing the package (an equivalent of `tar x --strip-components=1` is run).

? The package must contain a `package.json` file with name and version properties.

Example:

`npm install ./package.tgz`

? `npm install <tarball url>`:

Fetch the tarball url, and then install it. In order to distinguish between this and other options, the argument must start with `"http://"` or `"https://"`

Example:

`npm install https://github.com/indexzero/forever/tarball/v0.5.6`

? `npm install [<@scope>]<name>`:

Do a `<name>@<tag>` install, where `<tag>` is the "tag" config. (See config. The config's default value is latest.)

In most cases, this will install the version of the modules tagged as latest on the npm registry.

Example:

`npm install sax`

`npm install` saves any specified packages into dependencies by default. Additionally, you can control where and how they get saved with some additional flags:

? `-P`, `--save-prod`: Package will appear in your dependencies. This is the default unless `-D` or `-O` are present.

? `-D`, `--save-dev`: Package will appear in your devDependencies.

? -O, --save-optional: Package will appear in your optionalDependencies.

? --no-save: Prevents saving to dependencies.

When using any of the above options to save dependencies to your package.json, there are two additional, optional flags:

? -E, --save-exact: Saved dependencies will be configured with an exact version rather than using npm's default semver range operator.

? -B, --save-bundle: Saved dependencies will also be added to your bundleDependencies list.

Further, if you have an npm-shrinkwrap.json or package-lock.json then it will be updated as well.

<scope> is optional. The package will be downloaded from the registry associated with the specified scope. If no registry is associated with the given scope the default registry is assumed. See scope.

Note: if you do not include the @-symbol on your scope name, npm will interpret this as a GitHub repository instead, see below. Scopes names must also be followed by a slash.

Examples:

```
npm install sax
```

```
npm install githubname/reponame
```

```
npm install @myorg/privatepackage
```

```
npm install node-tap --save-dev
```

```
npm install dtrace-provider --save-optional
```

```
npm install readable-stream --save-exact
```

```
npm install ansi-regex --save-bundle
```

Note: If there is a file or folder named <name> in the current working directory, then it will try to install that, and only try to fetch the package by name if it is not valid.

? npm install <alias>@npm:<name>:

Install a package under a custom alias. Allows multiple versions of a same-name package side-by-side, more convenient import names for packages with otherwise long ones, and using git forks replacements

or forked npm packages as replacements. Aliasing works only on your project and does not rename packages in transitive dependencies.

Aliases should follow the naming conventions stated in [validate-npm-package-name](#).

Examples:

```
npm install my-react@npm:react
```

```
npm install jquery2@npm:jquery@2
```

```
npm install jquery3@npm:jquery@3
```

```
npm install npa@npm:npm-package-arg
```

? npm install [<@scope>/]<name>@<tag>:

Install the version of the package that is referenced by the specified tag.

If the tag does not exist in the registry data for that package, then this will fail.

Example:

```
npm install sax@latest
```

```
npm install @myorg/mypackage@latest
```

? npm install [<@scope>/]<name>@<version>:

Install the specified version of the package. This will fail if the version has not been published to the registry.

Example:

```
npm install sax@0.1.1
```

```
npm install @myorg/privatepackage@1.5.0
```

? npm install [<@scope>/]<name>@<version range>:

Install a version of the package matching the specified version range.

This will follow the same rules for resolving dependencies described in [package.json](#).

Note that most version ranges must be put in quotes so that your shell will treat it as a single argument.

Example:

```
npm install sax@">=0.1.0 <0.2.0"
```

```
npm install @myorg/privatepackage@"16 - 17"
```

? npm install <git remote url>:

Installs the package from the hosted git provider, cloning it with

git. For a full git remote url, only that URL will be attempted.

```
<protocol>://[<user>[:<password>]@]<hostname>[:<port>][:[/]<path>[#<commit-ish> | #semver:<semver>]
```

<protocol> is one of git, git+ssh, git+http, git+https, or
git+file.

If #<commit-ish> is provided, it will be used to clone exactly that
commit. If the commit-ish has the format #semver:<semver>, <semver>
can be any valid semver range or exact version, and npm will look for
any tags or refs matching that range in the remote repository, much as
it would for a registry dependency. If neither #<commit-ish> or
#semver:<semver> is specified, then the default branch of the
repository is used.

If the repository makes use of submodules, those submodules will be
cloned as well.

If the package being installed contains a prepare script, its
dependencies and devDependencies will be installed, and the prepare
script will be run, before the package is packaged and installed.

The following git environment variables are recognized by npm and will
be added to the environment when running git:

- ? GIT_ASKPASS
- ? GIT_EXEC_PATH
- ? GIT_PROXY_COMMAND
- ? GIT_SSH
- ? GIT_SSH_COMMAND
- ? GIT_SSL_CAINFO
- ? GIT_SSL_NO_VERIFY

See the git man page for details.

Examples:

```
npm install git+ssh://git@github.com:npm/cli.git#v1.0.27
npm install git+ssh://git@github.com:npm/cli#pull/273
npm install git+ssh://git@github.com:npm/cli#semver:^5.0
npm install git+https://isaacs@github.com/npm/cli.git
npm install git://github.com/npm/cli.git#v1.0.27
```

```
GIT_SSH_COMMAND='ssh -i ~/.ssh/custom_ident' npm install git+ssh://git@github.com:npm/cli.git
```

? npm install <githubname>/<githubrepo>[#<commit-ish>]:

? npm install github:<githubname>/<githubrepo>[#<commit-ish>]:

Install the package at <https://github.com/githubname/githubrepo> by attempting to clone it using git.

If #<commit-ish> is provided, it will be used to clone exactly that commit. If the commit-ish has the format #semver:<semver>, <semver> can be any valid semver range or exact version, and npm will look for any tags or refs matching that range in the remote repository, much as it would for a registry dependency. If neither #<commit-ish> or #semver:<semver> is specified, then the default branch is used.

As with regular git dependencies, dependencies and devDependencies will be installed if the package has a prepare script before the package is done installing.

Examples:

```
npm install mygithubuser/myproject
```

```
npm install github:mygithubuser/myproject
```

? npm install gist:[<githubname>/]<gistID>[#<commit-ish>|#semver:<semver>]:

Install the package at <https://gist.github.com/gistID> by attempting to clone it using git. The GitHub username associated with the gist is optional and will not be saved in package.json.

As with regular git dependencies, dependencies and devDependencies will be installed if the package has a prepare script before the package is done installing.

Example:

```
npm install gist:101a11beef
```

? npm install bitbucket:<bitbucketname>/<bitbucketrepo>[#<commit-ish>]:

Install the package at <https://bitbucket.org/bitbucketname/bitbucketrepo> by attempting to clone it using git.

If #<commit-ish> is provided, it will be used to clone exactly that commit. If the commit-ish has the format #semver:<semver>, <semver> can be any valid semver range or exact version, and npm will look for any tags or refs matching that range in the remote repository, much as it would for a registry dependency. If neither #<commit-ish> or #semver:<semver> is

specified, then master is used.

As with regular git dependencies, dependencies and devDependencies will be installed if the package has a prepare script before the package is done installing.

Example:

```
npm install bitbucket:mybitbucketuser/myproject
```

```
? npm install gitlab:<gitlabname>/<gitlabrepo>[#<commit-ish>]:
```

Install the package at <https://gitlab.com/gitlabname/gitlabrepo> by attempting to clone it using git.

If #<commit-ish> is provided, it will be used to clone exactly that commit. If the commit-ish has the format #semver:<semver>, <semver> can be any valid semver range or exact version, and npm will look for any tags or refs matching that range in the remote repository, much as it would for a registry dependency. If neither #<commit-ish> or #semver:<semver> is specified, then master is used.

As with regular git dependencies, dependencies and devDependencies will be installed if the package has a prepare script before the package is done installing.

Example:

```
npm install gitlab:mygitlabuser/myproject
```

```
npm install gitlab:myusr/myproj#semver:^5.0
```

You may combine multiple arguments and even multiple types of arguments.

For example:

```
npm install sax@">=0.1.0 <0.2.0" bench supervisor
```

The --tag argument will apply to all of the specified install targets. If a tag with the given name exists, the tagged version is preferred over newer versions.

The --dry-run argument will report in the usual way what the install would have done without actually installing anything.

The --package-lock-only argument will only update the package-lock.json, instead of checking node_modules and downloading dependencies.

The -f or --force argument will force npm to fetch remote resources

even if a local copy exists on disk.

```
npm install sax --force
```

Configuration

See the config help doc. Many of the configuration

params have some effect on installation, since that's most of what npm does.

These are some of the most common options related to installation. <!-- AUTOGENERATED CON? FIG DESCRIPTIONS -->

Algorithm

Given a package{dep} structure: A{B,C}, B{C}, C{D},

the npm install algorithm produces:

```
A
```

```
+-- B
```

```
+-- C
```

```
+-- D
```

That is, the dependency from B to C is satisfied by the fact that A already caused C to be installed at a higher level. D is still installed at the top level because nothing conflicts with it.

For A{B,C}, B{C,D@1}, C{D@2}, this algorithm produces:

```
A
```

```
+-- B
```

```
+-- C
```

```
  |-- D@2
```

```
+-- D@1
```

Because B's D@1 will be installed in the top-level, C now has to install D@2 privately for itself. This algorithm is deterministic, but different trees may be produced if two dependencies are requested for installation in a different order.

See folders for a more detailed description of the specific folder structures that npm creates.

See Also

? npm folders

? npm update

- ? npm audit
- ? npm fund
- ? npm link
- ? npm rebuild
- ? npm scripts
- ? npm config
- ? npmrc
- ? npm registry
- ? npm dist-tag
- ? npm uninstall
- ? npm shrinkwrap
- ? package.json
- ? workspaces

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